[editorial note: Front cover of the binding. No printed text.]

[Unprinted leaf — no text in the original]

[editorial note: Bookplate of the Van der Hoeven library, engraved with the rod of Asclepius, together with a later owner's signature. Not part of the 1642 printing.]

VAN DER HOEVEN
Recte faciendo neminem timeas — By doing right, fear no one.

[editorial note: signed below in a modern hand, "J. Patrick Beckwith, M.D., 1985".]

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[Unprinted leaf — no text in the original]

[editorial note: Manuscript note in ink on the flyleaf, in the hand of Jan van der Hoeven, dated 1823. Not part of the 1642 printing.]

Ambrosini's *Paralipomena*, which are wanting in a good many copies, and which are present in this volume, increase the value of the book. See Osmont, *Dictionnaire Typographique*, vol. 1, p. 16.

[editorial note: signed "J. van der Hoeven, M.D., 1823".]

[editorial note: Faint manuscript note in a later hand at the head of an otherwise blank leaf; too indistinct to transcribe reliably.]

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ULYSSES ALDROVANDI

PATRICIAN OF BOLOGNA

A HISTORY OF MONSTERS

WITH THE *PARALIPOMENA* TO THE HISTORY OF ALL ANIMALS

BARTHOLOMAEUS AMBROSINUS, Ordinary Professor of Simples in the University of his native Bologna, and Prefect of the Public Garden to the Most Illustrious Senate of Bologna, composed the volume by his labour and study.

MARCUS ANTONIUS BERNIA published it at his own expense.

TO THE MOST SERENE AND UNCONQUERED FERDINAND II, GRAND DUKE OF TUSCANY

With a most copious index.

BOLOGNA — From the press of Nicolaus Tebaldinus, 1642.
By permission of the authorities.

[figure captions: An engraved architectural title-page. A portrait medallion of the Grand Duke is set in the pediment, flanked by two seated female figures. Below, putti hold medallions and support the tablet bearing the title; monstrous and hybrid creatures are ranged along the base. Signed at the lower left, "Ant. Bapt. Coriolanus f., Bologna".]

[Full-page engraving — no further translatable text]

[Unprinted leaf — no text in the original]

TO THE MOST SERENE FERDINAND II, GRAND DUKE OF TUSCANY

MARCUS ANTONIUS BERNIA WISHES HAPPINESS

The Monsters of labouring Nature — struggled over until now in an unhappy womb, and at last brought to term for a literary birth by a certain posthumous power of the most fertile genius — beg for your immortal light, O Most Serene Prince, a light more merciful than any Lucina. Nor is it at all unbecoming to a Prince of your fortune to show favour to Monsters of this kind, born with admiration for their midwife: you are accustomed, after all, to rear in your menageries the portents of a more savage nature, sought out from every quarter, as an argument of majesty, and to exhibit them in your theatres as a generous spectacle of courtesy — so much so that in those very dens of wild beasts the ferocity of Africa is now all but tamed, and under a gentler Sun waits gentler upon you.

But these Monsters, which Nature brings forth for you as the press groans, Africa alone did not conceive; for it is not at the springs of Africa alone that living creatures sin with a degenerate love. Rather, any soil whatever contrives its Phlegraean monsters, if it has the Heavens for an enemy. With what portents the Sea teems in a certain lascivious fecundity, one may guess from Proteus alone — that is, from a single manifold Monster. The Air too, though it shine forth purer, is often clouded over by the exhalation of sea and land, and out of an airy Juno creates its own Centaurs. Fire itself, once purified, from the time it began to be nurtured among us and stabled among its own ashes, turns itself to Monsters almost without number; so that Mortals may justly grieve that the destructive fire of Prometheus could never be expiated by any waters.

Therefore all the Monsters that the fault of the elements, or the error of secondary causes, has produced, our Aldrovandi — the everlasting ornament of the Athenaeum of Bologna — has happily conceived in this one volume by a stubborn study; a praise which perhaps no one until now has attained at all. A man surely not unequal to the son of Laertes in his wanderings, and greater in virtue, since he was the first to escape the Monsters. Yet that most learned Author could not bestow upon his work the light which old age — already, I suppose, envious of him — and a death most bitter to the prayers of all, denied him. Nevertheless there survived, toward a fellow-citizen and a foremost teacher, a Love in his native city which did not cease to labour by the lamp of the sepulchre, until by the study of that excellent Doctor Bartholomaeus Ambrosinus it had set the rough offspring in more careful order and hurried it on to a posthumous birth.

At last, then, the work is born, matured beyond the funeral of its own Author; whence not without reason it may seem able to look to You for its immortality, since it has its most illustrious cradle among the hiding-places of the tomb. But Monsters, born not without a prodigy, hold out nothing but ill omen. Be it so — yet we turn the evil omen aside conveniently, when we consecrate them by a miracle of good fortune: namely by your name, most wise Prince; by your name, I say, which — inscribed upon the deeds of a most ample Family, since it carries with it all the characters of ancestral glory, whether set in the most pure Religion, or in warlike valour, or in the pursuits of Peace — can blot out by its inborn felicity any black mark of evil omen whatsoever. Wisely therefore have I taken thought for the long life of this work, since I have dedicated it to the immortality of your most auspicious Name.

One thing remains, MOST SERENE FERDINAND: that, just as other men more willingly observe the extravagant delirium of Nature than the furrows always worn by the same wheels, so you too may receive more kindly these Monsters, folded together in this volume as in a kind of compendium; and we rejoice that we can offer an unaccustomed gift as a token of no unaccustomed observance. And hence you will be able to display new monsters to your Etruria, which, if once it devised the art of the soothsayer — that it might examine the entrails of victims and foretell from hidden portents the deeper secrets of the fates — could never grow dull in its penetrating genius, but at last, passing beyond, would with its most keen edge dissect even the starry Monsters most happily, and explore them most faithfully.

And it is pleasant to divine what your Auspice will be able to divine from this monstrous birth: that you will be not inferior to Alcides in fortitude, and better in fortune; since Monsters are born to you which do not indeed dread your power, but promise themselves from it a lovable protection. That you are, in this warlike age, the Champion of letters, since Monsters themselves, struck off among the characters of type, turn to the great profit of the commonwealth of letters. And truly the pursuits of Peace have never had to be strengthened by a stronger safeguard than in this iron age of ours, in which Peace is everywhere assailed by the sword; nor is that to be looked for more conveniently from any other quarter than from the Medici Family, with whom our exiled Muses have more than once — as I should believe, following the opinion of Anaxagoras — found other worlds to which they might flee; nor is it more easily to be obtained from any other than from you, most wise Prince.

Do you meanwhile deign to honour these new-born Monsters, inscribed with your name, with the omen of your most serene brow; for from this it will be permitted me to congratulate myself that I have never had anything more auspicious than Monsters. And now, as I think, having obtained my prayer with you, I lay up another prayer with God immortal: that you may ever flourish in that felicity which the merits of your Virtues deserve. Nor can I wish you better things, since that would be greater than these — for you have made these the greatest.

Farewell.

TO THE MOST SERENE AND UNCONQUERED FERDINAND II, GRAND DUKE OF TUSCANY

On the Dedication of the Work on Monsters

BARTHOLOMAEUS AMBROSINUS PAYS HOMAGE WITH THIS TETRASTICH

Magnus es tu, et Magnum nomen tuum in fortitudine

What cause, tell me, commends the whole race of Monsters to thee, dedicated? This cause: that a Great Duke knows how to tame Monsters. Great Alexander subdued the raging Monsters of the field; What the Great One could do — the Great One himself, thou too canst do.

[Unprinted leaf — no text in the original]

BARTHOLOMAEUS AMBROSINUS TO THE BENEVOLENT READER, GREETING

Nearly a second lustrum has now flowed by, most distinguished Reader, since the most illustrious Senate of the Republic of Bologna — that steadfast guardian of virtue, to whose heart that golden sentiment has always been dear: *Sophia* is the most precious of all things — deigned, through no merit of my own but through its pure humanity, to choose me for the public custody of the Museum, and resolved to assist my labours with an honourable stipend, mindful of that couplet:

Thankless is the toil that promised rewards betray;
What will not grow heavy, if hope be away?

Great indeed is the span of time, if measured by human weariness; truly small, if the whole of so great a work brought forth from the Museum and desired by all students of learning be weighed against it: yet since, with much labour and zeal, the things which lay buried as in darkness within that Museum may daily come forth into the light to feed the eyes and the mind, those who devote themselves to the publishing of works grieve therefore, upon the first page of the volume, to have given a foretaste of a certain diffuse manner of speech, and to have offered it to the Reader as the very marrow of the whole book. But in the present case it is not my duty to lay that entirely open, since the order of the thing makes it plain of itself. I promise thee only that this history, most trifling in its own estimation yet most welcome to all, will be so — especially since, in order to avoid any mark of carelessness, I have enriched it with the Paralipomena of the history of all living creatures. Read therefore this work with a willing spirit, for it is not needful to kindle love for it in thee, since it is plain that thou already burnest with desire for it. Enjoy, I say, this book, as is fitting; and if I shall perceive that thou hast ratified it, I shall afterwards essay yet other and further works, since there still remain in the public Museum the images of Fossils and Plants carefully preserved, to be arranged into classes and adorned with their histories. Meanwhile I would not have it thought unseemly if not a few errors should be found — which yet should not too hastily be condemned — and I entreat thee again and again: since, through the negligence and ignorance of the printers, they could in no wise be entirely avoided. Farewell. And comfort thyself with this couplet:

What this Work on Monsters teaches, read through, Reader;
Thou wilt find everywhere things that please by their novelty.

V. D. Octavianus Finatius, Clerk Regular of St. Paul, and Sacred Penitentiary in the Metropolitan Church, on behalf of the Most Eminent and Most Reverend Lord Prince Cardinal Colonna, Archbishop.

Let it be printed.

D. Hieronymus Bendandus of Cassino, Doctor of Sacred Theology, public lecturer and Consultor of the Holy Office, on behalf of the Most Reverend Father Inquisitor of Bologna.

Summary of the Privilege of His Sacred Imperial Majesty

By the Privilege of His Sacred Imperial Majesty it is ordained that no person may reprint any of the Histories of Ulisse Aldrovandi of Bologna — which treat of animals, and by consequence also of Monsters — in whole or in part, without the will and proper consent of the Author or his heirs, within a period of ten years to be reckoned from the day on which the completed volume shall have begun; nor may any person sell a copy reprinted elsewhere; under penalty, as often as the offender shall be apprehended, of forfeiture of all his books, and of ten marks of pure gold; as is fully set forth in the Imperial diploma issued at the royal castle of Prague, on the first day of April in the year one thousand five hundred and ninety-nine.

Rudolph, Emperor.

Rudolph Coradutius.

By express command of His Sacred Imperial Majesty,

Jo. Bernitius.

THE HISTORY OF MONSTERS OF ULISSE ALDROVANDI, PATRICIAN OF BOLOGNA

THE PLAN OF THE WORK

Now that the habits and natures of all published living creatures have been set forth, the physical marvels commonly called by the name of monsters must be brought before the public eye in their turn — things which truth, proven by experience, acknowledges to occur at times, and most especially when some strange form or character, whether in the whole body of those engendered or in individual parts thereof (be it of man, of brute beasts, or of plants), is impressed otherwise than according to nature's accustomed rule. For these things are not, properly speaking, the ravings or dreams of authors who, through a painted credulity and at their own whim, would have monsters run riot; since daily observation makes us better acquainted with them. We must therefore affirm it as established that human curiosity, ranging through the vast solitudes of created things, does sometimes fall upon something that exceeds the laws of nature and engenders novelty; whence, stirred by an unquiet appetite for knowledge, it is of necessity held fast by profound wonder at that unknown thing. We have therefore resolved, in the present work, to throw open the hidden courts of nature adorned with innumerable illustrations — that wonder may be dispelled, the appetite for knowledge appeased, and the hunger for novelties, in short, refreshed. But since the straight and oblique is said to be the index and test of itself, it seems worth the effort to embrace in a few words, at the very outset, a complete account of the form of man; not only that the errors of nature may thereafter become more evident to readers, but also lest these histories of ours be wanting in due acknowledgement of human prerogatives. For God, at the very beginning of the creation of the human body, breathed in the breath of immortal life — namely, the soul — that, guided by that rational leader, man might contemplate heavenly things and hold dominion over the senses. And finally, among inanimate things too, admirable events sometimes occur that bear no resemblance to the nature of their causes — such as the various apparitions of eagles, or of other creatures, or of horsemen, seen in the air, which are called celestial monsters by some; and we have determined to commit record of these as well to these monuments of history, adorned with most handsome illustrations.

[marginalia: Monsters pertain to animals, and to plants. / The appetite for knowing is insatiable. / Monsters are estimable. / Celestial monsters.]

OF MAN

SYNONYMS AND EQUIVOCALS

The word "man" (*homo*), taken simply, designates a human being composed of a human body and a rational soul; and therefore, in this sense, one who is not commonly learned, and one who is not wandering in the darkness of ignorance — nay, both the infant and the adult — are comprehended under it. Further, we sometimes call "man" one who has achieved the full growth of the body: whence in this signification the boy and the adolescent are excluded. Moreover, by the name of man, a male sometimes distinguished by the highest learning is denoted; wherefore this word seems to exclude the unlearned and the infant. Furthermore, since this word (*homo*) is of common gender among the Latins, it will signify not only the male human being but also the female — namely, the woman. This sense is quite familiar in the Sacred Scriptures, where this word *homo* in the singular number is for the most part received with a favourable meaning, but in the plural number is taken in the opposite manner; and although in Matthew we read, *homo inimicus* — that is, the Devil — sowed tares, we nonetheless affirm that this was done by reason of the added epithet.

Botanists call a certain plant, commonly named "female balsam," *homo* (man), because the stems of the plant grow so stout as to mimic a little man most prettily. Painters and sculptors also call a drawn or carved likeness of a man by the name *homo*. In Plato, as rendered by Ficino, man is expressed only as the power of the soul placed in reason and sense, which the ancient theologians called the soul. Hence some not unreasonably have named the interior man the soul, and the exterior man the body. Dialecticians in their propositions place man as the most special of species; and therefore among them an indefinite proposition whose minor extreme is the word *homo* is reduced to a universal proposition. In this sense must the Apostle be understood when writing to the Corinthians: *Let a man examine himself* — although sometimes the aforesaid word can designate an individual, namely some particular person. For in this sense we read in Sacred Scripture: *There was no man to till the ground.* Finally, if something be added to the word *homo*, it still takes on various significations: for *homo alicuius* is said of one who is bound to another's service. Wherefore in the Sacred Pages, *homo Dei* is, in the interpretation of Oleaster, expounded as Prophet, because the Prophets were given over to divine ministry. But St. Augustine called the body *homo mundanus* (the worldly man). Ficino, on the other hand, understood by *homo igneus* (the fiery man) the Daemon.

To Paul Scaliger, by the name of the great man (*homo magnus*) the world is understood, because conversely, by the name of the small world (*mundus parvus*), man is designated. Finally alchemists call the cucurbit with its alembic — that is, the vessel of the Philosophers — the *homo altus* (tall man) or *homo galeatus* (helmeted man). Although among them metals too are called men; wherefore in their books men are sometimes said to be transmuted into Daemons, and Daemons into God — namely, when men, that is, imperfect metals, are transformed into Daemons, that is, into silver; and finally into gold, which they call God.

Likewise among the Greeks *ἀνήρ* (*anēr*), just as *vir* among the Latins, is employed in various ways: sometimes it is taken simply for *ἄνθρωπος* (*anthrōpos*); sometimes this word signifies the male, as well as the castrated man in distinction from the eunuch; likewise the man established in virile age, again the strenuous and brave man, and even the husband.

[marginalia: Homo of common gender. / What plant is homo. / Man, inner and outer. / Names of man in Greek.]

SYNONYMS AND ETYMOLOGY

All the ancients with one accord affirmed that this word *homo* (man) is to be pronounced without aspiration, for no reason whatsoever: and so St. Augustine, meditating upon this, used to say that it was a thing worthy of wonder how the sons of men observe diligently the rules of letters and syllables received from their forefathers, and then neglect the eternal covenant of everlasting salvation.

Some have derived *homo* from *humus* (soil), since we read in Genesis that man was created by the Almighty Maker from the soil — that is, from the clay of the earth. Varro assents to this opinion when he says that *humus* signifies moisture or dark earth, which is soft and tractable, and therefore follows most readily the potter's wheel; so that men, by the etymology of the name, may understand that they are to be led about at the nod and command of the Most High God: although others hold that the etymology of *homo* is by no means to be derived from *humus*, because *humus* is common to all living creatures. It pleased some, therefore, to derive this etymology from the Greek word *ὁμόνοια* (*homonoia*), that is, concord; since men, among all other living creatures, are bound together in a peculiarly strong bond of harmony and fellowship. Unless we prefer to assert with Goropius that in the first language man was called *Hoomoct*, which word indicates that a most exalted spirit dwells within man.

Man is also called by another name, *vir*, either from *vis* (strength) or from *virtus* (virtue) — of both mind and body — with which he is endowed in a wonderful degree.

Among the Hebrews man bears many names: first he is called *Adam*, meaning earth; *Gheber*, the strong; *Methim*, mortal; *Enos*, wretched, or fragile; and finally *Ish*, man — in which word there is the letter *Iod*, a symbol of divinity, by which, according to the judgement of Burgoninus, God can be traced in the male, which letter is not found in the name of woman, *Ishah*. For this reason the administration of the sacraments is forbidden to woman. Thus is *Ish* expounded — namely, pre-eminent in virtue — from the verb *isch*, denoting strength. Indeed the Greeks derived from this word the verb *ἰσχύω* (*ischyō*), meaning "I am strong in body." Goropius adds that man is also called *Mensch*, which word indicates that man possesses free will, since *Mensch*, conducting himself, is so interpreted.

Among the Greeks we read *ἄνθρωπος* (*anthrōpos*), either from the verb *ἀναθρέω* (*anathreō*), meaning "I observe attentively and contemplate" — because man alone among living creatures looks attentively upon and meditates on what he sees — or in the opinion of the Etymologist, from *τὸ ἄνω ἀθρεῖν* (*to anō athrein*), because man, compared with other living creatures, looks upward. Of this Ovid sang not inelegantly:

> *And while the other animals look prone upon the earth,*
> *He gave to man an upright face, and bade him see the sky*
> *And raise his eyes erect toward the stars.*

This was done that man might know God — not that, like a vessel bored through, he should carry water: which is said to be the symbol of a man who neither fears nor knows God. Therefore might we then sing thus:

> *What profit to have drawn the mind from heaven? what profit*
> *To have raised the head on high?*

Man is also called by the Greeks *ἀνήρ* (*anēr*), from the verb *ἀνύω* or *ὠνύω* (*anyō*/*ōnyō*), "I accomplish" — since man is the most perfect of animals. Wherefore he is also called *μικρόκοσμος* (*mikrokosmos*), a small world, because, as Galen attests, as much artistry is observed in the construction of man and other animals as in the making of the world: hence Aristotle and Averroes designated man and the other living creatures as a lesser world. To these considerations let us add that by the brain of man, in which reason and mind reside, the Empyrean Heaven is represented, where the divine majesty dwells; then from the part of the head containing the imagination and cogitation, the spheres and intelligences are represented; and from the sensitive part, the ministers of God are indicated. We add further that the seven windows of the face through which the senses admit the species of things emulate the seven planets. For if we call the eyes of Heaven the Sun and the Moon, the eyes of man likewise represent the Sun and the Moon. The mouth, in which the grace of the countenance consists, represents Venus. The nose represents Jupiter and Mercury, since it may be taken for the sceptre of Jupiter and the caduceus of Mercury. Finally the ears, by reason of their dryness, bear the aspect of Saturn and Mars.

[marginalia: Names of man in Hebrew. / Names of man in Greek. / Lib. 1. Metam. / Man emulates the universal world.]

The moles and other natural blemishes scattered over the face bear the likeness of the remaining stars of the outer sphere.

Indeed the parts of the human body through which excrement is expelled emulate those shadows to which evil Angels and wicked men, as the dregs of the world, are destined.

Moreover man, according to St. Augustine, exists with stones, vegetates with plants, perceives with brutes, and understands with Angels. Furthermore, according to Giorgio Veneto, while man interprets the divine mind, he performs the office of an Angel; while he holds dominion over all the things over which he is permitted to preside, he partakes of the prerogative of an Archangel; while comprehending the powers of all his subjects and drawing them by a kind of celestial force, he renders this thanks to the Principalities of Heaven; when he is strengthened by a certain power against the enemies of truth, this faculty he receives from the Powers; aid to subdue the familiar enemy from the Dominations; help to attain his own proper and due end from the Thrones; light to conceive the images of supracelestial things from the Cherubim; and finally a singular love toward things divine from the Seraphim. For just reasons, therefore, man was called the world by St. John when he said: *The world knew him not.*

In Italian man is called *Huomo*, in French *Homme*, in Spanish *El varón*, in German *Ein Mensch*.

The female of man is called in Latin *mulier* (woman), as it were *mollier*, from softness, as Varro would have it. By this name is most commonly understood one who is no longer a virgin. For Cicero, when some reproached him because, being sixty years old, he had taken Popilia the virgin to wife, is said to have replied: she will be a woman tomorrow. Nevertheless, as it pleased the jurist Gaius, by the designation of *mulier*, a virgin too — namely, one fit for a man and of marriageable age — is understood. Ulpianus likewise employed this word in both significations, both for a virgin and for a married woman.

Among the Hebrews woman is called *Ishah*, as it were *virago*, because she was formed from the rib of the man — namely, of Adam — or because she was to bring help to the man, or because she ought to exercise a spirit not soft but manly in governing the household, or finally because she was given to the man on account of offspring. By another name she is called *Nechevah*, from the verb *nachah*, to hollow out, since in the womb of woman, as in a concave place, the offspring lies hidden until the appointed time; although this name belongs also to the females of other living creatures. Moreover the words *Nashim* and *Esheth* do indeed signify woman, but are for the most part employed for wife and spouse.

Among the Greeks woman is called γυνή (*gynē*), as it were one who bears children; since to the first parent Eve, representing all women, it was said: *in sorrow shalt thou bring forth children.* The Italians call woman *Donna*, as it were *Danno* (harm), since she brought no ordinary harm upon the human race: hence some poet, having this in view, sang:

> *As woman is a general rule, inquire therefore*
> *Why the rule fails in many cases — so too woman.*

For even at the very beginning of creation she immediately afflicted the world with pernicious harm and deadly ruin. It is no wonder, then, if someone sang to this effect:

> *Adam lost a rib on account of woman;*
> *On account of his wife he lost his very soul.*

In French woman is called *Femme*, in Spanish *Muger*, in German *Ein Weib* or *Fraum*.

DIFFERENCES

Now that enough has been written of synonyms, let us proceed to the differences: for when we consider the varied character of men, we shall encounter a twofold race of men, of which one kind is unlearned and rustic — always preferring utility to what is honourable — and the other is strongly imbued with natural logic and esteems dignity above all things; to this latter kind belongs praise, honour, glory, faith, and every virtue; whereas to the other kind gain, advantage, and pleasure — the greatest enemy of virtue — are preferred.

If we weigh carefully the variety of characters, we shall then observe that men take on the natures and powers of all animals: since some of them are fierce like tigers, some rapacious like wolves, some savage like serpents, some bold like lions, some timid like hares, some envious like dogs, some [...]

[marginalia: The names of woman in Hebrew. / The names of woman in Greek. / The twofold race of men.]

— dirty like swine, some swim like fish, some are venomous like vipers, some gentle like lambs. Although in the opinion of some, this comes about by reason of climate or the natal hour: since certain Indians are mild, the Parthians and Scythians fierce and wild, and especially the Tartars. Those born at a moment of earthquake are always timid and weak. Those born at the time of the new moon, according to Aristotle, either do not survive or are wont to be very feeble. Cardano, moreover, observed that such persons labour under black bile.

If we consider a specimen of keen and lively wit, we shall without doubt find that males are constituted of stronger mind, and females of weaker. This Ovid taught us elegantly in these verses:

> *We burn with equal fire, but now I am unequal to thee in strength;*
> *I suspect that men possess a more vigorous spirit.*

Indeed men themselves are seen to differ greatly from one another in respect of wit. Horace signified this in these words:

> *Not all admire and love the same things;*
> *Thou delight in lyric verse, he in iambics,*
> *Another in the discourse of Bion, and in coarse wit.*

Persius too seems to attest the same when he sang:

> *A thousand kinds of men, and the varied use of things —*
> *Each man has his own will; one hour does not unite them.*

Propertius expressed this more aptly when he said:

> *This man is fitted for peace, that one vile in the arms of the camp;*
> *Each follows the bent of his own nature.*

But more worthy of wonder is the fact that in one and the same man a diversity of temperament is observed. Ovid declared this most aptly when he wrote:

> *What is permitted is unwelcome; what is not permitted burns more fiercely;*
> *What follows I flee, what flees I myself pursue.*

Catullus did not leave this untouched in these verses:

> *I hate and I love: why I do so thou askest perhaps —*
> *I know not, but I feel it happening, and I am tormented.*

We may attest the same regarding some kind of food or drink in which some persons take the greatest delight at times, while others very much abhor the same thing.

It must be noted, however, that individual peculiarities of this kind can in no way constitute different species, since this function belongs only to substantial forms; and so, leaving this doctrine to the philosophers, it will be our concern to speak, for the completion of this history, only of the various bodily forms of men. These differences of form will be derived partly from the mouth, nose, eyes, ears, lips, position of the head, feet, hair, and skin; hence the opportunity will afterwards present itself for discussing men of the woods, Satyrs, Centaurs, and the like. Partly from size and sex — hence there will follow an examination of the nature of Giants, Pygmies, and Hermaphrodites.

Wherefore the various race of men in India, differing in form, deformity, and stature, which we have more than once judged to be fabulous in the histories of Pliny, has now obtained some measure of credence — especially after the new world displayed monsters of this kind. Yet let credence rest with the authors, whom we have found trustworthy in much else. They write, then, that near the source of the Ganges dwell Astomoi — that is, men without mouths and without any exit for excrement — entirely hairy of body, who live only by breath, namely the scent drawn in through the nostrils. To this opinion Pliny seems to assent when he mentions a race lacking a tongue, and using gestures and motions of the limbs in place of speech. Moreover John Mandeville names the island of Desfracan, which men as small as Pygmies inhabit, living only on the smell of wild fruits — so that those travelling into a distant region use not only the fragrance of fruits but also of sweet-smelling herbs as their provisions. Solinus adds that some of the Ethiopians have their mouths grown together, with only a small opening through which, by means of oaten straws, they draw the liquid that nourishes the body. This race of men Strabo was wont to deride; nonetheless St. Augustine makes mention of this people — besides which Isidore confirms it in the plainest terms. Wherefore, for the reader's gratification, we have added the likenesses of this race found in the Museum.

Whether truly the *Brachydomoi* people inhabit those regions as well cannot easily be believed.

[marginalia: Differences by reason of climate. / Differences by reason of age. / Differences of bodily form. / Astomoi — where they live.]

MAN

ἄτομος (*átomos* — the indivisible, the individual).

[Full-page engraving — no further translatable text]

MAN

ἄτομος (*átomos* — the indivisible, the individual).

[Full-page engraving — no further translatable text]

We, however, to speak the truth, do not grant Astomoi to exist, but only those people with very small openings. For observers and explorers of those regions, considering the very small mouths of the inhabitants, wrote that there was, as it were, no opening at all.

Moreover at the foot of the high mountains of Scythia certain men are said to dwell who have not only a natural baldness but are also furnished with a very large chin, and with noses so flat that they seem entirely to lack them. Of these Lycosthenes perhaps spoke when he mentioned a race having, in place of a nose, only small holes.

Pliny states that the innermost part of the East is inhabited by peoples deprived of the upper lip. And Lycosthenes in his *Chronicles*, describing the Negroes, assigns them a lofty stature with the lower lip hanging down to the chest beyond the measure of an ell, whose inner surface, on account of the heat of the climate, would readily incur putrefaction unless liberally salted. Cadamosto and Isidore, afterwards, consistently attest this along with others. The Negroes are therefore described thus:

These people are very black, of lofty stature, having the lower lip thrust forward as far as the chest, whose inner surface is so suffused with a deep red as to appear afflicted with some ulceration — wherefore all their teeth are seen to be larger than ours; indeed they have two that project beyond the rest. All this is shown in the following illustration.

Vesalius the anatomist, in his life of Marcus [Aurelius], relates that in his own time he observed at Padua two men whose ears were capable of movement. But no small wonder seized our mind when we considered the peoples called Fanesii, or Satyroi, as Pomponius Mela and Strabo report — whose ears grow so large that they serve those who walk about like clothing, and those who lie down like a bed. Wherefore Pigafetta set down in writing that the inhabitants of the island of Gilon near the Moluccas are endowed by nature with ears hanging down to the shoulders; indeed he mentions a neighbouring island whose inhabitants are furnished with ears so large that when lying on one ear they cover the whole body with the other. Wherefore, as attested by the Jesuit Eusebius on the Dutch and English navigations, credence is given to the report of men called Turanuci (for this word signifies "ear," just as similar spectacles in the ancient world gave the name Enotociti to those remarkable for their ears) — whose ears hang so far down that they reach the ground, and who dwell toward California, as may be seen in the following figure.

Concerning the eyes, what remains to be examined? Gellius first of all left it written that there are both men and women with a double pupil in their eyes, who, when seized with violent anger, destroy those they look upon. Pliny also attests that these exist in the Illyrian and Scythian regions. But greater wonder invades our mind when we contemplate men lacking a neck and having their breast adorned with eyes — of whom Pliny and Solinus made mention. These wander through the forests of Asia with their private parts covered, and with a very broad hat upon their shoulders to ward off the heat of the sun, while gathering no small quantity of pepper which they sell to foreign merchants. These races are called Blemmyae. In which matter one must readily believe St. Augustine — a most excellent authority — who has these words: *When I was already Bishop of Hippo, I went with certain servants of Christ into Ethiopia to preach the Gospel of Christ to them; and there I saw many men and women who had no heads, but had their eyes fixed in their chests, and their other members equal to ours.* The same passage from St. Augustine was cited to the same effect by Fulgentius. Wherefore, holding so great an authority in high esteem, we cannot but assert that this race of men lacks a neck; hence, with the head adhering to the thorax, their eyes appear to those who look upon them to be fixed in the chest. Lycosthenes, who wrote many fabulous things, mentions certain peoples dwelling in some parts of Arabia who are distinguished by three eyes, and with breasts so large and swollen that they can be covered only with the greatest difficulty. We have also read of men disfigured with four eyes dwelling in western Ethiopia, as may be seen in the following figure; yet lest our discourse ever stray from truth, we believe that not eyes but the semblances of eyes are imprinted by nature about the temples at the beginning of generation.

In the island of Taprobane, according to Lycosthenes, there dwell certain men with a slender neck, a very large head, one eye in the forehead, short and thick legs. And furthermore, in the opinion of some, toward the north in Scythia men of evil and depraved nature [...]

[marginalia: Men without noses — where. / Description of the Negroes. / Men with the longest ears. / Difference of men by reason of the eyes. / Men lacking a neck. / Homines collo carentes.]

A Black African with a pendulous lower lip.

[Full-page engraving — no further translatable text]

A man of the Panotii with large ears.

[Full-page engraving — no further translatable text]

A man with four eyes.

[Full-page engraving — no further translatable text]

In the *Life of Marcus* [Aurelius] — men of depraved character called Arimaspi are said to dwell, their foreheads distinguished by a single eye. Mondognetus asserts this more freely when he relates that in the consulship of Fulvius Torquatus, fighting against the Volsci, a one-eyed man was brought to Rome from Mauritania, who was led around through the City as a spectacle on account of his being a wonder. Pliny conceded these peoples to be Monoculi, or Monophthalmi — or rather Arimaspi. For *arima* in the Scythian language designates one, and *spu* an eye. We may call them by the common name of Cyclopes. These, according to Gellius, feed only on the flesh of wild beasts; wherefore they are by some called Agriophagi. This nation was not unknown to Aristeides, who, often mocking Philip of Macedonia — deprived of an eye by the arrow of a soldier named Asteriscus — called him kinsman of the Arimaspi. St. Augustine, as reported by Fulgentius, a man of unshaken faith, does not reject this nation; indeed while he was Bishop of Hippo and was travelling through the lower parts of Ethiopia to call back the human flock to frugal practice and the way of salvation, he affirmed that he had seen similar races. We therefore exhibit the likeness for the reader's benefit. Thevet, however, confesses in his history that he never observed races of this kind in the New World.

It was entrusted to the preceding pages of this history that peoples lacking a neck, or cervix, traverse this world. In turn we now bring forward the report that in Hyrcania, as some write, or according to Lycosthenes in the uttermost parts of Syria, or as others prefer, in certain valleys of the Tartars, there dwells a race of such exceedingly long neck as to emulate altogether that of cranes; and at the summit of this neck is a face of a bestial character — with human eyes and nostrils, yet furnished with a beak and small wattles after the manner of a cock. One would sooner believe this by reading than by seeing. Nonetheless we do not deny that semi-savage men of a somewhat longer neck and with a beast-like face dwell in those regions, of whom the women are said to be not so deformed as the men, and are seen but very rarely. This nation is said to be of great strength against its enemies, and most especially against the Tartars. Their likeness also is exhibited for the reader's consideration.

Before words are said of the astonishing natural marvels concerning human feet, we shall first say something about men furnished with a tail: since, according to Peter Martyr, the inhabitants of the region of Inziguanin reported that there had once been brought over the sea a race of men remarkable for a tail a span in length — not flexible but solid, tapering, and very like the tails of crocodiles — for which reason they used seats bored through. Moreover Paul the Venetian records that men in the Kingdom of Lambri are to be seen with a tail a palm in length. We do not dare to affirm all these things to be trifles. We know indeed that it is preserved in the Annals of the English, as John Major recounts, that infants furnished with a tail were once brought forth there from their mothers' wombs into the light — and they affirm that this took its origin from the time when the common people pelted St. Augustine, who had come from Greece into England at the command of Gregory the Great to spread the evangelical doctrine by his eloquence and wonderful power of speech, with fish-tails: whereupon that holy man, having first invoked the divine assistance, obtained as punishment for the sin that thenceforth human offspring should be born disfigured with a tail, that being thus admonished they might learn not to spurn divine teaching. This therefore was to be attributed neither to celestial influence nor to tempest; for the penalty was imposed upon them for a time, so that an incredulous people might admire so great a man, of most proven and excellent faith.

Now the time has come for the figure or number of feet to supply us with other differences among men. Pliny reported that in India there is a race with feet a cubit in length; the women, however, have feet so small that they are called *struthiopedes* (ostrich-feet). Likewise in certain regions of the Tartars, according to Vincent in the *Speculum Historiale*, men wander with a single arm and likewise with one leg and one foot only — of which men two perform the duty of an archer, since while one grasps the bow, the other discharges the arrow; and moreover a remarkable swiftness is observed in them, for they run with their hand and foot at such speed that they outstrip horses; and when they have tired their arm, they proceed then by leaping on their foot alone. Solinus, however, pronounced that others of this kind, called Monoceloi (the word is explained as *monoskelēs*, having a single leg), wander through India and leap nimbly; indeed he wrote that they have so vast a foot that when it is raised toward the sun its shadow readily serves them as shelter; wherefore they are also called Sciapodes (for *skia* means shadow, and *pous* foot [...]

[marginalia: One-eyed men — Monoculi. / Men of long neck. / Tailed men — where. / St. Augustine in England. / Monoceloi.]

The Cyclops.

[Full-page engraving — no further translatable text]

Man, with the mouth and neck of a Crane.

[Full-page engraving — no further translatable text]

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— that the likenesses of these men were placed in the forum of Carthage beside the harbour, as the blessed Augustine testifies. Furthermore Pliny and Solinus have published abroad that in the valley of the great mountain Imaus, or more properly Timaus, there is a region called Abarimon, inhabited by men of wondrous swiftness who walk with their feet reversed behind their legs, and who dwell continually among the wild beasts. These men are said to be unable to breathe in any air but their own native air, and for this reason they can by no means be brought to neighbouring princes. Their form is as follows.

Man with reversed feet

[figure captions: A man walking with his feet turned backwards.]

[catchword: Demum]

[marginalia: Aug. lib. 16 de Civ. Dei / Plin. lib. 7 cap. 2 / Solin. cap. 52]

Finally, hair and skin furnish us with a last distinction: for John of Mandeville describes a certain island whose inhabitants, apart from their palms and face, are abundantly covered with thick hair; and Pigafetta drew men of the island of Buthuá who were hairy, fierce, and cannibals. Then, setting aside for the present the wild men recorded by Pliny and Solinus, we shall consider those enumerated by Peter Martyr. He left it written for posterity that wild men are lodged in the Province of Guacaiarina, who inhabit mean and low caves, live on wild fruits, and never seek any intercourse with the other inhabitants of the island; indeed, when seized and treated kindly, they could never be rendered tame, and are therefore believed to know neither authority nor laws. Likewise in the island of Ireland, subject to the English king, there are almost countless wild men who have never been willing to enter into any intercourse with those who dwell by the sea. A certain Sarmatian brought to the most excellent Ulysses Aldrovandi a portion of the skin of a wild man, which is still preserved in the museum of the most illustrious Senate of Bologna; and he reported that this skin is worn in a ring against convulsions, with great benefit to the sufferer.

This wild kind of man was first seen at Bologna when the most illustrious Marchioness of Soriano, making her way to Bologna, was received with the greatest honour by the most illustrious Mario Casalio; for she brought with her a hairy girl of eight years, the daughter of that wild man of forty years of age born in the Canary Islands, who had fathered not only this daughter but another elder daughter of twelve years and a son of twenty; and the likenesses of all of them are here exhibited.

Father of forty years and son of twenty, hairy over the whole body

[figure captions: Father and son, both entirely covered with hair.]

[catchword: Puel-]

[marginalia: Ioannes Mandavilla / Pigafeta / Petrus Martyr / Homo sylvestris in Bononia / Canaria insulae]

A hairy girl.

[Full-page engraving — no further translatable text]

The face of the girl was hairy together with the forehead, except for the nostrils and the lips around the mouth. The hairs of the forehead were longer and rougher in comparison with those which covered the cheeks, these being softer to the touch; the rest of the body, and especially the back, was rough and bristling with yellow hairs as far as the beginning of the loins. The throat, chest, hands, and arms were bare of hair. The other parts of the body were rough and resembled the skin of birds not yet come to their feathers. Nor should anyone feel compelled to persuade himself that the entire body of the wild human race must be covered with hair; for (as Eusebius the Jesuit testifies) wild men have been seen both in the Eastern and the Western regions — some emerging from their mother's womb in America white, clean, and smooth like our own infants. But if in the course of time hair afterwards grows very long on some part of the body, it is not therefore to be said that they must be wholly shaggy.

The hairy girl of eight years, sister of the other

[figure captions: A hairy girl of eight years.]

[marginalia: Eusebius Jesuita / Homo sylvestris in America]

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From the race of wild men the Cinnamii people are not to be separated, who present themselves to view adorned with a long beard and the hair of the whole body, worthy of admiration. These are called wild men by their own name among the neighbouring Barbarians. For the protection of life they maintain a large pack of dogs, because from the summer to the winter solstice, innumerable Indian cattle continually enter their country. The cause of this is still uncertain — whether such cattle, avoiding other wild beasts, or driven by the impulse of men, or by want of fodder, take refuge among the Cinnamii. And so these peoples, having assessed their strength, which would not be equal to withstanding the assault of such cattle, defend themselves by keeping a multitude of dogs; with these they also capture very many cattle by hunting, of which they eat some fresh and preserve others salted for future use. Then they eat countless animals of another kind caught by the dogs. We exhibit here the likenesses of these peoples, namely of both male and female.

Male of the Cinnamii people

[figure captions: A male of the Cinnamii people.]

[catchword: Pa-]

[marginalia: Cinnamii populi / Canes ad tutelam aluntur]

A woman of the Cinnamon-bearing people.

[Full-page engraving — no further translatable text]

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To this place should be referred the other kinds of wild men enumerated by Lycosthenes, such as those women of a very stout build found in the Eastern Ocean, having a neck unnaturally long, arms joined to the legs, shins like those of an ass, and feet of another shape. The males he describes as resembling the females but much smaller. Likewise to be recounted in this place would be the women discovered in the deserts of Libya with breasts hanging down to the knees, lacking the use of speech but crying out vehemently. Others besides, dwelling in the Libyan alps, furnished with legs like those of an ox, a human face and feet, a fox's tail, goat's teats, and a back swollen like a camel's hump; but since Lycosthenes sometimes recited rather monsters of words than of things, and prodigious fictions, we therefore deliberately pass all these over, and turn ourselves to making known the likeness of those hairy men in whom nature has implanted the habit of walking on all fours; and accordingly they might be called *erpedibrotoi* (ἑρπεδίβροτοι) in Greek and *manugradi* in Latin, whose image is as follows.

Hairy man walking on all fours

[figure captions: A hairy man walking upon his hands.]

[marginalia: Lycosthenes / Homines in desertis Libyae / Homo villosus manugradus]

To the aforesaid may be added the Cynomulgi, or Cynocephali, likewise hairy, whose heads and mouths demonstrate them to be more like beasts than men. These, according to Lycosthenes, have a body elegantly formed after the human fashion, except for the head, which imitates the manner of a dog; moreover they inhabit northern Ethiopia. Furthermore, in Vincent's *Speculum Historiale*, this nation wanders without fear through the regions of the Tartars; for in the bitterest winter they plunge themselves into water, then immediately roll in dust until the dust mixed with the water freezes, and this they repeat many times until the thickness of the ice can withstand the blows of arms and arrows. Having done this, they march against the Tartars with great force, since the arrows shot at them by the enemy fly back, and they cannot in any way be harmed by other weapons. Wherefore the Cynocephali, remaining unhurt, [...]

Likeness of the Cynocephali

[figure captions: The figure of a Cynocephalus.]

[catchword: Rod.]

[marginalia: Lib. 31 cap. 11 / Glacies in tutelam quaesita / Vincentius in speculo historico]

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— rushing upon the Tartars, they wound and slay many by biting. Likewise Marco Polo affirmed that this nation, which has dog-like jaws, inhabits the island of Angaman, and that the native inhabitants are kept in check and devoured by the same. But we hold these things to be idle tales by which the truth has been dishonoured with many trifles. There are indeed Cynocephali who are races of the most cunning apes, which closely mimic the human mind, and of which more was said at length in the history of the digitigrade quadrupeds. We do not deny that there have been, and can be, men who imitate dog-like jaws, but these appear to be reckoned among monsters. It will not be unwelcome, however, for the reader's sake to show also the figure of the supposed Cynocephalus.

In the lower ranks of wild men many rightly place Satyrs, Tritons, Nymphs, Nereids, and Sirens; wherefore it will be worth the trouble here to speak severally of

Figure of a Satyr

[figure captions: The figure of a Satyr.]

[catchword: cundis]

[marginalia: Cynocephali quid sint / Marco Polo lib. 3 relat. / Satyri]

each of them in turn. Concerning Satyrs — so called from the name *sathe* (σαθὴ), signifying the male member, because they are always prone to lust — we shall first set forth the common opinion. Pliny testifies in many places that in the mountains of the Indians of the Eastern regions there is a place called Cartadulorum, where Satyrs — that is, men who are horned, shaggy, and very swift — dwell, in human form, with goat's feet, with nothing of human custom about them, and delighting in the recesses of forests; and therefore, because of their swiftness, they cannot be captured unless by chance they are old or feeble. Pomponius Mela adds that these men are half-wild, who possess nothing human except their shape; and elsewhere he published abroad that beyond the Atlas mountain of Mauritania, fires were very often seen by night, and the crash of cymbals and the song of pipes was heard, and no one was found by day; and therefore it came to be held for certain that these were Fauns and Satyrs. Whence antiquity worshipped monsters of this kind as

Another figure of a Satyr with a trumpet

[figure captions: A Satyr figured with a trumpet.]

[marginalia: Satyri ubi / Plin. / Pomponius Mela]

Another species of Satyr.

[Full-page engraving — no further translatable text]

Semidei

— demigods, or worshipped as the gods of the forest; then antiquity called Satyrs, Fauns, and Sylvans the gods of the woods and groves, and the Pans the gods of the fields. The poets, however, most often confound these names; of them Ovid sang thus:

> *I have demigods, I have the rustic powers of Fauns,*
> *And Nymphs, and Satyrs, and Sylvanus who dwells on the mountains.*

Wherefore for just reasons we may assert that in ancient times the Devil strove by every means to lead man astray, transforming himself into various shapes; but in our age, since Almighty God has bestowed his boundless mercy upon us, sending his only-begotten Son to redeem the human race with his blood, then all evil spirits vanished. We are pleased, nevertheless, to publish at this time two likenesses of Satyrs, one of which was drawn with a trumpet, the other without.

For the rest, a greater difficulty now presses upon us, in that the historians relate that in the reign of Constantine a hairy man of the race of Satyrs was brought to Alexandria, and his body salted and sent to Antioch, that it might be seen by the Caesar. Furthermore Albertus Magnus himself published that in the forests of Saxony towards Denmark, a little before that time, hairy monsters bearing human form had been captured; of these the female perished from the bites of dogs and the weapons of hunters, while the male, once tamed, learned to walk on two feet; and for this reason he rightly judged that these animals were to be referred to the family of Satyrs, since they were tormented daily by an exceedingly wanton lust. To these let us add that the blessed Antony, wandering through the desert, sometimes observed a monster of this kind roaming the wilderness; indeed Isaiah the Prophet, when he named the hairy ones as those who shall inhabit Babylon, the learned expositors held these to be Satyrs. Therefore, to resolve this difficulty, we shall offer the reader another species of Satyr elegantly drawn, so that, having examined it diligently, he may see whether it conforms to the doctrine of Ptolemy, who declared that the islands of the Satyrs adjacent to India are three in number, and that the inhabitants are furnished with tails such as painters attribute to Satyrs; and hence these islands came to be called Satyrides. But whether these animals are to be referred to the human race or to that of brutes, the blessed Augustine best taught us when he wrote that it must be investigated whether any trace of reason is found in them, because then these animals would be comprehended within the human race; otherwise they are to be placed in the genus of brutes.

These things being thus established, let us now turn our minds to the Nereids, or Nymphs, and to the marine Satyrs, namely the Tritons. In the first place, some wise men have come to this opinion: that marine Satyrs, or Tritons, or sea-men are found nowhere, and that only men who are very skilled at swimming have been seen, such as the Ichthyophagi, who use fish alone for food. For in former times the skill of swimming was so tested and esteemed that it became proverbial in speaking of a dull man: *He has learned neither to swim nor to read.* On the other hand, learned authors freely maintain that men or marine Satyrs dwell in the sea. Alexander from Alexander reports first that a Triton was found on the shore, who repeatedly seized women approaching it, but at last was caught by stratagem, and refusing the food offered to it, died. Furthermore Ludovicus Vives has written that a marine man was taken among the Dutch, who remained mute for two years but was beginning to speak, when being struck by a pestilence he was sent back to the sea. In Portugal too a marine man was seen who, blowing upon a shell, made it resound. And Aelian records marine Satyrs ending in a fish found about Taprobane. In a volume of Roman history it is read that Menas, Prefect of Egypt, wrote thus to the Emperor Maurice: "When I was walking with many companions at sunrise through that part of Egypt called the Delta, animals of human form appeared in the river, their upper members bare as far as the loins, their remaining parts covered by the water; of these one appeared male and bearded, the other unbearded and female." These may be seen elegantly delineated in Paré under the name of Nile monsters. Gillius also narrates that while he was in Venice, he learned from certain Dalmatians of trustworthy witness that near the town of Dalmatia called Spalato, a marine man had at times appeared, who struck the utmost terror into all who beheld him; and by others who had lived for a long space of time about the Red Sea, it was reported there that marine men are customarily captured there, from whose very hard skins shoes are made so sturdy that they last fifteen years. More-

[marginalia: Semidei qui / Ovid. lib. 1 Metam. / Satyri marini qui / Lib. 3 Gentium dier. cap. 8 / Lib. 2 de ver. fidei / Monstra Niliaca / Homines marini / Spalatum]

A sea creature with a human face.

[Full-page engraving — no further translatable text]

A Sea Monster in the likeness of a Monk.

[Full-page engraving — no further translatable text]

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— over and above which, Pausanias in his *Boetica* describes a Triton preserved in a temple of Bacchus at Tanagra, and Pliny likewise makes mention of them: it is therefore not to be thought vain, all that has come from ancient times into men's discourse concerning Tritons and Nereids — most especially since in the year one thousand five hundred and twenty-three there is said to have been found a marine monster of human form as far as the navel, below that a fish with a forked tail curved in the shape of a half-moon, such as Apollonius described the Tritons; the figure of which we here give. Gesner likewise records a similar image and reports that he received it from a painter who had seen the living monster; the forehead of this creature was rough with horns, the ears prominent, the arms nearly human, the rest fish. It was caught in the Illyrian sea, when it had emerged from the water to seize a young boy playing on the shore there; for fishermen watching it flung stones at it, and the wounded monster returned shortly after to the shore from which it had fled and expired. In further confirmation of these accounts, Rondelet and Belon write that there was caught in Norway, near a people called Diezunt, close to the town of Den Elepoch, a marine monster in the likeness of a monk; the outline of which is shown in the figure above. They say, however, that it lived three days and uttered no sound except certain sighs expressing the deepest grief. Hence we know it to be consistent with truth what we have heard from veteran fishermen: namely that when the sea nearby is about to endure storms, they have heard human groans rising from the deep. To these let us add as a crowning point what Rondelet recounted concerning a fish-bishop: that in the year one thousand five hundred and thirty near Poland there was caught in the sea a monster bearing a mitre and the remaining vestments of a bishop, and presented to the King of Poland. Concerning these monsters, therefore, Boustrovet has elegantly sung:

> *Such do the sons of Nereus bring forth from the sea's recesses,*
> *And what the land, being savage, brings forth as its own.*
> *The face presents a man; the belly ends in a fish;*
> *What face so unlike can there be?*

And more elegantly thus:

> *Such a creature did the sea one day bring forth,*
> *Half-man and savage, and half-savage man —*
> *These portents, ever-wondrous beyond measure:*
> *Why marvel, since the Earth too brings forth many more?*

Now, Tritons are named either from the Aeolic word *Trito* (Ὑβιτὼ) signifying *the head* (*τὴν κεφαλήν*), because they bear human form only in the head; or rather from the name *Trion* (φβίωνα), meaning something that laughs — that is, the instrument of fishermen by which larger fish are speared; whence the trident was afterwards assigned by the poets as the emblem of Neptune, lord of the sea and of fishermen.

The history of sea-monsters has opened for us an approach to the knowledge of the Nereids, Nymphs, and Sirens; and therefore we have judged that something must necessarily be said about them at this point; since, as the male sea-monsters are called Tritons, as was written above, so likewise the female sea-monsters are called Nereids — from Nereus, the reputed deity of the Ocean — and Nymphs, as it were Lymphs (for the ancients called water not *lympha* but *nympha*; whence *Nymphaeum* a bathing-place, and *Nymphaea* a plant delighting in water), and Sirens are named at last because flowing water produces certain musical sounds, such as were believed to be uttered by the Sirens. That the race of Nereids, Nymphs, and Sirens exists, recent history persuades us; over and above which, the ambassador of the Gauls announced to Caesar Augustus that Nereids had been found in the form in which they are painted. And Francesco Massari of Venice, in his commentaries on the ninth book of Pliny, records that they have been seen on voyages. Indeed, a marine monster, a virgin as to face and as far as the pudenda, and below that a fish, has been recently captured in Frisia. Isaiah foretold that there would be Sirens where once there had been temples of pleasure. The Chaldean understands by these serpents, as we likewise signified in the history of Serpents. The blessed Jerome expounds them as Demons, or great Dragons adorned with a crest; but the Greek scholiast on Isaiah held that Sirens are called those creatures which among winged things utter a plaintive cry, wherefore from this it is to be gathered that Sirens are to be placed among winged creatures, not among aquatic ones. The Latin interpreter likewise appears to add wings to them; and therefore this creature is not to be [...]

[marginalia: Pausanias in Boeticis / Plin. / Monstra marina / Rondelet lib. de natat. animal. / Monstrum marini effigies monachi / Lapidibus decussum / Rondelet lib. de piscib. / Nereides, Nymphae, Sirenes / Ovid. / Boustrovet epigr. de Bat.]

it will perhaps not be unlike those creatures found in the New World, of which Peter Martyr wrote at length, when he reported that there was a region called Camara, where, within living memory, it has been handed down that a very great force of winds and whirlwinds arose, which uprooted whatsoever trees stood in their way, and that by that same violence there were carried into the region two birds most like the celebrated Harpies — with the face of a virgin and of such bulk that no tree, however large, could support them when they alighted — which would seize upon a wayfarer with their talons and carry him away to the summit of a lofty mountain to be devoured. From this, therefore, we may in some measure understand that Sirens are birds in their lower part, and in their upper part endowed with human form. Many Authors and Poets are at one in this, inasmuch as they assign to them the body of a virgin down to the navel, and thenceforth the feet of a hen. Moreover the contest of the Sirens with the Muses, which Pausanias explained in his *Boetica*, seems to indicate some avian nature in the Sirens, in that he declared that the Muses, having plucked out their feathers, wove garlands for themselves as an everlasting memorial. These things being so, it is a fault in painters that Sirens are depicted as aquatic. But the history of the Sirens has been corrupted, like that of the Gryphons and Harpies, by a thousand fables. Finally, to close the chapter on wild and semi-savage men, Centaurs — having the front part human and the hind part equine — are placed by some among this number; their origin different authors recount in different ways.

Servius, in his *Commentaries on the Sixth Aeneid*, writes that the Centaur was the son of Ixion and a Cloud: for when Juno was importuned by Ixion with an attempt at violation, by the will of Jupiter she offered him a cloud formed in her own likeness; from this union Centaurus is said to have been born. Pindar grants that Centaurus was indeed begotten of Ixion and a cloud; but he indicates that this Centaurus was a man so named because he had mingled with the mares of Magnesia beneath Mount Pelion, and that offspring entirely resembling each parent had been born. Pliny seems to favour this opinion, for in the seventh book of his *Natural History* he writes thus: *Claudius Caesar writes that a Hippocentaur was born in Thessaly and died on the same day; and during his principate we ourselves saw one brought to him from Egypt, preserved in honey.* And this opinion is further confirmed by the fact that after the dispersal of peoples from the Flood, when lust ran riot in every wickedness, the licence of desires begat certain monsters. For this reason Plutarch seems to have judged that Centaurs, Minotaurs, and similar monsters could be produced from the promiscuous couplings of men and beasts. Moreover, in the *Mirabilia* of Phlegon of Tralles there is recorded a Hippocentaur that fed on flesh and, once captured, died when the air changed. Among Authors there are read also Onocentaurs, presenting a front part human and a hind part asinine: for the Seventy interpreters, commenting on Isaiah, report that Onocentaurs would inhabit desolate Babylon — though the common translator renders the word as owls. To establish the opinion, we add that, according to Saint Jerome in his *Life of the holy Paul the First Hermit*, a Centaur came to meet Saint Anthony as he was searching through the Desert; beyond which Lycosthenes has published that in the territories of the great Tamerlane Centaurs were found of such a form that the upper part resembled a man, with two arms in the manner of a toad, and the rest equine. The same author then presents another image, which we give here, that the reader may diligently consider whether such an animal can exist in nature.

Thus far we have brought forward the affirmative side; now the negative must be examined. First, those very poets who in many places gave credit to Centaurs at last bore witness that they were figments. For Ovid, in the fourth book of his *Tristia*, writes thus:

> *What I pray may prove to be so — yet sooner believe the eggs of Medusa's Gorgon*
> *to have been wreathed with serpent locks;*

And a little after:

> *And four-footed men clashing breast against breast,*
> *And the three-bodied man and the three-bodied hound.*

Likewise Lucretius declares Centaurs to be invented monsters in these verses:

> *But Centaurs never were, nor at any time*
> *Can creatures exist of twofold nature and twofold body.*

The same opinion appears to have pleased Virgil, who placed Centaurs at the doors of the Underworld — as if to say that things created contrary to nature perish quickly. To these must be added the doctrine of Aristotle, which admits no such things. For he writes that, just as there is found no plant

[catchword: compounded]

[marginalia: Sirens — inferior parts are birds. / Centaurs — their origin. / Centaurs — etymology. / Hippocent. in Phlegon of Tralles. / Onocentaurs in Isaiah. / Centaurs found under Tamerlane. / Lib. 4 Trist. / Lib. 4. / Lib. 2. Phys.]

An image of a Centaur, after Lycosthenes.

[Full-page engraving — no further translatable text]

HIPPOPOS

compounded of the olive and the vine that would produce both wine and oil, so likewise there is found no animal formed of man and bull together. This opinion is further confirmed by another assertion of the same Philosopher: for in the *Histories of Animals* he taught that animals of different species coupling together do not generate offspring unless the times of gestation are the same and the sizes of their bodies do not greatly differ. Galen likewise, with powerful arguments, demonstrated that the procreation of Centaurs is absurd, judging that the substance of a man and of a horse cannot in the least be mingled. Justinian supports the same view

[catchword: in]

[marginalia: Lib. 8 cap. 38. / Lib. 3 de Usu Part. cap. 8.]

in his *Institutes*, when he says: *And whoever shall stipulate for a thing which does not exist in nature or cannot exist — as if Titius, whom he believed to be alive, is dead, or a Hippocentaur, which cannot be — the stipulation shall be void.* This opinion Marcus Tullius Cicero also embraces, in his *Tusculan Disputations*, when he firmly asserts that Centaurs never existed.

When therefore it was related that Centaurs had dwelt in Thessaly and were credited as such by the Lapiths, it must be understood — from Servius in his commentaries on Virgil — that the matter had its origin because in the Thessalian town of Pelethronium the use of breaking horses was first discovered.

[figure caption: Another species of Centaur.]

[catchword: discovered]

[marginalia: Sub tit. de inut. stipul. / Lib. 1. / Centauri — another species.]

For when a certain Thessalian king commanded his attendants to go and drive back the cattle that were being maddened and driven about by the gadfly, they straightway ran to do this; but their running not sufficing, they mounted horses and, following the cattle with wondrous speed and catching them up, drove them back to their stalls with goads. Therefore those men, being seen either when they were borne at such speed or when their horses, with heads bent down, were drinking at the river Peneus, gave occasion to the fable that they were believed to be Centaurs. They were called Centaurs from *kentein tas neuras* (κεντεῖν τὰς νεύρας) — that is, because they goaded the cattle with spurs. And although a Centaur is said to have appeared to Saint Anthony as he wandered through the desert, nonetheless we gather from the teaching of Saint Jerome in his *Life of the same* that this was a devil who wished to mock the saint under a like form — especially since Saint Chrysostom, commenting on the third chapter of the Epistle to the Colossians, has declared that Hippocentaurs were fictitious monsters.

If Centaurs were to be named from their posterior equine part, then without doubt those men who dwell on islands at three days' sailing from the shore of Scythia ought properly to be called and named Centaurs, since they are reported to be furnished with horses' feet, and are therefore called Hippopodes — as appears in the figure above.

Although others have written that they have legs like those of an ass, and are called Onosceloi, because *onoskelés* (ὀνόσκελος) is interpreted as "having the legs of an ass." Hence the Onoskeloi — a class of Demons named from their asinine legs, as Rhodiginus held. Nor, in our opinion, should those creatures be separated from the series of Centaurs who are endowed with one leg only equine and the other human (if such exist); concerning whom Lycosthenes relates the following. Portuguese sailors, in the middle of their voyage to Calicut, where the Cynosure is chiefly not visible, found in a certain island men furnished with two arms and hands on the right side, with asses' ears, human faces, abundant hair about the pudenda, the right leg equine, the other human, as the figure above has shown. They run like stags, are cruel and senseless; their females resemble them but have smaller ears, and are said to give birth twice a year — unless Lycosthenes committed to writing things departing from all truth, as we believe.

The penultimate distinction arises from the greatness and smallness of human stature, which comprises Giants and Pygmies — that is, the very tall and the very small. A certain poet had this in mind when he sang:

> *Two contrary forms:*
> *The Giant, huge; the Dwarf, of no account.*

Since therefore some hold it as a firm opinion that Giants never existed among us, it has been decided that this view is false. And although many of the Ancients held that no man could in his growth exceed seven feet in height — this being attested as the stature of Hercules — nonetheless Pliny reported that a certain man named Gabbaras, brought from Arabia, had grown to nine feet and as many inches: a statement confirmed by Solinus, who writes that the Syrbotae of Ethiopia grow to twelve feet, and elsewhere that certain peoples of India are so tall that they mount elephants with very great ease. Onesicritus fixed the stature of those peoples in the parts of India where there are no shadows at five cubits and two palms. Furthermore Olaus Magnus places such men also in the northern regions, and especially in the kingdom of the Helsingi who are subject to the king of the Swedes; he records that there was a Giant nine cubits in height, whom twelve athletic companions of great stature accompanied. Within living memory, similar men are reported to have been in the provinces of Sweden and Gothia, so fortified with strength that they could easily carry a horse or an ox for several stades and could cast down an armed horseman with marvellous agility — wherefore Virgil, singing of wrestling, said:

> *A great stone long set in the field as a boundary-mark*
> *To settle disputes about land between ploughmen —*
> *Twelve chosen men, such bodies as the earth produces now,*
> *Could scarce have heaved upon their shoulders;*
> *He seized it and with a powerful arm hurled it at his foe.*

From the motion of so vast a stone we therefore infer the size and strength of this man. What shall be said of the Emperor Maurice, who, according to Pliny, used for a ring

[catchword: his wife's]

[marginalia: Ditt. 4 cap. 6. / Lib. 5 Append. Prodig. / In Phil. / Cap. 5. / Lib. cap. 2. / Eid.]

his wife's bracelet — that is, an armlet — as an ornament? The wonder is further heightened when he reports that, at the diet held at Augsburg, a man of prodigious bulk was presented to the Emperor Maximilian, who would devour at a single sitting a whole sheep, or pig, whether roasted or boiled, his hunger never being satisfied. Digafeta, a man of entirely trustworthy faith, beheld a Giant among the Cannibals of Armenia. And those who sailed the Magellanic sea under the flag of Holland came upon an island inhabited by men of nine feet in stature. Likewise Amerigo Vespucci, who penetrated the unknown regions of the globe, found an island of Giants, still called by that name to this day. And more recent still is what the Jesuit Melchior Nuñez reports in his letters, which deal with the affairs of China. He relates that in the royal city called Peking, the guards of the gates are of gigantic height — namely, fifteen feet — and the King of China enlists five hundred men of this kind in his service as his bodyguard, paying them a generous stipend.

Here we give images of Giants of nine or ten feet who inhabit a certain region of America and are called Patagonians, painting their faces with various colours extracted from certain herbs; so are they depicted in the map of America drawn by Cornelius the Jew. Of these John Lawrence Anania perhaps made mention when he reported the following: *The Patagonian peoples of giant stature, eleven palms tall, were encountered by Fernando Magellan and his companions; they rode on mules and similar animals to various places, made rough garments from their skins, and took delight in bows. Finally their younger men first stain their hair with colours, then dye the whole body, that they may appear conspicuous to others in elegant guise.*

[figure caption: Giants of America.]

[catchword: Neque]

[marginalia: Stature of the Emperor Maurice. / Giants in the Kingdom of China. / Patagonians. / Lib. 4 of the fabric of the world.]

Nor shall we here recount the Selenitide women who, contrary to the nature of other women, lay eggs, from which the men born thence grow to Gigantic stature — as, on the authority of Lycosthenes, Ravisius Textor affirms.

[figure caption: Image of a Selenitide woman.]

For the memory of Giants is not lacking in sacred scripture: for it is read in Genesis, *There were Giants upon the earth in those days*; and elsewhere these words are found: *We saw certain monsters of the sons of Enach of the race of Giants, beside whom we seemed as locusts.* Was not Goliath a Giant, whom David, hurling him to the earth with a sling, slew? Moreover Rabbah, or Rabbath, the city of the children of Ammon, was so called on account of its greatness; and it was at length called Philadelphia, the very metropolis of the land of the Ammonites, in which Giants once dwelt, whom the sons of Lot slew. This city was the seat of the king of the Ammonites, and was afterwards named after the Ammonites. It was taken by storm by Og, king of Bashan, a Giant; where his iron bed was shown, nine cubits in length and four in breadth. At last David himself destroyed it and slaughtered its people. Afterwards the city and the whole region were subdued by Ptolemy Philadelphus, king of Egypt, and named Philadelphia — a name which it still retains. It had in Christian times a metropolitan bishop, to whom twelve bishops were subject.

To establish this opinion, human bones of immense bulk found at various times bear witness that men of Giant stature once lived. Sigisbert relates that on the shore near Utica in Africa there was found a Giant's tooth so enormous that, if cut down to the shape of our own teeth, it would without doubt have produced a hundred. Peter Simone is authority that on the expedition of Alvarez to the new lands, Giants were found; and, from the same author, when a village of the Society was being built four leagues from Mexico, bones of Giants were found among the rubble, and a molar tooth equal in size to a human fist clenched — the size of the teeth depicted here being attested by the figures numbered 3 and 4.

[catchword: Beyond]

[marginalia: In the Chronicles. / In lib. 15 Ezechiel cap. / Lib. 1 Ezech. cap. / Giant restored to life. / Bone of the femur of Saint Christopher — where.]

Teeth of a Giant.

[Full-page engraving — no further translatable text]

Beyond teeth, Charles the Seventh, King of France — on the authority of Fulgosio — observed in a mountainous part of Narbonensian Gaul near Valence a corpse whose dimensions filled thirty feet. Moreover the body of Orion, forty-six cubits in extent, is recorded to have been found on a precipitous mountain in Crete, as Ravisius Textor reports. Furthermore the body of Pallas was found at Rome in the year of Our Lord 1039 (on the testimony of Vincent), and its height equalled the walls of the City. Beyond these, from the same author: the holy Maclovius, Bishop of Brittany, who had sought the Fortunate Isles in order to spread the Christian faith, beheld the buried body of a Giant and, marvelling at it, commanded it to be called back to life contrary to all the laws of nature; which Giant afterwards taught the Saint many things of another age, and, cleansed at the holy font of Baptism, led a long life. They also report that before Pope Paul III certain human bones of monstrous size were exhibited; and today in Venice, in the church of the Crociferi, there is preserved the femur-bone of Saint Christopher, though partly broken, of such great size that what is read of the height of this man may be confirmed by sight. What more? Here in Bologna, in the parish church of Saint Lawrence of Porte Stieri, a Giant's corpse is buried. For when the Emperor Charles V came to Bologna to receive the imperial crown from the Supreme Pontiff Clement VII, he had in his train a servant of remarkable size to behold — though his height did not exceed seven feet. This man, struck down by a mortal fever, was buried in the aforesaid church with an epitaph of the following tenor, which declares the man's stature, name, surname, and country:

THIS GIANT OF SEVEN FEET IN LENGTH,
ANTONIO POPULIER,
FLANDERS, NOT FABLE, GAVE HIM —
NOT AGAINST THE STARS BUT AGAINST THE ENEMIES OF CHARLES V,
A SOLDIER —
STRUCK DOWN NOT BY LIGHTNING BUT BY FEVER —
BURIED NOT BENEATH THE MOUNTAINS BUT HERE —
IN THE YEAR OF THE LORD'S SALVATION MDXXX.

What has been written thus far of the tall stature of men is also to be understood of tall women. For the author of the *Book on the Nature of Things* records that a woman of remarkable stature was found in the western regions. We also read that in earlier centuries, under Justin the Thracian, a certain woman was brought from Cilicia of immense bulk; for she stood a full cubit above all the tallest men. Finally Saint Augustine makes mention of a Giantess who was seen at Rome to the great wonder of all, before the City was laid waste by the ravages of the Goths.

Following upon the tallness of men comes brevity of stature, which distinction comprises Pygmies and Dwarfs — that is, mannikins and midgets. With an eye to this a certain Mantuan poet sang:

Among the Pygmies it is no shame to be short.

The *Pygmioi* (Πυγμαῖοι) are said to be men equalling the measure of the *pygmē* (πυγμή): for *pygmē* is a measure containing the space from the elbow to the closed fingers. Likewise *Nani* are men of low bodily stature, and midgets; for *nanos* (νᾶνος) is derived from the privative *nē* (νή) and *anō* (ἄνω) — meaning "upward" — since men of this kind neither increase nor grow. Now concerning the life of Pygmies, as also of Giants, opinion varies among approved authors. Aristotle in the first place grants the existence of Pygmies — whose testimony ought to suffice for procuring some belief, since he was the supreme investigator of natural things. Pliny declares that Pygmies dwell in Thrace; and it is well established that cranes are very numerous in that region, called Strimonian from the Thracian river Strimon, with whom the Pygmies are said to wage war. Pomponius Mela records that the interior of Arabia was once inhabited by Pygmies. Even Philostratus, though he reported many of the monstrous things about Apollonius to be fabulous, excepts the Pygmies, writing that their nation is by no means vain. Olaus Magnus affirms that Pygmies exist. Among more recent authors, Jovius vouches for them, placing Pygmies beyond Japan in his account of the Muscovite legation. The Portuguese have moreover published that there are now very many Dwarfs in Tartary. Gemma Frisius relates that a boat of Pygmies was seen in the North, driven by the force of storms to the coast of the kingdom of Norway. Odoric, in his work on Indian matters, reports that he

[catchword: saw]

[marginalia: Vibe capio. / In offic. tom. / In lib. 15 Ezech. cap. / Lib. 1 Ezech. cap. / Giant restored to life. / Bone of the femur of Saint Christopher — where. / Giantess women. / Lib. de Civit. Dei cap. / Pygmies — who they are. / Lib. 4 hist. / Lib. 5 de Gente Septentr.]

saw Pygmies three cubits tall, who beget children at five years of age and grow old at eight. A small kind of men is also found in a certain island of the East that is entirely a gold-mine; these Argensola freely affirms to be true Pygmies. Nor should the diversity of places inhabited by these midgets render the account suspect: since by that same reasoning we might argue that the race of Giants was fabulous, though they are no longer found.

Moreover, in nearly every age men of this kind have been seen. Mark Antony is said to have kept Sisyphus, a midget within the measure of two feet, yet lively in wit. Then Canopas — on the authority of Pliny — was a favourite of Julia, granddaughter of Augustus, who was only two feet and a palm in height. Furthermore Augustus exhibited at spectacles Lucius, a young lad of good family, who was less than two feet in stature. Nicephorus makes mention of a person born in Egypt of incredibly brief stature, and confesses to having seen one in his own time; this person was brought forth by a small woman, and the son was so tiny that he seemed like a partridge, yet had the good sense of a grown man, though his life did not last to his twenty-fifth year. A few years ago, on the testimony of the Jesuit Eusebius, a little man of well-formed limbs was seen in Spain who was bearded at seven years of age, had his full vigour at ten, and begat a son. What more? Only six years ago we ourselves beheld at Bologna a dwarf of only thirty inches in height belonging to the most illustrious Lord Duke Charles de Créquy, whose portrait drawn from life we preserve in the Museum of the most illustrious Senate of Bologna with this inscription:

MICHEL MAGNANUS, AGED ONE-AND-FORTY YEARS, FROM THE TOWN OF BARON DE SESSONNAIS SITUATED IN DAUPHINÉ NEAR GRENOBLE, DWARF OF THE MOST ILLUSTRIOUS AND MOST EXCELLENT LORD CHARLES DE CRÉQUY, PEER AND MARSHAL OF FRANCE, VICEROY OF DAUPHINÉ, AND AMBASSADOR OF OBEDIENCE OF LOUIS XIII, MOST CHRISTIAN KING OF FRANCE AND NAVARRE, TO THE MOST HOLY URBAN VIII, IN THE YEAR MDCXXXIV.

The most illustrious knight Ferdinando Cospi keeps in his household two others of very like stature and most elegantly formed in their members.

On the other side, authors of no mean rank have denied the existence of Pygmies. First, Albert the Great admits them indeed, but holds them to be a kind of beast in human form — an opinion that appears to be conformable to the doctrine of Aristotle: for when the Philosopher granted the existence of Pygmies, he did not plainly assert that they are men. Armed perhaps with this reasoning, the Bishop of Suessa declared that Pygmies are not men, because they do not share in the perfect use of reason; and he further confirmed this because they lack religion — since, according to the mind of Plato, religion is proper to man alone and to every man. Nor does the fact that Pygmies were mentioned by Ezekiel stand in the way: inasmuch as some have arrived at the view that by "Pygmies" he meant enormous men, because they were measured by the cubit and not by the foot. Saint Jerome interprets Pygmies as boxers: since *pygmē* (πυγμή) signifies boxing. Or, according to others, men dwelling in tall towers were called Pygmies because, seen from a distance, they appeared to share in no stature beyond a cubit — an opinion by no means to be disapproved. Scaliger, among other authors, denies Pygmies on this ground alone, that they do not live in our age — which argument seems to be of no force, since it has already been abundantly proved that Giants existed, who are now no longer found.

A better opinion was embraced by Cardanus, who placed Pygmies among the kinds of apes; an opinion to which Marcus Polo in his *Indian History* gives assent, when he wrote that the island called Basma is occupied by a multitude of apes; wherefore the hunters of those regions capture great numbers of them and, having plucked them bare yet leaving the hair of the beard and the pudenda intact, dry them in wooden boxes and preserve them with camphor, and sell them to merchants; who then carry these about and display them as Pygmies. Whoever wishes to see more about Pygmies may have recourse to the twentieth book of the *Ornithology*, where the battle of Cranes with Pygmies is treated.

At the close of this section there is placed the distinction derived from the combination of both sexes, which comprises Androgynes, or Hermaphrodites. For *androgynē* (ἀνδρογύνη) or *androgynos* (ἀνδρόγυνος)

[catchword: can]

[marginalia: What Pygmies he had. / Lib. 12 cap. 37. / Lib. 7 hist. nat. / Lib. 3. Relat. / In lib. Itin. / Cap. 27. / In comm. ad Ezechiele cap. / Lib. 3 velat. / In lib. Itiner.]

The dwarf of the most illustrious Lord Duke Charles de Créquy.

[Full-page engraving — no further translatable text]

can be rendered in Latin as *marisfemina* — that is, a man-woman, one participating in both sexes; though the Greeks sometimes call *andragyroi* (ἀνδράγυροι) those whose male parts have been excised, and sometimes the word is used likewise of weak and feeble men. The Androgyne is also called *hermaphroditos* (ἑρμαφρόδιτος), as if a mixed kind from Mercury and Venus; similarly called *diphyēs* (διφυής), ambiguous or of twofold nature; further *arsenothēlys* (ἀρσενόθηλυς), of promiscuous sex. Pollux uses this last word to call such persons as if concubines (*thiasōtai*), as Dalechampius held. Therefore Plato declared that in the beginning there were three kinds of men — namely male, female, and a third kind composed of both, which they called Androgyne; this last has vanished, and only the infamous name has been left. Jerome Montuo, however, confesses that he knew a Hermaphrodite who, married to a man, was accounted to be of female nature, yet also bore both sons and daughters; and nonetheless was accustomed to lie with maidservants and to beget children upon them. The most celebrated Columbus, to procure belief in Hermaphrodites among the incredulous, recounts that he himself observed an Androgyne who, in addition to a womb, was also furnished with a virile member; and therefore in dissecting the corpse he diligently investigated the seminal vessels to determine whether there was any connection among them, and found that the vessels preparatory to generation did not differ at all from those of other women; there was only one difference noteworthy — that nature had made from the usual two vessels four, of which two larger ones descended to the hollow of the uterus and the remaining two to the root of the penis. The uterus and cervix, and likewise the testes, did not differ from those of other women. These things being so established, four varieties of Hermaphrodites are commonly assigned by Authors. The first is the *Hermaphroditus mas* — who has a perfect and vigorous virile sex, yet has in the perineum a cleft in no way penetrable, formed in the shape of a vulva; though nothing of urine or seminal matter issues from it. The second species is called *Hermaphroditus femina*: when, in addition to the vulva naturally constituted and flowing with urine, seed, and menses, there emerges around the pubic bone a certain fleshy substance resembling an imperfect penis lacking scrotum and testes. The third species comprises those who present the express image of both sexes corresponding to each other in opposite position, but nonetheless ineffectual for generation and the effusion of seed, and indeed each part contributing only to micturition. The fourth and last variety is those who not only possess both sexes, but also have genitalia endowed with all the conditions necessary for perfect generation. Moreover, as the Philosopher held, they have the right breast virile and the left feminine. These are the peoples of Africa above the Nasamones, and their neighbours the Machlyes: so Pliny and other authors of no mean repute have reported; and their image is seen here. They are common among various Barbarian peoples. In Virginia far more are found, and they are loathed by the Indians; therefore the Indians use them in the place of beasts of burden, because on account of the strength of their forces they are fit for carrying loads. They carry above all the provisions of kings going to war, carry the dead to burial, bear those stricken with plague or contagion to their appointed places, and tend to them.

Before we proceed further, the signs assigned by Authors by which vigorous or feeble Hermaphrodites are to be distinguished in one or the other sex must not be omitted. First, if the vulva is complete in all its dimensions and abounds in menses; then if there be softness of face and of the whole body, and likewise timidity — then the Androgyne is to be judged more powerful in the female sex. But when the perineum is covered with hair and the penis is of appropriate size and abounding in seed, then the Androgyne possesses the virile power. But when the constitution in form, size, and efficacy of each genital part is equal, then we must judge the Androgyne powerful in both sexes — though according to the opinion of Aristotle, those who are furnished with both sexes always have one power valid and the other null. Now it is sometimes asked how Androgynes are to be placed in matrimony; and to settle this doubt it must be answered that, on account of progeny, on account of the sacrament, and on account of the weakness of the flesh, matrimony is by no means to be denied them — provided, however, that the faculty of using both sexes is not permitted, but only that one in respect of which they are the more capable. For thus the learned in law have determined concerning the placing of Hermaphrodites in matrimony. But if the power of both sexes is equal, then they are constrained by oath to the choice of the sex in which they intend thereafter to live. But if in the passage of time it should happen that a Hermaphrodite

[catchword: of female]

[marginalia: Note on Pliny. / Anatomy. / Anatomy of Hermaphrodites. / Four varieties of Hermaphrodites. / Duties of Hermaphrodites. / Distinguishing Hermaphrodites by the vigour of their sex. / Marriage of Hermaphrodites.]

ANDROGYNOS

[Full-page engraving — no further translatable text]

of female form become masculine and wish to act according to that other sex and demand a wife, she is to be refused, because one must always abide by promises confirmed by oath. Beyond which the most celebrated Paré adds that Hermaphrodites, in the sex they have chosen, must always remain and live under pain of death.

GENERATION AND CONGRESS.

Since God, greatest and best, is the cause of all causes, it is fitting that men refer the origin of all things to him. For He himself — contrary to the wishes of the Philosophers, as the sacred pages make manifest — not only created the whole globe of the earth from nothing, but also formed man from clay. Whence Isaiah, with an eye to this, said: *Tread them down like clay.* The supreme Maker of the world, therefore, having on the sixth day created man, afterwards drew woman from the rib of the sleeping Adam, so that the origin of all men should be reduced to the single source of one man. For thereafter God willed that men should be begotten through marriage, so that bound in perpetual necessity, fathers should embrace their sons and sons their fathers with mutual goodwill. Hence afterwards the poets — above all Ovid — took occasion for their fabling and sang that when the world was established upon the earth, there was lacking only man to possess and till it. Therefore Prometheus, son of Iapetus, from earth moistened by rain fashioned a man most like to God, who should not go stooping like the other animals but erect should forever look up to the heavens — in these verses:

> *The son of Iapetus, mingling clay with river-waters,*
> *Moulded it into the image of the gods who govern all;*
> *And while the other animals look down prone upon the earth,*
> *He gave to man a countenance sublime.*

What Ovid sang of Iapetus, Hesiod afterwards seems to have sung of Pandora; and other endless fancies of this kind are read among the Poets. The ancient Philosophers handed down to record various views on the origin of man. For some of them held that the human race had been from eternity; others held that it was begotten and corruptible. The first opinion is to be exploded, because if, beyond parents, no other cause of human origin were to be recognised, then without doubt Philosophy would in vain seek out the first cause of all things. Furthermore Avicenna ventured to assert that after immense inundations of the earth, from putrescent bodies and the influence of the heavens, without any seed whatsoever, not only the human race but also the rest of living creatures were produced. But we cannot be brought to believe that so noble an animal could be drawn from putrid matter — an animal over whose creation God was wholly occupied; and therefore so great and beautiful a work, worthy of divine labour, could not come forth spontaneously. Beyond which, even Philosophy does not allow it, assigning no spontaneous birth to brute animals — therefore it cannot attribute such an origin to man, the noblest of animals. And although men of unknown origin have sometimes been seen who had come forth from the waters, nonetheless these appear to have flowed from the wantonness of the sea or from the sport of Demons: since a true man of sound mind, which is a certain particle of divinity, cannot spring from a vile origin.

Others then doubt whether a human foetus can come forth from anywhere save a human womb; since Plutarch declared that from a she-ass had been born a female figure with human face and asinine legs, called Onosceleia, and elsewhere that from a mare had gone forth a like offspring. Again Plutarch, in the *Symposium*, makes mention of a wailing infant with equine legs brought forth by a mare. And a certain writer reports among the Belgians that an infant was begotten of a cow — though this is still insufficiently established. But this is vehemently true and beyond all doubt: that a true man endowed with mind can issue from none but the female womb. Yet if the power of the male alone is what fashions the foetus and the female is merely the workshop, perhaps — according to the Philosophers — after a wicked coupling, a human being might be nurtured in the womb of beasts; but that this has never happened the Theologians must affirm. Therefore, if the offspring of beasts has sometimes had something of the human about it, it is rather to be believed that they were void of mind.

[catchword: Finally]

[marginalia: Man created. / The opinion of the ancients. / In his work on the soul, lib. 3. / Homines marini. / Girls with equine legs — where. / Lib. 3. Paradox.]

Some inquire, finally, whether a true human being can be generated from non-human seed: that is, whether after a detestable union between a woman and a beast a fully formed man may result. For this opinion seems to be entertained by Olaus Magnus and other authors, who declare that the kings of the Danes had a Bear for their progenitor; and other historians attest that in Pegu that nation descended from a dog, which had lain with a girl who had been shipwrecked. In Spain there is a report of a family among the Galicians called the Marinotti, which traces its origin to a Triton who had lain with a young woman. Likewise Antonius de Turrecremata left it recorded in writing that, practically in our own times, a woman carried to a certain island by a fish brought forth several children. These things, however, are not to be freely believed, for the reasons set forth in the rubric on differences. Nor yet is it to be supposed that these things lie beyond the powers of nature, if the seed of the woman possesses some efficacy.

Since, therefore, a human being results from the union of woman and man, it will be of interest to us to examine the manner of conception. But before that can be done, we must discuss the time and age proper to human intercourse. On the first point, Pliny records that there are few creatures which, when pregnant, seek union, apart from woman. For that reason, fixed seasons of mating have been appointed for other animals, since they couple only at certain times of year. Man, however, mingles at every time and in every place; hence men, as though intemperate, are always reported to be inclined toward venereal acts. An example was given by Messalina, wife of the Emperor Claudius, who, goaded by venereal frenzy, entered a brothel and surpassed a certain prostitute at the twenty-fifth encounter. We may therefore fittingly sing the well-known verse:

Wearied by men, yet never satisfied, she withdrew.

Hence Seneca, in a certain declamation, seemed in some measure to find fault with nature for having arranged the copulation of brutes better than that of men. From this, observing that rational animals are prone to softness and extravagant excess, we may declare with Baruch: *Beasts are better than they.* On the second point: the age of the male suited for union is made known by the change of voice, the growth of the testes, and most especially by the appearance of pubic hair. The age of the woman suited for union is manifested when the breasts swell, the menses break forth, and the voice degenerates to a lower pitch. Nonetheless Schenck, in his observations, records boys of seven, nine, and ten years who, engaging in intercourse, begat offspring, and girls of eight years who, bearing in the womb, gave birth. And although the human male is able to beget up to the seventieth year and the female up to the fiftieth, Schenck nonetheless mentions a woman of sixty who conceived by a man of seventy, as well as men who, coupling up to the eighty-sixth year and even to the hundredth, caused offspring to be born.

And so, to return to the point from which we digressed: concerning conception it is to be observed that, when both seeds — namely those of the male and of the female — are mingled in the womb, they are at once enclosed by a certain thin membrane produced by the warmth of the womb, and, enclosed in a most delicate pellicle, are joined together like an egg. Now, after conception, once the little chamber has been formed, the defences of the foetus, namely the tunics, are produced; for from the outermost surface of the seed a thin membrane arises, which, on account of its moisture, extends more broadly; after birth this is expelled, gathered into a bundle and called the chorion. But from the superfluous moisture of this there result two other tunics, which are strained off by the superfluous serum; one of these is called the allantois, very sinuous, into which the urine and sweat of the foetus flow and are retained there until the time of birth, since the infant discharges urine not through ureters but through certain umbilical passages. The third tunic, very soft and called the amnion, encompasses the whole foetus, so that it may be protected from harm. The differences among these tunics, together with the mixture of both seeds, the present figure illustrates.

[marginalia: Olaus Magnus / De congressu / Metas ad congressum aptata / Lib. cit. Observ. 121. et seq. / Membrana et fetus generatio]

[figure captions: Figure showing the tunics together with the mixture of the generative seed.]

Since, therefore, both seeds are mingled and enclosed in the form of a small chamber, as was related above, from the first day up to the seventh very many and most delicate fibres emerge, in which the liver with its principal organs is produced by the natural faculty; for in the concrete seed three small and white bubbles appear, not unlike whitened concrete, in the place of the liver, the heart, and the brain. Presently also a vein directed through the navel draws in blood suitable for nourishment; hence of necessity a forked vein is generated, as is observed in the figures that follow.

[figure captions: Figures]

[marginalia: Generatio / In concreto semine tres bullae / Vena umbilicalis]

Figures showing the origin of the three vesicles.

[Full-page engraving — no further translatable text]

The generation of the Heart and Brain.

For in one branch of its vein the blood is collected, from which the liver is first generated. Hence it is clearly established that the liver is nothing other than congealed blood. In the other branch are generated those weavings of veins, together with the dilation of other veins; and hence all the veins are carried back to a single trunk in the upper part of the liver, namely to the vena cava.

Then the heart, with its veins, is produced by the power of the vital faculty in this manner: for the veins draw off the hottest and most subtle blood, out of which the heart — naturally fleshy and thick — is generated at the outset; and there too the aortic artery is observed, which begets all the other arteries that diffuse the vital spirit throughout the whole body.

But since veins burst forth from both cavities of the heart and are inserted into the lung, from these the lung also is procreated. For the vein proceeding from the right cavity of the heart produces the most subtle blood, which, its fibres being dispersed here and there, is easily transmuted into the substance of the lung. But from the great vein of the heart and of the liver — the vena cava, that is — and from the aorta, not only the whole chest, but successively the legs also, together with the arms, are generated.

Moreover, within the aforesaid span of time the chief part of the human structure, namely the brain, is procreated in the third membrane of this mass; inasmuch as it is filled with animal spirit, which draws a great part of the genital humour into a certain cavity, where the brain is shaped and is covered round about by a kind of lid, which when dried is reduced into the skull — as may be observed in the two figures set forth.

[marginalia: Generation of the heart. — Generation of the brain.]

But just as the veins draw their origin from the liver, and the arteries from the heart, so the softer nerves draw theirs from the brain — and these are held to be the chief organs of the senses. Next, from the brain the marrow of the spine also depends; and thence all the other nerves take their own beginning, which communicate sensation and motion to the whole body. All these, therefore, are nourished by menstrual blood, drawn in through the veins of the navel that run to the womb.

And so, for the first six days after conception the seminal matter contained in the womb presents the likeness of milk; in the nine days following it is transmuted into blood; in another twelve it is consolidated; and in the remaining eighteen, up to the forty-fifth day, all the members acquire their most perfect form, so that thereafter the fetus merely grows — according to the verse of Aegidius:

> *Six days in milk; thrice three are spent in blood;*
> *Twice six make flesh; thrice six shape out the limbs.*

This is also otherwise expressed thus:

> *The seed once cast is, the first six days for certain,*
> *As it were milk; the next nine make it blood; and then*
> *Twelve days consolidate it, and at last twice nine*
> *Give it its shape.*

The reader will be able to contemplate all these things in the following figure, which shows the first beginning of the generation of the fetus. This, however, is better expressed by another illustration.

The first generation of the fetus.

[marginalia: After how many days it is formed.]

Delineation of the conceptus.

A. The fundus of the womb.
B. The neck of the womb, opened.
C. The orifice of the womb.
D. The veins and arteries, which upon the concave surface of the womb form the cotyledons.
E. The allantoid membrane.
F. The parenchyma of the fetus.
G. The varicose vessels.

This work, elegantly constructed and made whole in all its members, nature covers over with skin; then, the work being finished, God — the author of nature and of all things — infuses the soul, as St Augustine has attested. Therefore, according to the judgement of this man, if anyone should strike a woman carrying in the womb in such a way that she miscarries, let him pay the penalty with death — provided the infant has attained the perfect formation and differentiation of its members; but if otherwise, he must make amends in money.

For the fetus, to Galen's mind, is bound within the womb just as fruit upon a tree. Indeed, just as fruit succeeding the blossom is most tender and falls from a slight cause, whereas when grown and better set it clings to the tree, and, having attained perfect ripeness, falls of its own accord — so the infant, when first drawn forth from the seed, is fastened to the womb by the most delicate ties; and therefore for any slight cause whatever the woman may miscarry. But a little after, being more firmly set, it also adheres the more; and when the time of delivery draws on, as though perfectly ripe, it comes forth into the light of its own accord.

But to know and perfectly ascertain the fixed position of the infant in the womb is exceedingly difficult, since that most illustrious authority observed a varying seat of the fetus in living and in dead women. For sometimes he beheld the infant with its feet raised upward, sometimes stretched downward. Indeed he confesses that he saw a fetus — the mother having been dissected immediately after she expired — stretched out at length, the face turned upward, and the hands joined as though in supplication. For the most part, however, the fetus is wont to favour a rounded figure, namely with the head reclined upon the knees, both hands beneath the knees, and the heels drawn up to the buttocks, as is shown in the following figure.

[marginalia: When the soul is infused into the fetus. — Ch. [reference].]

The position of the infant in the womb.

It cannot be told how bitterly women, by comparison with other living creatures, bear the torments of childbirth by which they are racked in labour; indeed, some suffer ill health from the very first moment of conception until the fetus comes to maturity.

If the time of birth be inquired into, it is fixed for other animals, but by no means for man, since infants born in the seventh, the eighth, and the tenth month have lived. And although some authors have committed it to record that fetuses brought forth before the seventh month, and those born in the eighth month, are not viable, and that those emerging in the seventh month are exceedingly feeble — nevertheless Schenck records in his *Observations* infants born in the fifth, sixth, seventh, eighth, ninth, tenth, and eleventh month, and that they proved viable.

It is established also, in St Bernard's *Life of St Malachy*, that a noblewoman gave birth in the sixteenth month, after drinking holy water. Indeed Schenck has related that there was once the wife of Duke Baruch the Vandal, who conceived and, being pregnant for two years, at length bore a boy already walking and speaking. Furthermore, from the same author, there was a woman who carried in the womb for four years without distress; indeed, whereas before conception she had been vexed by countless ailments, while carrying she was freed from them all.

For the most part, however, the ninth is held to be the month of delivery. Accordingly Avicenna, weighing the time of birth, at length declared that the formed fetus begins to move at double the time of its formation —

[marginalia: Bk. 4, obs. 152, 153, 154 ff. — Bk. cited, obs. 159. — Bk. cited, obs. 160. — Bk. 9, On Animals. — The time of birth.]

— and that thereafter, the time of its motion being likewise doubled, the fetus comes forth into the light. For if, by way of example, the infant has been formed on the thirtieth day, this time doubled yields sixty days, to which thirty being added, ninety are made up, which days constitute three months; and then the fetus begins to move. But the time of motion being doubled — which consists of sixty days — reckoned apart from the time of formation, one hundred and twenty days are then counted, out of which four months emerge. These being added to the preceding time, the fetus will come forth into the light. From which it is to be gathered that a fetus formed on the thirtieth day can naturally issue from the womb in the seventh month. And thus we shall be able to pronounce also that a birth in the tenth and eleventh month can be natural.

Astrologers investigate the fetus's stay in the womb according to the opinion of Ptolemy in the *Centiloquium*, where he writes that the place of the moon at the nativity is the place of the falling of the sperm, and that the place of the moon at the hour in which the seed fell is the degree of the ascendant at the hour of the nativity.

And so we have proved that a time of bearing different from that of the other animals has been granted to man. Besides which, Ctesias published abroad that certain women of the Indians bear only once in their lifetime, and that those born grow grey at once. Nor do we think this to be wondered at, since we have read in authors of no common sort that certain nations grow grey in youth and grow dark as old age comes on.

As to the number of offspring, man stands in an ambiguous case: for although he is for the most part uniparous, he is sometimes a multiparous animal too, since women in Egypt very frequently bear twins. Indeed, here at Bologna we have known women who brought forth three living children, who afterwards, being cleansed with the water of the sacred font, did not long survive. And midwives of approved credit have reported to us that quadruplets were delivered at a single birth. With these agrees Paulus the jurisconsult in the *Pandects* of Justinian, where he makes known that four girls were delivered at a single birth by an honourable matron, and that a Peloponnesian woman brought forth quadruplets five times over. Aristotle too does not depart from this truth in his *History of Animals*, when he records twenty offspring which one woman had brought into the light on four occasions.

At this no one ought to marvel, since here at Bologna, while we were writing these very things — namely in the year one thousand six hundred and forty, in the month of November — the wife of a certain carpenter brought forth four girls. Likewise a certain woman of the common people of Ostia delivered two males and as many females at a single birth, if Textor recalls the matter truly.

Further, there have been many who bore quintuplets. For Gellius makes mention of five infants delivered at one time by a Greek woman — whence Aristotle appears to grant a pregnant woman only five offspring. Wherefore, from the same Gellius, a certain maidservant of the Emperor Augustus, having borne five children at a single time, was by that same emperor's order honourably entombed on the Laurentine Way together with her offspring, and with an epitaph signifying the fact.

From Paré is recorded a noble family called Maldemer; and the wife of the Lord Maldemer, in the first year in which she married, bore twins; in the second, triplets; in the third, quadruplets; in the fourth, quintuplets; in the fifth, sextuplets — and in this birth she perished; and of these six, one survivor, the Lord Maldemer, is said to be living still.

Albertus Magnus writes that there was a certain German woman who bore sixty children, for at each birth she brought forth five — though none of them reached the age of half a year. Pliny reckons up far more offspring, when from Trogus he reports that seven were conceived in the womb by an Egyptian woman.

Nor does this disagree with what we read in those *Annals* whose title is *Of the Beginnings of Kingdoms*, where a certain harlot in Germany, in the reign of Agamund king of the Huns, gave sevenfold offspring at a single birth — though she destroyed these children by casting them into a lake, all but one; whom Agamund, passing that way for the sake of hunting and observing him struggling in the waters, ordered to be drawn out and reared. And he afterwards, being grown, upon the death of Agamund and while Benedict the First sat as Supreme Pontiff, was elected to rule by the Lombards.

Further, from Schenck, a certain Countess of Querfurt is said to have delivered nine infants at a single birth, all of whom would beyond doubt have been destroyed, had not the father, arriving, preserved them.

What more? A certain woman conceived even eleven: for Francesco Pico della Mirandola (as Paré reports) relates that Dorothea, an Italian woman, brought forth twenty children in two births — nine in the first, and eleven in the other; and therefore, while carrying in the womb, she was compelled to support her belly, drooping down to her knees, with a long and broad band knotted about her shoulders. Her likeness [follows] —

[marginalia: Aphorism 51. — Bk. 7 of the History. — A woman delivered of five. — Bk. 7, Natural History, ch. 3. — Bk. 4, Observations. — Nine, and eleven.]

Image of a woman pregnant with a manifold offspring.

[Full-page engraving — no further translatable text]

If we proceed further, we shall find in Pliny that there stands recorded in the memorials of physicians the case of a woman's twelve miscarriages seen at a single birth. Schenck appears to confirm this account by another and more recent one, when he relates that the wife of Isibert, Count of Altorf, bore three children at a single delivery, and was on that account charged by her husband with the crime of unchastity, because he judged that it was by no means to be believed that three children could be conceived from intercourse with one man.

But the same woman, being pregnant again as the year came round, and her husband being absent, poured forth twelve males. Wherefore, for fear that her unchastity would be noised abroad, she committed eleven of them to the midwife to be drowned in the nearby river. Meanwhile the father, meeting the midwife and observing a covered basket, asks about the matter contained in it; to whom the midwife answered that they were misshapen whelps to be thrown into the river. But he, led on by curiosity, drew off the covering and beheld eleven sons; and to him the midwife afterwards, having first obtained pardon, disclosed the whole business. And so the Count, dissembling the matter before his wife, ordered them all to be reared, and after six years commanded them all to be brought alive into the castle; and there, before all his friends, his wife's rashness being laid bare, he kindly spared her.

And Albucasis reckons up a still more numerous offspring, when he observed fifteen formed fetuses in a miscarrying woman. Indeed Avicenna adds that another woman expelled twenty-two miscarriages. In the region of Cracow a certain honourable matron named Margaret, wife of Count Virboslaus, gave thirty-six living children at a single delivery, as is read in the history of Poland. To these let there be added what is related by Albertus Magnus, concerning a certain woman out of whom seventy formed miscarriages issued.

To the foregoing we shall at last append, as a crowning piece, what Fulgosus — a man of approved credit — relates concerning Margaret, Countess of Holland, in that quarter where the Rhine glides into the Ocean: who at a single birth brought forth three hundred and sixty-six living children, in such wise that they received the mark of baptism.

The same is repeated by Andreas Eborensis, and the *Annals of Holland* support them both. The matter, then, stands thus in the Batavian history. This noblewoman was pursuing with reproach a poor woman who had borne twins, and was suckling one at either breast and begging for alms — because she flatly denied that a twin offspring could be born of one husband. Then the poor wretch, calling God to witness her unblemished chastity, imprecated upon her an offspring that should equal the number of the days of the year, if the honour of her chastity stood firm. And the credit of the outcome is said to have proved the efficacy of her prayers by an incredible birth. Wherefore, to attest the everlasting memory of this matter, there still exists a tablet engraved with these letters:

> *Margaret, daughter of Count Florent of Holland, whose mother was Mathilda, daughter of Henry Duke of Brabant, and who had also as her brother William King of Germany: this aforesaid Lady Margaret, in the year of Salvation one thousand two hundred and seventy-six, in the forty-second year of her age, upon Good Friday itself at the ninth hour before noon, bore living infants of both sexes, three hundred and sixty-five in number; who, after they had received the Sacrament of baptism in a certain basin at the hands of the venerable Bishop, the Lord Guido the Suffragan, in the presence of sundry nobles and magnates, and after the name John had been given to the males and the name Elizabeth to the females, all returned, together with their mother's soul, to God, to live eternally; but their bodies rest beneath this stone.*

But let the credit for it remain with its authors.

Now, since enough and more than enough has been said concerning the time of birth and the number of children, it remains for us to discourse of the manner of delivery. When, therefore, the fetus is ripe and complete, pregnant women are seized with pains on account of the infant's thrusting, as it turns about and presses downward for the sake of coming out. For the membranes being ruptured by the thrust, and the orifice of the womb thrown open, the humours begin to flow, and the fetus is rolled head-first toward the mouth of the womb. And this is the true, lawful, and natural form of birth: when the head is brought first to the orifice, the hands folded upon the hips, as appears in these figures — of which the first shows the natural position of the completed infant in the womb before it hastens to the exit, the second the posture of the fetus naturally hurrying toward the exit.

[marginalia: Bk. 7, ch. 3, Natural History. — Bk. 4, obs. 162. — Bk. 7, ch. 13. — Bk. 2, On Animals, ch. 5. — Bk. 2, Surgery. — A woman delivered of thirty-six. — Natural form of birth.]

The natural position of the mature foetus.

A natural delivery.

[Full-page engraving — no further translatable text]

[rotated figure captions: A birth not natural, the feet being sent forward. — A birth not natural, the hands being stretched above the head.]

But a birth will be called unnatural whenever it lacks the aforesaid conditions. For it very often happens that the infant comes to the birth with the feet sent forward and the hands drawn downward to the thighs; and this will be the first form of unnatural birth. The second occurs when the fetus approaches the exit feet-first, yet with the hands not at its sides or thighs, but stretched above the head — as the adjoining figure expresses.

In the first form the diligent midwife ought to bend all her efforts to this: that she so lay hold of both the infant's arms that it cannot draw them back again, so that in this manner it necessarily comes to the birth.

But a birth of the other form described the careful midwife ought by no means to receive, unless the infant be exceedingly slender and the orifice of the womb very widely drawn open, so that the exit may be easy without any harm to mother or to child. Otherwise it will be safer to push the fetus back into the womb, so that it may be turned round to the lawful and natural form of birth.

[catchword: The third]

[marginalia: What a slender infant affords.]

Of the Women who attend on the labouring woman

The third unnatural form of birth will occur when the infant, seeking the exit, stretches forth one foot, with both hands lowered to the thighs but the other foot bent back.

The fourth form occurs when the infant appears crosswise, with the back inclined toward the opening of the womb, as the figures appended make plain. Therefore prudent midwives and the women attendants standing by the woman in labour must strive with unremitting effort, by inclining the mother either over the bed or by some other means, so that the foot which has emerged may be pushed back in; this done, the mother must then roll herself about in the bed until the infant is found to have turned somewhat, which rolling about must be practised in every birth in which the foetus has presented in an inconvenient manner. In the fourth form the woman in labour is on no account to be urged to expel the foetus, because it is in no way possible for the foetus to emerge in the manner described; wherefore the midwife, with her hand anointed with oil, must push and dislodge the infant's back, so that she may be able to direct the head toward the exit.

[...]

The fifth

[figure captions: Unnatural birth — fifth position]

[marginalia: Mulierum climactericae / Partus periculosus / Oleum liliorum alborum]

The fifth form will occur when the infant advances toward the exit with feet and arms bent; in that case, since the foetus has been pushed upward, let the patient lie down at length until it may be reduced to a more convenient position; or let a skilled midwife, with her hand anointed with the oil of white lilies, join both feet together in one, and bring the hands to the sides as far as may be done, and by this safest method direct the infant toward the exit.

In the sixth form the infant approaches the opening of the womb with both knees, with the hands stretched to the sides. The midwife then, inserting her right hand, must push both knees upward until the feet begin to thrust forward; for at that point, holding the arms back against the thighs with the other hand, she must urge the foetus toward the exit. But if this method does not seem safe, the mother being reclined in the bed, one must labour with frequent movement so that the infant may acquire a more convenient position; all of which is illustrated in the figures that follow.

Form

[figure captions: Unnatural birth — sixth position / Unnatural birth — natural position]

[marginalia: Oleum liliorum alborum]

The seventh form is very dangerous, when the infant presents itself to the mouth of the womb with both hands. In that case let the diligent midwife apply every care to recall the infant into the womb as quickly as possible, then work with her hand so that the foetus falls back entirely into the womb, and that the infant does not again slip back toward the opening in the same manner; inserting her hand, let her bring the arms to the sides, so that the birth may be reduced to the proper form.

But if these efforts do not succeed as intended, the woman in labour must be brought back to bed, so that after some rest the midwife may again attempt the aforesaid procedure.

If this likewise proves fruitless and the infant does not change its form, then, with the womb compressed from below and with the assistance of the women standing by, the midwife, her hand anointed, must join the arms of the foetus together as far as possible, and in this manner receive the emerging birth.

An eighth case occurs sometimes, when the infant draws near to the birth-opening with its buttocks; and because it is in no way possible for an infant to be born in this manner without evident danger to both mother and infant, the midwife must therefore raise the infant's buttocks in such a way as to turn the head toward the exit; but this must be done carefully, lest the birth slip into a worse position. These things are shown in the figures that follow.

[...]

The ninth

[figure captions: Unnatural birth — seventh position / Unnatural birth — eighth position]

[marginalia: Partus periculosus / In partu periculosissimo]

The ninth unnatural birth. The tenth unnatural birth.

The ninth case is wont to occur when the foetus sometimes falls forward upon its breast, with its feet and hands turned away and joined behind, which form is held the most dangerous of all. Therefore the attentive midwife, with her hands anointed and inserting her hand, must search out the infant's arms, seize and hold them, and apply all her strength so that the head may first be recalled toward the exit; then she must withdraw the infant's hands and direct them to the sides. But if this procedure fails, it will be better to bring the mother to bed, so that in the meantime a more convenient form may be assumed by the foetus.

The tenth unnatural form will occur when the foetus shall press toward the exit with both feet and hands joined together. For then the midwife must strive with all her strength and with her whole effort to push the feet and hands aside somewhat, and immediately seize the head, so that, as far as possible, she may incline the foetus toward an easy exit. This is explained in the figures here present.

Hence —

[figure captions: Unnatural birth — ninth position / Unnatural birth — tenth position]

[marginalia: Partus periculosissimus]

[figure captions: An unnatural birth of twins. — A birth with the hand stretched out toward the exit.]

In the eleventh place is to be noted the figure of an unnatural birth, where the infant stretches one hand toward the orifice of the womb, the other hand let down at its side, and the feet stretched upward. The midwife ought not to receive this fetus, but to lead the labouring woman to her bed, where — the nostrils being set higher and the head placed low — the belly must be gently compressed, so that the infant may slip back again into the womb. Indeed, unless the infant falls back into the womb of its own accord, the midwife must also insert her hand and press back the child's shoulders, so that, being returned into the womb, it may take on the lawful and natural form of exit.

In the twelfth place is reckoned a certain form of birth compounded of the natural and the unnatural; and it is when, of twins, the one comes to the exit head-first and the other feet-first. Then the midwife ought to receive the fetus that is naturally placed, and afterwards gradually move the other aside, so that step by step it may be disposed to the natural form. But if otherwise, the hands being at once laid hold of, the exit must be hastened, before the parts be seized with swelling and inflammation on account of the twin birth. This form, however, will be wholly contrary to nature when the twins present themselves together at the exit, as they are delineated in the present figure.

[catchword: The third]

[marginalia: When the mother is to be led to her bed. — A form of birth compounded of the natural and the unnatural.]

The thirteenth figure will be when the infant, its neck bent, hastens toward the light shoulders foremost, the head backward, and the feet and hands raised upward. This birth is not wont to be exceedingly difficult, because, the shoulders having been moved a little by the midwife, [the child] comes to be very near the orifice of the womb.

The fourteenth form of unnatural birth will be this. Since that which is wont to happen in a single birth may be observed in a twin birth also: for just as a single birth obtains only one lawful and natural form, but several forms that are not natural, so likewise a twin birth does not depart from the same conditions.

Wherefore, when a twin birth hastens toward the exit in its natural form, the midwife will keep watch to receive carefully the one nearer the orifice, and not to let go of the other while the first is coming forth, lest, slipping back again into the womb, it take on an unnatural form. Therefore, when the one has been brought into the light, she ought to receive the other at once; for this second delivery will be less dangerous and easier, since the first infant has levelled a smooth and easy path for the one that follows. The present figures make this plain.

[figure captions: The thirteenth figure, unnatural. — Birth of twins. — Natural birth.]

[catchword: The fifteenth]

[marginalia: An unnatural birth. — Birth of twins.]

In the fifteenth place is set the figure of an unnatural birth of twins, which happens when the feet of both infants approach the mouth of the womb at one and the same time. This birth is wont to be exceedingly dangerous, unless it be corrected by the diligent work of a prudent midwife. For, the mouth of the womb having been anointed so that a gentler way may be laid open for the fetus, she ought to strive with her whole effort to insert her hand and lay hold of the arms of one of the infants, and, holding them firmly, to draw them down to the thighs and urge the head toward the orifice. And when this one is born, she will at once labour with every sinew to render the same service at the birth of the other. But if no good hope of a happy delivery is to be looked for, the labouring woman must be led to her bed, watching whether, after some rest, the birth may obtain a better form. The following figure will show this.

An unnatural birth of twins.

Thus far we have comprehended in a few words the nature of a ripe and timely birth. Now, at the close of this heading, it seems consonant with reason that we should speak of untimely birth also — namely, of miscarriage. We ought therefore to call miscarriage the over-hasty expulsion of a fetus already formed and viable. For if it sometimes happens that seed coagulated in the womb for the space of some days slips out beyond the womb, and sometimes also portions of clotted blood, this matter is to be called not miscarriage but effluxions.

Miscarriage, then, is wont to occur either on account of affections of the infant or of the womb — speaking, that is, of internal causes. For by reason of the infant, the cotyledons are sometimes weak, whence it comes about that the acetabula quickly rupture and miscarriage follows; and sometimes the membranes enwrapping the fetus are so thin and feeble that they easily tear before their time, whence the humours flow away and the fetus fails. By reason of the womb, miscarriage occurs if the woman be of infirm nature, and if the womb be liable to certain affections. The remaining causes physicians recount one by one in their writings.

But that the whole of this may be made plain to readers, we set forth several figures of miscarriage. The first figure shows the true form of a miscarriage, in which the fetus is seen fixed to the parenchyma. The second shows a miscarriage with its membranes and umbilical vessels. The third, finally, is a three-month miscarriage of a thumb's length, which the most illustrious Varolus, that distinguished anatomist, gave as a gift to the most noble and most learned Ulisse Aldrovandi.

[marginalia: Before the birth the mouth of the womb is to be anointed. — When it is called a miscarriage. — The causes of miscarriage.]

A miscarriage fixed to the parenchyma.

B. The chorion together with the parenchyma.
C. and D. The amnion, a most delicate membrane immediately enwrapping the fetus.

Here it is to be observed that there are only two membranes enwrapping the fetus, as the most learned Paré remarked — whatever the ancient authors may have written concerning three membranes, the chorion, the allantois, and the amnion. For the fetus is seen wrapped in the chorion and the amnion only. But the older writers, from observation made upon brute beasts, added a third membrane, namely the allantois.

[catchword: A miscar-]

A miscarriage with the membranes and the umbilical vessels.

[Full-page engraving — no further translatable text]

A three-month miscarriage.

[Full-page engraving — no further translatable text]

No voice of an infant is heard before it comes forth from the womb; but as soon as it has emerged it begins to wail. Hence the verb βαβάζω among the Greeks was perhaps formed in imitation of a wailing child. But when a boy begins to speak inarticulately, this is expressed by the Greeks by the verb βαμβαίνω; and hence perhaps is derived the word *bambino*, by which the Bolognese denote a stammering little child. For infants begin to speak only at a year old, although the voice is afterwards strengthened in the thirteenth year, and the same, as old age comes on, grows thinner.

And although some judge that voice belongs properly to man, because voice is air struck by the breath — whence words are as it were blows, which issue only from the human mouth — nevertheless voice signifies everything that sounds, and belongs to other living creatures as well; for it is derived ἀπὸ τοῦ βοάω, that is, "I cry out". Therefore the other animals do indeed emit voice, but none except man is able to speak.

Nor is it any objection to bring forward the many birds — the magpie and the parrot, for instance — that utter a human voice, since of the parrot it is sung:

> *The parrot brings forth human speech with its voice.*

And of the magpie one may read:

> *I, the chattering magpie, salute thee, master, with a sure voice;*
> *and didst thou not see me, thou wouldst deny that I am a bird.*

For the aforesaid creatures utter only such voice as they are taught, nor can their voice be the intention of those things which are in the mind, since these animals lack reasoning. For the human voice is articulate, and is called speech, for the expressing of the various intentions of the human mind. Wherefore Cicero was wont to say that there are as many variations of voice as there are minds. Hence (on Erastus' testimony) there is no animal whose voice is so various as man's. And although there are said to be as many voices and tongues as there are nations, yet the intentions of all nations flow together into one.

We judge, therefore, that the variety of human voices and of speech drew its origin from this: that after the universal flood the Ark came to rest upon the mountains of Armenia. Then Noah, going forth with his people onto the land, restored the human race in a short space of time, God being favourable. Thereafter, so that the whole globe of the earth might be inhabited again, he distributed his sons, grandsons, and great-grandsons to the various regions of the earth as into so many colonies.

First he sent Esennius into Egypt; into Libya and Cyrene, Tritas; and into the rest of Africa, Iapetus Priscus. Over eastern Asia he set Ganges; over Arabia Felix, Sabus surnamed the Incense-bearer; over Arabia Deserta, Arabus; and over Petraea, Petreius. In Damascus he settled Canaan. In Europe he established Turisco as king, from the Tanais to the river Rhine. And there were joined to him all those sons of Ister and Mesa with their brethren, from Mount Adula as far as Pontic Mesembria; under whom Tyrus, Arcadius, and Emacius held Italy. Comerus Gallus Samotes possessed the Celts, and Iubal the Celtiberians.

There was, then, that brief and premature estrangement of the sons from their forefathers, whose manner of life and customs they had not yet sufficiently imbibed; and this was the chief cause of all diversity. For Ham, because of the mockery with which he treated his father, was compelled to flee with his wife and children into that part of Arabia which afterwards took its name from him; and therefore he handed down no rite of sacred things to his posterity, since he had received none from his father. Hence it came about that in the course of time they fell into inextricable errors, and in this way voice, speech, or tongue was diversified — nay, the knowledge of the true God and all worship perished.

[catchword: SYM-]

[marginalia: The etymology of bambino. — What sort of animal speaks. — What voice is articulate. — The origin of the variety of tongues. — The estrangement of sons from their fathers destroys nature.]

SYMMETRY.

That the proportion and symmetry of man is wonderful we gather from this: that architects refer to it all the structures of temples, houses, and ships. Indeed they report that Noah's ark was built to the dimension of the human body. For since the human body is three hundred minutes in length, fifty in breadth, and thirty in height, so likewise the ark was constructed to a length of three hundred cubits, a breadth of fifty, and a height of thirty. Moreover a three-month child, according to Pliny, is said to have half the measure of the stature which, living on, it must in course of time attain.

Indeed nature so composed the human body that its parts should hold the greatest proportion among themselves. Wherefore, beginning from the head: that little hollow which is observed in the upper lip is the smallest measure of the whole face, yet a uniform one; for when multiplied it displays herein a perfect and certain rule. For this, doubled, is wont to fill out the space completed from the nose to the lip. Quadrupled, it constitutes the measure of very many other parts: namely the length of the mouth, and the space of the eyes which lies between the two, and also that which extends from the lower lip to the end of the chin.

But the length of the nose and of the ears, and the greatest circuit of the latter, and likewise the space from the nose to the border of the hair and downward to the chin, consist of an equal measure, and stand to the aforesaid four parts in sesquialteral proportion — that is, the circuit of the mouth and of the ears equals six of the smallest measures. Likewise the space drawn from the outer corner of one eye to the other regards, in doubled proportion, the parts just named, and fills out twelve of the smallest measures. But the length of the whole face, and the circuit of the forehead, exceeds the circumference of the mouth in sesquialteral proportion, and comprehends eighteen of the smallest measures.

The space of the hair from the edge of the forehead to the first vertebra of the neck, and likewise the space drawn from the chin to the crown of the head, represents the length of the face in sesquialteral proportion, and comprehends twenty-four of the smallest measures. Furthermore the hand, being as it were the servant of the whole body, is also a measure of the face. For we ought to judge the natural length of the face to be as great as that which is contained from the wrist to the tip of the middle finger; and the same space likewise reaches from the hollow of the nose to the coronal suture — which rule surgeons use, that they may search out that same suture for applying a cautery to the sinciput; and this reckoning fails in very few men.

Indeed we measure by a fixed proportion not only all the parts of the face, but the parts of the hand itself also have no deceptive dimension, both among themselves and with the remaining parts.

First, the length of the index finger from the tip of the nail to the third joint (speaking of the outer side) indicates exactly half the magnitude of the whole hand, and is always found equal to the remaining space which extends as far as the wrist. But on the inner side the middle finger teaches all this: for if we measure it from the tip to the root across the mount, we shall find as much space as the rest of the hand contains from there to the wrist. The nails also of the several fingers possess as much length as is the space from the root of the nail to the first joint. Likewise the circumference of the thicker finger answers by a fixed measure to the length of the same.

Finally, from the hand as from a tablet the whole face is easily constituted: for the length of the face and the circuit of the forehead are as great as the length of the hand. The space which extends from the root of the hair across the forehead to the little orb of the nose is measured exactly by the middle finger, and the remainder, to the end of the chin, by the rest of the hand. The part next the palm, moreover — which is the first and largest joint of the index finger — represents the height of the forehead. But the second joint, and the third joined with it and ending at the tip of the nail, we shall observe never to differ from that space which is taken from the eyebrow to the little orb of the nose. The first and larger part of the middle finger is found entirely equal to that space which reaches from the nose to the end of the chin; while the second measures the chin. And the larger part of the ring finger equals by just measure that space —

[marginalia: The dimension of Noah's ark. — The symmetry of the nose. — The length of the face. — The measure of the hand. — How the coronal suture is found. — The measure of the whole face. — The measure of the fingers and nails.]

— which insinuates itself from the chin as far as the lower lip. Further, the third part of the middle finger, joined to the nail, measures equally the whole hollow of the upper lip. Likewise in the middle finger the length of the first joint is as great as that of the mouth, if the arch of the lip be measured out with a thread; nay, from the same part the height of the forehead is also shown. The palm of the hand, itself too according to length and breadth, is wont to measure the cheek. And by this reckoning we may use the hand as a perfect measure for exploring the dispositions of the countenance, so that thereafter we may apply the face itself for distinguishing without error the remaining parts of the body, according to the proportion assigned by nature.

Wherefore, if the whole body is to be reduced to symmetry, we shall lay down that the common length of the body consists of nine times the length of the whole face — provided we regard the men of our own region. For we do not deny that men may be found whose bodily nature is stretched out by a greater measure or contracted by a lesser; since some fill out the space of the countenance ten times in the length of the body, while the tallness of others contains the face only eight times, and sometimes, though rarely, only seven. But larger men render the face repeated ten times in the whole body.

And so at present we have judged it necessary to make mention of both these magnitudes: namely that which is completed by nine times the space of the countenance, and suits most men; and also that which exceeds this magnitude, and belongs to very few.

In a face, then, rightly constituted by nature, three equal spaces are observed. The first space is between the border of the hair and the beginning of the nose. The second occupies the whole nose. The third extends from the nose to the end of the chin. And so the first measure is the countenance itself; the second, the space from the throat to the end of the chest, where the sword-shaped cartilage is observed; the third, from this place to the navel; the fourth, from here to the beginning of the hips; the fifth and sixth, thence to the knees; the seventh and eighth, thence to the ankles. The ninth consists of three different parts, which parts agree exactly among themselves and with those three described in the face. Of these the first is that arch which extends from the border of the hair to the very crown of the head. The second is the throat, which reaches from the end of the chin to the little fork of the chest. The third is that which descends from the ankle to the sole of the foot.

And so mother nature, in the first formation of man, seems to have aimed at a perfect, equilateral, and square figure: for she set the centre in the groin, and fashioned man equally broad and long. For those nine parts by which the length of the whole body is distinguished are likewise observed in the outstretched arms together with the chest. For whether we descend on the outside from the shoulders through the elbow to the first joint of the fingers, or on the inside from the armpits to the border of the palm and fingers, we shall by just reckoning fill out three times the length of the countenance. But the span of the fingers of both hands will contain the face once; for the two arms and hands together render by their length seven times the face. And the breadth of the body from shoulder to shoulder is as great as the face itself taken twice. And by this reckoning the outstretched arms constitute that space which nature has delineated from the crown of the head to the sole of the foot. Thus far concerning the man who is for the most part described by nine measures of the face.

Now something must be said of the man who, exceeding the aforesaid measure, is subject to a new one. For his first measure is drawn from the crown of the head to the end of the nostrils; the second, from the nostrils to the beginning of the chest; the third reaches from here to the end of the thorax; the fourth attains the navel; the fifth extends to the groin, where the centre of the human body is wont to be placed. The remaining five parts are then described by just spaces through the thighs and the legs.

These things being thus established, it must now be understood that, just as we have divided the countenance into three equal parts, so likewise the rest of the body admits three divisions equal among themselves: namely that of the middle of the body, that of the thigh, and finally the third, from the end of the hips down to the feet. And again this threefold division must be recounted in the middle of the body also: namely the space from the pubis to the navel, thence to the breasts, and afterwards from there to the beginning of the neck. Moreover the space enclosed between the breasts equals the circumference of the forehead; but the forehead tripled in length affords the exact dimension of the back — just as the space of the countenance, taken nine or ten times, measures the tallness of the whole body. In like manner the height of the forehead, taken nine or ten times,

[marginalia: What the palm measures. — What the length of the body is. — The common length of the body. — The ninth part consists of three. — Where the centre of man lies. — The span of the fingers of both hands contains the face once. — A new measure of man. — What the space between the breasts denotes.]

completes the length of the back. Likewise the semicircle of the eyebrow, doubled, reproduces the roundness of the shoulder-blades; and such a circle as encompasses the eye describes the periphery of the jaws. Let us add to these that not only the face, as was demonstrated above, but also that space which runs from the elbow to the tip of the middle finger, can be a fixed and just measure of the whole body. But this we deliberately omit, lest we exceed the bounds of brevity, and we refer the reader to Albrecht Dürer and the other authors who treat of this matter.

AGE.

AGE — called as it were *aevitas* from *aevum*, which is defined by Censorinus as something immense, without beginning and without end — formerly deserved this name for juster causes than it does today; for we read that by Adam and Eve nine hundred and thirty years of life were completed. Indeed Methuselah the son of Enoch lived a life of nine hundred and sixty-nine years, and Lamech the son of Methuselah six hundred and seventy, and Noah nine hundred and five.

But a thing more worthy of wonder seems to be that there was near Athens an island which, while the Athenians were fortifying it with walls, they found in digging a tomb with a corpse and an epitaph, from which they understood that the deceased had led a life of five thousand completed years — although afterwards many learned men determined that among the Egyptians the reckoning of a year was of four months only. However that may be, human life may always be called brief, according to the most beautiful distich uttered upon the life of man:

> *Thy life is assuredly brief, and in thee is no hope of safety;*
> *Depart, O stranger — why standest thou? — when thou dwellest in thine own realms.*

Yet it is found written in Aristotle that no animal leads a longer life than man, save the elephant. And although it is received in common opinion that crows have the longest life, according to the well-known verse —

> *Crows are said to live a hundred years*

— nevertheless, by "a hundred years" many years are to be understood in comparison with the age of other birds.

Moreover there are those who believe that man can by no means live beyond the span of a hundred years, since Varro handed down that the heart of a year-old man weighs two drachms, and that afterwards, in each single year up to the fiftieth, it gains the weight of two drachms, so that at that time it weighs a hundred drachms; and thereafter, up to the hundredth year, it is reported to decrease by two drachms each year until it fails. Wherefore they lay down that a man can by no means live beyond this span. But this is as yet little ascertained.

Others, following Pollio, add twenty years to the hundred, and assert that beyond this term it has been granted to no one to live; and they establish their opinion by the life of Moses, who led a life of a hundred and twenty-five years, and who then, as he complained when dying of the shortness of life, is reported to have received the answer that no one should live beyond these bounds of life. And this is the more to be approved, since we have it in the sacred pages that God fixed beforehand the limit of man's life at a hundred and twenty years. Likewise the Psalmist sets down seventy years for human life, and the remaining time as of sorrow and labour — whatever Pliny may have written of the Cyrni, peoples of the Indians, living to a hundred and forty years, and of the Ethiopian race, which fills out two hundred years of life.

Men of long age also dwell in the northern regions of Europe. For Olaus Magnus records David, a Scottish bishop, who lived a hundred and seventy years. Likewise Textor records a certain man by the name of Marin — human in the front part of his body and equine in the hinder — who is said to have been the first to mount a horse, and who attained his hundred and twenty-third year.

And so from the aforesaid it is to be gathered that age is the passage of time in life, which Galen and Avicenna divided into a fourfold sort: namely childhood, youth, the age of consistency, and old age. This division of the ages ought, however, to be made according to certain notable operations of nature; but since these in all

[marginalia: The symmetry of the periphery. — How long the first men lived. — How long the crow lives. — The heart of man increases and decreases. — The life of Moses. — Genesis, ch. 6. — Psalm 89. — Bk. 7, ch. 2 and ch. 49. — Bk. 4, ch. 10.]

at the same time and in their prescribed years, according to the greater or lesser strength of the temperament — it will therefore be necessary to establish these ages according to a certain ancient reckoning. They extend childhood from the beginning of birth to the fourteenth year, dividing this age into infancy of seven years and later childhood reaching to the fourteenth year. The second age from the fourteenth year to the thirty-fourth is called adolescence. Yet this admits of three divisions: the first, attaining the twenty-first year, is called true adolescence; the second, reaching to the twenty-eighth year, puberty; and the third, finally, youth.

The third member of the first division, the age of stability or virility, begins at the close of youth and reaches the forty-ninth year. That which is then prolonged from the forty-ninth year throughout the remainder of life is called old age, which thereafter comprises the first and the second senility. The first terminates at the sixty-third year; the second extends to the eighty-first year. From this it is to be gathered that man hastens through his diverse ages as through the steps of a staircase to the end of life: wherefore whatever year in which the aforesaid ages terminate may rightly be called *climacteric* (κλιμακτηρικός), since in Greek *klimax* (κλίμαξ) denotes a staircase, and *klimakter* (κλιμακτήρ) a step of a staircase. An age shall therefore be constituted like a staircase furnished with its proper steps, and the first step will be infancy, so called because in that age a man is not yet able to speak, and since this age terminates in the seventh year, that will be the first climacteric year. The second step follows, namely childhood, named from its purity, terminating at the fourteenth year as the second climacteric. Next comes adolescence, mature for generation — according to some, touching the third climacteric year; or according to others, prolonged to the twenty-eighth year under the name of puberty, from the *pubes* or pudenda, which at that time begin to be clothed with down. The remaining age to the thirty-fifth year, likewise climacteric, is called youth (*iuventus*) from *iuvando*, helping; for at that time man is placed at the summit of his growth. Thereafter the span of age reaching to the forty-ninth year, likewise climacteric, is called virility, because greater force subsists in that age than in the others. To this is added old age, which the boundary of the sixth age (speaking, however, of the first and green old age) touches nevertheless at the climacteric sixty-third year; for whatever remains of the span of life is called decrepitude, since the man placed in it is scarcely able to emit even a creak, and it terminates at the last climacteric year, namely the eighty-first. Although the true climacteric year of life is held to be the sixty-third. As the climacteric number is one to which we ascend gradually and as it were by certain steps, such as is the number eighty-one, which results from nine times nine. Moreover, toward the end it is to be noted that those are said to live longer who imbue the mind less with wickedness; because those whose innate heat produces a keen intellect are for the most part of shorter life; just as, on the other hand, those of simpler mind are longer-lived, for these too possess stronger members and a more robust body.

OF TEMPERAMENT

Since man is held to have attained a moderate temperament, he is rightly declared by authors to be the measure and standard of all other living creatures; and especially since Galen has written that man is the most temperate not only of animals and plants but of all things whatsoever. But we cannot understand man's precise temperature, nor follow it, because Galen has best taught that man, placed in various ages, rejoices also in various temperaments. For the first age is called warm and moist; the second inclines toward warmth and dryness; the third recedes from warmth and acquires greater dryness; the last of all is held the coldest. Again, let us add, following the thought of Galen, that we cannot [...]

[marginalia: Senium duplex / Anni climacterici / Singularia / Aeris climata / Lib. de Te., cap. 1 / Lib. 8. de decret. Hipp. / Lib. 1. de Aligient. fac.]

attain the precise temperature of human nature, on account of the various customs of men and the principles of diet, all of which alter the innate condition of the body. Nor are the diverse climates of the sky to be omitted, which vary not only human temperaments but also customs and the inclinations of the mind. For indeed men dwelling in the southern region are curly-haired, of short stature, with rather slender legs, and filled with a lively spirit. Those living nearest the northern region are of large body, with flowing hair, of white colour, with thick legs and slack flesh, and consequently are not without a certain dullness. Alpine dwellers and other inhabitants of mountains are of rough appearance and spare of frame; their throats are for the most part strumous; nay more, not only do they live a longer life, but they are likewise more robust than those who dwell in the plains.

In order, therefore, that some knowledge of human temperament may be had, if not exact, at least rough, physicians propose two prior inquiries. First they assign a certain number of temperaments; then they diligently explore the nature of the humours, from whose perfect knowledge they profess to elicit human temperatures. As to the first: they establish temperaments in the number of nine, and of these call four simple, according to the four simple qualities of the elements, and four compound, according to the four rational combinations of the elemental qualities. But because they assert that the excess of these temperaments cannot be known at all unless the tempered temperament of others be perfectly understood as a norm, they accordingly establish a twofold one — namely according to weight and according to justice; then, setting aside by design the temperament according to weight, which emerges from an equal portion of the elements and is imaginary, they hold that there is only one equal temperament according to justice, which consists in a certain symmetry of the elements suited to performing perfect operations. And therefore they call that man tempered according to justice who is prepared and fitted for the performance of all functions, and call him intemperate who departs from the said temperament and tends toward one of the eight intemperate types.

Furthermore, concerning the nature of the humours, physicians observe that all things eaten and drunk tarry for a space of six or seven hours in the human stomach, because during that time therein a perfect digestion is accomplished. Whence one, looking to the concoction of foods which is chiefly accomplished in sleep, sang:

To have slept seven hours is enough, for the young man and the old.

For indeed foods placed in the human stomach, as though set before the fire of the natural heat, are altered and transmuted into a substance very like the cream of barley-water, called chyle. Afterward this matter descends through the small intestines, abundantly furnished with veins, and is drawn off by them, so that it may at last enter the liver through the portal vein, where, altered again by the faculty of the liver, it is changed into blood, which thereafter, leaving the liver through the vena cava and the branches descending from it, is distributed to the other parts of the human body for the sake of nutrition. Moreover, physicians observe that the aforesaid matter is altered in the liver, but not all of it converted into pure blood; only the greater part is so converted; and therefore the portion that escapes concoction and remains white is called phlegm; the warmer portion, bile; and finally the thicker, melancholy. These four humours, in the judgment of Galen, are named the elements of animals possessed of blood; nay more, as Hippocrates has reported, the said humours are wont to fill human veins at every time and every age. Physicians therefore rank blood with the nature of air, and bile with fire; phlegm they liken to water, and melancholy to earth. Although Augustinus Donius, in his book *On the Nature of Man*, does not seem to admit the said likeness, while he compares blood rather to fire and phlegm to air — a doubt which the reader may meditate upon in the cited author.

These things being thus established and noted, physicians generally elicit the temperament of men from the predominant humour. The predominance of blood will be manifest when the man is fleshy, cheerful, of excellent habit, of keen intellect, and of ruddy colour; for to such a man physicians assign a warm and moist temperament. The dominance of bile they recognize from lightness of mind, cunning, agility, swiftness of action, and finally from a colour between yellowness and redness, and so they refer such a man to a warm and dry temperament. But they conjecture the predominance of phlegm in the body from [...]

[marginalia: Temperamentorum genera / Temperatura ad iustitiam / Chilus assimilatur cremori ptisanae / Humorum naturae / Lib. 2. de Element. / In lib. de [...] / Dominium humori quomodo cognoscatur]

sluggishness, dullness of wit, forgetfulness, and pale colour; and they establish the temperament of such a man as cold and moist. Likewise, when the melancholic humour predominates, they judge the man timid, retentive of memory, crafty, of a leaden colour, fitted for speculation and for the perpetration of great deeds, and moreover cold and dry.

Should anyone wish to examine the temperaments of the individual parts of the human body, he must have recourse to Galen, who above all decreed that the skin is, among other parts of the body, the most temperate, and indeed that which covers the palm of the hand rejoices in this peculiar pre-eminence. Thereafter, of the remaining parts, some are warm and moist, as are all the fleshy parts; others enjoy coldness and moisture, as the brain, the spinal marrow, and the fat; others, such as the bones, cartilages, nerves, ligaments, membranes, veins, arteries, tendons, and hair, possess a cold and dry temperament. And finally others, such as the heart and the spirits, partake of warmth and dryness.

OF BODY

The Platonists unanimously declared that man naturally possesses two bodies, the one mortal and the other immortal; for by the immortal body they understood the rational part of the soul, and a body in some measure spiritual and eternal; and by the mortal body that which is seen and felt, composed of four elements and consequently subject to corruption. On account of the first, therefore, men are impelled by nature to benefit as many as possible, and especially by teaching; and consequently, in the opinion of Cicero, men alone are inclined toward speaking and teaching, since no animal other than man is adorned with mind and intellect. And the reason for this was given by the oracle in the Revelations of Saint Bridget, where we read: *All things soever that are created serve either the necessity of man, or his nourishment or pleasure, or his instruction and correction, or his consolation and humiliation. If therefore brutes possessed intellect as man does, they would certainly be a tribulation to men, and would harm rather than profit; therefore, that all things may be subject to man, for whom all things were made, and that they may fear him, while he fears none but God — for this reason rational intellect has not been given to brutes.*

Furthermore, it is to be believed that weeping and laughing alone have been implanted by nature in man; and although authors report that the cuckoo, and a certain yellow bird among the Indians, laugh; and that dogs shed tears a little before death; and Virgil leads an horse into the arena shedding a warrior's tears; and Homer repeats the same of the horses of Achilles — whence afterwards Isidore, led by these authorities, asserted that tears are naturally proper to man and to the horse — nay more, Aelian attributes tears to the Mauretanian asses, and Xiphilinus assigned a mournful voice to the elephant: yet it is to be observed whether these said properties are coupled with a rational affection, which in that sense is observed only in man. Furthermore they hold, following Aristotle, that nature has granted man the immobility of the ears; although Procopius of Caesarea reports that Justinian was called an Ass by his adversaries — not for stupidity, but because he moved his ears after the fashion of an ass. Vesalius adds that he knew in Padua two men who moved their ears; and Laurentius also records that he observed in some persons ears that were mobile, asserting that this was achieved by the action of certain tiny muscles. Since this occurs very rarely, we cannot dismiss the teaching of Aristotle.

Galen adds that nature implanted in man alone the ability to sit conveniently upon the ischia, or hip-bones. Wherefore one must see in the appropriate places why the field-mouse, the cockerel, and the hyena are greatly horrified by the human skull. Here we must admire only the natural sympathy between man and the dolphin, since historians have written that Arion, swimming amid the pirates in the sea, was conveyed by a dolphin to the haven of safety. They add also that the corpse of Hesiod, cast into the sea, was carried by dolphins to shore near Locri; wherefore Georgius Camerarius, led by this natural property and sympathy, delineated a boy upon the back of a dolphin.

[marginalia: Partis temperatura / Lib. 1. de fib. / Ratio intellectus boni hominis / Lib. 15. Hist. Anim. cap. 14 / Lib. 2. de fabric. humana / In quibusdam observasse aures mobiles]

DOLPHINS BURN WITH LOVE FOR MAN. Then he appended a most beautiful octastich of this tenor:

So dost thou embrace and press thy joys, O Dolphin,
Fair youth, though threatening the watery dangers,
So great his desire to migrate from his father's deep,
So great the faith that bade the boy trust to the waves!
Thus bold Love confounds the elements, and senseless
Knows not the bonds that nature owes.
Alas, how swiftly shall my weeping exhaust my breast,
When he, winged, shall glide through the cold waters.

Furthermore, the female sex has acquired from nature two especial properties. The first, by the authority of Socrates, is that it is docile in all disciplines and virtues, if diligently instructed. Then it has claimed for itself a certain natural inconstancy and levity, according to that distich:

Light is the feather, light the pumice-stone, light the breeze, but lighter —
What lighter than womanly lightness dost thou see?

And this we may the more attest, when we see that women in every matter seek applause for themselves — a manifest sign of levity; wherefore the greatest affinity is to be placed between woman and the peacock, since woman too, in peacock-like vanity, gazes around at herself again and again. We shall not wonder, therefore, at the history of the Leucadian woman so loved by the peacock she had reared that, when she died, the bird itself willed to die with her by abstaining from food.

Furthermore, not only does specific nature implant marvellous gifts in particular men — and if we may so speak, their individual nature — such that they sometimes draw from it a great power, nay greater than from the species itself. Wherefore Albertus referred this to some occult property or celestial influence, since individuals possess a wonderful energy in suffering and working that is not specific but proper and peculiar to themselves. The same Albertus narrates that there were twins, for one of whom it was the case that every lock opened at his touch, while at the touch of the other those that had been opened suddenly closed. We ourselves too know men who so greatly dreaded mice, or cats, or other animals, that at the sight of them they fell into a swoon. Solinus reports that the full moon harms pregnant women through a certain antipathy; just as salted things are wont to harm the foetus, for a pregnant woman who delights in things rather more salted than she should commonly brings forth a child without nails. Likewise, others have impressed upon them so strong a faculty either of healing scrofula or of curing various sores, that what the hand of the surgeon long wearied over, and could not be freed by any medicine, is healed by the mere touch of saliva. And so in succession we shall be able to admire and meditate upon other gifts of individuals which do not proceed from specific properties.

OF DIET

Galen, speaking of the faculties of foods, assigned to each animal a certain food familiar to it by the property of the whole substance; and therefore just as straw, hay, and barley are suited to horses and asses, and raw meats of animals to lions, so likewise he asserted that cooked meats and breads prepared from wheat-seeds are proper to men. Men therefore may not undeservedly be called in Greek *artophagoi* (bread-eaters), although they could more rightly be called *opsophagoi* (relish-eaters), since no animal is more eager than man for delicacies and the fine arts of the cook. Hence afterwards the various kinds of breads and pastries were devised by men: the *Coliphium* in Plautus; the *Artolaganus*, the *Artoptesia*, the *Maza* — the hard bread used by sailors; the *Pythiriae*, namely cheaper and bran-filled loaves; nay the *Nasti* loaves were prepared with the addition of raisins. Besides which, men in the splendid furnishing of their banquets make use of the meats of birds, fishes, and quadrupeds. Do we not know from Tiraquellus of the dish of Vitellius, prepared from the livers of scaruses, the brains of pheasants, and [...] of peacocks —

[catchword: uonum]

[marginalia: In Emblem. / Affinis / Proprietates individuales / Homines panivori / In qualis]

of the brain of the pheasant, the tongues of flamingoes, and the livers of lampreys were used to adorn the feast.

Men for the most part feed on beef, pork, mutton, kid, sometimes hare, venison, the flesh of the Alpine mouse, squirrel, roe-deer, dormouse, sheep, goat, hedgehog, rabbit, beaver, otter, badger, tortoises, and frogs, as well as the trunk and lips of the elephant. The peoples of India eat tigers; certain nations of Ethiopia are said to feed on the flesh of panthers and lions. The Africans at an elegant banquet make use of green lizards and monkeys. The Borussians, once a Scythian people, were called Hippophagi, because they fed on the flesh of horses. The peoples of Lombardy in Italy eat wolves, cats, foxes, leopards, and the young of asses. Indeed, the flesh of aged asses and of camels was, according to Galen, sometimes held in high esteem at banquets. The Nomads, according to Pliny, live on the milk of dog-headed apes, and the inhabitants of the western Indies eat serpents, vipers, and toads.

Furthermore, men draw their food from all things that grow in the earth, and most especially from vegetables; wherefore, in times of dearth, their tables are furnished with grass alone. To the point, the historian Bugatus relates that in the year of the Lord twelve hundred and thirty-three, the inhabitants of the territory of Padua, owing to a notable scarcity of provisions, lived like beasts on grass growing in the fields. We ought not, however, to wonder at this, since certain

Carpophagous Peoples.

peoples, whose likeness we here present, live solely on fruits, seeds, and herbs, and are therefore called Carpophagi and Spermatophagi. For in summer they easily gather fruits from the trees; at other times they pluck herbs growing in shady places for their sustenance. They come out with their wives and children, naked, onto the plains, climbing any tree whatever; for, driven by so great a habit, they leap from tree to tree like birds, and though they slip with their feet, by a wonderful agility of hand they instantly save themselves from falling. Even if by chance they fall at times, owing to the great lightness of their bodies they suffer little harm. These people, according to Lycosthenes, equipped with sticks fight one another in turn and lord it over the vanquished; yet, as he himself reports, they most often perish from hunger, for falling into blindness they are deprived of that sense by which they were wont to seek their food.

[catchword: Cæterum]

[marginalia: Carpophagous peoples.]

Moreover, not simple foods alone, but rather compound ones, seem to give satisfaction to the human stomach, since in the monuments of the Ancients many things of this kind are approved. First of all, the Lydians prepared a dish called Carica from many delicacies and blood. The cooks made a dish of honey and poppy. They commended the sausage — a sort of forcemeat made of pork — as well as the Lucanian sausage prepared from the same material. Whence Martial sang of this in the following words:

> *The Lucanian sausage, daughter of a Picene pig,*
> *Is here set before the white porridge of a ploughed furrow.*

They praised a minced dish (*minutal*) made of sea-fish, brine, oil, wine, leeks, and coriander. Then they extolled *libum*, *laganum*, *pulmentum*, *pulpamentum*, *buccellatum*, and *muttaceum*. Nor were unknown to them *artocreata* — made of bread and meat, perhaps now called pasties (*pasticci*). They prepared *tomacula*, a dish made of finely-cut pig's liver with eggs, cheese, pepper, anise, and ginger, then covered with a caul of pork — perhaps now called by moderns *tomacelle*. To say nothing of *ozima* dishes, named perhaps from the smell of basil, and foods prepared from milk and honey, or from raisins and almonds, and finally of so many sweetmeats and confections (*tragemata* and *bellaria*) which were placed on the third table and are still placed there today. Those who wish to know the present-day arrangements of feasts and tables fitted out with notable magnificence should consult Bruyère Campeggio, Bartholomew Scappi, and other recent authors who have treated diligently of elegant banquets and the wonderful delicacies of feasts.

THE EXTERNAL PARTS OF MAN.

The **HEAD** (*caput*), named from taking in (*capere*) or from understanding, is that part by which the whole body is supported; the Ancients uncovered this part as the more principal one, in token of reverence, signifying the same disposition of the mind by this gesture of the body. The Greeks moreover swore by this part. The front part of the head is called the *sinciput*, and the rear is called the *occiput* or *occipitium*. The bones of the head, from which the hairs emerge, bear the name *calva*, but the bare bone itself is called *calvaria*. The right and left sides of the head are called the temples (*tempora*), because from these the years and ages of men are discerned. Hair (*capillus*), as it were the *pilus* of the head (*caput*), takes many names; sometimes it is called *cirrus*, when many hairs joined together hang in the manner of a tail: and for this reason those species of birds having tufts are called *cirratae*. Otherwise *cincinni* are many hairs twisted together, which Martial was wont to call *annuli*.

The forehead (*frons*) comes next, as it were pierced for the sake of the eyes; it is said to indicate the mind of a man, being furrowed in sorrow and expanded in joy; it is bounded at the sides by the temples, above by the root of the hair, and below by the eyebrows.

The eyebrows (*supercilia*), placed as it were above the lashes (*cilia*), are moveable: for by these a man, nodding assent or dissent, indicates a disposition of his mind. Here it should be noted, from Nonius, that men distinguished by more prominent eyebrows are called Sileni, from Silo, who is reported to have had shaggy eyebrows. That space between the eyebrows, which is customarily smooth, is called the *glabella*. From this point the nose takes its beginning, and the nostrils are the broader parts of the nose, moveable to right and left, named as it were from swimming (*nando*); those who are born without nostrils, or with them compressed, are called, according to Pliny, *Simones*. Thereafter the nose represents keen wisdom, a metaphor taken

[marginalia: Parts of the head / What the temples are / Supercilia quales sint]

from animals, because dogs and vultures track their quarry by scent. The eyes (*oculi*) are said to be named from concealing (*occulendo*), because they lie hidden beneath the lashes and eyelids; they possess a *pupula* or *pupilla* by which a man sees. The *cilium* is perhaps from *cilleo* ("I move"), and is the extreme edge of the upper eyelid. The *gena* is whatever falls between the beard and the lash, fortified by hairs as by a rampart, and is called *palpebra* from fluttering (*palpitando*). But the hollows of the eyelids, into which the tears trickle, are called *sinus* by a certain resemblance.

The eyelids are succeeded by the cheeks (*malae*), which Pliny attributes to man alone; these are named from the apple (*malum*) as the *genae* are named from the knee (*genu*) by reason of their curvature: for the cheek on the face is the rounder and more prominent part. From *mala* the diminutive *maxilla* is then derived — not because it is a small cheek (*mala*), but because it is situated below the cheek. The *buccae* are those parts of the face which can be puffed out and covered with a beard. From *bucca* comes *buccula*, a sort of armour covering the cheeks: and indeed *buccula*, of which the masculine is *bucculus*, bears another meaning, denoting small oxen, because the dewlaps hang from them as it were like little cheeks. Furthermore from *bucca* they derive *buccea* and *buccella*, indicating the quantity of food that can be taken in the mouth: whence also those men who have very swollen cheeks are called *buccuolenti* and *buccones*.

The ears (*aures*), according to some, are named from drawing in the voice (*haurienda voce*), or rather from hearing (*audiendo*), and hence *aures*, as it were *audes*. From these a man is called *auritus*, a word referring not only to a keen sense but also to the size of the ears. Those who hear nothing are called deaf (*surdi*), those who hear but little are called *surdastri*. Moreover, according to Pliny, nameless herbs are called deaf (*surdae*) because their names are not heard; hence afterwards *absurdum* derived, because nothing of the kind was ever heard. Finally, from languid and flaccid ears, the surname of the Flacci family took its origin. The Ancients, too, would touch the ear when bearing witness, tugging the ear of a witness to aid his memory; however, it was the witness who first offered his ear to be pulled, since no one was permitted to touch the ear of an unwilling witness.

Furthermore, in the upper lip a certain little hollow is observed, which Lactantius called a *lacuna*. The lips (*labia* or *labra*) are the parts that constrict and dilate the mouth, from which the surname of the Labiones was derived, according to Pliny. *Labrum* is thereafter an equivocal name, since according to Pliny it also denotes a vessel. The mouth (*os*) finally is the opening of the cheeks; none the less many authors, and most especially the poets, use this name to indicate the human face. The diminutive of *os* is *osculum*, that is a small mouth, although it sometimes also denotes a kiss, since a kiss (*basium*) can only be celebrated with the mouth contracted into a kiss (*osculum*). Another diminutive of *os* is *oscillum*. From the root of the lower lip the chin (*mentum*) derives its origin — which, though Pliny attributes it to man alone, Plautus seems to assign to certain brutes as well. The custom has prevailed among the Greeks, according to Pliny, that suppliants would touch the chin. Now that part of the face which, when a man smiles, is bounded by certain lines — the so-called *gelasini* — is called *rictus*, which customarily bears very many marks of the passions. But the whole part of the human face which is spread wide in joy and contracted in sorrow, indicating many perturbations of the mind, is named *vultus* from willing (*volendo*), and is found in the neuter gender in Lucretius, and cannot exist in any animal other than man. From the countenance (*vultus*) several grimaces (*sannae*), that is, varieties of mockery, thereafter emerge; hence Antiquity designated men who make sport of another by distortions of the countenance as *sanniones*.

The *cervix* is called the rear part of the head, just as the front part is called the throat (*gula*), jugular (*iugulus* or *iugulum*): for from both sides together the neck (*collum*) is composed, so named from cultivation (*colendo*), as Sipontinus held, because it is adorned with torques and various ornaments. To the neck the trunk (*truncus*) is attached: for by the trunk is understood that part of the human body without arms and thighs, which the Greeks call *thorax*, although physicians understand by the name *thorax* the part containing the heart and lungs. The trunk is divided into a posterior and an anterior part; the latter begins at the jugular, where a certain hollow is observed, prone to diseases: and for this reason we say *iugulare*, that is, to kill with a sword. From the jugular also the chest (*pectus*) commences, reaching to the stomach and bounded by the two sides. The centre of the chest is adorned by the breasts (*mammae*), signifying the udders; otherwise *mamma* in some authors means a nurse: indeed the breasts were also called *Tatae* by the Ancients, though *Tata* likewise denotes a nurse. *Mamma* then forms the diminutive *mamilla*, also called *papilla*; although,

[marginalia: Buccula, bucculus — what they denote / The herb called deaf / Os, osculum, oscillum / The etymology of Vultus / Who are Sanniones / Parts of the thorax / Mammae, mamilla, papilla]

strictly speaking, the *papilla* is that little projection of the breasts which infants take in the mouth to suck the milk. Furthermore, among the Ancients the breast was also called *rumen*; whence Pliny, speaking of Romulus and Remus, wrote: *the she-wolf presenting her teat to the infant boys*. *Rumen* however, or *frumen*, is the name of the inner part of the neck corresponding to the prominence of the throat. Wherefore, according to Servius, *fruges* ("grain") are named from *frumen*; and from *rumen* the verb *rumino* is formed, meaning to bring food back again to the rumen or throat.

The shoulders (*humeri*), according to Sipontinus, are named from the ground (*humo*), because like the ground they are fitted for bearing burdens; they are also called *Armi*, because weapons carried hang from them: hence are derived *armillae*, ornaments of women's arms, because Antiquity designated the shoulders together with the arms as *armi*. Beneath the shoulders are contained the armpits (*alae*), which in men are clothed with hairs; the diminutive of this name is *axilla*. Furthermore, the human flanks are bounded on right and left by the ribs. The *ilia*, inflected now by the second, now by the third declension, are situated between the hips and the pubes: this position, however, looks rather to the interior *ilia*, since the exterior ones have a wider extent. The belly (*venter*) has above it the chest, below the pubes, and on either side its boundaries terminate in the flanks; in the middle of this is observed the navel (*umbilicus*), named from the central boss of a shield (*umbo*), and below the navel are the pubes and the comb (*pecten*). If we look at the posterior part of the thorax, we encounter first the shoulder-blades (*scapulae*), between which a certain little valley is observed, which the Latins call the *interscapilium*. Thereafter the whole posterior part of the thorax, bearing the likeness of a valley, is named the back (*dorsum* and *tergum*); at the furthest extremity of which is the fundament (*culus*) between the buttocks (*nates* or *clunes*), called as it were *culeus* — that is, a sheath — though it is also called *anus*, as it were "round," and *podex*, as it were *pedex* from *pedo*, because through this part the wind of the belly is emitted. Finally, between this part and the girdle fall the loins (*lumbi*).

Now if we return again to the shoulder-blades and recede from them by degrees, we shall find the part descending from the shoulder to the elbow, called by some the *armum*; for the Ancients (as was noted a little above) designated the shoulders together with the arms as *armi*. But the part from the elbow to the joint of the hand is called *lacertus*; wherefore Hercules, displaying the greatest strength in this part, was called *Lacertosus*. The curvature of the arm is then designated the elbow (*cubitus*).

To the forearm (*lacertus*) is attached the hand (*manus*), as it were the service (*munus*) of the whole body, which is divided into five fingers (so called because there are ten of them, or because when joined together they make a seemly array): namely the thumb (*pollex*), so named because it is strong with great force; in Greek it is called ἀντίχειρ (antikheir), because it contends in strength with the rest of the hand and takes on, as it were, the function of another hand. Moreover the ancient Greeks, with this in view, called the thumb *ballum*, because it alone springs upon the backs of all the other fingers, the name being derived from ἄλλομαι (allomai), which means to leap.

The index finger (*digitus salutaris*), or, according to moderns, the *index*, either because we do not salute without first having pointed something out, or because this finger is pressed to the lips for silence, which is reported to be a salutary precept: the same finger is called by others the *medicus* (physician), perhaps because surgeons most often use it in probing the depths of wounds or ulcers.

Thence to the middle finger (*digitus medius*), which some call the infamous and shameless finger; both because through it the gesture of reproach is expressed, and by reason of its length, because it needs the protection of the others. Some say this is called *lichanos* (λίχανος) "from licking" (παρὰ τὸ λείχειν), because it is employed and licked in tasting the flavour of anything.

Then to the ring finger (*digitus annularis*), or *pronubus*, so called because in marriages it is encircled with a ring — or also called the *medicinalis*, because through it the artery from the heart is believed to penetrate immediately, and therefore in affections of the heart medicines are said to be applied to this finger.

And finally to the little finger (*digitus minimus*) on account of its smallness, or the *auricularis*, because men use this finger to clean their ears. Some call the thumb the Prince, the index the Merchant, the middle the Fool, the ring the Student, and the little finger the Lover; because persons of such station adorned those fingers with rings. Whence the verse:

> *Prince, Merchant, Fool and Student, and Lover.*

And so the hand extended like the palm of a tree is called the *palma*, clenched it is called the *pugnus*, the hollow of the hand is called the *vola*; whence *involare* signifies to hide and to steal. The nails (*ungues*) finally cover the tips of the fingers, from which some endeavour to deduce men's characters.

[catchword: Reliquum]

[marginalia: Humeri, armi — what they denote / Inter-scapilium — what part it is / Lacertus, who is called so / The names of the fingers and their etymology]

It remains for us to descend to naming severally the other lower parts. From the lower part of the trunk, between the hips, hang the male organs — namely the testicles and the penis (while in females is observed the vulva, as it were a *valva*, because through it as through a door the offspring passes out). This part is also called the *membrum* by excellence, since of the shameful parts this alone, among all the members, is able to generate. For this reason the Ancients assigned the care of gardens to Priapus, since gardens are always more fertile than fields. It is moreover called *mentula* from projecting (*eminendo*), *mutus* ("mute"), *verpa* from the turned-back skin; and for this reason the Jews, being circumcised, are nicknamed *verpi*. It is also called *natura*, because a great power of birth resides in it; likewise *nervus*, *vena*, and *inguen* in Juvenal, though this last name belongs to both sexes. Again, *penis*, because it hangs downward like the tail of a brute. Some call it *psolon*, but this name derives from the Greek ψωλή (*psolee*) signifying the prepuce. By others it is called *colis*, as it were *caulis*, a word indicating a staff or spear; whence afterwards the testicles (*colei*) are named. Finally it is called *veretrum*, perhaps from *verenda* ("things that inspire reverence"), since these parts can only be named with modesty. From the root of this member hangs the membrane called the *scrotum* or *hernia*, containing the testicles (*testes* or *testiculi*), so called because they bear witness (*testimonium*) to virility: whence someone, seizing the occasion for a verse about them, wrote:

> *Both testicles are called to testify — as witnesses to sex,*
> *Since by their wickedness they are enrolled alike.*

The hips (*coxae*) on either side, or the thighs (*femora*), so called from bearing (*ferendo*), depend on these; though between *femur* and *femen* some authorities allow a certain distinction, the former word signifying the outer part of the hip, the latter the inner and softer part.

The boundaries of the hips are the knees (*genu*), named from *genae* because the knees of an infant in the womb are touched by the cheeks. The upper parts of these are called the *poplites*. From the knees begin the legs (*crura*), named from striking (*a supés*, "pulse"), and terminating in the ankle; the front parts of these are called *tibiae*, the rear parts *surae*. The part from the flexure of the foot to the end of the heel is called the *petasus* and *perna*; and therefore the swellings caused by cold in that part are called *perniones* by physicians. Some unskilled persons have named this part, together with its appendages, *perna* and *petason*. Those parts, moreover, that are comprehended under the name *petasus*, are called in brutes *suffragines*, as it were *subter factae* ("made below"). Finally, the foot (*pes*) is reckoned in the last place, made up of many parts: namely the heel (*calx* or *calcaneum*), the ankle (*talus*), the sole (*vola*), and the toes (*digiti*). For the sole of the foot comprehends the heel, the sole, and the toes. To these, as a crowning touch, let us add the distinction that falls between *membra* and *artus*: for *membra* denote trunks, while *artus*, named from binding (*arctando*), signify the node and junction of the members.

ANATOMICAL.

Having weighed the external parts with diligence, we have thought it worth the trouble to examine the internal ones severally as well. But in order to accomplish this accurately, it is necessary to divide the body into parts; wherefore some have distributed the human body into head, belly, and limbs, though Plato in the *Timaeus* called the head not a limb but the whole, intimating that man was born for the sake of contemplation, and that the other members were therefore fashioned to serve the head. Aristotle divided the human body into head, neck, thorax, two arms, and two legs. More recent anatomists have divided this body — excepting the arms and legs — into three bellies. They named the first belly the head, the second the thorax, and the third the lowest belly. The first belly, according to Galen, was constructed for the sake of the brain, the second for the sake of the heart, and the third for the sake of the liver. The head was fashioned by nature entirely of bone, for the protection of the brain, since this member was the chief one and the principle of voluntary motion. The lowest belly is entirely fleshy, not only that it may contain a great quantity of food and be extended in the conception of women, but also that it may be more apt for expelling the excrement. The middle belly — namely the thorax — was composed partly of bones, partly of flesh, not only that it might better expand in drawing in the air, but also

[catchword: quoq;]

[marginalia: Arist. Hist. Anim. cap. 7 / Parts of the belly / The three bellies]

that the muscles, if the thorax were entirely fleshy, might not collapse and compress the heart and lungs.

Beginning from the head, which receives all the senses, and following the opinion of Galen and Avicenna, we shall declare that the parts of the head are the hairs, the skin, the flesh, the pericranium, the cranium, the hard and the thin membrane — that is, the dura mater and the pia mater — the brain, its three ventricles, the *rete mirabile*, and the basilar bone. The cranium, according to Galen, consists of seven bones joined together by sutures: for nature did not fashion one continuous bone, so that through the sutures excretions might be expelled more readily. It happens, however, that human skulls are sometimes seen without sutures: for Herodian relates that in the slaughter at Plataeae a skull of a Persian was found without the joining of sutures. Indeed Caelius Rhodiginus records that the skulls of Ethiopians are loose with no sutures. Aristotle also declares that a human skull was once seen without any suture at all. When the cranium is removed, two membranes — the hard and the thin — appear, and when these are lifted, so great a quantity of brain is observed as can never be seen in any animal of the same size. The brain therefore has two parts, an anterior and a posterior; the anterior part is divided into two parts by a certain intersecting membrane, which, from its shape, is called by anatomists the *falx* (sickle). Below the brain are three ventricles, in which the animal spirits are generated, and where a certain substance resembling a worm in form is observed. Near the elevated anterior part of the brain, little fleshy knobs most resembling the heads of breasts may be descried, which are therefore called the mammillary processes, through which the sense of smell is accomplished. Likewise there appear two large nerves called the optic nerves — that is, the visual — which, arising from the brain, travel to the eyes. Then if the brain is further elevated, the second pair of slender nerves appears, which pass to the eyes for the sake of voluntary motion; the third pair of nerves extends to the members of the face; the fourth pair, together with a portion of the third, descends to the middle belly. From these afterwards arise the recurrent nerves, proper to the voice. The fifth pair travels to the petrous bone situated at the root of the ear. The sixth pair of slender nerves extends to the palate for the sake of sensation, and the seventh pair serves the tongue.

When the brain is entirely removed, two lower membranes are discerned, along with the basilar bone — the hardest of all bones, the base and foundation of the brain and of the head; this is divided into the petrous bones of the nasal passages, two lateral bones, and the bones of the eyes. In the eye thereafter one may examine muscles, seven tunics, and three humours — namely the aqueous, the crystalline, and the vitreous. The ear, however, is placed on each side of the head so that sound might be perceived from either side; its exterior cartilaginous part was made for protection. The cavity of the ear is covered by a thin membrane woven of the tiny filaments of the auditory nerves, which is called the tympanum. A little lower the teeth offer themselves for consideration, so called because the Greeks name them ὀδόντας (*odontas*). Their number is wont to be variable, since more are seen in men and fewer in women: indeed in some men thirty are sometimes observed, whereas in others only twenty-eight. All teeth are not of the same shape, for the front ones, apt for cutting, are called incisors, and the next ones are the canines, shaped like dog's teeth, of which two guard the right side and two the left; the rest are called molars because they grind food that has been cut and broken by the front teeth.

We shall now descend to the middle belly — namely to the thorax — which is contained by the diaphragm above and the lower fork below; this part is by some called the chest (*pectus*), as it were made compact of joined ribs, or as it were a comb (*pecten*), since these bones imitate the shape of a comb. The bones composing this part are twenty-four ribs, seven sternal bones, and adding the two fork-bones called clavicles, there result thirty-three bones in all. It should be noted in passing that the number of ribs is sometimes variable: for Schenck mentions a woman who was furnished with twenty-five ribs. And Jacob Carpus in the public anatomy of the year fifteen hundred and twenty-five observed a true double rib, where it joined chiefly to the bones of the chest. Among the twelve ribs on each side are eleven interspaces, in which are twenty-two intercostal muscles, called by the Greeks μεσόπλευριοι (mesopleurioi); besides these, and the diaphragm, two are observed in the upper part and two in the lower, likewise three muscles of the neck, seven in the back, and eight in the lowest belly, so that they amount in number to forty-four.

[marginalia: Gal. lib. 1 cap. 3 / cap. 1 / Gal. lib. 13 de usu part. cap. 29 / Lib. 9 / Lib. 13 lect. — Caelius Rhodiginus — Arist. de anim. cap. 28 / lib. 3 de anim. cap. 7 / Mammillary processes — How many pairs of nerves / Tympanum — what it is / Number of teeth / Bones of the thorax]

Within the chest are three membranes: the first is the pleura, clothing the inner surface of the ribs; the second is the mediastinum, which separates not only the cavity of the chest but also the lungs into two parts; the third is the diaphragm, which partakes more of the nature of a muscle than of a membrane. Between the lungs, the heart — of pyramidal shape — is situated within a capsule or pericardium. This organ is in some persons reported to have been found covered with hair, as Dodonaeus relates of Jacob the robber, who was suspended from the gallows; being set down and treated as already dead, though he was in fact still living, he recovered — but because he was a man of depraved mind and wicked disposition, he relapsed into the same crimes and was likewise caught and hanged; wherefore those who marvelled at the man's wickedness, upon opening his corpse, found the heart covered all over with hair by reason of his extraordinary heat. The same was observed in the heart of Aristomenes the Greek, who is reported to have single-handedly put whole battle-lines to flight. In the heart, therefore, Galen observed fat, two auricles on the outside, and on the inside two ventricles. Although Aristotle mentions a third ventricle of the heart, yet this third is that part of the right ventricle which inclines toward the left. In the right ventricle two openings appear: one of the vena cava bringing blood, the other of the pulmonary vein transmitting blood to the lung; wherefore, unless blood were returned to the left ventricle of the heart, the opening of the pulmonary vein would undoubtedly be wider than the opening of the vena cava, and all the blood entering the heart could be transferred to the lung. Furthermore, in the left ventricle of the heart the opening of the aortic vein is observed (which the most illustrious Falloppio at Padua, in the dissection of a certain corpse, saw and marvelled at as entirely ossified) — wider than the opening of the venous artery through which air is received: hence anatomists perceive that the heart receives something from the right ventricle, since the opening by which it is emitted is larger than that by which it is received.

Next for consideration is the lung (*pulmo*), which is composed of spongy flesh, membrane, sinew, and vessels. The vessels are the rough artery (*aspera arteria*), which Cardanus reported to be ossified in a certain man taken down from the gallows who was not yet dead; the venous artery from the left ventricle of the heart; and the arterial vein arising from the right. The windpipe of the lung — the rough artery — is distributed into four branches corresponding to the four lobes of the lung, though Schenck in the corpse of Charles IX, count of Savoy, observed five lobes of the lungs. Near the top of the rough artery, a glandular flesh was fashioned by nature for the sake of moistening, lest the voice become hoarse from dryness. On the occasion of treating the parts serving respiration and voice, the lips (*labia*) come to be considered, which are also composed of sinew, flesh, skin, and membrane, since they must be moved toward every difference of motion.

Thereafter, at the end of the palate, a little piece of flesh shaped like a grape-berry, and therefore called the *uvea*, is observed. Above the top of the rough artery the cartilage called the *epiglottis* was placed by nature, lest any food might fall into the windpipe of the lung. The tongue is also observed there; at its root is situated a bone bearing the shape of the Greek letter Λ; this receives two nerves — one soft, extended over the surface of the tongue, the other dispersed within its substance — so that if one were injured, the other might perform its proper function unharmed.

From the thorax there is a passage to the lowest belly, which consists of containing and contained parts. The containing parts are the outer parts, and most especially the abdomen, composed of the cuticle, skin, fat, the fleshy membrane, the straight muscles, the lateral muscles ascending and descending, and also the peritoneum: this membrane is called by the Greeks περιτόναιον (*peritonaion*), as it were stretched all around; when the abdomen is cut open and the peritoneum lifted, the omentum presents itself to view, covering the front part of the stomach and the intestines. When the omentum is removed, the intestines of two kinds — namely the slender and the large — are seen. The slender intestines are three in number: the first, from a length of twelve fingers, is called the duodenum; the second, the jejunum, because it is always found empty; and the third the ileum, either because it suffers the iliac passion, or because it occupies the position of the flanks (*ilia*). The large intestines are likewise three: namely the caecum, furnished with only one opening, which in man is very small and serves rather as some ligament than as an intestine. The second is the colon, because it has many *cola* — that is, many cells; the last is called the rectum from its shape.

The mesentery is that membrane teeming with an abundance of veins, joining all the intestines together; and for this reason it is called by the Greeks μεσεντέριον (*mesenterion*), because it is ἐν μέσῳ τῶν ἐντέρων (*en mesō tōn enterōn*) — that is, in the

[catchword: medio]

[marginalia: Membranes of the chest — how many / Cor pilosum — observed in / In lib. de dissect. anim. / Pulmo — from what composed / Labia — from what composed / Tongue / Parts of the lowest belly / Intestines — what they are]

midst of the intestines. These being examined, the stomach is considered — that is, the ventricle, as it were a small belly, situated between the liver and the spleen and having a round, or rather gourd-like, shape, of which the upper part inclines to the left and the lower to the right, since this shape is more capable of containing a large quantity of matter. Furthermore, the stomach has two openings: the upper, which is wider than the lower, is called the mouth of the stomach (*os stomachi*) and is continuous with the oesophagus; the lower is called the *pylorus* — that is, the gatekeeper. The mouth of the stomach is attached to the back between the twelfth and thirteenth vertebrae, where the last rib ends; wherefore in affections of the mouth of the stomach it would be more effective to anoint the posterior part rather than the anterior.

The liver (*hepar* or *iecur*), placed in the right hypochondrium, is called the workshop of the blood; in its concave part all the veins that travel to the intestines are gathered into one. Schenck has, however, observed the liver on occasion on the left side and the spleen on the right. Indeed he records a man who was distinguished by a double liver. But what fills us with even greater wonder is what he narrates of a man lacking both viscera — for on the eleventh day of October in the year of the Lord fifteen hundred and sixty-four, in the dissected corpse of Matthias, a merchant of Antwerp, German by nation, not even a trace of the liver or spleen was found; the substance of all the intestines, however, was fleshy, and the vena cava took its origin from the intestines: wherefore in this man, while living, the intestines performed the function of both viscera. To return whence we digressed: near the concavity of the liver the gall-bladder (*cystis fellis*, or *vesica fellea*) is seen; this bladder, according to Galen, receives the superfluous humour of the bile, which thereafter descends gradually through the duodenum and is purged. The spleen occupies the left hypochondrium, and is of a quadrangular shape, adhering to the round stomach; the office of this viscus is to attract the sediment of the blood and the melancholic humour. But it is marvellous, as Schenck observed, that in some persons two or three spleens have been found, and sometimes none at all; which happened in our own time at Bologna in a woman who had drowned herself — and in the opened corpse only the liver was seen, of which one part was black and quadrangular like a spleen; which part beyond all doubt was taking on the function of the other organ.

When the bowels and viscera are removed, the kidneys (*renes*) appear on the right and left side together with the branches of the veins arising from the vena cava, of which one penetrates to the right kidney, the other to the left. Here one must marvel at the unequal position of the kidneys, since one of them is higher than the other: for this reason Galen wrote that the vena cava arising from the liver, while still ascending, curves toward the back and makes for the right kidney, and then a little lower penetrates to the left kidney. These, moreover, are the veins called emulgent, because they draw off the aqueous substance and force it through the kidneys to the bladder. From the kidneys the ureters are inserted into the bladder, through which the aqueous humour separated from the blood — that is, the urine — is purged. These passages enter the bladder with such art that urine, once entered, cannot exit by the same way; so that Galen, contemplating the artifice of these vessels, was moved to admire the providence and singular wisdom of the Creator. The bladder is then observed to be sinewy with a fleshy and muscular neck, so that the urine might be conveniently retained and expelled. It should be noted in passing that in some men two urinary bladders have been found: for Schenck mentions a woman of thirty years, whose opened corpse presented two bladders, one situated in its natural seat, the other arising from the right side of the neck of the womb — double the size of the natural bladder and full of urine; though in it no passage admitting or emitting urine was to be seen.

Next follow the vessels destined for generation, which Galen declared to be the same in both men and women. His words are these: whatever parts are dedicated to generation, all of these are also found in women, differing in this one respect only — that in women such parts are hidden within, while in men they appear outwardly. In men, therefore, there are the member (*virga*), the testicles, and the spermatic vessels. The member (*virga*) is continuous with the neck of the bladder, bound by many ligaments that take their origin from the pubic bone. But the spermatic vessels are said to be of two kinds, because some prepare and others convey the seed. The preparing ones are those that depart from the testicles and wind around the upper part of them, but by no means enter the substance of the testicles themselves. The others penetrate more deeply to the very passage of the member and eject the seed already generated. But in

[catchword: At in]

[marginalia: Lien's sister, the stomach / Lib. 3 obser. obser. 8 / obser. 3 — obser. 7 / Lib. 4 de usu part. cap. 4 / Lib. 3 obser. 84 / Woman without a spleen / Gal. lib. 14 de usu part. cap. 5 / Lib. 3 obser. — A woman with two bladders]

In women the genital parts are three in kind: namely the spermatic vessels, the ovaries (*testes*), and the uterus. These vessels are six in number — four preparing ones, namely two veins and as many arteries — of which those on the right side arise from the trunk of the vena cava descending below the kidneys, and those on the left side from the emulgent vein; but both arteries descend from the trunk of the aorta. These preparing vessels, before they reach either ovary, are distributed into two parts, of which one carries the material of seed to the ovaries and the other carries proper nourishment to the body of the uterus, as well as in great measure the nourishment of the foetus — indeed, the menstrual blood, and together with it a great flood of humours at times. The other two vessels are called the deferent ones, which, arising from the ovaries, extend to the horns of the uterus and conduct the perfectly elaborated seed into the cavity of the uterus.

[figure caption: The uterus with its outer orifice and adhering vessels.]

The Uterus.

[marginalia: Genital vessels of woman / Gal. lib. 14 de usu part. cap. 6]

The uterus, situated between the rectum intestine and the bladder, is composed of simple and composite parts. The simple parts are the tunics, veins, arteries, nerves, and ligaments; for it receives the nerves of the mother from the loins and the sacral bone, into which certain small branches of the sixth pair of nerves are inserted: hence it comes about that there is so great a sympathy of the uterus with the stomach, the brain, and the other superior parts.

It should here be noted that the human uterus is very rarely found bicornate, as in the womb of brutes; and moreover the internal cavity is not divided by any cells, as many have mistakenly supposed. But since the bowels of woman and man present no difference save in the parts dedicated to generation, it has pleased us to exhibit here a view of the matrix with its outer orifice, the ureters attached to it, and its whole structure for inspection.

In the following figure, moreover, we show the same uterus, the pudendal recess having been cut away, with its hidden internal orifice, where conception is formed and the seed is enclosed until the appointed time of delivery. In this same figure the bladder also, severed at the neck, may be observed: but we shall not endeavour to explain this more exactly, since it is everywhere demonstrated in the monuments of the anatomists.

[figure caption: The uterus showing its internal orifice.]

[marginalia: The human uterus rarely bicornate]

But so that the parts of the womb composed together may be better known, we shall here discourse upon them somewhat more carefully. There are four of these parts, of which the first is altogether external, consisting of many and diverse members; wherefore it is granted the name of a plural, and is called the female pudenda. Yet properly this external part is called the *vulva*, as it were a valley, or valve; although the whole womb, divided into its four parts, is called *vulva*, because it is divided through its foremost and most capacious opening into two parts — namely the right and the left — which with the least effort are opened and closed like the valves of a door. This part Galen in many places named the *cunus*, perhaps from the wedge, or cleft, which this part represents. The second part is called the *sinus pudoris*; the third the true neck of the womb; the fourth the body of the womb. Of the aforesaid parts, some are so external as to be exposed to the eyes of all; others so internal as to be revealed only by dissection. Moreover, of these parts several are common to virgins and to women who have been corrupted, though few are proper to each.

We shall therefore treat first of the parts common to both kinds of woman, and must begin with those that are most apparent: these are the pubes, the two labia of the pudendum, the cleft lying between them, and within that cleft the prolongation of the nymphae. The *pubes* is that external part which in due time is clothed with hair. The labia are like two soft little mounds composed of a certain cutaneous, fleshy, glandular, spongy, and fatty substance, situated on either side of the great cleft. Beyond these labia project two apophyses, partly fleshy and partly membranous, which physicians commonly call *nymphae*: in Greek these are otherwise called *pterýgia* (πτερύγια), that is, wings. Why the aforesaid parts should now be called nymphae is not entirely clear; unless we choose to say that in Greek *nymphae* are called brides, and since these parts are the first to admit the bridegroom in intercourse, they seem therefore to bear the name of nymphs — or rather *nymphae*, as it were *lymphae*, because they preside over waters and springs, just as these little caruncles stand beside the urinary passage and the sinus pudoris, from which various humours spring as from fountains. We may add that just as nymphs are sometimes called the guardians of mountains, so likewise these caruncles are, as it were, stabled among the hills.

Let us now approach the great cleft, within which five things worthy of observation are found. The first is the degeneration of this cleft into a fossa; the second is the clitoris, which is situated at the anterior and upper end of the cleft; the third is the urinary duct, at whose extremity is the orifice of the neck of the bladder, very short, with a certain fleshy prominence around it covering the opening; the fourth is the orifice of the *sinus pudoris* placed in the middle of the fossa, which appears to be composed very differently in virgins than in women; the fifth is the broad and hollow fossa situated before the *sinus pudoris*, which presents the shape of a little boat. The more difficult parts are therefore explained first.

The clitoris, or *clitorís* (χλειτορίς), as it were closing the cleft, does not appear to differ from the male member save in length, in the urinary passage, in the emission of seed, and in the absence of muscles; this part excels greatly afterward in the matter of titillation; for this reason recent anatomists, such as Columbus, have designated this little member the *oestrus* of Venus and the sweetness of love. This is that part which women of depraved lust most wickedly abuse with one another in mutual frictions: wherefore they are called in Greek *tribades* (σριβάδες), that is to say, rubbers. Finally, those little caruncles placed beside the urinary duct by nature were set there to impede the air, lest after the emission of urine it should enter the capacity of the bladder. And let what has been said of any part whatever common to virgins and to women who have been corrupted suffice.

Now if we hasten to the other parts, we shall encounter the orifice of the *sinus pudoris*, having its seat in the fossa, and in virgins it is such as nature formed it; whereas in women it appears such as coitus leaves it, with no hope of recovering its former integrity. This protrusion, or sinus, rejoices in many names; it is called the flower of maidenhood, the hymen — as it were a threshold — the bud of a flower, the column, and the virginal enclosure. This little member is composed of four caruncles resembling the berries of the myrtle, which are situated as it were at four corners of the said sinus, and are then connected by four fleshy membranes placed between the individual interstices of the caruncles, which extend together with them in nearly equal measure: wherefore this protrusion, constructed of four caruncles and as many membranes, ends in a truncated cone; and for this reason it is most aptly compared to an alabaster — that is, to the calyx of a half-opened rose — and by Galen is called a membrane similar to a prepuce; for it is a protrusion perforated at the extremity like a prepuce, but somewhat more fleshy

[catchword: and]

[marginalia: On the female pudenda. / Parts external to the pudenda. / The nymphae of women, what they are. / The clitoris, what it is. / The flower of virgins, the hymen, and the virginal enclosure, what they are.]

and softer than a prepuce. But it is to be noted that in some virgins these caruncles and membranes producing the aforesaid protrusion are sometimes shorter, sometimes longer; sometimes thinner, sometimes thicker — as likewise the orifice occupying the extremity of this protrusion is generated more narrowly in some women and more broadly in others; from this arises greater or lesser difficulty at the first congress.

[figure captions: The womb with the foetus placed within it.]

[catchword: The]

The blood, therefore, flowing in the first act of intercourse comes not only from the vessels, but also from the fleshy membranes lacerated and from the caruncles chafed: and this laceration is called *defloration*, because that protrusion which resembled the calyx of a rose is destroyed.

These matters being understood, we come next to explain the third part, which is called the neck of the womb. This consists of a membranous substance, as do the remaining parts of it; its orifice presents the figure of the mouth of a newly whelped puppy, or of the mouth of a Tine fish, and the interior opening of the womb is named among physicians and surgeons the orifice of the womb. Although this is continuous with the spacious cavity of the *sinus pudoris*, it is nonetheless most narrow, save at that moment of time when it receives the male seed, or when some solemn evacuation occurs, such as the menses, or the purging of vitiated humours. But lest the seed once received by the womb should easily slip away again, nature has placed along the length of the whole cavity of the aforesaid neck certain roughnesses such as are wont to be observed on the tongues of cats, the roots of which are set downward and the edges tend upward, so that ingress might be easy but egress difficult. Wherefore after the seed is received, from conception until delivery the mouth of the womb is so exactly closed as not to admit even a probe; as Galen has excellently attested. Yet that this is not perpetually necessary is shown by daily experience; for in pregnant women there are at times great evacuations of blood and purgations of humours, and occasionally ill-formed conceptions are expelled, the foetus being preserved. But these things are rare, as superfetations are rarer still.

The fourth part, most excellent of all, is the uterus, for whose sake the aforesaid parts, both simple and compound, were fashioned by nature. The uterus is called from *uter*, a bottle, because, like that vessel, it readily extends and contracts; it moreover presents the form of a moderately sized pear, and has a substance similar to the substance of the remaining parts — namely, membranous. In pregnant women afterward the uterus is rendered larger by extension, and especially in the growth of the foetus; indeed the infant then curves itself and assumes a spherical figure, turning its head toward its knees, drawing both legs together, placing both hands upon the knees, facing with its front part toward the back of the womb and turning its back toward the belly of the mother — whatever many anatomists may have written. Rufus, however, ascertained this by experience, as is observed in the figure above.

Finally, to bring this section to a close, it remains for us to say something of the bones of the spine and the remaining members. The back is compacted of several bones, within which resides the spinal, or dorsal, marrow; and the back is divided into four parts — the neck, the *metaphrenum*, the loins, and the sacrum, that is, the great bone, since in Greek *hierón* (ιερόν) signifies both sacred and great; for this bone in comparison with the other vertebrae of the spine may justly be called great. The *spondyli*, therefore, or vertebrae up to the sacrum, according to the view of Galen, are four-and-twenty in number, of which seven vertebrae constitute the neck, twelve the thorax, and five the loins. If we regard the arms and hands, omitting muscles, tendons, nerves, arteries, and veins, the bones present themselves; and the first is called the bone of the arm, or the *adiutorium*, by some the *ulpa*. This bone is joined to the scapula, and toward the elbow is joined with two other bones called the *focilla*, which extend as far as the *raseta*, or carpus. The carpus, according to Galen, is made up of eight bones, and the metacarpus of four.

Since Galen has treated at length of the bones of the fingers and their uses, we refer readers to him. If we consider the lower bones, we shall encounter the bone of the femur, or hip; but that the structure of these bones may be better understood, it must be recalled to mind that at the end of the vertebrae, where the sacrum was said to be, two other bones adhere to this bone, and the anterior part is called the os pubis; the superior, the os ilium; the posterior, the os anchae, whose concavity is called the os pyxidis; and this cavity the head of the hip-bone then fills, which on the other side is joined with the kneecap by means of a certain round bone, and thereupon follow the bones of the tibia, which are two: Avicenna called them the greater and the lesser reed; others have designated them flutes. These bones at their end have two prominences, which are named the *claviculae* or *tali*.

Finally, the foot of man was fashioned by nature not only for walking, but also for grasping; and for this reason it did not have the same construction as that of brute animals: wherefore

[catchword: Galen]

[marginalia: Defloration, what it is. / Description of the neck of the womb. / The uterus, the most excellent part. / The vertebrae, how many they are. / Galen de usu partium lib. 15 cap. 67.]

Galen has set forth that the parts of the foot correspond in proportion to the parts of the hand, since the toes resemble one another in respect of shape, number, and order; hence we reckon the number of bones to be six-and-twenty. But the reason why the great toe of the foot has only two bones, whereas the thumb of the hand possesses three, is this, according to Galen: the lower bone of the thumb of the hand is detached from the metacarpus, whereas in the foot it is joined to it. Moreover, the great toe of the foot was made larger than that of the hand, because it had to assist the bending of the foot. For a fuller knowledge of the bones, therefore, we have not been reluctant to represent before the reader's eyes the figure of the human skeleton and likewise that of a bird, so that the reader may contemplate the great correspondence between the two; since we have found these figures in the Museum.

The Human Skeleton

[Figure]

Explanation of the figure comparing the heaping of human bones with the bird's skeleton

A. B. The beak, which performs the office of teeth and lips.

M. The bones which the French call *Pallerons*, long and narrow — one on each side.

PP. The bone called the *furcula*, found in no animal other than the bird.

D. Six ribs attached to the thorax in the anterior part, and six vertebrae in the posterior part.

[marginalia: Galen de usu partium lib. 9 / The great toe of the foot has two bones. / The foot's digits.]

The Bird's Skeleton

[Figure]

F. Two long hip-bones.

G. The small bones of the uropygium.

H. The patella.

I. The sutures of the skull, which scarcely appear unless the cranium has been boiled.

K. Twelve vertebrae of the neck and six of the back.

L. The bones of the two wings.

N. The bones of the arms, or scapulae.

O. The thorax.

P. The small bone of the elbow, or the radius.

Q. The larger bone of the elbow, or the ulna.

R. The carpus.

T. The appendage which is in the wings, corresponding by proportion to the place of the thumb of the hand.

T. The metacarpus.

V. The extremity of the appendage, which is as it were a finger.

V. Several bones at the extremity of the wings resembling the palm.

X. The larger bones of the femora, one on each side.

[...]. The larger bone of the leg, called the tibia.

Z. The smaller bone of the leg.

[...]. The bone given to birds in place of the human leg, answering to the ankle.

AA. The toes of the feet, of which the hind one is in place of the great toe.

BB. Four joints in the great, or outer, toe.

CC. Three joints in this toe.

DD. Two joints in this toe, as in the hind one.

PHYSIOGNOMY

The conjecture of divination which they have been accustomed to elicit from the human countenance does not seem at all to be approved according to the sacred page; since we read in John: *Judge not according to the face, and the appearance, or the outward judgment judge ye.* Nevertheless this assertion of John by no means forbids us from being able to judge something from the human aspect and form; inasmuch as this is referred to those who form judgement from depraved affections and not from the matter or cause itself, but depart from the truth of the thing by the acceptance of persons, by hatred, or by contempt of men — which vice is to be most carefully avoided.

And so, although the aspects of men do not differ in essential species, the accidental difference is nonetheless to be observed, since this serves us greatly in discerning their characters. Wherefore if we briefly consider all the parts of the human body, from their various disposition and figure diverse characters of men are likewise elicited.

The head, first of all, if it be large in comparison to the rest of the body, indicates men who are dull; if it be small and slight, foolish; but of middling size it is natural and indicates the best senses. When the figure of the head is so enlarged as to resemble a pine-cone, then men filled with such a head will be shameless and boastful; just as men with a short and rounded head are simple and forgetful. When the head is thick and flat on the surface, it points to men imbued with every kind of vice. If it be oblong in the manner of a hammer, men who are prudent and shrewd; if concave in the front part, it signifies those who are wrathful and deceitful.

The head is covered by the hair, which if it be curly is observed in timid men; if erect, in rude men. The best sign consists in the mean between these.

Hair that is hard, such as that of wild beasts, denotes a brutal man. Soft and copious hair indicates a womanly nature. For this reason the mean between these is approved. Black hair is seen in spirited men; red and whitish hair, such as that of the Scythians, signifies rusticity and sluggishness. Lightly red hair adorns men who are teachable and prosperous. For intensely red hair is disapproved, having brutal manners for its companions. Of this colour a certain Poet perhaps spoke when he sang:

> *Red of hair, black of face, short of foot, harmed in the eye —*
> *You make a great show, Zoilus, if you are good.*

If we regard the forehead, it will either be too narrow — which will pertain to men who are stolid, unteachable, and given over to the belly — or it will be too wide, as is observed in oxen, and this will belong to men of duller understanding and to the idle. A brow that is lower will betoken a pusillanimous man; lower still and more rounded, that of a foolish and inconstant man; just as a longer brow adorns a benign and teachable man. A square and rightly formed brow is an indication of magnanimity, prudence, and probity. When tense and shining, it signifies flattery. A clouded brow befits the audacious, and an elevated one the liberal. When it is swollen near the temples, it will denote men puffed up with pride and rough of intellect. A wrinkled brow belongs to a man given to reflection. When it is rough and swollen in various places, it will designate a man who is maliciously foolish and immoderately thirsting for gold.

If the various figures, colours, and movements of the eyes are considered, we shall also be able to draw from these various characters of men; for small eyes belong to a pusillanimous man, and large eyes to a sluggish and gentle one. The concavity of the eyes shows men who are malevolent and rigid, just as their prominence shows the foolish. Eyes that are somewhat concave belong to the magnanimous, and those very open to the impudent. Oblong eyes belong to those who are wont to dissemble and to employ the imposture of words. Small and trembling eyes are proper to lovers. Oblique eyes reveal men prone to anger and deceitful. When they move quickly and variously, and are now and then still, these befit the rash. Eyes that move swiftly — indicating sharpness of sight — are observed in the fraudulent and faithless. Lastly, the greater the eye, the less malice and the greater folly will prevail.

[marginalia: Physiognomy. / John cap. 7. / Small eyes. / Eyes of what sort.]

When the corners of the eyes are filled with flesh and adhere to the nose, they will denote men contaminated by the confluence of all vices. The colours of the eyes too are wont to indicate something among physiognomists; for eyes somewhat suffused with blood are observed in the shameless and very wanton man. A very black colour foretells timidity, just as the black and yellowish colour betokens goodness of soul. If the colour be tawny — such as the colour that the eyes of lions present — it will without doubt pertain to magnanimity. If fiery, it will denote the shameless. If finally it be clear, as we observe in the eyes of cocks, we shall without doubt refer such eyes to men inclined toward effeminacy and extravagant luxury.

The ears are not to be excluded from the conjecture of divination; for small ears, such as those of apes, pertain to buffoonery; large ones indicate dullness of the senses, since such are seen in asses. Men slack — that is, having large and flaccid ears — are foolish. Those furnished with round ears are for the most part unteachable. Those distinguished with long and narrow ears are not free from envy. Finally, when men have ears adhering very closely to the head, they cannot withdraw from malevolence. Lastly, ears filled with hair contribute to good hearing, whereas ears that are moderate and natural conduce to the best sense.

Thick extremities of the nose indicate lustful men; thick and turned-up ones, idle and sluggish men. If the same be sharp, they denote men very prone to anger, as a wide and open nose is wont to signify the same. If the nose be round with blunt extremities, it is an indication of magnanimity, which an aquiline nose is also wont to show. When the nose is round with slender extremities, it is then referred to the inconstant. If it acquire a curvature drawn from the forehead, it begets shamelessness and levity. A snub nose accompanies those who are dissolute in luxury. Lastly, a long nose extended toward the mouth is not found without probity and audacity.

From gracile and relaxed lips, such as are observed in lions, we can foretell magnanimity; from gracile and hard ones, such as appear in the swine, irascibility; from the upper lips alone being thick, such as the ass is furnished with, foolishness. If finally we look upon someone with the upper lip turned back and the gums bared — such as is the usual grimace of dogs — we must declare him to be a contentious man. Likewise, long and firm canine teeth appear in a man who is a servant of greed and who readily conceives the impulse of anger. Thick and broad teeth, moreover, are to be seen in men captured by vainglory and burning with the ungovernable desire of immoderate lust. The contentious utter a loud and powerful voice; one that begins on a deep note and ends on a sharp one belongs to the irascible. Those who are more prone to anger than tigers emit a voice that is not very deep or high. A voice sharp and soft is observed in the effeminate. The gentle emit a soft voice like that of sheep. For a voice sharp and strong, such as that of goats, pertains to the insane.

If we consider the face: idle men have a fleshy face; the curious, a lean one; the timid, a large and fleshy one; the illiberal, a small one. The malicious and dissembling have a face that looks downward. The quarrelsome have a flat face without swelling. The ill-mannered have a deformed and distorted one. The shameless have a long face. The simple-minded have a very small and round one. The bold have a long and lean face. The liars have a face wider from the forehead to the cheeks, and at last narrower at the cheeks, diminished by envy. Furthermore, the colour of the face: a reddening is observed in the modest; but when the cheeks are overspread with too great a redness, it indicates lovers of wine. The obscene have cheeks and nose sprinkled with a livid redness.

The face is further completed by the chin, which we must also consider; for a sharp chin, as in a dog, denotes faithful men; a small and short one, as in a serpent, envious and harsh men. A square chin is seen in men burning with the desire of nearly all the virtues.

[marginalia: Eyes of lions, what they are like. / What the nose signifies when of various forms. / Teeth, thick and broad, what they signify. / Nails.]

A long chin, sharp about the lower part, designates men who are cunning and double-faced; and a round one, the effeminate. If finally we observe the flesh beneath the chin toward the throat with its hollow, we shall foretell a man oppressed by destructive lust. Hanging from the chin is the beard; one filled with copious hairs pertains to the melancholic. If it be rightly formed, it demonstrates the best temperament of the man; for in a beard that is unkempt and misshapen the whole opposite obtains. But a bearded woman cannot be led away from the overflow of venery. Hence the saying is established: *A bearded woman is to be greeted from afar.*

Now the time has come to descend to the lower parts by way of the neck and chest. For a thick neck is found in a strong man, a slender one in a weak and effeminate man. If the neck be thick and fleshy, as in bulls, it shows irascible men; one that is moderate, such as that of lions, shows the magnanimous; long and slender, such as that of deer, the timid; and finally a very short neck, such as that of the wolf, shows the deceitful.

Equally, a large and rightly formed chest is observed in robust men; an ample one in the stronger. If it be hairy, like that of birds, it signifies men who are indeed spirited, but unstable. A chest without hair shows the timid and soft. A very fleshy chest shows the sluggish and unteachable. But when the space from the collar-bone to the stomach is greater than that from the extremity of the thorax to the navel, it foretells prudent men. Fat breasts hanging downward are seen only in effeminate men. Lastly, if in the left part of the chest flesh appears thick and elevated, with a mole bearing one or more hairs, Ptolemy from this predicted honour and riches. If the *metaphrenum*, or the space between the shoulder-blades, be considered in the posterior part of the chest, this will either be large, rightly formed, and not at all fleshy — and then it will indicate the strength of a man — or, when it is small and misshapen, it will belong to soft men and to women. If it be curved, with the shoulders turned toward the chest, it shows contaminated manners. If it be supine, like that of horses, madness will prevail in the subject. Similarly, large shoulders belong to the strong; small ones to the weak, and such are those of women and of the delicate man. But elevated shoulders belong to the treacherous, and broad ones to strong men and to those of keen intellect. From this it may also be gathered that ample ribs belong to strong men, and narrow ones to the soft and delicate. Likewise a swelling about the ribs argues loquacity and foolishness.

From the shoulders the forearms depend; therefore those who have these so long that they can touch their knees with their hands without bending the body are strong men, but men of this sort are rare: more common are those who have these maimed, and these are said to be the worst and most malevolent. Adamantius notes that there are some who, in eating, bring the head rather to the hands than the hands to the head, and he judges these to be imbued with evil manners. The fingers of the hand, if they seem in some way to coalesce, belong to the intemperate; if they be short and erect, to the rash. The thumb enclosed within the hand is an indication of avarice. Very long and delicate fingers signify foolishness. Large and rightly formed ones, finally, argue the best constitution of the body. The nails of the fingers, broad, white, and somewhat red, are observed in robust men; narrow and oblong, in cruel men. When they are oblique in the manner of birds, they signify the shameless and rapacious. Small nails belong to old tricksters; raised and white ones to the delicate. From a nail that is fine, shining, and of a somewhat reddish colour, we may argue sharpness of intellect. Moreover, roughness and roundness of the same nails denote men inclined to luxury; and their shortness designates the malicious. Likewise nails marked with white spots are seen in men of decent birth, and those distinguished with black spots are seen in the envious.

The region of the stomach being fat indicates the strong; when not at all fat, the soft; a protuberant belly, the voracious; a small and elegantly formed one, the ingenious; one very hairy below the navel, the loquacious. If the space from the bottom of the chest to the navel be long, it will belong to men who are servants of greed. If it be equal, it will argue the best constitution. Likewise hypochondria that are slender and pressed together, such as those of frogs, are observed in timid men. If they be filled with flesh, they denote the unteachable. A belly very hairy shows not only fecundity, but also immoderate lust; when bare of hair it argues chastity. Prominent hip-bones betoken strength; slender ones, as in women, betoken weakness. Fleshy buttocks are strong;

[marginalia: The beard, what it is like. / The neck, various characters. / The metaphrenum, or the space between the shoulder-blades. / Forearms. / Nails, what they are like.]

fleshy and fat ones are effeminate. For those that are dried out, as in apes, pertain to the ill-mannered.

Slender knees show timidity; curved ones in the anterior part — with which women are for the most part furnished — show the effeminate; fat ones show the timid and liberal; lean ones the robust. Well-rounded knees signify the bold.

Then come the legs, which, filled with many hairs, are observed in men given over to luxury. These, when thick and muscular, accompany the strength of the man. But sinewy and slender ones, like those of birds, argue lust. Thick *surae*, or calves, belong to the intemperate; soft ones to the effeminate. When the *surae* are moderate and rightly formed, they display men of intellect. At the end of the leg is the ankle, which, sinewy and broad, is found in the robust; fleshy in women and delicate men. If such parts be long and fleshy, they denote madness; just as slender heels denote timidity. It remains to say something of the feet, because it would seem in some way absurd to pass over the physiognomy of the foot dryfoot. Large feet and well-articulated, therefore, pertain to the robust; narrow and small ones, such as women have, pertain to the soft and delicate. The sole of the foot that is not at all concave, but so flat as to touch the ground with the whole footprint, according to the teaching of Aristotle, denotes crafty men. Large and fleshy feet in men who are foolish; thick and short ones in the weak; slender and short ones in the malicious; very long ones in the deceitful; fleshy and hard in the dull; small and beautiful in fornicators. Finally, the toes and nails of the feet, if curved as they appear in birds, belong to the shameless; fine nails and of good colour belong to men born in an honourable place; and toes that are joined, as in quails, are referred to the fearful.

We can moreover elicit characters pertaining to physiognomy from the colour, movement, and various actions of the whole body: for a very black colour of the whole body, such as in Ethiopians, as well as a pallid colour, pertains to the fearful; just as a very white colour, such as that of women, belongs to the pusillanimous; a swarthy colour to the robust; a tawny colour, such as that of the lion, to the noble. A red colour, as in the fox, belongs to the cunning and ingenious; a honey colour to the idle; and a flaming colour to the maniacal.

Furthermore, a man with an inflexible neck, an unsteady foot, a nose breathing contempt, with a wanton laugh, directing his eyes now here now there, at once asserting and denying, holding a reason that confesses no reason at all, with disordered questioning and a response that is not at all fitting — such a man, I say, is one into whose soul, as into a muddy cesspool, all agitated things flow together; and such was the portrait that Gregory Nazianzus drew of Julian the Apostate. Men thereafter who walk with bowed shoulders, like lions, are of elevated spirit; those who walk with legs and feet turned inward are soft, like women; those who twist themselves in the body while walking are flatterers; and those who incline finally to the right as they advance are spending an age given over to luxury.

Lastly, there are some who profess to recognize from the physiognomy of the head, the eyes, the stature, and similar features, the planet that is the ruler of the nativity. For George of Venice contemplates a man of fine and middling stature, with somewhat dark eyes tending to largeness, with fair hair and some baldness, and with the incisor teeth rather longer than normal; and thus attests that Jupiter was the ruler of this nativity. Then he considers a man who is faithful, just, imbued with honourable manners, and obedient to his superiors; and from this argues that Jupiter is well-disposed in the nativity. Next he considers a reddish colour of a man, with varied eyes tending to the yellowish, and likewise beard, hair, and other hairs dense and thick with darkness, a middling stature, a round face sprinkled with certain spots, wide nostrils, a terrible aspect, and teeth rather longer than normal; and then he constitutes Mars as the dominant ruler in the nativity. The same George of Venice, weighing up a man with a long face, unequal eyes, joined eyebrows, distinguished by various spots, unsightly teeth, black and sparse hair, deems Saturn to have been the ruler of the nativity.

Many other things of this kind are to be read in the aforesaid author.

Two other things worthy of observation are to be referred to physiognomy. The first would be Metoposcopy, which makes a conjecture of divination from the contemplation of the lines of the forehead; because the forehead has been called by some the mirror of the whole life — since in anger and in other disturbances of the soul, various movements appear in the forehead: wherefore

[marginalia: Metoposcopy, what it is. / The colour of the body, various sorts. / Knowledge of the planetary rulers of a nativity from physiognomy. / Hippocrates de aere, aquis, et locis.]

for just cause Cicero named the forehead the doorway of the soul. Metoposcopy's practitioners therefore contemplate the lines of the forehead as assigned to the years of men, and if they appear well-disposed and not intersected, they foretell a happy and tranquil course of the whole age; and they predict the whole opposite when the lines of the forehead have appeared oblique, wrinkled, and inelegantly placed. This, however, we purposely omit for the sake of brevity. The second thing worthy of consideration would be divination from the nails; but since the most distinguished man Camillus Baldus, a philosopher of no common sort in our age, published a book on this divination while he was yet among the living, we therefore, omitting this, shall proceed to further matters.

CHARACTERS

Among the many and nearly infinite nations of the world's territories we shall be able to affirm that the customs of men are likewise innumerable; since it is commonly said that there are as many customs as there are nations. But the difficulty is increased, because ancient customs grow obsolete from day to day, and new rites are always being introduced, by reason of commerce among diverse peoples. In this arduous matter, if we consult Hippocrates, he appears to gather the manners of men from the nature of the place and dwelling-place, when he contemplates milder manners in men of the plains than in the inhabitants of the mountains; indeed he considers those who inhabit the eastern and northern mountain to be imbued with womanly manners; and he opines that those who dwell on the opposite side of the mountains are filled with brutal manners. He constitutes the dwellers near the sea and neighbouring regions as merchants, as well as skilled in the arts of navigation and swimming.

Astrologers investigate the manners of peoples differently, assigning the diversity of manners to the various natures of the stars under which the nations are subject. Therefore, constituting the Britons, the Germans, and those inhabiting Narbonensian Gaul under the dominion of Aries and Mars, they proclaim that they are distinguished by fierce manners. They report Italy, Apulia, and Cisalpine Gaul to be subject to Leo and the Sun: and therefore they contemplate benign manners in these. The Etruscans, Celts, and Spaniards they reduce to the dominion of Sagittarius and Jupiter: wherefore they determine them to be lovers of liberty, simplicity, and cleanliness. Over the maritime places of lesser Asia, the Cyclades islands, and Cyprus they set Taurus and Venus, and consequently observe voluptuous manners in them. The Greeks and Cretans they proclaim to be cultivators of learning, since they are subject to Virgo and Mercury. The Macedonians, Thracians, and Illyrians, since they are subject to Capricorn and Saturn, they pronounce to be strangers to gentleness of manners. Parthia, Media, and Persia, by reason of the dominion of Jupiter and Venus, enjoy elegant dress and indulge in the pleasures of life. Assyria, Babylonia, and Mesopotamia, under the power of Virgo and Mercury, apply themselves to the mathematical disciplines. India, Ariana, and Gedrosia are subject to Saturn; wherefore the inhabitants are not only misshapen, but are also imbued with brutal manners. The Jews, Coelasyrians, and Idumaeans are reduced to the dominion of Scorpio, Aries, and Mars; whence they are known for treachery, audacity, and impiety. The Phoenicians and Chaldeans are under Leo and the Sun; hence they delight in simplicity, humanity, and the observation of the stars. Happy Arabia nourishes men who enjoy dexterity and liberality of life, because they are said to be subject to Sagittarius and Jupiter. The Armenians and Hyrcanians, who have noble manners, are referred to Gemini and Mercury. The Bactrians and Caspians together with the Scythians obey Libra and Venus; for which reason they indulge in music and pleasures. The Sarmatians, Oxianians, or Oxolae, obeying Aquarius and Saturn, are not without ferocity. The Phrygians, Bithynians, and Colchians pertain to Cancer and the Moon; whence they are reported to be fickle and effeminate. Syria, Commagene, and Cappadocia, being subject to Scorpio and Mars, abound in evil manners and suffer great labours. Lydia, Cilicia, and Pamphilia pertain to Pisces and Jupiter; for thus they apply themselves to merchandise and readily embrace all manner of contracts. Cancer and the Moon rule over the Numidians, Carthaginians, and Africans, and do not render them altogether strangers to commerce. Those inhabiting Mauritania and Getulia are obedient to Scorpio and Mars; wherefore they are imbued with warlike manners and are carnivorous. The Nasamonians and Garamantians are subject to Pisces and Jupiter; and therefore with manners inclined to generosity —

[marginalia: Hippocrates de aere, aquis, et locis. / Lombardy. / Agrippina. / Narbonese Gaul. / Greece. / Phrygia. / Mauritania. / Arabia.]

peoples, and teem with counsellors, and they reverence Jupiter Ammon — that is, they worship his image made in the likeness of a Ram.

The inhabitants of Marmarica and of lower Egypt are assigned to Gemini and to Mercury; whence they excel in prudence and are surnamed Magi. Those who dwell in the Thebaid and in the Troglodyte country acknowledge Libra and Venus; for this reason they are unstable in their opinions. The Azanians are attributed to Aquarius and to Saturn, and so they practise savage customs and live a rustic life. Whoever desires to know more of this kind of matter should consult the Astronomers, and above all Ptolemy, who treated this subject at greater length.

But if we consider the particular customs of the Ancients, at first glance we shall encounter their *volumen*, which was nothing other than an oblong membrane written over on both sides in the smallest script, and was wrapped within a wooden case turned on a lathe with great elegance, as a protection against dust

[figure caption: THE FORM OF A BOOK-ROLL.]

[marginalia: Lib. de Iside]

[catchword: ueris,]

and the injuries of the weather; and for this reason it was called a *volumen*: the reader likewise would extract the papyrus-sheet from its case with care and unroll it. A similar ancient book-roll written in Greek letters is preserved in the Museum of the Most Illustrious Senate of Bologna; we exhibit here its image drawn from both sides, in the place of which we today make use of paper books.

In ancient times it was also customary that sacrifices to the gods should be performed with the head covered, so that the gods and men might be treated with unequal honour; for in showing honour to anyone, the head was uncovered, so that all things of the one honouring might be open to the one honoured. Likewise among the Ancients, from Varro's testimony, to join right hand to right hand was the sign of greeting, a rite that has penetrated even to our own times; indeed, from Cornelius Tacitus, it was the custom of certain kings of barbarian peoples to clasp right hands whenever they entered into an alliance, and to bind the thumbs together and wound them, then to lick alternately the blood flowing therefrom.

Moreover, in former times the hand raised aloft, and especially in military addresses, signified assent and approval; but this rite was first observed among the Hebrews, for it is read in Leviticus that Aaron, lifting his hand over the people, blessed them. Again, hands stretched toward Heaven signified adoration, as likewise the hand turned with the back presented for a kiss. For this reason Pliny wrote that there is a certain sanctity in the right hand, because it is sought out for kisses with the back turned. It was also instituted in the religion of the Ancients that priests who had been emasculated should be devoted in perpetual servitude to the Mother of the Gods, in order to show that those who had violated the name of parents ought to be punished with that penalty, so that they could never become parents themselves, and thus the mark of ingratitude toward parents should be branded upon their foreheads. Lucretius expressed this in the following manner:

> *They assign the Galli because those who have violated the name of the Mother,*
> *and are found ungrateful toward their parents,*
> *wish to signify that they are to be deemed unworthy*
> *to bring forth living offspring into the light of day.*

The Ancients also believed it to be a certain inexpiable crime to violate the tombs of the dead; wherefore they established a law that the place where human corpses were buried should be sacred; and for this reason they were accustomed to say that a man to whom all things fell out ill had urinated upon his father's ashes.

But we must proceed to the more particular customs of each nation, for we shall record only the most noteworthy. First, the ancient Ethiopians worshipped the rising Sun and assailed the setting Sun with terrible imprecations, and cast their dead into running streams. But the more recent Ethiopians revere their King Prester as a priest. The Egyptians, when sacrificing, offered up prayers aloud for the health of the King then living, within hearing of the people; they worshipped various animals, and treated diseases by vomiting and fasting alone, they were negligent of the construction of their houses, but erected sepulchres of sumptuous magnificence, to show that these were the everlasting dwellings of the dead. Then at their banquets, furnished with an immense display of viands, an image of death was carried around by someone and displayed with these words:

> *Gaze upon this, what it is, feast as heartily as you please:*
> *you shall be this, once you are dead.*

But the most beautiful of all customs is when the Egyptians, measuring the alluvion of the Nile by means of the Niloscope, foretell it. They have therefore in a certain island called Mychias a pit eighteen fathoms deep, at the bottom of which an underground water-channel runs corresponding in level to the waters of the Nile; and moreover in that same pit a column is erected, divided by eighteen unequal fathoms: so that those to whom this charge is given observe whether the water of the Nile, diverted into the pit through the aqueduct, reaches to the first or to the second division of the column; for they predict that such will be the inundation of the Nile, and this they immediately publish throughout the whole region by means of boys sent out in place of criers. For long experience has taught them to observe that when the water reaches the fifteenth fathom of the column, the year will be most fertile on account of the Nile's inundation; when it reaches the twelfth, moderate; and when to the eighth, a season of scarcity. But if the water, surpassing the fifteenth fathom, should reach the eighteenth, they fear that the whole of Egypt may be inundated, which flood is then wont to endure for the space of eighty days. So that this may appear more clearly, we display here the figure of the Niloscope.

[marginalia: Salutatio. — Manus elevatio. — Aethiopes. — Aegyptij. — Nili inundatio.]

[catchword: Nilo-]

The Niloscope.

[Full-page engraving — no further translatable text]

The Carthaginians and the other peoples of Africa, when sacrificing, would cut off the ear of the victim as a first-fruits offering, and having thrown it upon the altar would turn away the neck; then they would make sacrifice to the Sun and Moon. In Africa also there were peoples called *pterophagoi*, subsisting on the roots of reeds; likewise the *Cynegi*, who feared wild beasts and for this reason built their dwellings in trees; furthermore the peoples called *Rizaphagoi*, feeding upon locust-beans; the *Cynnamioi*, keeping a great supply of wild dogs; the *Lotophagi*, who cast the corpses of their parents into the sea, and, according to Caelius, take no concern whether corpses be consumed by fire, by earth, or by water. The *Psylli* would attack the South Wind, which was harmful to their region, with arms, as though it were some living man. To these are added the *Ichthyophagoi* (*ichthyophagoi*), who live solely upon fish; and likewise the Amazons, warlike women who burned off their own breasts, judging them to be an impediment to fighting.

In Asia there are peoples called *Ophiophagoi*, who eat serpents; the Nabataeans, most abstemious of all men, and employing a wondrous industry in the seeking of wealth. Panchaia supported priests to whom it was not permitted to leave the sacred precinct. In Assyria there was this custom: that suppliants carried their hands thrown back behind them and bound together; the remaining inhabitants possess a signet-ring and carry openly in public an elegantly wrought sceptre. The Chaldaeans proclaimed the world eternal and foretold the future from the stars. To the Jews the Sabbath was sacred, and only a victim one year old and male was to be sacrificed; then the law directed that no enemy should be left unburied. The Medes delighted in the study of archery and horsemanship. The Parthians ate no flesh save that procured by the chase.

The Persians worshipped above all the Sun, then the Moon, Venus, Fire, Earth, Water, and the Winds; they performed their sacred rites not at altars but in a high place and in the open air; and moreover, from Cicero's testimony, they smeared their dead with wax, that they might be preserved longer. The Hyrcanians kept dogs for no other use than to devour the dead.

In India victims were not slaughtered, but killed by stopping the breath, so that something whole might be offered to the god. Other Indians burned men while still half-alive, because they were of the opinion that to forestall the fated day was something exalted and divine. Others cast as many fish into the sepulchre as they had slain enemies. Among the Indians of Coiba, liars were punished with capital judgment. The Comanians of India made excellent use of physicians: for the physician was first required to observe carefully which sick man he was willing to take into his care; and indeed, when the sick man was restored to health, the physician was rewarded with a generous and distinguished prize; but if the patient died, the physician, receiving no fee, was put to death. Others guilty of abominable crimes were condemned to a woman's condition — that is, to the distaff and the kitchen — since thereafter no use other than a woman's was permitted to them. To the King of Mexico, those who were unable to pay another tribute on account of their poverty brought each year bags full of lice to the court. Likewise a certain Peruvian law directed that the lame, the blind, the mute, the aged, and the sick should be maintained at public cost and brought to public banquets; indeed by another law it was provided that the doors should be open and that they should recline at table, so that they could more conveniently be visited by public servants of the feast. Furthermore the peoples of Andagavilla (according to the Jesuit Eusebius) were induced by the suggestions of Demons to worship Pilate, calling him the true God, because he had been able to put to death Christ, the God of the Christians. Along the shores of China, colossal statues fashioned from the hardest stone were erected of such great size that they could be seen from many miles off, and they were called the Chinese Pagodas, as appears in this image.

[marginalia: Ichthyophagi. — Iudaei Sabbathum. — Medici vita. — Mexi. obser. — Taprobane.]

[catchword: I Pago-]

The Chinese Pagoda.

[figure caption: The Chinese Pagoda.]

We were pleased also to display the image of the King of Great Antongil in China, who is of black colour, wears two horns upon his head after the manner of the Devil, and around his arms many bronze bracelets. In this same plate may be seen the image of a soldier from that same region, carrying a spear tipped with iron nearly two fathoms long, and also a wooden shield which cannot withstand a musket-ball.

[figure caption: The King of Great Antongil in China, and a soldier of that region.]

[catchword: Rex]

The governor of Sumatra, with small eyes, large eyelids, a sparse beard beneath the mouth, clad in the Turkish fashion and wearing a turban on his head; together with depictions of Portuguese garments.

[Full-page engraving — no further translatable text]

dwelling in the city of Bantam, the true homeland of pepper, who were the first to come out to meet the Dutch sailing to the East Indies.

[figure caption: The Portuguese hold the city of Bantam.]

There is added further an image in which one may see at first glance a man from China coming to the city of Bantam, with porcelain vessels for sale, and many goods — namely silk of every colour, elegantly prepared. For this people is industrious, and brings from China not only the aforesaid goods, but also musk, civet, ambergris, glass, lead, copper, daggers, and other wares for sale; one may also see a Javanese man, that is from the island of Java, [clothed in linen ...]

[catchword: datum,]

armed with a flame-shaped dagger, displaying great boldness. A people of this sort are always devising many crafty schemes, and beguile men with empty promises. In the third place may be seen a Javanese woman going to the market of the city of Bantam to buy rice, which she carries raised up in her hand — a sight that appears remarkable and pleasing.

[figure caption: A Chinese man coming to Bantam with wares. A Javanese man armed with a dagger. A Javanese woman going to market.]

[catchword: Scythis]

The Scythians, in honour of their dead, were accustomed to use their skulls as cups at their banquets; and their King, as Alexander ab Alexandro writes, would cut off the ear of him whom he held in the greatest affection. The Tartars hang certain idols fashioned from wool and silk in human form on either side of their tent, as guardians of their flocks; and on account of the scarcity of wood they keep their fire burning with dried ox-dung. The Turks have a law written in their Alcoran that no one, under penalty of death, shall wish to dispute about their religion; and they observe Friday with as great a piety as the Jews observe the Sabbath.

In Greece (if we speak of the peoples of Europe) three laws were passed by Cecrops in propitiation of Neptune against the women, by whose votes Minerva had been preferred: namely, that women should never enter the Senate; that none of them should claim for herself the name of mother; and that no one should call them Athenians or Achenians, but Attic women. Among the Lacedaemonians it was established that unmarried girls should not go out unveiled in public, and that married women should go out only with the face covered by a veil. Furthermore, whenever a Lacedaemonian had to use a weighty oration, he would deliver it brief and full of matter — so much so that it afterwards passed into a proverb that it was easier for a man to practise philosophy than to imitate Laconic speech. The Cretans exercised in their public gymnasiums the Pyrrhic dance, which was performed by bending of the body, so that blows and missiles might be the better avoided. Certain Thracians, at the time of thunder and lightning, would discharge arrows into the sky, threatening the god, because they held that no god save their own existed; and since each man took several wives, when the husband died, that wife was chosen before the judge who had been most beloved of the living husband; for she afterwards was slain and buried together with her husband, the other wives bewailing this as a signal calamity. Of old at Constantinople, from Isidore's account, this custom prevailed that on the first day on which the Imperial crown was placed upon the head of the Emperor, a stonemason would come before him with three specimens of marble, saying these words:

> *Choose from these stones, most august Caesar,*
> *out of which you yourself wish me to build your tomb.*

In Ruthenia the royal city is called Moscow, in whose marketplace there is a square stone; whoever ascends it, being thenceforth unable to descend by any path, acquires the lordship of the city; for this reason there is very frequent fighting among the citizens over it. The Muscovites therefore, called by the Italians *Moschoviti*, today wear suspended from the neck a certain wooden cross adorned with various images of the Saints; we display here its true likeness drawn from both sides.

[figure caption: The wooden cross of the Muscovites.]

[marginalia: Z.t. genial. diuers. cap. 26. — Tartarorum mores. — Mulieribus in pun-ctis. — Quid agendum. — Sermo Laco-nicus. — Mofchouiae.]

The Wooden Cross of the Muscovites.

[figure caption: The wooden cross of the Muscovites, shown from both sides.]

The Lithuanians of old worshipped fire, and moreover drew various omens from it; then they had the Sun in the form of an iron hammer as their chief deity. In Prussia and Livonia, each family had a sacred hearth and a sacred place in the woods where they burned the corpses of their dead together with their horses, saddles, and their most precious garment. The Poles are prudent men and treat their guests with great courtesy. In Hungary, when a case was doubtful and could not otherwise be decided, it was determined by iron — that is, by the sword; for the plaintiff and the defendant fought before the judge, and he was declared beaten who stepped outside the bounds within which the place of combat was circumscribed. The Bohemians held it a vain thing to perform funeral rites for their deceased parents. The magistrates of the Germans conducted nothing, whether public or private business, unless armed. Today the Germans are reputed to be able to endure every degree of toil, for which reason someone sang of them:

> *The Germans can endure every toil;*
> *would that they could likewise endure sobriety as well.*

The Saxons used a rougher food, and whatever was to be eaten through the week was gathered on Sunday; they fed their infants not on pap but on solid food, first lightly chewed in the mouth of the nurse, because it was believed that they would afterwards grow up stronger. In many parts of Franconia, whatever maidens had frequented dances through the course of the year are gathered together by the young men on Shrove Tuesday, and dragged with a piper to a river or lake; but why this is done, Johannes Boemus supposes it to be an expiation of those who on feast days, against the precept of the Church, did not abstain from their levity.

In Swabia they had this rite of sacrifice, that all peoples of the same blood should at a fixed time betake themselves into the forest and publicly celebrate with the slaughter of a man; and they held such reverence for that place that no one entered it unless bound in chains. The Goths also, or Getae, submerged in a spring the man who was to be bravely sacrificed. But the Massagetae, namely the Great Getae, threw those who had died of some disease to the dogs to be devoured, but buried those who had died in battle with the highest honour. The women of the Thalifae, from Procopius, did not feed their infants at the breast, but the newborn child, wrapped in a skin, they hung from a tree; afterwards they fed them with the brains and marrow of wild beasts in the same manner; for they themselves, on account of childbirth, did not lie abed at all, but returned with their husbands to their customary huntings. To these we add certain hunters of the northern plain, who, covered with a Turkish cap and wearing square wooden clogs, hunt boars with poles and roes with arrows.

[marginalia: Carinthiae electio. — Lituani. — Bohemia. — Franconia. — Getae. — Goth[i]. — Lib. 2 de Bello Goth[ico].]

[catchword: Vena-]

Hunters of the Northern regions.

[Full-page engraving — no further translatable text]

The Bavarians established this law concerning dogs: that whoever had stolen a hunting dog must restore that same dog or one like it, and pay a fine of six solidi; for a shepherd's dog, three. In Carinthia, whenever a new Prince entered upon the governance of the commonwealth, a solemnity nowhere else heard of was observed. A marble stone occupied a most fertile meadow; and on the day of the creation of the new Prince, a certain peasant, to whom by hereditary succession this had fallen as his right if it so came about, ascended it — with a black ox led to his right hand and a mare to his left — attended by a dense crowd of people of every rank, and in front of him the future Prince approached, clad in a shepherd's garb and accompanied by a multitude of nobles. The peasant challenged him with these words: *Who is this who comes here so proudly?* The local peasants replied that the Prince of the region was arriving; then the peasant said, *Is he a just judge, seeking the welfare of the fatherland, of free condition, and a worshipper of Christian piety?* He was challenged again, and the answer was that he was and would be. Again that peasant said, *By what will he move me from this place?* Then the steward of the Prince's court replied: *You are bought for sixty denarii, and these beasts shall be yours,* — stretching his hand toward the ox and the mare — *you shall have the garments given by the Prince, and you shall be free with your household from tribute.* When these words had been said, the peasant lightly struck the Prince's cheek with that same hand, bade him be a just judge, went off with his prize, and as the Prince ascended the stone, gave way to him.

In Italy there were various notable customs; for from Crinitus, at Rome of old it was lawful for none to be buried unless he had served the commonwealth most well; then among the Romans, as also among the Greeks, at the death of a blood-relation, they would cut their beards and hair as an expression of deep grief. Today the Italians observe Christian piety and make use of three bodies of law: pontifical, imperial, and municipal. The men of Galatia are most fond of wine, and they drink whatever is brought by merchants; but shortly after they fall into sleep or madness. The more noble among the Galatians wear a beard so long that it covers almost the whole body; then clothed in the skins of wolves or dogs they dine seated on the ground. Setting aside the customs of old Gaul, there are now those nobles deserving of note who are called the Twelve Peers of France, whom Charlemagne, as Rubert reports, established and called his companions in arms led into military service, because they were adorned with equal dignity among themselves to attend upon the King, and should obey the judgment of none other than the Senate — that is, the Parliament — and should be present at the coronation of the King. The Spanish, though elegant and refined in their manner of living, are nevertheless [...] in but one matter.

The Portuguese make use of various rites of divination; at sacrifice they carefully inspect the entrails and draw many conjectures from them; indeed they profess to divine many things most of all from the intestines of men, especially captives. In England the common people are fierce and inhospitable, yet the nobility is milder; they greet their guests with the head uncovered and one knee bent. To the foregoing must be added the custom of the island of Taprobane in the election of a King, since the votes not of the nobles but of all people prevail; for they choose a man tried in his conduct, clement, advanced in years, and having no sons. Indeed if the reigning king has fathered a son, he is at once stripped of power, lest the kingdom become hereditary; then he must admit forty governors, so that he may not be able to judge alone in capital cases. To these should be added some customs of the Floridians. For the King of this island gathers many maidens for his weddings, with their hair bound beneath the nape and then let loose over the shoulders; they are girt below the navel with a broad belt, from the front of which hangs a sort of purse to cover the privy parts, and attached along the remaining belt are oval forms of gold and silver let down to the hips, to make a rustling sound in the dance when the praises of the King and Queen are recited. Moreover from their pierced ears hang inflated fish-bladders dyed red, in the manner of pearls. It is therefore remarkable how barbarian peoples are furnished with such varied inventions. Here we shall give the reader an image of the Queen of the island of Florida to ponder.

[marginalia: Italorum vi-vendi. — Galatarum Nobiles. — Pares Fran-cia qui. — Taprobane.]

[catchword: Flori-]

The Queen of the Island of Florida.

[Full-page engraving — no further translatable text]

[caption illegible]

[Full-page engraving — no further translatable text]

Image of King Quoniambec.

[Full-page engraving — no further translatable text]

[caption illegible]

[Full-page engraving — no further translatable text]

Moreover, those men of America called Wild Men by André Thevet go about naked: not because there is any lack of material there from which garments could easily be prepared, nor because they are oppressed by an excessive heat of the region; but because they report that they exercise themselves more easily and better when naked. Wherefore if someone clad in a cotton shirt — in which they nevertheless take pleasure — should catch sight of an enemy at a distance, he immediately strips it off and girds himself for combat. For they say, as Thevet relates, that garments are an impediment to their overcoming the enemy, and indeed an advantage to their enemies in being more easily seized. For this reason we display the image of a wild man with his head covered by a feathered cap; for thus equipped, and armed with a club, they set out for war. For in the regions of America there range the most beautiful species of birds, which the inhabitants hold in great esteem, since those birds moult two or three times in each single year, and from their feathers they fashion hangings and above all feathered caps, hats, and many other works. Birds of this kind are very like parrots in their feet, head, and beak; and so tame that they spend all their time around the huts of the Americans; and although in the evening they go off to sleep in the forests, nonetheless at daybreak they return to the dwellings of the wild men.

Thevet then mocks those who reported that such wild men are hairy; since not only are they smooth, but they pluck out with their nails whatever few hairs grow on any part of the body, and today, as Thevet reports, they use certain tweezers. Afterwards these peoples differ from one another in point of boldness; for those who inhabit the seashore are more warlike, inasmuch as they strive with the greatest effort to resist not only their enemies but also all other persons coming by sea; and the King of these, in the vernacular tongue called Quoniambec, is eight feet tall and broad in proportion, whom Thevet narrates in his histories that he saw himself. His subjects likewise emulate a gigantic stature, live on human flesh after the manner of Cannibals, and can run down any wild beast whatsoever. The likeness of this King is here represented.

But since in the map of America there is the image of King Tarizich among the Cannibals, who are peoples that are also called Anthropophagi, we have determined to bring forward likewise his image, so that the reader may ponder some correspondence between these two likenesses.

Three-headed Idol.

Finally, bringing this Chapter to its close, we add a three-headed Idol, which is worshipped as a god in Lapland. Indeed the inhabitants of that region are said not to be entirely ignorant of the immortality of souls.

In the map of Asia this figure is drawn thus.

These remarks on the customs of peoples may suffice; whoever wishes to read more, and more fully written, should consult those authors who have spoken not only of customs but also of the various garments of nations; or rather let him sing with the poet:

> *It is not permitted me to comprehend all customs in one list:*
> *for each successive day adds its own refinement.*

[marginalia: Ximines. — Populi nudi amer. quales. — Populi audax.]

CONSANGUINITY AND KINSHIP.

CONSANGUINITY, affinity, or agnation, and cognation — of which the first regards the direct line, and the second the transverse or lateral — will, if referred upward, indicate parents; if downward, children; and if to the sides, brothers and sisters. The degrees of consanguinity are therefore enumerated in the *Institutes* of Justinian as follows: in the first degree, above, Father and Mother, and below, son and daughter; in the second degree, above, Grandfather and Grandmother, below, Grandson and Granddaughter, and laterally, Brother and Sister; in the third degree, above, Great-grandfather and Great-grandmother, below, Great-grandson and Great-granddaughter, and laterally, the Son and Daughter of a Brother or Sister, and also Uncle on the father's side and Aunt on the father's side, Uncle on the mother's side and Aunt on the mother's side; the fourth degree above comprehends the Great-great-grandfather and Great-great-grandmother, below the Great-great-grandson and Great-great-granddaughter, and laterally the Nephew and Niece of a brother or sister, and also the Great-uncle and Great-aunt on the father's side, and likewise the Great-uncle and Great-aunt on the mother's side, as well as first cousins. The fifth degree above embraces the Great-great-great-grandfather and his wife, below the corresponding descendants, and laterally the Great-grandchildren of a brother or sister, and also the Great-great-uncles and Great-great-aunts, and likewise paternal cousins once removed and first cousins. The sixth degree above contains the Great-great-great-great-grandfather and his wife, below the corresponding descendants, and laterally the Great-great-grandchildren of a brother or sister, and also the remoter uncles and aunts of both sides, and those who are born of paternal and maternal first cousins. From this it must be gathered that kinship is gradually dissolved through these degrees, yet is afterwards revived by the bond of matrimony, and propinquity is in some measure restored.

Those therefore who are first begotten are called children; from children come Grandchildren, from Grandchildren Great-grandchildren, from Great-grandchildren Great-great-grandchildren, from these the fifth-degree descendants, and from these the sixth-degree descendants arise. The beginning of generation is Father and Mother. The Grandfather is the Father's Father; the Great-grandfather the Grandfather's Father; the Great-great-grandfather the Great-grandfather's Father; the Further Great-grandfather the Great-great-grandfather's Father; the Furthest Ancestor the next one's father, who occupies the highest place in Justinian's genealogical tree. Thus the father is called, according to Varro, because he reveals (*patefaciat*) the seed; and the Mother is as it were the *materia*, the matter in which the received seed germinates; and both are called parents because they bring forth (*pariant*) children, and children are so called because they come into being from (*fiant*) parents, and they are also called *liberi* (free persons), to distinguish them from slaves: for just as slaves serve under the power of a master, so children serve under the power of a father; or they are called *liberi* because they are born of a free (*libero*) marriage — for those born of a free man and a slave woman are said to be of servile condition, taking their designation at birth from the inferior status of their parents. Natural children are those that come of concubines; for it is Nature, not the honourableness of marriage, that has begotten them. They are likewise called *nothi*, because, according to some, they are born of a woman not known (*nota*) to the father; or rather, let us say, because among the Greeks they are called *nothoi* (νόθοι), from *vo*, a privative, and *θεῖος*, divine, since they are not born according to divine precept. They are also called *spurii*, from *τῷ σπείρειν*, to sow, since they have from their father nothing but seed.

Although some call the offspring of a noble father and an ignoble mother a *nothus*, and one born of a noble mother but an ignoble father, or from a widow of uncertain paternity, a *spurius*.

Brother (*frater*) is said as if "nearly another" (*ferè alter*), or, according to others, brothers are so called because they issue from the same offspring (*fructu*). German brothers are those who issue from the same stock, namely from the same mother, though not from the same father. Sisters (*sorores*) are so called as if of separate lot (*diversa sorte*), since in the course of time they are separated from the family and pass to another.

Paternal cousins (*patrueles*) are the children of brothers, because their fathers were brothers; *consobrini* are as it were *confororini*, because they are born of two sisters. *Sobrini* are the children of first cousins; *fratrueles* are the children of an aunt on the mother's side. The grandfather (*avus*) is called as if "rejoicing" (*auens*), namely delighting in the propagation of offspring, or rather from *avus* (*aevus*, age), because, being old, he begins to withdraw from the path of life. *Patruus*, the father's brother, is so called because he sometimes discharges the office of a father. The maternal uncle (*avunculus*) is called thus as if placed third in the order of grandfathers: for just as a son proceeds through his father to his grandfather, so through his mother he approaches his maternal uncle. *Amita* is the father's sister, as it were another mother; likewise *matertera*, the mother's sister, as it were a second mother. Grandson (*nepos*) is so called as if "born after" (*natus post*), since he is born to a father after a son.

[marginalia: Degrees of consanguinity. / Sixth degree. / The beginning of generation. / Natural and illegitimate children and their names.]

[catchword: filius]

The great-uncle (*patruus magnus*) and the great-aunt (*amita magna*) are the grandfather's brother and sister. Likewise the great maternal uncle (*avunculus magnus*) and the great maternal aunt (*matertera magna*) are the grandmother's brother and sister. The great-great-uncle (*propatruus*) and great-great-aunt (*proamita*) are the great-grandfather's brother and sister. Likewise the great-great-maternal-uncle (*proavunculus*) and the great-great-maternal-aunt (*promatertera*) are the great-grandmother's brother and sister. *Abpatruus* and *abamita* are the great-great-grandfather's brother and sister; *abavunculus* and *abmatertera* are the great-great-grandmother's brother and sister. Father-in-law (*socer*) or mother-in-law (*socrus*) is one who has received a son-in-law or daughter-in-law by the marriage of a son or daughter. The son-in-law (*gener*) takes his name from generation. We call *vitricus* the man who has married a woman who has a son or daughter, and *privignus* (stepson) is as it were "previously begotten," since he was born of another father. Finally, *agnati* are those who, in default of children, step into their place, and *cognati* are those who succeed the agnates, since they share kinship through the female sex.

THE EXCELLENCE OF MAN.

Since the supreme Maker of all things has impressed upon man the character of divine virtue, man, supported by it, holds dominion over the other living creatures: for from the earth cultivated by beasts of burden he reaps no small harvest; from pack-animals fitted for burdens he derives great utility; he sustains his life with their flesh; covers his body with their hides; from others he receives medicines for health; and finally, some serve him in the capacity of guardians, and others in that of pleasures, and not in a common way. Wherefore we may with the best of reason proclaim with the Psalmist: *Thou hast put all things under his feet: the sheep and the oxen, all of them, and also the beasts of the field, the fowls of the air, and the fishes of the sea, which pass through the paths of the seas.*

To these things is added the fact that man alone among all living creatures has been granted the use of articulate speech, while other animals signify their feelings with a certain confused cry. Indeed, those things which man shares in common with the other animals, if they be carefully considered, seem to be properly his own; for he possesses both the inward and outward senses so disposed that he penetrates not only, as other animals do, the outer bark but the very marrow of sensible things. Moreover, human memory, compared with the memory of brute beasts, is so great that theirs seems as nothing.

Hence we hold that man is the most noble of animals, and is to be placed on the boundary between two natures, namely the mortal and the immortal. For by reason of his mortal part he cleaves to mortal things, and by reason of his immortal part he is raised to immortal things. Beyond this, in man is observed that ladder of nature which is completed in four degrees of being: the first denotes essence, the second essence and life, the third, beyond the others, sense, and the fourth, beyond the rest, intellect. Wherefore the blessed Augustine not without reason wrote that man shares essence with stones, life with plants, sense with brute beasts, and intellect with Angels. Cicero likewise committed to writing that men do not dwell upon earth as inhabitants, but as spectators of things celestial, the spectacle of which cannot belong to any other kind of living creature; since besides this, many virtues and endowments of the mind shine forth most clearly in men and not in brutes. And finally, in the judgment of the same Cicero, no animal except man has any knowledge of God.

Not only is man called the most noble of animals for his eminence among other living creatures, as has been proved thus far, but most especially because man alone, as a partaker of reason, possesses something of divinity. Hence Manilius sang most excellently:

> *Is it doubtful that God dwells beneath our breast?*
> *And that the soul returns to Heaven, and comes thence?*

And therefore man, distinguished by industry, genius, intellect, and other outstanding prerogatives of the mind, is in some measure assimilated to the divine nature; wherefore in Genesis God Almighty said: *Let us make man in our image and after our likeness* — provided that men emulate God in holy and divine works.

[marginalia: Psalm. / Human memory. / St. Augustine, De civitate Dei lib. 2. / Cicero, De natura deorum. / Manilius lib. 1.]

[catchword: superis]

— cast down from the heavenly seats, because he had desired to be like the Most High. This may be confirmed by the well-known story of Camillus, to whom it was counted a reproach when he triumphed with white horses, on the ground that by this means he wished to make himself equal to the gods, for the gods alone were accustomed to ride upon white horses. One reads also in Trismegistus that man is to be admired not only because he is fashioned after the likeness of God and is the maker of himself, but also because he possesses the faculty of transforming himself into whatever forms he pleases, whereas other animals are assigned fixed forms. For this reason we need not be surprised that Plato in the *Sophist* said: to my mind no man is a god, but some one who is something divine seems to appear. Nevertheless, men were once upon a time called gods, either for the marvel of their virtue, or in adulation of power, or for the benefits with which they served humanity. We may therefore with just cause designate man as God upon earth, an intimate of the beings above, a lord of those below, a messenger of God, and a divine Animal. Hence Zoroaster, gazing upon man, cried out:

ὦ ἄνθρωπε τολμηρωτώτης τῆς φύσεως ἄγαλμα

That is:

O man, thou image of audacious nature.

Plato likewise surnamed man *θαῦμα θαυμάτων*, that is, a miracle of miracles.

Now it must further be observed that man has been given by God not only reason, but also hands, as instruments for carrying out his affairs: for guided by reason he discovers things necessary for life; once discovered, he imposes upon them names conforming to their nature. Hence Ovid sang not unreasonably:

Names often agree with their objects.

Moreover he fashions letters and characters, discovers the means of measuring sea and land, measures the courses of the stars, marks the alternations of the seasons and likewise the risings and settings of the stars, and their powers, and at last devises every kind of art. Wherefore Juvenal spoke not irrelevantly thus of men:

And therefore having been allotted genius worthy of reverence from the Sun,
And capable of things divine,
And fitted for the pursuit and acquisition of the arts.

And so those things which are the gifts of the soul alone are performed by intellect and mind, but those operations which cannot be accomplished without the service of the body are afterwards brought to completion by the hands. Hence we now understand that man has not been created unarmed by nature, as many suppose: for he is armed with a triple defence denied to other animals, namely reason for invention, speech for aid, and hands for perfection — for hands do what they are commanded, and what they do is obedient to reason. From this, however, we must not conclude that man is the most prudent of animals because of his hands; but rather, because man is the most prudent of all living creatures, he has therefore been given hands. For the most prudent being is able to employ the most instruments, and the hand, on the authority of Aristotle, is called the instrument of instruments. Wherefore we may conversely pronounce that reason is the art of arts; for just as the hand surpasses other instruments in nobility, so reason surpasses the other arts in excellence. For this reason we must conclude that, if other animals were furnished by nature with their own weapons, men likewise have been distinguished in place of all weapons by their hands alone — as by the most noble of organs — in time of war and peace alike.

Finally, from the creation of man we may argue his dignity and excellence: for Gregory of Nyssa proclaimed that man must not be thought vile because he was created by God last of all; since this creation established him as King of all, which would not have happened had he been made before the other things — for man was created at the time when he was to be adorned with kingly prerogative. The Psalmist therefore spoke not unreasonably: *Thou hast made him a little lower than the angels; thou hast crowned him with glory and honour, and hast set him over the works of thy hands.* Whoever therefore rejoices in the name of man must preserve this title by the exercise of virtue; since Basil of Seleuceia has written that the whole life of man is a gymnasium of virtues, and therefore he does not seem to live who does not exercise himself in this divine gymnasium.

[marginalia: Why he was rebuked for riding white horses. / What manner of thing is the excellence of man. / Manilius lib. 1, cap. 90 [...]. / Man the most prudent animal. / Man the instrument of instruments. / Gregory of Nyssa, De opifice hominis lib. 2 cap. 2. / Psalm. 8.]

Moreover, from the same author: since other living creatures, in obedience to the law of nature, incline their face toward the earth and consequently have no claim upon Heaven, man alone, gazing upward and touching the earth lightly with his feet, displays his nobility; for spending but a little time upon it, he aspires to his celestial fatherland. And this opinion appears to be in accord with the mind of the blessed Paul, when he said: *Our conversation is in Heaven.* Man alone contemplates God; hence Anaxagoras is praised, who used to assert that he was born to see the Heaven — that is, God; since the soul of man is the temple of God. For the Apostle wrote pertinently: *Do you not know that you are the temple of God and that the Spirit of God dwells in you?* And man is the image of God, containing all things that are in God. In memory resides the Father, in intellect the Son, and in the will the Divine Spirit.

These, therefore, are the things which have added the most illustrious lineage to the human race. Besides, it is read in Matthew chapter 22: *Render to Caesar the things that are Caesar's, and to God the things that are God's.* The blessed Paschasius has this on Matthew: *Because every man is the coin of God, created in the image of God, he ought to render himself to God, which he cannot do unless he first strips off what belongs to Caesar, so that thereafter he may be free.* Finally, the excellence of man is drawn from the fact that man is most near to God: whence Dionysius of Halicarnassus proclaimed that human offspring is by far the dearest of all things to the Gods. To the point therefore is this hexastich read in the sacred Pathology, from book 17:

All that exists is enclosed by the majesty of God —
All that can stand or exist without Him.
If man serve Him rightly, he cleaves close as his neighbour and stands firm;
If he live otherwise, he dwells in wretched exile.
The Lord so distinguishes all things in just order
That the highest is prepared for the good, and the lowest for the wicked.

And moreover man is called the coin (*numisma*) of God: for when it is asked in the Gospel what belongs to Caesar, and what to God, one recognises that man, bearing the image of God, ought to be rendered entirely to God.

THE MISERY OF MAN.

That human life is vexed with afflictions we gather from the very beginning of our birth: for we observe that infancy is exposed to innumerable dangers, youth is fleeting, and old age headlong. Moreover, even if childhood be led on to old age, how little is left? Ovid described this calamity in the following manner:

The infant came into the light speechless and without strength;
Then, on all fours, he bore his limbs after the manner of the beasts;
And little by little, trembling, and not yet firm upon his knee,
He stood upright, straining somewhat with gathering sinews.
Thence vigorous and swift he passed through the space of youth,
And passing through the midmost years already spent,
He glides along the declining path of setting old age;
Which undermines the former man and demolishes him.

Besides these, six hundred other straits and infinite species of affliction press upon the human race from day to day, which Virgil elegantly expressed in these verses:

Each best day of life flies first for wretched mortals;
Then creep diseases, and sad old age draws nigh,
And suffering, and the stern violence of pitiless death.

Wherefore we may aptly sing this following couplet:

The heart, unless it care, is nothing; the flesh, nothing but a sad corpse;
To be born is to be ill; to live is often to die.

Moreover, poisons, ruins, shipwrecks, earthquakes, wars, falls, thunderbolts, and a thousand things of this kind increase human misery. Some are choked by a grain of grape; others are strangled carrying a hair in milk; nor have there been lacking those to whom an icicle of compressed snow fallen from the rooftops brought sudden death. Wherefore we may with the best cause say:

[marginalia: Virgil, Georgics lib. 3.]

Nothing on earth is so human that it is not subject to the human condition.
Hence our spirit grows mightier; all else is consumed.

Farewell, then, to those who stir up so many and so great tumults, and for whose desires this world is too narrow; and let the maxim of Pindar be most highly approved, who called man the shadow of a dream — for nothing emptier than shadow and dream is to be found. The same Pindar, looking to this in another place, reported: if anyone possessing riches surpasses others in beauty and distinguishes himself in contests displaying the greatest strength, he must call to mind that he is composed of mortal limbs and that the earth is the end toward which all must journey. Therefore to the blessed Chrysostom man was called nothing, man smoke, and man ashes. All this is elegantly expressed in the following verses:

How swiftly mortal things perish in their swift course,
And how suddenly our life falls into cold!
As soon loses not the fair rose its varied colour,
As quickly does the bubble vanish from the liquid waters.
For a brief time we flit as transient guests after daybreak:
Pale death mows us down with swift and greedy scythe.
Nor is it known whither one departs sooner than the hour of our speaking;
And therefore grief is heavier, since none returns.
In the varied course of life we die both as youths and as old men;
This is certain to all — but the hour is not certain.

To this points what the Poets fable of mortals: namely, that all hang by the threads of the Fates, and when those threads are cut, those who hang fall and die. Indeed they feign that some hang by white threads, others by dark ones, some high up, others close to the ground, yet all hanging; and when the inexorable Atropos cuts the thread, they fall. Ovid therefore thought well when he sang:

All things of men hang by a slender thread,
And what once stood firm falls in sudden ruin.

And Chrysologus expressed this best of all, saying: we are mortals living in uncertainty, and we know not what the day that comes upon us may bring forth. Hence Homer once delivered the opinion that nothing is more miserable than man; and the human calamity is increased by the fact that Princes and peasants alike run into the same lot of life, according to the saying:

The entrance to life is equal for kings; the exit the same.
What is there between the two that can truly be called equal?

And so all men, while they live, suffer the greatest labour in their condition and always strive with difficult matters; wherefore not without cause may we call this course of life a Herculean labour:

If you know not what this life of ours is, hear:
A transit into the air, and a Herculean labour.

If in the present moment all things be examined briefly, they will be found confused and full of disturbances. Setting aside, therefore, the sick, the captive, the exile, and the physician, whom we may without doubt call miserable, there present themselves old men and children: the former touch the threshold of death, the others live under fear of the rod. Young men think they have attained happiness when they are loved in return by those whom they pursue with immoderate affections; yet Ovid calls even these miserable:

Whoever loves is miserable at every moment.

Likewise those who are thought to lead a quiet and prosperous life are still wretched, according to this couplet:

Seek no more quiet in the human lot
Than an arrow shot into the wind, which flies even now.

For those who lack riches are burdened with continual anxiety to acquire them. And if they are Princes abounding in wealth, they have no offspring; beyond which, riches are exposed to lawsuits, thieves, and many other dangers. Wherefore Nazianzus, having said many things about human life, at last cried out:

[marginalia: Pindar, Ode to Lydians. / Chrysostom, sermon 72, sermon 27. / Ovid, Ex Ponto lib. 4. / Chrysologus, sermon 10.]

[catchword: Hec]

THE VIRTUES OF MAN

— seeing all this he cried out that the best life for anyone is reckoned to be the one that has more goods than evils.

For this reason, in the judgment of Job, man, living but a short time, is filled with many miseries. Wherefore, despising pleasures and filling the mind with virtues, he will meditate on the rising Sun and call the resurrection to memory, and contemplating the same Sun as it sets he will remember death, according to the saying:

When the Sun rises, remember that you are returned from death;
When the Sun falls, know it is the setting of your own time.

By this means man will make himself prompt and prepared for all virtues.

THE VIRTUES OF MAN.

Men praised far and wide for every commendation of virtue and who have left the traces of their virtues everywhere, from the beginning wearied body and mind with labours and tasted bitterness at the outset, so that at last they might savour the most sweet and welcome fruit of virtue, according to the saying:

If the root of virtue be bitter to you as sloe,
Hope not; the fruit will be all the sweeter after.

For if one be rich in the splendid ornaments of virtue, he shines the more brightly; as Aeschylus said:

O how heavy a burden
Is the wealthy man who is a fool.

Moreover, a man born of humble station, yet learned, as if in a mirror joyfully displays himself to others as a form and exemplar of the virtues; and therefore a certain Poet wrote aptly:

Let it not shame you that you are born of obscure birth;
The mind devoted to study surpasses fortune.
The mother of Euripides once sold green herbs;
The complexion of Parthaenis had at one time flowed with colour;
The father of Demosthenes polished swords by his art;
And Casar was descended from an obscure father;
Whom also the oracles of Phoebus called wise —
Indeed both his parents were certainly poor.
And now you are already renowned enough by your own virtue;
Why does your hapless lot concern itself with the wealth of ancestors?

Among those things which in some measure contribute to preparing the perfection of man by industry, knowledge claims the first place: for the other perfectible things are brought to their perfect end with the aid of knowledge. First of all, man discovered and teaches the seven liberal disciplines, namely Grammar, Rhetoric, Dialectic or Logic, Arithmetic, Music, Geometry, and Astronomy. For man is endowed with so keen a genius that he has been able to penetrate even to the heavens, observing the risings and settings of the stars and predicting the eclipses of the luminaries; for this reason Manilius was compelled to sing thus:

Who doubts, after this, that man is joined to Heaven?
Nature has given him an excellent tongue and a mind
Capable of great things.

Beyond this, man excels in Philosophy, Medicine, Jurisprudence, History, the doctrine of agriculture, Cookery, and Navigation, and indeed in Theology as well, which ought to have been mentioned in the first place. To say nothing of those arts in which men have been so distinguished for their excellence that they merited to be regarded as marvellous: let one man stand in place of all — Myrmecides, so industrious and diligent a craftsman that he fashioned a four-horse chariot small enough to be covered by the wing of a fly. Furthermore, human industry has advanced so far as to discover the means of restraining a wild beast running swiftly. For it is read in the Scholia of Paracelsus that a man carrying a topaz in his mouth together with a leaf of southernwood, and fixing his eyes upon the beast [...]

[marginalia: Seven liberal disciplines. / The industry of Myrmecides. / Manilius lib. 1.]

[catchword: inde]

— thereupon spitting it out into a silken cloth and casting the bound cloth toward the beast, by this experiment the beast immediately halts in its tracks. It is added in the same Scholia that by another experiment the songs of birds may be understood: provided that a man place in both ears some of the root of Mandrake, then adorn the ring finger of his left hand with an iron ring set with pitch in place of a gem, and carry a leaf of pine in his mouth and in his right hand an iron wand tipped with a golden point, with which the pine leaf is pricked; for then the voices of birds will be understood. Again it is read in the same place that a person afflicted with the falling sickness may be freed from it without medicine, if someone dig with three nails a spot of ground which the epileptic first touched in falling, and burying the nails in the earth pronounce aloud the name of the sufferer; for a perfect restoration of his health is then promised. And six hundred things of this kind are recounted which seem to ransom men from death. Wherefore we may with just cause sing:

Atropos, Lachesis, Clotho are now a fable — now a fable;
For man himself is now the maker of his own Fate.

But here it must be noted that these experiments of Artephius, recited in the Scholia of Paracelsus, contain a parabolic meaning, since they belong to and are directed at the alchemical art; and therefore they are not to be expounded according to their literal sense — for in that way they would be celebrated not only as incredible but even as ridiculous.

Beyond this, a man who is a follower of Christ must not only be imbued with the virtues described above, but, unstained by any blemish of inward defilement, must acquire for himself the divine virtues. Wherefore, from the blessed Augustine, God seeks nothing other than a good will; and from Solomon, he who is righteous will draw grace from the Lord. This opinion will moreover be in accord with this couplet:

He who shall flee vices and seek to learn virtues
Will certainly find nothing more pleasing to God.

First of all, the man distinguished with the prerogatives narrated above is armed with the greatest love toward God and others: as Christ said in the Gospel, *By this shall all men know that you are my disciples, if you love one another.* He then fears the venerable majesty of God; since both the Psalmist and Solomon have taught that the beginning of Wisdom is the fear of the Lord. He is just, inasmuch as the illustrious virtue of justice resides in his mind; for we read in Solomon: *The tongue of the just considereth what is acceptable, and the mouth of the wicked speaketh perverse things.* He loves chastity, to attain the maxim of Isidore, who pronounces that those who persevere in chastity are made equal to the Angels of God. He loves silence, because Solomon shows that in much speech sin is not wanting. He embraces faith, since, from Isidore, blessed is he who, believing rightly, lives well, and living well guards the right faith. He is fortified by hope: for the Apostle, writing to the Romans, pronounced that we are saved by hope — for despair, in the mind of Isidore, increases sin. He never forsakes charity, since in John it is read: *God is charity, and he that abideth in charity abideth in God, and God in him.* The ancients prized this so highly that the Athenians in their annual public curse wished to exclude not parricides, not public thieves, but only those who had refused to show a traveller the way, or to kindle a light, or to draw water from a well. A man endowed with genuine goodness does not shrink from patience: for it is read in Luke, *In your patience possess ye your souls.* He is humble, according to the precept of Christ in Matthew: *Learn of me, for I am meek and humble of heart, and you shall find rest unto your souls.* He lives in anguish and sorrow: for Christ declared, *You shall be sorrowful, but your sorrow shall be turned into joy.* He does not abandon prayer; since Solomon says: *The Lord is far from the wicked, and he will hear the prayers of the just.* He exercises himself in confession, according to the assertion of Paul: *With the mouth confession is made unto salvation.* He rejoices in penitence, since Christ in Matthew spoke these words: *Do penance, for the Kingdom of Heaven is at hand.* He is temperate in unlawful things: for the blessed Augustine wrote these words: *If food shall be temperate, and the soil of our body irrigated, the thorns of lust shall not spring up.* He is meek, mindful of the assertion of the Lord in Matthew, where it is read: *Blessed are the meek, for they shall possess the earth.* He is merciful, since in the same place it is said: *Blessed are the merciful, for they shall obtain mercy.* And besides, he who, seeing the need of another, is moved with pain, according to Gregory —

[marginalia: Epilepsy cured. / Proverbs. / 1 Proverbs cap. 1. / Proverbs cap. 10. / Ibid. / Romans cap. 8. / Matthew cap. 11. / Matthew cap. 5.]

[catchword: medina]

THE VICES OF MAN

— bears the cross in his mind. Moreover he most readily assists those who beg for alms, since it is written in Luke: *Make to yourselves bags which grow not old, a treasure in the heavens that faileth not.* Nor does he despair when he is vexed by afflictions; since through these, as it is written in the Acts of the Apostles, it is fitting that we enter into the Kingdom of God. Indeed he perseveres thereafter, since from Matthew these words are gathered: *He that shall persevere to the end, he shall be saved.* Finally he acknowledges prudence as the guide of all the other virtues: for Solomon declared a man abounding in prudence to be blessed. And therefore this section will be closed with this couplet:

Blessed will be he who adorns himself with virtues;
Wretched the man who stains himself with vices.

THE VICES OF MAN.

HERACLITUS, as the elder Pliny reports, proclaimed that whoever hates vices hates man, implying that no man can be found who is not contaminated by vices. Nevertheless we cannot keep silence on what we think of the matter, or fail to feel those things which ought to be said of the one in whom individual vices are found in full — since Menander has written that the sweetest thing is a man who shrinks from every kind of vice: for one befouled by vices is called a brute beast, since, being constituted in that state, he cannot be a partaker of the divine condition. He then puts on the nature of the Wolf through avarice, becomes a Dog through slander, emulates the Fox by fraud, becomes like the Lion through wrath, and at last is transformed into a bird through inconstancy, into a swine through lust, and into an Ass through sloth. When therefore man becomes a monster of vices, he falls into cruelty, which he afterwards exercises more even than the beasts, as Juvenal expressed it in the following manner:

But by now the concord of serpents surpasses;
A beast of similar markings spares its kin.

And a little further below:

The raging Tigress makes lasting peace with the Tigress;
Fierce Bears agree among themselves.

But man has forged for man the deadly steel on an accursed anvil.

He then sets justice aside: whence Cicero used at times to say that men judge more things out of love, desire, anger, grief, joy, hope, fear, error, or some other disturbance of the mind, than by the truth.

Occasionally, in the carrying out of certain affairs, to the evident harm of someone, he procrastinates, which is also most greatly to be avoided, as becomes manifest in these verses:

What you say you will do tomorrow, tomorrow is already here;
No day is ever certain enough, but do everything today.
We are earth and ashes; what we live is shadow; what therefore
Can one seize, or what will the fearful man have lost?

Man is also branded on the forehead with the mark of ingratitude, which vice Christ in the Gospel detested, complaining that he had cured ten men of a desperate leprosy and that only one of these had given thanks. Wherefore a certain person rightly exclaimed:

The earth brings forth nothing worse than an ungrateful man, even if it
Itself bears frigid things and poisons alike.

What more? No one ever dies at the same time as another, and therefore falls into idle speech; which is afterwards, in the mind of Isidore, the sign of a vain conscience. On this account he incurs curiosity, which the blessed Jerome, detesting it, wrote was not to be considered — what evil others commit, but what good it is fitting for one to do. Some, held fast by an abominable vice, value friendships by their utility; wherefore Ovid, condemning such a vice, sang thus:

What you promise for tomorrow, accomplish today;
For it is harmful to put a matter off to tomorrow, while time is sufficient now.

[marginalia: Acts cap. 14. / Matthew cap. 24. / Proverbs cap. 25. / Juvenal, Satires lib. / Ovid [...].]

[catchword: Turpe]

Shameful indeed to say, but if we hold to the truth,

The common herd values friendships by their utility.

Nor will it be displeasing to hear another speaking in this vein:

No miserable poor man wants any friendship;
You seek a friend's feast only with gold.
The poor man is driven away and all but pelted out of all assemblies;
Nor does it help to be good or to be in the company of the wise.
Gold brings honour, elegance of life, with piety cast aside —
All men covet riches, forsaking chastity.

Furthermore, gluttony and drunkenness oppress many, which Isidore declared must be avoided, since from this disturbances of the mind, fits of frenzy, and spurs of lust result; and beyond this it is very well known that more men have been slain by the gullet than by the sword, and therefore it is sung thus:

More bodies fall by food and drink than by the sword;
How true this is, the dangers of the gullet teach.
For nothing more quickly undoes and relaxes the mind
Than feasts and wines taken in various ways.

Others insolently glory in the splendour of their fortune; but the blessed Ambrose observed that Pride had transformed Angels into Demons. It is further added, from the teaching of Christ, that the arrogant and haughty are to be placed in the lower position. However, man depraved by envy is still more to be avoided; for from the judgment of the blessed Augustine, Envy exterminates all virtues. He who pursues vainglory indulges in the luxury of dress, as Gregory has written: no one wishes to be neat and elegant in clothes and other ornaments of the body where he cannot be seen by others. Indeed an affected care for bodily beauty is referred to the category of vice; for a wise man contemplates not the beauty of the body but of the soul. Finally, wrath must be tempered, ignorance — as the nurse of vices — must be avoided, and likewise Avarice, which Cyprian likened to Hell. The lying man is called a fraudulent witness. Likewise the man depraved in the stain of his soul swears an oath, although in Matthew it is read: *You have heard that it was said to the ancients, Thou shalt not perjure thyself.* He loves discord, contrary to the divine precept; for God is not of dissension but of peace.

Although women, just as men, can guard themselves from the depravities of mind described above, nevertheless women themselves are tempted by certain peculiar vices. A woman, first of all, has her will in place of reason, as Juvenal implied in singing:

This I will, thus I command; let will serve for reason.
She commands the man.

Sometimes women teem with quarrels by night and day, which Juvenal expressed most aptly in the following manner:

There is almost no cause for which a woman will not stir up a lawsuit.

Moreover, no woman can be called chaste except one who guards herself, not one whom a man guards; according to the saying of Ovid:

None can be kept, unless she herself so wills.

A woman is also condemned for intemperance, of which Propertius spoke thus:

When you, scorned, have burst the reins of shame,
You know not how to bridle a captive mind.

And so they slide from stain to stain, while women indulge themselves too much in the ornament of clothing, frequenting dances so as to be looked at by everyone on all sides; according to the assertion of Ovid singing:

They come to be seen, they come themselves to see;
That place has much destruction for chaste modesty.

At last a woman caught in a crime is forced to cover the offence with another crime; as this couplet holds true:

As many birds as haunt the air, as many shells as line the shore,
So many frauds and tricks does womankind possess.

Which wickedness of mind M. Tullius Cicero himself, weighing at times, was driven to sing thus:

No beast so savage, but if by chance she met a man,
Some good came of it through that —

[marginalia: Gluttony and Drunkenness and what they do. / Proverbs. / Acts. / The frauds of women.]

[catchword: quo]

— by which good luck no bad thing was ever cast away.

Therefore we need be seized by no admiration if, when you say to Diogenes that you have seen a woman hanging from an olive tree and strangled in the noose, he replied: would that all trees bore such fruit.

To what has been said, as a crowning addition, we shall append certain impostures of fraudulent men, so that those who deal with wicked men may be on their guard against fraud. At the time of Dioscorides, saffron was being adulterated with *crocomagma*; today, impostors corrupt it with the fibres of cooked ox-flesh dyed with saffron, and also with the filaments growing at the heart of the *Scolymus*. They increase the weight of oil with turbid water, or with a decoction of turnips and Asphodel. They make silk heavier by the smoke of boiling water; but others increase the weight of silk by keeping it among green walnut-leaves. They render the quantity of honey apparently greater with chestnut flour or millet flour, which fraud is with difficulty detected. Into wax they mix the finest bean-flour, which burns in candles without dripping; for in this way the weight of the wax is increased so that the fraud is scarcely known. They adulterate tallow with the ash of the shin-bones of cattle first burnt in furnaces, or by adding white sulphur: for in this way they counterfeit the quantity without deforming the appearance. They cheat with grains of pepper, using grains of vetch boiled in water with capsicum: for these grains, once dried, contract wrinkles like pepper, and when tasted communicate an acrid flavour to the tongue, so that even diligent apothecaries are deceived. The weight of bread is increased by bran steeped in water and then pressed out. Pliny adds weight to grain when he hides a vessel full of water or vinegar in a heap of wheat. Six hundred impostures of this kind we omit in the interest of brevity, and instead recite the following verses, so that the vices of all may be exposed and lead to their being avoided:

Above all, let those who are guardians of sacred rites beware;
Let modesty be triple in religion.
Let not the Prince oppress the poor or break the decrees —
The whole world acts in the example of the Prince.
The impious soldier grows hardened by the rapacious general,
The faithless courtier swells with ambition.
He shouts in vain who censures the failings of public men,
Praises them, and listens to their words — yet none acts.
The deluded Apostate, condemned for what art he cultivated,
Wounds, and the obstinate rider ruins his horse.
The wretch blasphemes, the Judge swears away the morrow's affairs,
The Praetor loves the gifts which the accused has brought.
The handout is imposed again and again; it recurs perennially;
The man of wax is accustomed to be pliant toward the laws.
The legal counsellor promises and receives gold,
The lying advocate, and the Poet lacks bread.
The Notary fishes for litigation amidst the discord of lawsuits
And is left swimming, like a frog in the middle.
The lawyer cultivates a fertile enthusiasm; the Hunter pursues
His quarry; the Mime performs the work of buffoonery.
The plaintiff hastens lawsuits; it pleases him to defer the defendants' affairs;
The Astrologer sings false things from an uncertain star.
The vain tricks of Sophists smack of Judas's betrayal;
Whether the Doctor cures or kills, he gets his fee.
The Surgeon always loves lawsuits, wounds, and brawls;
The Thief watches the iron bars, the chains, the cross.
The Poor man cheats; the Rich man wishes to be richer;
The seller of goods who loves bronze swears falsely.
The agent wishes to reap a double fee from a single commission;
The runaway slave seeks flight from the citadel.
The informer Pimp is puffed up on damp bread;
And the mere slaughterhouse of a Litigant pleases him.

[marginalia: Impostures of sellers. / The industry of imposters.]

[catchword: In pacis]

The master feeds his servants as little as he can, and the hard stepmother gives
just as much labour to her stepchildren.
The lazy slave spares himself by constant sitting still.
The harlot is deceitful, rapacious, and shameless in her demands.
Lovers are beguiled by nods and with fierce eyes.
A wife inflames her husband with her chatter.
Mauritius seeks a divorce and has already found one many times.
The Vestal regrets having abstained from the marriage-bed.
He who sells produce by weight defrauds the true measure,
and often substitutes worthless vegetables in place of good ones.
The butcher cheats many buyers with the same trick,
pressing down his scale with a thick finger.
The baker handling the grain renders it unequal in measure;
when he wishes to add lye, he kneads it in.
Wine is sold with the thumb underneath the cubit measure,
and oil is sold in a dark place.
The merchant, though reluctant, fawningly pushes his wares upon you;
the dyer stretches his art in deceit.
"This cloth is fine," says the tailor — and he lies — "but it burns,
this one quickly gathering the needle-pricks makes festival garments."
The furrier promises to add lambskin to winter garments
and sets down the fleece of a sheep.
The cobbler draws shoes, sandals, and slippers with his teeth
so that the skimping of the sole deceives your eye.
The woodworker spits on his palms to rest,
and hews hard beams with a weary axe-blow.
The painter abandons a work begun when he has received his wage,
and if he lives, he holds his thanks.
Those who hire out their labour and slacken toward the Sun
say "the employer grieves when the sun goes down."
The contractor places scant mortar between the courses,
and walls built with falsehood lack lime.
Sausage-makers mix half-dead flies into their sausages,
cooks gulp down thick soups at the kitchen.
The goldsmith draws out gold after melting in an alloy —
not the furnace but the talkative file makes the theft.
Hasten, ye Chemists, ply your bellows swiftly;
for one alone changes appearances and metals — the god.
A guest praises the dishes at a feast while he runs about;
the bookseller praises my little verses.
The ape thinks her ugly cubs are beautiful;
any author thinks his own work is outstanding.
A woman in labour fattens herself amid her pleasures and groaning,
and withholds the milk in her breasts, that is, the colostrum.
She who rearranges the womb and calls it fertile
judges the child's nose to be the father's.
The nurse seeks eggs and drinks bought for herself,
nor does she forbid this pernicious evil of Venus.
A sorceress kisses her children in their sleep;
the pampered man despises hard toil.
Time is swift for a guardian, long for a ward;
the bailiff demands sunshine while rain comes on.
Crafty Rusticity suffers violence from proud Nobility;
the guest is gentle and the judge is at peace.
It is hard to find a young man who is wise and sound;
you would not think old age gnawed by envy.

[catchword: Incolumis]

The man who is unharmed does not know how to count himself blessed.
Let the sick man eat, that Croesus may have health and wealth.
Brothers quarrel, heirs to the common lot,
when the common pot boils badly over a shared hearth.
Those condemned by time sell their pledges and tokens.
In the woollen cloth they weave threads few and sparse.
A wretched and suspicious life belongs to the pirate and the tyrant.
A harsh father, and a loving but too fond mother —
where the cat is away, the mice leap through the coffers.
So the mistress's maids, while she rules the house harshly.
They delight to look at lovely faces in the mirror;
before the querulous infant they hold out sweets, it weeps.
Neighbours always have quarrels, lovers squabbles,
and the consumptive seeks the fountain of health in vain.
The actor plays to the common people, but the dusty man brings
mandrake from the pharmacy shop for weariness.
He soaks his gullet with spirits and the brain of a cock,
pricks with a needle, and with a small powder heals the bird.
If he hires out mounts for hire, or veterinary animals,
he provides a substitute that always feeds them ill.
This man beats the innocent and heaps many insults upon them,
nor does the rider ever cease to prick the horse with spurs.
The herdsman in bull-pastures wears his sandals out,
nor does the watchful man forbid the goats from going into the vines.
The shepherd lays waste the field with his flocks and the swineherds sleep;
thus the keeper of sheep wears down the meadows that should be mown.
The harvester, parched, leaves the gleaning for boys after him;
the scythe-bearers prepare their scythes on the wet whetstone.
Those who gather apples fill their own bellies with the better ones;
the unripe grape always fills your baskets.
You do not rightly know yourself, O prosperous man, nor others;
every wretched man is compelled to be dutiful.
The wise man who has thought himself wise is mistaken;
he who thinks himself knowing is called unwise.
I swear: so long as we live, we always think ourselves alive.
The athlete always thinks he is about to win.
The dying man would snatch his wife and children and household gods,
if he could have the back of Aeneas of Phrygia.
The heir mourns in black for the kindred departed, and from the depths
of his breast gives a laugh; a small legacy pleases.
He denies the trust and denies the debt,
and unless called successor, he announces he is destitute.
[...]
If a festival is celebrated in the City they submerge the pulpits with chaff;
at night they break doors with frequent knocking,
afterward they do not cease to write: "Send, Father —"
"Now, Father, give us money, lest we scatter it among the Indians,
or let us quickly seek a path of religion."
They promise hereafter to carry out toil for the pious;
meanwhile the captured and ensnared work is devoured.

DISEASES.

We gather that human health is subject to no small number of diseases from this: that, leaving aside poisons communicated either through the bite of serpents, or through their sting, or through diet with which other living creatures are also at times afflicted, men fall into ill health most frequently. Diseases, therefore, are either simple or compound; and these latter especially, in their formation, regard either a vitiated shape, or a cavity, or a rough or smooth surface, or number, magnitude, and position; or lastly, diseases that depend upon the dissolution of unity. In the present place, in order that the infinite varieties may come to light, beginning from the diseases of the head, we shall enumerate the particular affections of the parts, and the universal affections of the whole, and then wounds, ulcers, tumours, the affections of women and children, and finally those of the skin.

The diseases of the head are: Achores, Phthiriasis, Baldness, Alopecia, Ophiasis, Leontiasis, Hydrocephalus, Cephalalgia, Cephalaea, Hemicrania; which headache is sometimes caused by worms born therein, or by a scorpion generated there, as happened to a certain man from frequent smelling of basil, of which Schenck makes mention in his *Observationes*. Moreover, from a calculus formed in the brain of a certain citizen of Leipzig, which had grown to the size of an egg.

Furthermore the brain is afflicted by Sirius, Frenzy, Mania, Erotomania, Forgetfulness, Melancholy, Lycanthropy, Enthusiasm, Lethargy, Catalepsy, and Torpor. And since the nerves take their origin from the Brain, Convulsion is here mentioned, and consequently Epilepsy, Distortion of the mouth — namely the Cynic spasm — Ephialtes, Tremor, Stupor; indeed that affection is referred to convulsion under which the famous Pericles suffered, who while sleeping lay sprawled on the very top of the roof, and Theon the Stoic while sleeping walked about everywhere. Apoplexy and Paralysis follow; Schenck however recalls a man labouring under the resolution of the nerves who, when his house caught fire, threw himself headlong and thereafter walked properly and was healed. Finally man is tormented by prolonged wakefulness; for Seneca reports that Maecenas lived for three whole years without sleep, and was freed from this by illness. Likewise Heurnius, when he was staying at Pavia, records that he learned that that Ciceronian Nizolius had for ten years found no sleep. Montanus also confesses that he knew a noble Matron who lived sleepless for the space of thirty-five years.

The diseases of the eyes are many in comparison to the affections of other parts, since many parts concur in making up the eye; and an affection is: the shrinking of the eye, its protrusion, Strabismus, Purblindness, Amaurosis, Nyctalopia, Epiphora, resolution of the eye, Ophthalmia, Sclerophthalmia, Xerophthalmia, Leucophthalmia; Ectropion, an affection opposite to Lagophthalmia, Trachoma, Agglutination of the eyelids, Hordeolum, Chalazion, Encanthis, Trichiasis, Pterygium, Hyphaema, Hypopyon, Leucoma, Aegilops, Amblyopia, Prolapse of the uvea, Mydriasis, Phthisis of the eye, Cataract, Suggilation, Vertigo, Scotomia, Synchysis — a disease of the eye arising from a blow — fistula lacrimalis, and lacrimation, from which blood sometimes flows. Indeed Dodonaeus reports that he saw a girl past ten years of age who shed bloody tears, whose cause he attributed to the suppression of the menses.

The nose is held in adversity by Gravedo, or Coryza, Polypus, Ozaena, Haemorrhagia, Foetor, Sneezing, and Trichiasis; and although this last affection was counted among the diseases of the eyes, it must be noted that this name suffers equivocation; for eyelids vexed by pricking hairs are said to suffer from Trichiasis: likewise when hairs afflict the nose, physicians call this affection Trichiasis; furthermore the tongue suffers Trichiasis, and finally by Trichiasis certain hair-like threads that sometimes pass out with the urine are understood. The ears are vexed by Otalgia, Tinnitus, Diminution of hearing, Deafness, and Ulcer.

Finally the mouth is oppressed by ill health when there befall it foetor, alveolus, [...]

[marginalia: Schenck lib. observ. / Morbus capitis. / Lepsis — how it is produced in children. / Schenck. / Schenck. / Dodonaeus — observations. / Diseases of the eyes. / Diseases of the nose. / Trichiasis of the nose.]

[catchword: labiorid morbi]

inflammation of the tonsils, and of the uvula, and its relaxation, impeded speech, tumour, and Trichiasis of the tongue — from which last affection Schenck believed that men are afflicted of the kind who are said to be stuffed full of a hairy heart. To these are added abscesses of the gums, and Scurvy, a disease familiar to the Germans about the Baltic Sea, with putrefying gums and foul breath. Nor is Odontalgia omitted, nor the blackening and pallor of the teeth, difficult dentition, and the eruption of a tooth in the palate, of which Pliny makes mention; Eustachius likewise records a Roman woman with a tooth projecting through a foramen of the palate; and likewise another woman dwelling in the Monastery of the Most Holy Trinity at Gubbio, in whose palate, in the tenth year of her age, a tooth appeared.

The neck and thorax are afflicted by Catarrh, Angina, Dyspnoea, Asthma, Aphonia, Peripneumonia, Hydrothorax, Pleuritis, Phthisis, Empyema, Cardialgia — sometimes arising from calculi generated in the heart, as Schenck observed — Syncope, Excess or scarcity of milk, Abscesses of the breasts, Foetor of the armpits, and the troublesome Cough, which Schenck sometimes observed to be produced by small creatures resembling flies, generated in the rough artery and lungs.

Furthermore man is seized by weakness of health when the lower parts of the belly, which are numerous, are afflicted, and especially when there prevail Apepsia, Dyspepsia, Pain of the stomach, Eructation, Inflation, Hiccup, Nausea, Vomiting, Bulimia, Pica, immoderate Thirst, Tormina, Verminatio, the Colic passion, the Iliac, and the Coeliac passion, Lienteria, Diarrhoea, Dysentery, Cordapsus — a lethal disease in which faeces are vomited; nonetheless Schenck recalls some who ejected suppositories and clysters through the mouth without danger to their lives. We ourselves know a young man of Bologna, still living, who two years since suffered from a double tertian fever, and shortly after taking clysters would vomit them up. To the aforesaid is added Dropsy, whether it be Ascites, or Tympanites, or Anasarca. A certain man seized with Ascites, according to Schenck, long lay abed, and his wife, bearing ill the length of the illness and the heavy expenditure, resolved to remove the patient by poison; and therefore gave him a powder of a toad burned in a pot; but the sick man, having passed copious urine, felt better: yet she, to terminate at last the wretched life of the patient by death, administered a yet more copious powder; but the man, passing a greater quantity of urine beyond the expectation of his wife, recovered. For a toad opened and applied to the kidney region enjoys this prerogative, that it drives the water of dropsical patients through the urinary passages.

If we proceed through the series of diseases of the remaining parts, there will follow Nephritis, Obstruction of the spleen, Scirrhus; likewise weakness of the liver, Icterus, Cachexia, Scirrhus, that hepatic affection, he who suffers from which, in Plutarch, accurately observes and pursues domestic mice. There is added weakness of the loins, which Festus called lumbago. Nor are haemorrhoids omitted, anal abscesses, Rhagades, Condylomata, and Imperforation. For Dodonaeus recites the history of a certain girl born with a closed anal passage, who thrust her excrement out through the pudenda; likewise from Benivieni many are recorded who were born with a closed anus, as indeed even today they are, who are from time to time corrected by art; but it must be noted, in the opinion of Dodonaeus, that infants are sometimes born imperforate, in whose anus the flesh grows higher, which error of nature can be corrected by no art; but when only a membrane covers the opening, this being incised with a sharper scalpel, the infant lives healed.

There follow the diseases of the genitals and bladder; namely, the taking away of virility, distortion of the pudendum, Phimosis of the prepuce, Satyriasis, Gonorrhoea with and without Priapism, nocturnal Pollution, inflammation of the bladder, Lithiasis, involuntary excretion of urine, burning of Urine, Dysuria, Ischuria, Stranguria. But Dodonaeus relates a remarkable thing concerning this affection: of a boy of ten years who for seven days passed no urine, his passages blocked by phlegm, yet at last emitted it from the anus, though the intestine is of solid substance and the bladder by no means perforated; but nature, which cannot in the least achieve this, widened the passages for the safety of the patient. Diabetes is added last, concerning which Schenck relates that a girl of eighteen years, in the year of the Lord one thousand four hundred and eighty-one, voided more than thirty pounds of urine daily, though food and drink did not exceed the weight of six pounds; so that in the space of sixty days, during which the disease persisted, she passed one hundred and sixty pounds of urine in excess of the intake —

[marginalia: Lib. 4 observ. / Lib. 1 de dent. / Diseases of the teeth — in the palate. / Lib. 3 observ. 143 / Toad's remedy. / Lib. 3 observ. / Imperforation of the anus. / Lib. 3 observ. / Observations.]

[catchword: reddidit]

— which was rightly attributed to the air widely contained in the arteries, which was successively converted into an aqueous substance. Now, leaving aside the tumours of the scrotum and testes — namely, Hernias, of which mention will be made in their proper place — we shall proceed to enumerate the diseases of the extremities.

The fingers of the hands, or of the feet, are afflicted by Reduvia, Pernio, Gout — which is a species of Arthritis; for to this latter is reduced not only Podagra, but also Chiragra, Homeragra, Cubitagra, Gonagra, and Ischiadic pain. On account of this last, a certain architect, as Dodonaeus relates, when he had been limping and fell headlong from a high tower, so far was he from receiving any injury from so great a fall that he thereafter walked upright. Furthermore, in former times, Gemursa, a new disease of Italy, was born between the toes of the feet, which according to Pliny has since become extinct.

Moreover, among the universal diseases occupying the whole body, Fever holds the chief place; namely the Ephemeral, the Humoral, and the Hectic, to which are later referred the Amphimerina, the Quotidiana, the Tertiana of greater and lesser fame, the Quartana, the Quintana, the Sextana, the Nonana, the Menstrual fever, Synocha, the Anniversary fever — by which Antipater the Sidonian poet died — the Lipyria, the Malignant, the Pestilent Contagious, the Pestilent Stigmatic, the Spurious, the Legitimate, the Sudorific — namely the British disease familiar in Germany, which the Greeks might call *hidrós pyretos*. The Purple fever, so named from the colour of the blood poured out; and the fever derived from the fish *febrio*: for they report that in the river Natan in the island of Ceylon there is a fish which, once caught, immediately kindles a fever, and when it is released the fever vanishes; wherefore from this effect Scaliger named this fish the "fever-fish." Among the universal affections the French disease deservedly reckoned, which, although it first afflicts the pudenda, nonetheless shortly afterward, disseminated through the entire body, vexes patients in a marvellous manner. Likewise the new plague of Moravia, and other unknown diseases, concerning which Wierus dealt in a German book, which he entitled *On Unknown Diseases*.

Now something must be said about the dissolution of unity; since wounds of every kind of part present themselves first — both simple and compound, inflicted by any instrument whether iron, or whether by a greater and a lesser firearm — with lead balls and iron of arrows remaining inside the body; as happened to a certain rustic, from the observations of Dodonaeus, who in a seditious tumult was wounded by an arrow around the back; the arrow was extracted by a surgeon, and the iron being sought in vain and remaining inside, he after two years passed the iron out through the lower parts, to the wonder of all; for the iron entering near the Diaphragm and descending along the intestines gradually made its way out near the anus. Nor are there wanting afterward ugly scars to be effaced and broken bones to be knitted, which work Nature accomplishes most excellently when physicians could in no wise achieve it; there is preserved among us a small bone of some strong four-footed animal which, having by some accident been broken in two places, those fragments which ought to have been joined lengthwise were knitted by nature transversely, as appears in the following figure, where the bone consolidated is depicted in the prone and supine part.

[figure captions: A small bone knitted together by nature, depicted in the prone and supine part.]

[marginalia: Diseases of the digits. / Gout and its species. / Gemursa, how it arose. / Plin. lib. 26 cap. 1 / Distinction of fevers. / Extrav. 2 38. / Case of a man wounded by an arrow. / Bone knitted by nature.]

[catchword: Post]

After these are enumerated ulcers of every part — varicose, verminous, with corrupted bone, cachetic, or chironian, herpetic, phagedaenic, noma, theriomata, or livid ulcers, sphacelus, French ulcers, caries, chaps of the hands and feet; likewise a fissure running lengthwise about the spine, so fine that it escapes the eye — which, as Schenck testifies, does not so readily bring death to the patient. Furthermore fistulas of every kind, all species of scabies, pruritus, lichen, or mentagra, leprosy, burns, and the like.

On approaching tumours beyond nature, we shall observe them to be infinite; for there present themselves phlegmon, erysipelas, oedema, cancer, inflammation, carbuncle, French bubo, scirrhus, nodes, atheroma, steatoma, meliceris, aneurysm, emphysema, struma, ganglion, callosities and corns, various species of warts, sycosis, furuncle, parotis, parulis, crithe, chalazion, Plica — a disease peculiar to Sarmatia, acne or blackheads, omphalon, hernia — whether it be bubonocele, sarcocele, hydrocele, epiplocele, enterocele, cirsocele, physocele, and compound hernias — and likewise lupus, which sometimes grows to the weight of eight pounds. What else? Here must be reckoned that eminence resembling a horn, which sometimes deforms the human head, and is not a monster, as Scaliger testifies, but a disease. Indeed Lanfranc relates in his *Chirurgia maior* that he saw a head of a man distinguished by seven eminences, of which the tallest measured the length of the little-finger's nail. A learned Lusitanian likewise mentions a boy born with a little horn on his head who, now grown up, when he was called "horned" by other boys, took care to have the horn removed from his head; and therefore the surgeon, somewhat too bold, excised it from the root, but with an unhappy outcome, since the patient shortly died: for such horns are composed of the medullary substance of the brain. Equally, in the year past, namely in the year sixteen hundred and thirty-nine, a boy of rustic birth, ten years old, with a little horn on his head the length of the index finger, came to the Hospital of Death at Bologna, to be freed by surgical aid from such an inconvenience; to him Johannes Baptista, son of the late Johannes Caponius, a physician and man most celebrated in Astrological science, then attending upon the sick of the Hospital and accomplished in every branch of learning, announcing death from the excision of the little horn, prudently dismissed him. We ourselves likewise exhibit at present the likeness of a horned man found in the Duchy of Humenné, whose history is this. In the Duchy of Humenné in Gaul, in our times, this man, having born a horn resembling a ram's horn on the right part of his forehead, whose name was Franz Frouilli, well constituted in all his members, of tall stature and endowed with strong powers, of rustic birth, clothed in the inside-out pelts of wolves, in a small neighbourhood near Mézières had passed almost all his life in the forests. He himself reported that he had no memory of it until his forty-ninth year; for from that age the horn had begun to burst forth from his head, sharp in the form of a ram's horn. But at the time when he was found, he was in his thirty-fifth year, as could be conjectured from his appearance. The manner in which he was found was this: the Lord of Laverdin frequently sought out a certain wood for hunting; but having entered it on one occasion and caught sight of a crowd of rustics, and suspecting them to be robbers, he immediately ordered them all to be arrested; and then the horned man, companion and associate of the rest, fleeing first, hid himself among the thickets. But being drawn out thence by force and led before the Lord, he refused to uncover his head, lest he reveal so great a deformity. His cap having at last been removed by the Lord's servants and attendants, the horn was observed not without great astonishment of the beholders on his bald head, save for some hairs with which the back of the head was covered. Then the Lord of Laverdin immediately ordered him to be led to the most invincible King of France, who was not far away, by whom he was afterward conducted to Paris, to be seen of all. Schenck likewise makes mention of a certain man from whose back a bone emerged in the likeness of a horn; wherefore, after a universal evacuation of the whole body had been performed, and desiccating medicines applied, the bone fell of its own accord.

[marginalia: Lib. 4 observ. / Tumours beyond nature. / Extrav. 199 / Centur. 1 Curas 91 / Horn born on the head and in other places. / Lib. observ. 59]

A corpse found in the Duchy of Humena.

[Full-page engraving — no further translatable text]

Now we must hasten to enumerate those affections by which women alone are seized; they are: sterility — namely the feminine kind, which in some is perpetual, though others lay it aside upon changing husbands; the Scythians call this disease the "effeminate sickness." Pica is the absurd craving of pregnant women: for Schenck makes mention of a certain pregnant woman who desired to bite the neck of a young man, and would doubtless have done so, had she not, after the young man had nearly fainted, bitten his neck. Prolapse of the uterus, Abortion, Mola, difficult Labour, a dead child, and retained afterbirth, Hysterical passion, Inflammation and tumours beyond nature of the uterus, and likewise dropsy of the uterus, as well as worms; pruritus, pain, haemorrhagia, and collected haemorrhoids, a symptom of unseemly appearance when the nympha — or rather the Clitoris — is erected in the manner of the male pudendum; which deformity afterward is removed by nymphotomy, a fleshy excrescence in the privities of women to be cut away, Imperforation, from which the women who suffer are called *dypnoos*, Epidemic superfetation, which Brasavola recorded. To these are added the flux of women, suppression of the menses, their trickle, and their excessive outflow; but it is remarkable what is read in the history of the navigation to Brazil, namely that American women do not labour under menstrual purgations; yet those women are most fecund. It has however been observed that in that region girls in their twelfth year are wounded by their mothers from the armpit down to the knee with the most acute tooth of a certain animal; whence, after this large outpouring of blood, they conjecture that they are unable thereafter to be purged.

Furthermore women in childbed are troubled by milk fever on account of the agitation of the blood, on account of the pilar disease, on account of inflammation of the breasts, and on account of milk curdled into lumps; sometimes the breasts overflow with so great an abundance of milk that the milk flows of its own accord. Hence it is not surprising if Andreas Laurentius sometimes observed milk purged through the bladder and the anus. At times women suffer from the great size of their breasts; for Scaliger relates that he saw the breasts of a certain virgin so vast that they occupied the sides of her arms and the upper part of the belly. This case will perhaps not be very unlike that girl whom Albertus Magnus reports he beheld with pendent breasts, with hairs in the groin and under the armpits. Women are also afflicted by a grievous disease, when on account of the narrowness of the orifice of the uterus the foetus is unable to emerge; unless, by means of a Caesarean section, without damage to conception and fertility, and without danger to either life, the foetus is brought out. Certain surgeons, according to Schenck, are wont to perform this operation diligently: for in the right part of the abdomen, a transverse finger below the navel and beyond four fingers to the side, they make their incision, and from there proceed straight down to the pudenda, and there, without injury to the rectus muscles, they then incise the uterus, making a wide wound, so that easy access be made for the living foetus and the afterbirth; afterward, the wound of the abdomen — not the uterus — being joined with five stitches, they restore the woman in childbed to her former health. At the end of these diseases is placed the Virgin's disease, commonly called the white fever, because this affection is familiar to Virgins only; wherefore married women of Brabant are accustomed to call the white fever, on account of the pallor of the face and the wasting of love, the love-fever.

Just as men, as has been noted, are detained by adverse and diverse diseases by reason of sex, so likewise they are seized by various affections by reason of age. Boys therefore, although they may be pressed down by every kind of disease, are nonetheless afflicted for the most part by those diseases among which are measles, smallpox, scurfs, certain pustules called crystal-shaped, marasmus, umbilical tumour, Hernias, Imperforation, Prolapse of the anus, intertrigo, and, according to Avicenna, excoriation, pernio, mutism, or privation of speech — since Aristotle has written that man alone can be assailed by this affection, because man alone is capable of discourse — Stammering, prolonged waking, verminatio, dentition, hiccup, incontinence of urine. To these some add Satyriasis in accordance with the mind of Hippocrates in the *Aphorisms*; though since this term was inserted by some writer over-diligently, certain most learned men, in their exposition of this passage, made no mention of such a word.

In the last place must be named all the affections infesting the skin of the human body; which, although above they have been partly mentioned among ulcers, and partly among tumours beyond nature, yet in this place we shall comprehend them all. They are: [...]

[marginalia: Diseases of women. / Morbi muliebres. / In commento ad lib. 2 pp. / Lib. 3 Aphor. Hippoc. / Febris apalb — what remedy. / Diseases of boys. / Lib. 3 Aphorism. 27]

[catchword: Vitiligines]

Vitiligines, Scabies, Elephantiasis, Vibices, Spots, Pruritus, Scars, Wrinkles, Loss of the nails, Reduvia, Vitiated form and colour, Hydroa tubercles, Exanthemata, Tinea, Sycosis, Premature Greying, Loss of hairs, Plica — an epidemic disease of the Poles; for although this affection most commonly occupies the hairs of the head, yet we have learned that it also vexes other places from which hairs spring. Here too are to be enumerated the affections of Impetigo, Mentagra, Sacred Fire, Lichens, all species of Leprosy, Atrophy of the parts, Dracunculus, familiar to the Egyptians and Indians, *epinyctis*, all kinds of pustules, and especially Boa, or Bova, when the skin grows red with a multitude of papules, just as though it had been bitten by the Boa serpent. There are added the scurfy affection setting upon the entire skin, the horrible Phthiriasis, when the entire skin teems with lice, likewise Syrones unknown to Greek physicians, as Abenzoar writes, called *Assoalar* by the Arabs: for they are lice creeping through the hands, and exciting pustules full of water, they lurk deeper, being such tiny creatures that they nearly escape sight, and are easily extracted by women with a needle of sharp vision. Nor are ticks to be omitted, born from the filth of the beard and the groin, which the French call *Platas* and the Italians, since they emerge without excrement, call *Cacas*. Lastly Abenzoar makes mention of a disease called *Nakir*, which is nothing other than a flatulence that occupies in abundance the entire compass of the skin.

The diseases of the skin just now enumerated have called birthmarks to mind, and especially since some authors of no small account have placed them among the vices of the skin. For Pliny has sometimes written that bean-meal cooked in vinegar removes birthmarks. Nevertheless, so far are birthmarks from defacing the human body that they seem rather to commend it. Wherefore Ovid did not hesitate to approve that face on which a kindly nature has imprinted some birthmark; for just as a ship seen upon a calm sea not only adorns it, but is also accounted a sign of a navigable sea: so likewise a birthmark, as it were a little ship (*naevus*, as *naus*), not only bestows beauty upon a face, but also signifies the marine affections of the human soul; since there can be no doubt that birthmarks appertain to Physiognomy. For this reason Melampus the Physician, the most ancient of the Athenians, and likewise Abenragel among the Arabs, attempted to teach what birthmarks placed by nature in any particular part of the body signify. Since birthmarks spread as it were by chance over the whole body, they nonetheless have a certain correspondence among themselves, and as it were stand linked together and matched; while they call one another.

For a birthmark on the nose summons, as it were, a companion in the thorax; indeed if a birthmark occupies the middle of the forehead, most commonly another will be found in the middle of the chest, or in the back between the shoulders; and the farther a birthmark recedes from the middle of the forehead toward the right or left part, the farther also will the other incline toward either arm or shoulder; so that if it appears in the extreme forehead near the temples, namely at the boundary of the hair, it will indicate another on the shoulders. It more frequently happens that birthmarks of the forehead are referred sometimes to those on the chest, and sometimes to those imprinted on the back; since the front and back of the chest, situated on either side of the thorax. And if a birthmark is constituted near the nose and eyes, another will be seen imprinted in the lower part of the chest. Furthermore the birthmark that occupies a position on the nose will have such a one on the penis; likewise if a birthmark is found on the nose of a woman, another will reside in the lips of the pudendum.

When these natural birthmarks are repeated within that space by which the eyes are separated from each other: they will similarly give others between the scrotum and the penis, near the right or left part according to its situation. If any birthmark is found in the eyelid above the pupil, another will be in the scrotum near the testicle. Likewise if it is in the upper part of the eyelid, another will appear above the testicle in the opposite part of the scrotum. But if it is in the lower eyelid, likewise [...]

[marginalia: Birthmarks appertain to Physiognomy. / Birthmarks have others corresponding to them in the pudenda. / Lib. de Naevi — Naevorum cog.]

[catchword: naevus]

— a birthmark on the opposite part of the scrotum toward the buttocks will be observed. But if the birthmark appears in the groin, it will also be seen in the haunches; so that the closer that one is to the nose, the closer this one will be to the groin, and the farther that one recedes toward the ear in the direction of the jaw, the closer will this one be to the nates.

Moreover if it is beneath the eyes — namely in the hollow above the prominence of the cheekbones — a birthmark will also be visible beneath the armpit, high or low according to the position that the other occupies on the face.

Birthmarks situated near the ear and almost touching it display their companions in the space of either arm, that space extending from the shoulders to the elbow. Indeed if the birthmark is three fingers distant from the ear, another will adhere to the sides of the haunches; but if it is separated by only two fingers, it will be found in the designated part of the arm yet toward the back. A birthmark overhanging the upper lip and almost touching the nose indicates a companion in that space which appears between the pudenda and the podex. Yet it sometimes happens that when a birthmark is three fingers removed from the nose, it no longer indicates the aforesaid part, but the pubis; though for the most part this prerogative belongs to birthmarks on the lower lip and chin with respect to the nates; and indeed it also designates others in the knee, which will the more frequently occur the lower the mark is.

But birthmarks badly imprinted beneath the lower lip represent their companions in the abdomen; sometimes they will be in the middle of the abdomen, provided others are in the middle of the cheeks. And if a birthmark appears at the extremity of the chin, a birthmark will also be noted in the pubis near the pudenda. Now birthmarks adorning the temples regard the muscles, and those that occupy the tragus indicate another close to the wrist or hand. When there is a birthmark at the tip of the ear's cartilaginous fold, another will be observed close to the elbow, and one adhering to the canal, or concha, of the ear, will show another lurking in the palm of the hand. But if the front part of the ear has a birthmark, another in the same position will be glad to be found in the hand.

But it must be noted that not only the face, exposed to the eyes of all, enjoys this prerogative, that its birthmarks manifest others that are concealed, but also the hands and arms possess this condition; since a birthmark detected in the upper part of the arm above the elbow will most certainly designate another in the leg near the knee; and if it is on the back part of the arm, the other will adhere to the shin. Those which shall occupy the muscles will mark their opposites in the middle of the leg. But if the birthmark sits near the hand or wrist, another will also exist above the ankle of the foot.

Finally, if the fingers of the hand are distinguished by birthmarks, the fingers of the foot likewise will not be without them. It must however be observed that the aforesaid rules do not perpetually attain the truth, since natural things, on the authority of Aristotle, sometimes deviate from the truth. Whoever, therefore, shall desire to know the causes — if not necessary, yet at least probable — namely why birthmarks of the face have their equals distributed through the body in a certain order and position, let him have recourse to the doctrine of symmetry diligently set out above, where he will in some part satisfy his desire; since if those proportions of the parts of the face, and likewise the similarities of proportions, by which the parts of the face and of the whole body agree with one another, are admitted, it will without doubt become known to readers why the birthmarks of the face accord with those disseminated through the remaining body; for it was explained in the symmetry that just as the face represents the whole body, so the parts of the face represent the figure and type of the parts of the whole body. Since therefore, as was set out above, just as the nose in men represents the anus, and in women even the private parts; we ought to be held in no astonishment if birthmarks, by which nature, as it were by certain marks, has signed those parts of the body, have an affinity and relation among themselves. While, therefore, the forehead, the chest, and the other parts of the face regard other parts of the body, as we explained in the rubric of symmetry; a birthmark expressed in the forehead will likewise indicate a birthmark in the chest; a birthmark in the other parts of the face will in like manner indicate a birthmark existing in other parts of the body.

[marginalia: Birthmarks of the arms. / Lib. de genet. Anim. / Birthmarks cognate.]

REMEDIES.

A Physician versed in Philosophy, and likewise in Mathematics, or Astrology as a handmaid, and indeed in Botany, Anatomy, Pharmacopoeia, and Chemistry, first of all fosters and protects the health of man by every exertion, while he wards off the inconveniences of adverse health. He then strives by every means that man may not sink into diseases, and if by chance he has been oppressed by them, he exterminates them with suitable and indicated remedies. But before he prescribes these aids, he first weighs the affected part and carefully observes from what disease it suffers — whether of itself, or through sympathy; then in how many ways any part of the body may be affected through sympathy. For one who rightly understands the signs of affections, and likewise all symptoms, the kinds and causes of diseases, can perform this most swiftly. Furthermore the Physician, eminent among the learned, knows the signs of health and of death, and predicts whether a disease will be terminated by a crisis or without a crisis; indeed he understands most excellently whether such a crisis ought to take place by haemorrhage, or by abscess, or by vomiting, or by dejection of the bowels, or by urine, or by flux of the menses, or by haemorrhoids, or by sweat. Moreover, skilled in the science of critical days, he prescribes what is to be done when the patient is oppressed by a single affection alone, and when he is tossed about by complicated affections and fierce symptoms.

Furthermore, in professing diseases, the Physician proceeds with a triple instrument — namely diet, pharmacy, and surgery. By reason of diet, he teaches the salubrity of air, the quality, goodness, quantity, order, and time of foods; then he regulates exercise and rest, sleep and waking, repletion and inanition, and likewise what affections of the mind are to be avoided. By reason of pharmacy, he carefully considers the quality of the remedies, whether these ought to be temperate, or rather hot, cold, moist, and dry, according to the first, second, third, or fourth degree; whether they are of thin or of thick parts, and whether they ought to be acrid, astringent, aperient, discutient, condensing, emollient, hardening, detergent, cauterising, attractive, alexipharmic, pus-moving, emplastic, deobstruent, epulotic, escharotic, expurgating, inspissating, extracting, glutinating, incising, repelling, sarcotic, strengthening, urine-provoking, menses-promoting, suppressing their overabundance, sweat-inducing, calculus-breaking, milk-generating, expectorating, cough-soothing, soporific, pain-mitigating, venereal, spermatic, digestive, healing for burns, concocting bile, phlegm, and melancholy, and likewise disturbing those humours. Likewise he prescribes the dose, order, place, and time of remedies.

But it is worthy of admiration that the medicines which are employed for eliminating human affections are drawn from all things produced in the whole circuit of the earth; for the remedy prescribed by the Physician is either simple or compound; and a simple remedy is that such as nature produces, and this is of two kinds — namely animate and inanimate. The animate is either vegetative or sensitive. The vegetative comprehends the tree, the shrub, the sub-shrub, and the herb. The sensitive is either sanguineous or exsanguineous; and the sanguineous is twofold — rational and irrational. The rational is man, from whose parts the Physician also elicits many remedies. The irrational is either aerial, or terrestrial, or aquatic, or amphibious. The exsanguineous is fourfold — namely of the kind of Molluscs, Insects, Crustaceans, and Testaceans. Lastly the Inanimate is either generated in the air, or in the bowels of the earth; and this is fourfold — namely metal, stone, earth, and concrete juice. Thus from the aforesaid simples compound medicines are prepared, which also, in the mind of Galen, ought to be manifold. When he writes that the difference of human bodies is very great, both by reason of their native temperament and by reason of the change of ages and way of life; and therefore a compound medicine can in no way be suited to all persons.

Wherefore the Physician prepares lenient medicines, syrups, electuaries, rob, decoctions, purging medicines — both in substance and in infusion — as well as in bolus or potion to be administered [...]

[marginalia: Crises. / Diet. / Pharmacy. / Remedies from which they are drawn. / Lib. 3 de Comp. Med. per gen. cap.]

he prepares every kind of pill, bolus, or suppository, infusions, pessaries, clysters, errhines, troches, sternutatories, lozenges, apophlegmatisants, cathartic powders, gargles, fumigations, collyria, sachets, electuaries, embrocations, aromatic apples, ablutions, unguents, fomentations, cataplasms, plasters, epithems, cerates, caustics, and medicated baths. For this reason we may sing with Ovid:

From the art of medicine a thousand forms, a thousand remedies arise.

Surgery, finally, must not be passed over, for it likewise brings forth its proper instruments for the preservation of health, as Ovid wrote:

And sometimes the sick body must endure the knife and fire.

CASTRATION

For the surgeon employs the scalpel, cautery, forceps, saw, probe, razor, needle, tweezers, bandaging, tenaculum, splints, pledgets or tent-wicks, bandages, clasps, and stretching instruments. But to avoid every kind of medication, and for the preservation of health, Galen hands down a precept worthy of being written in cedar-wood: namely, that he will never fall into illness who avoids crudities, shuns excessive agitation after food, and commits himself to exercise before eating.

APULEIUS called castration by the elegant word *detestation*, intimating the reason why it is practised in brute animals, and above all in horses: because those that labour under an excessive heat of lust are tamed by this detestation. But why do we reflect on this in brutes, when Julius Alexandrinus has published that women once were castrated who were afflicted by the destructive ardour of Venus? In men of our own age, castration — other remedies being of no avail — is employed when, the peritoneum being dilated or lacerated, the intestines descend into the scrotum and produce a hernia; whence men are rendered unfit for labour and for the performance of other functions; and moreover, those who suffer from this species of hernia face not only the constant danger of inflammation, but also the perpetual peril of a mortal volvulus. Wherefore, to avert the manifest risk of death and to render patients more fit for labour, men are castrated. For beside the right or left side of those labouring under hernia, by the avulsion of one or the other testicle, by cauterization, and by suture, the dilated or lacerated peritoneum is so joined together that the intestines can no longer descend. This operation is practised with the greatest diligence above all by the Orchitomists of Norcia in Italy.

Of old, men were castrated for the guarding of virgins, so that they might be more serviceable as attendants and unfit for intercourse. The word *eunuch* signifies this; for *eunouchos* (εὐνοῦχος) is derived from *to eunên echein* (τὴν εὐνὴν ἔχειν), because they had the care of the bedchambers and of the gynæcea. A eunuch is also called *spado*, that is, *spadôn* (σπάδων), from the verb *spaô* (*spaō*), meaning I draw out, because in them the testicles are drawn out and avulsed. Furthermore, they say that the Turkish Emperor once saw a castrated horse mount a mare, and therefore commanded that in the castration of boys the penis be cut off together with the testicles; and thus it has come to pass that the Turks to this day, in the castration of boys, remove the rod together with the testicles.

That women can be castrated is not to be called in doubt, as we have understood from the authority of Julius Alexandrinus cited above: although this operation is attended by greater difficulty, yet no danger to life threatens, when the Orchitomist is skilled. For Schenckius relates a remarkable history of a woman labouring under prolapse of the uterus and afflicted by a dog-bite; for without danger to life the uterus was resected by the surgeon. And Wierus makes mention of a certain Johannes von Essen, who, sojourning in the county of the March — having been hired there for the castrating of cattle — castrated his own daughter there, upon perceiving her consorting familiarly with a certain young man. We also have from Lonicerus, in his various history, that the Lydians were the first to castrate women, using them in the place of eunuchs, a fact which Caelius Rhodiginus afterwards confirmed as true. Cedranus, moreover, maintained that both males and females could be made eunuchs without surgical operation,

[catchword: provided]

[marginalia: Lib. 23. cap. 14. / Schench. Lib. 3 obser. 303. / Lib. 4. de Præstig. Dæm. cap. 2. edit.]

provided that males make long use of chaste-tree (*vitex*), and females of woodbine (*periclymenum*).

DENOMINATIONS.

Homunculus, *homullus*, likewise *homululus* and *homuncio*, are names denoting a little man; although among the Alchemists *homunculus* signifies that sperm which is so greatly extolled, and which is not wholly of the Moon — indeed from it a great part claims for itself that Chaos, namely the mixture of the four elements — as is read in the scholia of Paracelsus. Likewise among the Greeks, *anthrôpion* (ἀνθρώπιον), *andrápion* (ἀνδράπιον), *andrion* (ἀνδρίον), and *andrismos* (ἀνδρισμός) are words expressing a little man, just as *hêmianthrôpos* (ἡμιάνθρωπος) signifies a half-man.

Various also are the conditions which derive their name from man. *Anthrôpotês* (ἀνθρωπότης) is the condition of human nature; *anthrôpopathês* (ἀνθρωποπαθής), subject to human affections; hence *anthrôpopatheia* (ἀνθρωποπάθεια), human affection; *andromanês* (ἀνδρομανής) is said of one who raves with love of men.

Wherefore in Gregory, *andromaniâ* (ἀνδρομανία), that is, the mad love of immodest women, is read. *Lykanthrôpia* (λυκανθρωπία) is a species of melancholy, those afflicted by which wander at night as if changed into wolves, until daybreak. But *exanthrôpos* (ἐξάνθρωπος) is interpreted as a man taking on an alien nature, namely a bestial one. *Misanthrôpia* (μισανθρωπία) signifies hatred of men, or inhumanity, which by Lucian is also called *apanthrôpia* (ἀπανθρωπία).

Andropenês (ἀνδρόπηνης) is interpreted as harmful to men; and *androkoimbalos* (ἀνδροκοίμβαλος) by Hesychius and Suidas as a wicked and fraudulent man; *andromachos* (ἀνδρόμαχος) as one fighting with men. *Andrôlatêô* (ἀνδρόλατεω) means I drive out men, and *androbasmos* (ἀνδρόβασμος), as it were *andros basmos*, a narrow way through which only one man may pass.

Furthermore, there are certain denominations that pertain to the destruction of men: *anthrôpolethros* (ἀνθρωπόλεθρος), the destruction of men; *androdaiknos* (ἀνδροδαίκνος), slaying men — a word compounded of *anêr* and *dairô*. Likewise *andragnos* (ἄνδραγχνος), or *andrangnos* (ἀνδράγχνος), is called the executioner, that is, the strangler of men. *Anthrôpothyô* (ἀνθρωποθύω) means I sacrifice men. *Anthrôpoktônos* (ἀνθρωποκτόνος), or *androktonos* (ἀνδρόκτονος), and *androphonos* (ἀνδροφόνος) are interpreted by Hesiod as homicide, and are also epithets of Mars; while *andrêphônos* (ἀνδρήφωνος) in Athenaeus means having a man's voice. Hence *androphoniâ* (ἀνδροφονία), *androktonîa* (ἀνδροκτονία), and *androktasiâ* (ἀνδροκτασία) mean homicide. *Andrôlêpsia* (ἀνδρολήψια) was a pledging practised against those among whom a homicide had been committed. *Andragria* (ἀνδραγρία) were the spoils brought back from a man slain in war.

Androkhmês (ἀνδροκμής) is used by the scholiast of Aristophanes for one slain by a man; for *androkhmêtes agôniai* (ἀνδροκμῆτες ἀγωνίαι) in Euripides were contests in which men fought. *Androkhmêtos* (ἀνδρόκμητος) means wrought by a man; for in Hesychius one reads *androkhmêtos tymbus* (ἀνδρόκμητος τύμβος), namely a burial-mound fashioned by a man, or in which a dead man lies.

Certain denominations pertain to the eating of human flesh: *anthrôpophagos* (ἀνθρωποφάγος), *androphagos* (ἀνδροφάγος), *androborosvotes* (ἀνδροβόρος), and *anthrôpoboros* (ἀνθρωποβόρος) mean man-eating, feeding on human flesh, and are also epithets of certain dogs. Hence *anthrôpophagiâ* (ἀνθρωποφαγία) and *androphagiâ* (ἀνδροφαγία) are interpreted as the devouring of men, or the eating of human flesh.

Places named after men are *andreiôn* (ἀνδρεών), or *andrôn* (ἀνδρών), the part of a house which men inhabit separately from women; and *andrêdomos* (ἀνδρήδομος) in Hesychius and Suidas was a dining-room where perhaps men alone feasted. Likewise *andreia* (ἄνδρεια), among the Cretans, were named the public banquets, according to Aristotle, to which men only assembled. Pertaining to an abundance of men are *polyanthrôpeiâ* (πολυανθρωπεία), or, according to Suidas, *anthroplêthyâ* (ἀνθροπλήθυα), the abundance of men; and *oliganthrôpiâ* (ὀλιγανθρωπία), the fewness of the same. For *andrologeô* (ἀνδρολογέω) means I collect men for military service, whence arises *andrologiâ* (ἀνδρολογία), the levy of men for the army.

With regard to procreation, one reads among the Greeks *anthrôpopoios* (ἀνθρωποποιός), a fashioner of human forms; for *andriântopoios* (ἀνδριαντοποιός) and *andriântourgos* (ἀνδριαντουργός) are the statuary, and especially one who fashions statues of men; hence *andrías* (ἀνδριάς), a statue, and chiefly of a man; and *andriântiskos* (ἀνδριαντίσκος), a small statue of a man. For *anthrôpomorphoô* (ἀνθρωπομορφόω) means I give human form, and *anthrôpogeniâ* (ἀνθρωπογενία) the generation of men; hence *androgonos* (ἀνδρογόνος) in Hesiod, generating a man.

SUBSTANTIVE DENOMINATIONS.

[marginalia: Li. 2. Ethic.]

Further denominations are those most fitting to man: *andrôdês* (ἀνδρώδης), manly; *andraprepês* (ἀνδραπρεπής) and *anthrôpoprepês* (ἀνθρωποπρεπής), becoming to a man; *andreios* (ἀνδρεῖος), pertaining to a man; *anthrôphilês* (ἀνθρόφιλος), loving life; and *anthrôphilia* (ἀνθρόφιλια), from Aristophanes, one who loves men; *androphilos* (ἀνδρόφιλος), one who employs manly counsel; *androlymos* (ἀνδρόλυμος), endowed with manly elevation of spirit, as Hesychius interprets it; *anthrôpothymios* (ἀνθρωπόθυμιος), having the soul of a man. But *anthrôpeios* (ἀνθρώπειος) and *andrapous* (ἀνδράπους) in Homer mean human; *anthrôpismos* (ἀνθρωπισμός) means humanity; and *anthrôpôdês* (ἀνθρωπώδης), closely approaching human nature — indeed Christ was called *anthrôpistheis* (ἀνθρωπισθείς) by Damascenus, since among the Greek theologians *anthrôpizomai* (ἀνθρωπίζομαι) is translated as "I become man."

By Xenophon, *andropinês* (ἀνδρόπηνης) is said of one who is filled with manly stature; and by Athenaeus *anthrôpoeidês* (ἀνθρωποειδής) means marked with a human appearance, and *andreikelos* (ἀνδρείκελος) similar to a man. Likewise *anthrôpizô* (ἀνθρωπίζω) means I imitate men; *synanthrôpeyô* (συνανθρωπεύω) means I converse with men. And *hyperanthrôpos* (ὑπεράνθρωπος) is one who exceeds human stature. But *anthrôpoglôttos* (ἀνθρωπόγλωττος) is one who speaks with a human tongue; and *anthrôpologos* (ἀνθρωπόλογος), according to Aristotle, is a man who willingly speaks about men.

In Aristophanes one reads *andragathiâ* (ἀνδραγαθία), as it were the work of a good and brave man (*andros agathou ergon*), which is also translated as bravery and prowess; just as *andriâ* (ἀνδρία), which signifies manliness, prowess, and manly age — hence *andrizô* (ἀνδρίζω) means I do something manly; likewise *andrizomai* (ἀνδρίζομαι) means I enter manly age; and *andripous* (ἀνδρίπους), a boy who performs something manly, or who hastens toward manly age.

There are certain denominations that have regard to the parts of man: *anthrôpêa* (ἀνθρωπήα), or by contraction *anthrôpê* (ἀνθρωπή), with the word *derma* (skin) understood, is human skin; likewise *androprosôpon* (ἀνδροπρόσωπον) in Sophocles is the human face. By Hesychius, *androphallos* (ἀνδρόφαλλος), or *androphallos* (ἀνδρόπαλλος), is said of a well-membered man, that is, one whose virile parts are larger than is fitting. But *androgynês* (ἀνδρογύνης) or *androgynosote* (ἀνδρόγυνος) is interpreted as a man-woman, namely a person furnished with both sexes. By Pollux, however, this word denotes a eunuch; and this same word in Hesychius designates one who is weak, effeminate, and endowed with a womanly spirit; indeed this same name is used in the Proverbs of Solomon for a slothful person. Finally *andrapous* (ἀνδράπους) signifies a man's foot, as the word literally sounds, although this term is sometimes taken for a slave, since slaves are accustomed to be called the feet of their masters; and in Suidas *andrapodokâpêlos* (ἀνδραποδοκάπηλος) signifies a seller of slaves.

[catchword: Furthermore]

[marginalia: Virilitates — Strenuitas / Marifemina — quia fit]

Furthermore, there are many things in the world that represent the human form, which may be enumerated among these denominations: *anthrôpodaimôn* (ἀνθρωποδαίμων), a demon having a human face; likewise *androdamas* (ἀνδροδάμας), a gem representing a certain image of man, although Pliny derives the etymology of this gem from its effect, since it is able to subdue the impetuosity of men. What more? A comet has sometimes been seen representing a human likeness, which is called *anthrôpomorphos* (ἀνθρωπόμορφος). Indeed in a table of Egyptian hieroglyphics a certain bird, perhaps imaginary, adorned with a human face may be observed, as in the figure above, which may be called *ornithanthrôpos* (ὀρνιθάνθρωπος).

Furthermore, many plants take their denomination from man, and the first presents itself at the outset: *androsaimon* (ἀνδρόσαιμον), as it were the blood of a man, since the flowers of the plant, when bruised with the fingers, emit a blood-red juice. *Antirrhinum sylvestre* bears little heads resembling the human skull, and is therefore called by some the head of a dead man; and for this reason, according to Porta, it is used for love-philters. In Dioscorides, purslane is called *andrachne* (ἀνδράχνη), as it were the skin of a man; for just as the husks of ears of grain are kept through the winter as food for beasts, so in former times country people everywhere ate purslane, partly boiled and partly dried, or preserved with salt and vinegar for winter.

In the same Dioscorides there is *androsakes* (ἀνδρόσακης), perhaps as it were *andros akos* (ἀνδρὸς ἄκος), the remedy of man, since this herb was a help against many conditions. There is another plant, rough to the touch and readily clinging to the garments of passers-by, which is called *philanthrôpos* (φιλάνθρωπος), as it were the friend of men; although Bauhin, following the opinion of Aetius, would have not this plant but *Xanthium* — that is, the scrofula-wort and small burdock — called *philanthrôpon*; for *philanthrôpos* (φιλάνθρωπος) is interpreted as loving men and benevolent; hence *philanthrôpiâ* (φιλανθρωπία), humane love; and the opposite is called *aphilanthrôpos* (ἀφιλάνθρωπος), inhuman.

Furthermore, a certain herb resembling a man is called *andralos* (ἀνδράλος), made *andraimalos* (ἀνδραίμαλος) by syncope and by the change of the thin aspiration to the rough; this seems to agree with the Mandrake, which by reason of its root's appearance is designated by Columella as a half-man, thus:

> *Though born as if from a hollow furrow's mouth,*
> *the Mandrake puts forth flowers, etc.*

This same plant is called *anthrôpomorphos* (ἀνθρωπόμορφος) by Pythagoras. Not to mention other plants that represent the human figure, such as certain species of Satyria, one of which produces flowers in the likeness of a man and is therefore surnamed *anthrôpophoros* (ἀνθρωπόφορος). Likewise the Palm of Christ is reckoned among the species of Satyria, which also produces a root in the likeness of the shape of a human hand. And here likewise we give, drawn on both sides — front and back — a certain root that was given to us, upon which nature has impressed the rudiments of the human form: wherefore it too may deservedly be called *andromorphos* (ἀνδρόμορφος).

What may now be observed in this root, one may sometimes observe also in certain stones. For Olaus Magnus relates that on the shores of the Ostrogoths — that is, of the Eastern Sea called *Brauiken* — where also a most swift torrent flows through the town named Norcopense, various shapes of stones are always to be seen, as if perfectly carved by human art; of which some represent the form of a human head, others the shape of feet, hands, and fingers: yet from no stones does the whole human body appear. But the inhabitants of that region, accustomed to such spectacles, make nothing of these stone effigies.

Finally, in the books of the Alchemists certain plants are delineated, not departing, whether in their leaves or in their roots, from the likeness of a man, which might be called *Androgrаphae* or *Anthropogrаphae*; these are: the herb Helilotria, the herb Lucia minor, the herb Testatoris, and the herb Scudaria — for by these names they are honoured among the Alchemists.

[marginalia: Lib. 4. phys. / Androsakon equivocum / Philanthrôpos / Satyrion species]

EPITHETS AND DIGNITIES.

MEN, who are living images of true virtue and the perfect exemplars of genuine praise, are without doubt adorned with countless epithets. In the first place they are called *beati* (the blessed), as it were the well-augmented, since they possess what they desire — *theoglôssoi* (θεόγλωσσοι), because they speak the tongue of God; for *theoglôssos* (θεόγλωσσος) is published by the Greeks as an epithet of the scriptures. Wherefore it will not be a cause for wonder if man, by Clement of Alexandria, is called a heavenly plant, and by certain Greeks *ouranoektos* (οὐρανοέκτος), not only because he walks erect and looks toward Heaven, but also because he meditates heavenly things. Men are likewise surnamed *meropes* (μέροπες), perhaps because they employ various dialects, since *merops* (μέρωψ), having a diverse voice, signifies also, in Aristotle, a bird. Likewise by reason of virtue men become so venerable as to be acclaimed laborious, learned, and lettered; likewise by the Greeks *ergaleioi* (ἐργαλεῖοι) and *mogeroi* (μογεροί), that is, industrious and laborious. Beyond this, those gleaming with the distinguished splendour of virtues are called hospitable, steadfast, patient, magnanimous, truthful, just, chaste, pious, modest, modest in bearing, and *tapeinophrones* (ταπεινόφρονες), of humble mind: for which reason Pythagoras called man *pantôn khrêmatôn metron* (πάντων χρημάτων μέτρον), that is, the measure of all things.

In turn, since man is weighed down by countless calamities, he acquires no few epithets. The Latins call him vile, incautious, naked, laborious, fragile, feeble, small, fleeting, unhappy, and wretched. Among the Greeks, in this same sense, men are called *gamaigeneis* (γαμαιγενεῖς), because they are sprung from the earth; *gamaiergomenoi* (γαμαιερχόμενοι), proceeding from the earth; *epikhthonioi* (ἐπιχθόνιοι), dwelling upon the earth; *deilaioi* (δειλαῖοι), wretches; *tlêmonoi* (τλήμονοι), sufferers; *dysmoroi* (δύσμοροι), unfortunate; *kakodaimones* (κακοδαίμονες), unhappy — for this word *kakodaimôn* designates not only an evil spirit, but also one who is unhappy and wretched. They are further named *polymokthoi* (πολύμοχθοι), full of affliction; *oizyroi* (ὀιζυροί), calamitous; *polytlamones* (πολυτλήμονες), involved in many miseries; and *peritrepheis* (περιτρεφεῖς), nourished amid miseries. In other respects they are called *brotoi* (βροτοί), and commonly in the Greek poets *thnêtoi* (θνητοί), mortals; likewise in those same poets *polyplanetoi* (πολυπλάνητοι), scattered across various tracts of land, and *diotrepheis* (διοτρεφεῖς), as it were nourished by Zeus; *opsigonoi* (ὀψίγονοι), that is, late-born — although the Greeks sometimes so name those who are born after others. Finally they are called *thymoboroi* (θυμοβόροι), as it were devourers of the soul, because they so often consume themselves with afflictions of the mind.

Sometimes, through the loss of good bodily health, they are designated as Apoplectic, Asthmatic, Cardiac, Stone-afflicted, Coeliac, Epileptic, Dysenteric, Feverish, Dropsical, Splenic, Icteric, Leprous, Lethargic, Melancholic, Phrenetic, Pleuritic, Blind, Stammering, Lame, Gouty, Scrofulous, Wormy — and they acquire countless epithets of this kind in accordance with the conditions by which they are wont to be occupied from day to day.

By reason of origin some are called noble and some ignoble; and in accordance with blood-relation, sons, grandsons, fathers, grandfathers, husbands, fathers-in-law, stepsons — as was set out in the chapter on affinities. But by reason of the mode of birth, one man is called *Caesar*, from the caesarean cutting of the mother's womb; *Opiter*, because he is born with his father dead and his grandfather living; *Postumus*, because he is born after his father's death; *Agrippa*, because he comes forth from the womb in the inverted order; *Vopiscus*, when he is brought into the light after the other twin has been destroyed; *Cordus*, because he is born late. Others bearing some mark imprinted by nature receive various epithets: *Planci*, *Plauti*, and *Pleti* from flat feet; *Scauri* from prominent ankles; *Vari* from legs twisted forward; *Vacii* from legs oblique after the manner of cows; *Coclites*, deprived of one eye; *Lucini*, furnished with small eyes; *Petauri*, agile; *Labeones*, from prominent lips; *Chilones*, marked with very large lips; *Achilini*, without lips; *Buccones*, with a mouth that is prominent and wide; *Bronci*, with protruding teeth; *Nasicae* on account of a hooked nose; *Simi* and *Simones* from a flattened nose; *Sylones* from a more prominent forehead; *Galbi* from the colour of the *galbula* bird; *Flavii* from a yellow colour; *Gibbofi* on account of curvature; *Obstipe* from a short neck; *Neriae* on account of the strength of the sinews; *Columellae* from tallness; and finally those named after various legumes: *Pisones* from peas, *Fabii* from beans, *Lentuli* from lentils, *Ciceroni* from the chick-pea — not because they excelled in cultivating such legumes, as some would have it, but because they bore the imprinted image of these legumes on their bodies from the mother's womb.

If we turn our minds to vices, men who contract the greatest stain of vices are sometimes named gluttons, voracious, wine-loving, abstemious, idle, effeminate, incestuous, adulterers, thieves, licentious, liars, heretics, plunderers, deceitful, wicked, improper, envious, arrogant, proud, ambitious, rash, reckless, quarrelsome, taciturn, talkative, ungrateful, perjured, traitors, faithless, casters of the evil eye, magicians, and flatterers — of the last of whom someone once sang:

> *I please the King more than his heart, more than false pledges;*
> *though he knows me to speak falsehoods, he approves the falsehoods.*

Therefore among the Greeks in this sense men are called *deiloi* (δειλοί), that is, cowardly, sluggish, and wicked; *amatheis* (ἀμαθεῖς), unlearned; *philokosmoi* (φιλόκοσμοι), lovers of worldly things; *polyplanktoi* (πολύπλαγκτοι), driven by many errors; *kakotergnoi* (κακοτέχνοι), fraudulent; *aiolobouloi* (αἰολόβουλοι), that is, various and versed in counsel; *meneacheres* (μενεαχέρες), vaunting vain things; *mataioi* (μάταιοι), vain; *kakothymoi* (κακόθυμοι), malevolent; therefore

[catchword: it is]

[marginalia: Lib. 9. de Hist. Anim. / Lib. 4. cap. 13.]

it is no wonder if by the Apostle they are called *theostygeis* (θεοστυγεῖς), hateful to God; sometimes also *aphotoi* (ἄφωτοι), not enlightened — for *aphôteros* (ἀφώτερος) in Alexander of Aphrodisias is said to be an epithet of the Moon when silent.

In accordance with the abundance or want of wealth, men are poor, illiberal, miserly, prodigal, money-lenders, or magnificent, liberal, rich, happy, and fortunate — and above all *polykleroi* (πολύκληροι), to whom a great inheritance has fallen.

By reason of age they are called infants, boys, adolescents, youths, men, old men, decrepit, and *aequaevi*, that is, of the same age. By reason of sex, males, females, and hermaphrodites. By reason of stature, dwarfish or tall; by reason of bodily mass, fat or lean. Finally in accordance with beauty — either deformed and monstrous, or comely and graceful; indeed *hoplokomes* (ὁπλόκομοι), who walk with flowing hair.

If we contemplate the dignities befitting men, we shall find that men, in accordance with ecclesiastical and sacerdotal honours, are called Pontiffs, Cardinals, Prelates, Archbishops, Bishops, Pro-bishops, Abbots, Presbyters, Deacons, Rectors, Prefects, Provosts, Priors, Canons, Vicars, Parish-priests, and Hierophylaces. Moreover, by reason of secular honour, they are named Emperors, Kings, Tyrants, Grandees, Primates, Senators, Treasury-officers, Auditors, Dynastes, Legates, Nuncios, and Legislators. To these are added: Monarch, the Prince of all; Tetrarch, occupying a fourth part of the realm; Cosmarch, Prince of the World; Decarch, Prince of ten soldiers; Phylarch, candidate for the Empire; Irenarch, elected for the calming of tumults in the city; Eparch, governor of a province; Stratêgus, prefect of soldiers; Archipolis, Prince of a City; Navarch, of a ship; and Hecatontarch, Prince of a hundred men.

If we contemplate the various offices which men perform: first, by reason of learning and discipline, we shall call men Doctors, Pupils, Preceptors, Pedagogues, Orators, Jurists, Grammarians, Rhetoricians, and Poets, of whom one once sang:

> *Not so sang Maro; it was Maecenas who taught Maro to sing:*
> *Maecenas, teach me too what great things I may celebrate.*

Of the Rhetorician it is sung:

> *A laurel crown is owed to the tongue, and the glory of lucid triumphs,*
> *for when it wills, it stills war and moves armies.*

Men are likewise called Sophists, Philosophers, Metaphysicians, Theologians, Historiographers, Dialecticians, Astrologers, and Geometricians. Of Astrologers this is read:

> *What is not, what is, and what is yet to come he foresees;*
> *the astrologer sees, not as a man, but as a god.*

The Geometrician is introduced singing:

> *What I never touched nor shall touch, I measure — the stars.*
> *Do you marvel? The centre of the earth suffices me.*

Furthermore, others work upon the human spirit: Actors, Musicians, Dancers, Rope-walkers, Jesters, Citharists, and other Players of stringed instruments, Mountebanks, and Courtiers, concerning whom the following distich is extant:

> *Envy, rage, eating, pain, and anxious care*
> *lock their poisons within gilded thresholds.*

The Jester speaks thus:

> *I comply, I applaud — and so I drink sweet must;*
> *let the Prince but laugh, and all things shameful become seemly.*

But the Mountebank is introduced speaking in this manner:

> *I do not deceive you; it is your own mind that deceives you.*
> *You desire vain things; being vain, you shall receive what you desire.*

The Musician also approaches, singing with elegance:

> *Singing, I soothe hard hearts; by our ministry all things stand —*
> *the heart, the blood, the eyes, the mind, the soul.*

Those whose function concerns the body are called Physicians, Surgeons, Orchitomists, Tooth-drawers, Bath-keepers, Pharmacists, Barbers, Perfumers, Midwives, Valets-de-chambre, Nurses, Retailers, Butchers, Fowl-sellers, Innkeepers, Cooks, Salters, Forcemeat-makers,

[catchword: Dispensators]

[marginalia: Munia varia homini / Munia circa corpus]

Dispensers, Maidservants, Table-arrangers (*trapezokomioi*, that is, stewards of banquets), Pastry-cooks, Oil-sellers, Oil-merchants, Biscuit-makers, Market-traders, Suitors, Harlots, Procurers, Companions, Judges, Cup-bearers, Soap-makers, Corpse-bearers, Pall-bearers, Bodyguards, and Executioners. The servant complains thus:

A brazen, grim, and cruel fate — living under a harsh master,
when I thirst, I drink not; when I drink, I taste nothing.

The valet-de-chambre says of his master these words:

He groans; I run to him; if he calls for the chamber-pot, I attend;
if he breaks wind, I praise it; if he defecates, I smell it.

The cup-bearer who pre-tastes the banquet of his Prince complains thus:

Pre-tasting the banquet, I seek out poisons, or even death;
I fall in a seemly fashion, and am made the cause of my own doom.

The butcher expounds his own mind briefly thus:

Life falls — it is food and death; he who sustains it lives
safely, every one of you, by our service.

The dispenser proclaims himself worthy of his master's praises in this manner:

I bought a rhomboid fish for a hundred sesterces,
twice-suckled; so greatly does my master's gluttony approve me.

In the military sphere, men obtain various names in accordance with their offices. First they are surnamed warlike; and warlike were called those women who fought without fear — such as Cleopatra, Queen of Egypt, Artemisia, Queen of Caria, and Hippolyta, queen of the Amazons. Furthermore, men are called generals of war, common soldiers, standard-bearers, cavalry, infantry, front-rank fighters, surveyors, light cavalry, trumpeters, drummers, torch-bearers, measurers, candidates, warriors, non-combatants, light-armed troops, shield-bearers, heavy-armed cavalry, spear-men, buckler-men, skirmishers fighting from a distance, archers, chiliarchs, recruits, wheel-fighters who enter battle in a certain light skirmish, common soldiers, triarii — the bravest of all, stationed in the rear of the army — veterans who have obtained leave of discharge, dimarchs fighting with a double mode of combat, sword-bearers, dagger-men, harquebusiers, dart-throwers, scorpion-soldiers who hurl missiles from engines called scorpions, ballistarii, slingers or fundibalarii who cast stones with a sling, culveriniers, bombards who hurl fire-balls. To these we add athletes, pugilists, and gladiators. Among these the trumpeter commends his own virtue thus:

The horse takes wing when it hears me, faster than an arrow;
the lance is Mars's own; with my voice alone I speak.

And the gladiator expounds his own mind thus:

Why do you take a breastplate? Let us fight with shield and sword.
Why wear a coat of mail? Why wear a helmet?

When men perform the services of others with respect to the mind, they are called Legates, Advocates, Interpreters, Scouts, Scribes, Brokers, Architects, and those commonly called Secretaries. And so the secretary, who must keep silence before his master in all matters, says:

I see the heart of the King — his cares and crimes; happy am I
if I could say such things, but I hold my tongue.

The Architect, moreover, utters these words:

My art is foremost in giving measure to those who practise the arts;
it is the greatest art, for it commands the resources of genius.

But if the motion of things from place to place be considered, ready to hand are porters, carters, bearers, couriers, boatmen, litter-carriers, letter-carriers, water-carriers, basket-bearers, wine-carriers, runners — for a slave-boy, in the consulship of Vipsanius, ran seventy-five thousand paces from midday to evening, to the great admiration of all. And finally there are merchants, of whom it is sung thus:

Gaul, Arab, Indian, Thracian, Celt, Sicambrian, Alan —
they give me their wares, and I bring them to your shores.

If the mind be directed toward the materials about which craftsmen are employed, men are called marble-cutters, stone-cutters, masons, whitewashers, tinners, goldsmiths, silversmiths, gilders, blacksmiths, glaziers, carpenters, furriers, tanners, parchment-

[catchword: makers]

[marginalia: Munia militia / Munia ratione motus localis]

makers, money-changers, second-hand dealers, gem-setters, bookmen, silk-merchants, gold-leaf workers, tax-farmers, fullers, those who weave silk in various patterns, chimney-sweeps, miniature painters, and those craftsmen who, submitting both old and new cloth to vigorous pressing, polish and elegantly refurbish them.

Considered by reason of the form of their work, men are called weavers, coopers, dyers, cloth-cleaners, painters, charcoal-burners, clockmakers, engravers, printers, hatters, mintmen, modellers, lime-burners, lantern-makers, mattress-stuffers, potters, comb-makers, box-makers, cobblers, seal-makers, knife-makers, tassel-weavers, ball-players, garter-makers, saddlers, mask-carvers, mirror-makers, well-sinkers, sword-cutlers, coachmen, sieve-makers, basket-makers, librarians, tinder-makers, as well as makers of sulphur-matches, of gunpowder, and of tapestries — indeed also wool-workers, whose material is thus celebrated:

> *Why seek silk, if plain wool would become you?*
> *That shines, I confess, but coarser cloth suits you the better.*

Finally, by reason of the instrument which men use in their work, they are named engravers, millers, bakers' assistants, bakers or furnace-men, sifters, furnace-stokers, tailors, cobblers, embroiderers, and broom-makers. Here in Bologna there are those who at vintage-time apply themselves to no other work but the treading of pressed grape-skins at the wine-press. If they are employed about the custody of things, there are farmers, doorkeepers, soldiers, watchmen; about the chase, hunters, fishers, and fowlers. Those employed about the care of animals are ox-drovers, shepherds, swineherds, pastors, bee-keepers, grooms, teamsters, donkey-drivers, horse-breakers, tamers, stable-keepers, veterinarians, and goatherds. Finally those who till the earth are country-folk, farmers, market-gardeners, vintners, kitchen-gardeners, haymakers, ploughmen, topiarists, ridge-tillers, ditchers, and tree-dressers.

THE PARTS OF THE HUMAN BODY.

To Which Gods They Were Consecrated.

[...] the eyes to Minerva, the arms to Juno, the breast to Neptune, the kidneys to Venus, and the feet to Mercury were consecrated. Others, however, believing that man as he comes forth from the womb draws his spirit from the Sun, his body from the Moon, his blood from Mars, his intellect from Mercury, his desire from Jupiter, his pleasure from Venus, and finally his honour from Saturn, referred these to the aforesaid series of tutelary gods. Saturn, however, according to Julius Firmicus, guards the right ear, the spleen, and melancholy; Jupiter the left ear and the liver; Mars the liver together with Jupiter, and the kidneys together with Venus; the Sun the vital spirits, the head, and the right eye; Venus together with Mars the nostrils; Mercury the mouth, the tongue, and the hands as helpers of human speech; and finally the Moon has regard for the left eye.

Many agree, however, that the forehead was once consecrated to Genius, and the eyebrows dedicated to Juno — for with these the eyes, by which we enjoy light, are covered; which light Antiquity believed to flow from Juno, wherefore Juno was called Lucina. The ear was dedicated to the Goddess of Memory, and the tongue to Mercury; therefore Astrologers taught that this is governed by the same planet. The beard and hair were held sacred to Apollo; hence, from Rhodiginus, young men of the *ephebia* offered their first clipping of hair or beard to Phoebus, because from a moist and warm nature the growth of living things proceeds. The right hand was consecrated to Fidelity, and according to others to Fortitude, since they joined right hands to make peace, and those needing aid sought the right hand; indeed suppliants kissed that same hand; hence afterwards, from the right hand, *dexter*, that is propitious, derived its meaning. Furthermore, those about to swear an oath swore by the right hand, as by the seat of Fidelity.

From the hand depend the fingers, which they wished to be sacred to Minerva. The stomach, abounding with a great quantity of phlegm, was referred to the dominion of the Moon, since the Moon is believed to produce an abundance of humours. The navel was established as dedicated to Venus, since

[catchword: from it]

[marginalia: Denomiatio planetarum / Signa Zodiaci]

from it, they believed, licentiousness flows. Although others would have it consecrated to Jupiter, since Jupiter was once worshipped in the temple of Jupiter Ammonios under the form of a navel. The liver they said was dedicated to Venus; and therefore Astrologers published that this organ is governed by the same planet; and the Poets placed the seat of love in the liver; indeed the common distich attests the same:

> *The heart ponders, the liver speaks, the gall stirs anger,*
> *the spleen makes one laugh, the liver compels one to love.*

Moreover, the Astronomers established not only the liver but also the kidneys and the region of the loins under the power of Venus. The knees, finally, were dedicated to Mercy, and the feet to Mercury; wherefore those who sought Mercy were wont to bend the knee.

But Astrologers declare that not planets only, but also the signs of the Zodiac, dominate the individual parts and members of the human body, since the power of the heavenly bodies operates in determined members by a certain correspondence of name. Wherefore Aries is said to claim the head for itself, since the great power of this animal resides in its head. To Taurus the neck is attributed, because the Bull exercises its strength in its neck. The arms are assigned to Gemini by reason of resemblance, for twins are for the most part accustomed to be alike. The breast befits Cancer on account of the form of the animal, for the back of the Crab imitates the breadth of the breast. The haunches, according to Manilius, belong to Libra, since they hang from the trunk like scales of a balance; although according to others they are attributed to Sagittarius; and thus in turn: the legs to Aquarius, the knees to Capricorn, the flanks and belly to Virgo, the sides to Leo, the genitals to Scorpio; the navel, the loins, the vertebrae, the pubis — Libra, and Pisces are said to govern the feet.

Then, from Petrus Crinitus, Astrologers assign the neck and head to the Sun, the mouth and tongue to Mercury, the spleen to Saturn, the liver to Jupiter, the blood to Mars, the kidneys and the generative faculty to Venus, and the stomach to the Moon. Wherefore Antiquity, to express the dominion not only of the planets but also of the signs of the Zodiac over the human members, depicted a naked man at the centre of a circle of twelve signs; in whose region of the tongue Mercury was painted, in the region of the spleen Saturn, in the region of the liver Jupiter, in the heart Mars, in the brain the Sun, in the stomach the Moon, and in the genitals Venus were to be seen.

PRODIGIES.

PRODIGIOUS things of especial note having to do with the parts of the human body, or with the human figure, we have decided should be recorded here. First, from Pliny: in the three-thousand-three-hundred-and-sixty-eighth year of the world, while men were laying the foundations of the temple of Jupiter at Rome, a human head was found freshly sprinkled with blood; and the Aruspices, being consulted about this matter, replied that this place would be the head not only of the Roman Empire, but of the whole world. Julius Obsequens also related this in his history of Prodigies. Bugatus likewise related that before the death of Bernabò Visconti, not only did his Palace burn, but a human head was seen in the midst of the balls of flame, as if being consumed, for some space of time. When the house of Nero was struck by lightning, the heads of the statues of the Caesars fell; whence the prognosticators forewarned that the family of the Caesars would be extinct in Nero.

Likewise, in the year of the Lord fifteen hundred and forty-four, in the city of Augsburg, by the force of a storm, the head was cast down from the citadel of a statue bearing the likeness of the Duke of Saxony; and in that same year, Henry, Duke of Brunswick, reclaiming his ancestral kingdom, was seized and overthrown by the Duke of Saxony. Likewise, when Galba was entering the province of Hispania Tarraconensis and was offering sacrifice without public approval, it came to pass that the head of a certain boy among the attendants suddenly turned white; wherefore the Aruspices, warned by this prodigy, foretold that a change of affairs was to come. Moreover, Nicolas Orius relates in a certain letter to Bovillus that a human head crowned with a pontifical diadem was seen in the air, in the year fifteen hundred and eight; the account of which

[catchword: appeared]

[marginalia: Lib. 28. cap. 2. / Lib. 1. / Lib. 2. hist. / Caput pueri subito canescens]

may be read in that author. Finally there was that prodigious fish marked with a human head, which in the year of the Lord sixteen hundred and twenty-three was caught in the river Vistula of Sarmatia, as we learned from a report printed at Cracow.

We must now speak of other parts. Under Vespasian, while he was at dinner, a human hand was carried into the dining-room and thrust beneath the table; hence the diviners sensed beforehand that power over events would at some time pass to Vespasian. Likewise, in the year five hundred and fifty-nine before Christ, King Belshazzar, at a banquet he had prepared and in the company of his chief men, amid the elegant splendours of the feast, beheld a human hand writing upon the surface of the wall, a prodigy which foretold both the ruin and death of the king, as is read in Holy Scripture in the book of Daniel.

Antiquity likewise judged it a prodigy to stumble at the threshold. And so on that day when Caius Gracchus was overwhelmed by the faction of his enemies, as he left his house he struck his foot against the threshold in such a way that no small quantity of blood flowed out. Likewise the son of Crassus, on the eve of battle against the Parthians, struck his foot so that he was forced to fall, and the affair went ill; as is recorded by Alexander ab Alexandro in writing [...] of the foot.

Prodigy of Two Boys.

[...]

[marginalia: Lib. X, de Prodig.]

Of prodigious apparitions in human form, there exist endless testimonies. First, in the year of the Lord fifteen hundred and fifty-three, as related by Job Fincelius, before the death of Maurice, in a certain village of Thuringia, the image of a tall man pouring blood from every part appeared among the clouds; it gradually dissolved into the thinnest air. In the same year in the Palatinate, two armoured men were seen fighting in the air; they vanished shortly after, as Marcus Frischius recounted in his *Meteorologica*.

Likewise in the year of the Lord fifteen hundred and fifty-six, in the city of Babarsche in Hungary, on the sixth day of October, a single combat of two boys was observed in the air, and the one who was armed in Turkish fashion was seen to fall, pierced with many wounds; indeed at the same time and place, a rainbow variegated with its colours appeared, adorned on each side by a double Sun; all of which we set forth to be viewed in the illustration above.

Prodigy of a Man Resembling a German.

[marginalia: Iob. Fincelius / Marcus Fryfchius, Meteorologica]

Furthermore, in the year when the Emperor Vespasian destroyed Jerusalem, not only did a star representing the shape of a sword hang over the city for a long time, but armed men were also seen fighting among the clouds, as Textor noted. Likewise in the year of the Lord fifteen hundred and forty-nine, as related by Fincelius, in a town of Wirtland, at the break of dawn, beneath a clear sky, a man of great stature dressed in the garb of a German prince was observed in the air; at his side a Lion and a Lamb appeared; the man attempted in vain to seize a certain crown, but at last began to brandish a sword; when clouds came on and obscured the entire spectacle. The image of this apparition is delineated from Lycosthenes.

During the reign of Maurice, the image of an unknown man clad in a monk's habit long carried a sword around the statue of the Emperor, and then vanished: wherefore, as Textor reports, they predicted that Maurice would perish by the sword. Bugatus also relates that during the siege of Brescia many prodigies appeared, and in particular at Milan, in the portico of Matteo Visconti, a human apparition adorned with gleaming armour was seen riding, and appearing again two days later and fighting with another similar apparition; a little while afterward both dissolved into thin air.

Prodigy of a Knight.

[marginalia: Textor / Fincelius / Lycosthenes / Bugatus]

they had dissolved into thin air. In the year of the Lord fifteen hundred and fifty, within Nuremberg, on a clear day, there was seen in the air a horseman who led a horse with one hand and a hunting-dog with the other. The Sun was of varied colour, and above it a vessel full of blood was observed, from which drops were scattered; there was also seen an eagle without feet, with open wings, preceding all as the figure above shows, together with a rainbow.

Moreover, in the year of the world four thousand nine hundred and fifty-four, Drusus the brother of Tiberius was sent by Octavian Augustus against the Celts; and accordingly, as he advanced as far as the river Elbe, a woman of remarkable and unusual stature confronted him with these words: "Whither dost thou press, Drusus? Thou canst not see all these things according to the Fates." Whereupon Drusus was seized on his journey by a mortal sickness and died. Likewise in the year of the world four thousand nine hundred and twenty-eight, as the troops of Brutium were marching out to battle, a man of Ethiopian colour appeared at the gate and was run through by the soldiers; yet a little while after

Prodigy of the Little Crosses.

[...]

Prodigy of the Woman of the Portent [...]

[marginalia: Lib. X, de Prodig.]

Cassius and Brutus both perished. One reads in Alexander ab Alexandro that at Saguntum, at the time when that city suffered its destruction by Hannibal, an infant newly brought into the light returned again into its mother's womb, a prodigy which foretold a most terrible war.

Likewise Egnatius in his *Varia Historia* relates that of old many wonderful signs were seen at Rome, but among others, in the year of the world four thousand seven hundred and forty-nine, the Romans heard in the vegetable market a six-month-old boy crying out "Triumph." Moreover in the year from the founding of the City six hundred and fourteen, and a hundred and thirty-eight before Christ, many statues bearing human form fell from the sky, and from Mount Etna greater balls of flame blazed forth; hence the diviners, as Julius Obsequens attests, presaged that year to be a quiet one. Again in the year from the founding of the City six hundred and forty, and before Christ —

Prodigy of an Unusual Tumour.

[...]

[marginalia: Alexander ab Alexandro / Egnatius, Varia Historia / Iulius Obsequens / Lib. X, de Prodig.]

Now in the year one hundred and twelve, three Vestal Virgins were condemned for unchastity and punished with heavy penalties; and in the same year little crosses appeared on the garments of men, and at the same time there arose a most grievous pestilence that laid waste not only Sicily but Greece and the other islands besides, as Julius Obsequens reports, a man whose daughter, the daughter of Pompeius Hesinus, was seen on horseback with her thighs emerging from behind through the hinder parts; her tongue struck by lightning was drawn out, but they anointed it, as it were, with oil. The image of the Prodigy is shown. And in the same year under the Emperor Constantine, in Calabria and Sicily, little crosses appeared on the clothing of men throughout; for the diviners predicted that these were indications of very grave events, nor did it turn out otherwise.

Image of the Woman Vomiting Ears of Grain.

[...]

[marginalia: Iulius Obsequens / Constantini Imperatoris / De Prodigiis]

But more wonderful was that prodigy which occurred in the village of Dullefelt in the year of the Lord eleven hundred and twenty-five: for while a boy suffered from a swelling about the right knee, it happened that on the opening of the swelling not matter but grains of spelt and barley came out, and at the same time, as Lycosthenes reports, a great famine tormented the neighbouring regions in a remarkable manner. Although it may sometimes happen that from matter putrefying in swellings something resembling grains of barley or wheat is generated, without any prodigy being involved; the illustration above shows this prodigy.

From the same Lycosthenes: in the year of the world three thousand eight hundred and sixty-eight, a woman at Arezzo vomited ears of spelt, and they also came forth from her nose, and at the same time King Ptolemy of Egypt, dying at Cyrene, appointed the Senate and People of Rome as his heirs; and the image of the prodigy is shown.

Furthermore Dinothus in his *Adversaria* publishes that in the year eight hundred and twenty-three, in the territory of Toul, a certain girl twelve years of age abstained from all food for a period of ten months. Julius Obsequens adds that in the year from the founding of the City six hundred and nineteen a boy was born without an anus, and crops grew upon trees in the Capitol, by which prodigy they predicted that the Roman army would suffer severe losses at the hands of the Numantines. The same author left in writing that in the year from the founding of the City six hundred and seven a boy was born furnished with three feet and only one hand, and many other things of this kind which we shall afterwards relate in the chapter on Monsters below.

MIRACLES.

Those things which the highest artificer of all things, and his Saints, have wrought beyond the power of nature — not only in the parts of the human body but also in the whole body — are so countless that the day would sooner fail us than we could enumerate all miracles of this kind. Nevertheless we have decided to relate at least a few examples of these.

Concerning the hair, Theodoretus relates in the *Philotheus* that when Jacob, Bishop of Nisibis, was descending into Persia, a certain girl lingering by a spring, laying aside her modesty, bared her head and lifting her garments gazed with shameless eyes upon the holy man; whereupon the just man, taking this ill, pursued the spring with curses, which immediately dried up; and visiting curses upon the girls likewise, he straightway punished their shameless youth with premature grey hair: for the blackness of their hair was changed to white and disfigured their beauty from that time forward.

Lucilla the Virgin, daughter of Nemesium tribune of the people, was taken blind of her sight; through the intercession of Pope Stephen she received her vision again, and thereafter, as Volateranus attests, suffered martyrdom under Valerian. Likewise the boy Nautulphus, naturally lacking sight, through the prayers of Saint Enoch, on the authority of Gregory of Tours, obtained his vision.

Concerning the tongue, Egnatius relates from Procopius that the Libyan bishops, having been deprived of their tongues by the Arians, nevertheless on their way to Constantinople, as Procopius himself heard them, spoke distinctly. Nicephorus writes that the same happened to certain Christians dwelling among the Persians who, having had their tongues removed by tyrannical force, spoke beyond the power of nature.

Infants too of twenty days, on the authority of Sophronius, uttered clear words: for the Abbot Daniel, having by his prayers and intercession removed the barrenness of a certain matron, and a child being duly born, was accused by his adversaries of adultery; he therefore went to the child twenty-five days old and asked who its father was, and then the infant, speaking plainly, indicated its true father. Zoe, the wife of the martyr Nicostratus, who had been mute for many years owing to a grave illness, at last through the aid of the holy Sebastian recovered her former speech.

Concerning the hand, Lycosthenes relates that under Pope Leo VI, the hand of a certain man was cut off by iron; then in the course of a year, while he slept, it was restored to him beyond the course of nature; and as a mark of the miracle, there was said to be a

[catchword: coloris]

[marginalia: Segetes in arboribus / Canities præcox miraculosa / Lib. 4. hist. / In Prato spirit. cap. / In lib. de Prodig.]

blood-red mark visible at the place where the hand had been joined. And finally many authors have recorded the entire transformation of a man, beyond the power of nature, into various forms. The Jesuit Busaeus mentions the case of a certain man dwelling in the city of Parocha who had sworn falsely upon the sacred corporals, calling down upon himself the imprecation that he be turned to stone if he asserted what was false; and immediately he was converted into rock in the same posture and form in which he stood, and remains to this day visible to all — to say nothing of the wife of Lot, who was transformed into a statue of salt, as is recorded in Holy Scripture, and of the endless other things of this kind that are read in Surius and other authors.

MYTHOLOGICAL.

The poets — not only Greek but Latin also — feigned that certain men, such as Briareus and Gyges, were hundred-handed; indeed Homer himself designated even the Sun as *hecatoncheir* (ἑκατόγχειρ), that is, hundred-handed. But the commentator on Hesiod proclaimed that by Briareus the spring season is to be understood, inasmuch as that season of the year abounds in a great quantity of herbs, flowers, and foliage. Likewise by the hundred-handed Gyges he explained winter, on account of the many things that are heaped together in that season of the year. Similarly Homer not without reason called the Sun hundred-handed, on account of the countless offices it performs each day. The same commentator on Hesiod relates that the Cyclopes — that is, one-eyed men — were represented by the poets for this reason: because they were said to be conversant with the lightning generated in the air, and because the air is situated in the midst; hence it was attested in the fable that each of the Cyclopes was adorned with only one eye placed about the middle of the forehead.

The poets also fabled that Achilles, apart from his heels, was invulnerable, because those heels, being held in his mother's hand when he was plunged into the Stygian waters, were not wetted by the water; they wrote that this was the seat of his weakness in that part of his flanks; by this fable they wished to suggest that a man, however strong and brave against misfortune, sometimes so succumbs to wanton enticements that he thereby prepares manifest destruction for himself.

There is also a laughable fable concerning Prometheus and mankind. For Prometheus is said by Jupiter's command to have fashioned men and beasts. Jupiter, however, observing that the beasts vastly outnumbered men, commanded Prometheus to destroy some of the beasts and form men from them. While therefore he was carrying out his lord's command, it came about that many men came forth in human form but with a beast's mind. This fable was told to describe those men who, filled with inhuman cruelty, wander over the face of the earth.

Fable of Prometheus.

To these we may add from Abstemius many fables worthy of notice. He first relates that a certain woman, having been beaten many times by her husband, feigned herself dead, and holding her breath lay on the ground, to strike terror into her husband: whereupon the husband, not ignorant of womanly tricks, is said to have uttered such words — namely, that a dead beast must be skinned — and accordingly seizing his wife's foot began to separate the skin with a sword, when the woman, feigning a swoon, straightway rose up. The fable teaches that against a prudent man womanly snares are spread in vain.

Since we have fallen upon the topic of the wicked nature of women, it will not be amiss to set down from the same author a fable about the Demon who so vexed a man that by no arts could he be brought to depart; at last a certain person promised to give him a wife, upon hearing which the Demon said, "Do not entangle me in the bonds of wedlock, for I am even now departing." The fable warns that nothing is more wretched than a wicked wife.

Abstemius perceived the womanliness of spirit also from another fable, in which a father is introduced who was endeavouring with gentle words to soothe the grief of his daughter while her husband lay dying, promising her another young man in marriage, more comely than the first, who would easily allay her longing for the former; but the woman, impatient of grief, not only heard her father's words unwillingly but also disapproved of the untimely mention of another husband. Yet as soon as the husband had breathed his last, still wet with tears she asked her father whether the young man was there whom he had lately promised to give her in marriage. From the fable one perceives

[catchword: dum]

[marginalia: Sol centimanus / Cyclopes / Prometbei fabula / Teclæ muliebres / Maleram simulatio]

how readily the love and memory of a dead husband pass out of a wife's mind.

Finally, in confirmation of the deceitful nature of women, we shall append another fable of Abstemius. Since in former times new brides were accustomed to be led to the husband's house preceded by a lighted torch, a certain prudent man who had lately swallowed the hook of matrimony, when asked what that lighted torch which the bride carries as she passes from her parents' house to that of her husband meant, immediately replied: that torch signifies that I today bring fire taken from my father-in-law's house into my own; from which fable one may gather that certain women sometimes carry sparks of fire with them, which often reduce a husband's goods to ashes.

DREAMS.

Men are said above all others to see things in sleep; wherefore, according to the opinion of the philosophers — in whose case, while they are sleeping, no image of things ever arose, but if in the course of time it should happen that they dream, a little while afterward they suffer either death or grave illness — Cardanus and the other oneirocritics teach what each part of the human body seen in sleep may signify.

Beginning therefore from the upper parts: in dreams the head, they have written, signifies a prince, honours, the mind, and the master of a house; the hair, tiles, the ornaments of a house, its beauty, and heavy misfortunes; the brain, prudence and learning. By the eyes they understand sons, brothers, parents, and precious stones: to such a degree that if anyone seems to himself in sleep to have three eyes, he ought to conceive great hope of children, if he will shortly take a wife; and conversely if anyone has dreamed that he is deprived of both eyes, they consider he will be bereaved of sons, brothers, or parents: for sons are likened to eyes, because those things which are dear to us are said to be carried in the eyes. Brothers too are compared to eyes, inasmuch as the eyes are bound together in a certain fraternal union by the optic nerve. Likewise parents are said to correspond to the eyes, since it is by their means that children enjoy the benefit of light.

But on the other hand if to a person beset by some calamity blindness should seem to befall him in a dream, the interpreters of dreams augur safety therefrom, inasmuch as the sufferer will at least not be looking upon miseries. But from Artemidorus, to have an eye in the ear in sleep is a sign of blindness, since by the benefit of the ears one perceives what one formerly also comprehended by means of the eyes; and this trifle is further confirmed because those who dream that they have eyes on the tips of their fingers incur the danger of blindness — since the blind use their hands in place of their eyes.

After the eyes, eyelashes and eyebrows present themselves for consideration: by eyelashes they understand tutors and guardians of boys, and by eyebrows, dignities, ornaments, and women. And so a thick and well-coloured eyebrow seen in sleep is said to be a sign of freedom; and conversely, if anyone has dreamed of a smooth eyebrow, they predict grief therefrom, and they adduce this ridiculous reason: that it was received as an ancient custom to pluck the eyebrows in mourning.

To the nose next, as the most conspicuous feature, they assign beauty, adornment, and sagacity; wherefore a large nose seen in sleep is said to portend remarkable sagacity. Indeed if a person oppressed by illness has imagined himself in sleep to be without a nose, he presages imminent death; yet a futile reason is adduced, namely that the human head, with its nostrils cut off, resembles a skull.

Furthermore the dream-interpreters who collect idle tales attribute to the ears fame, learning, and servitude: hence those who dream that they are filled with asses' ears presage servitude; unless the dreamer should be a philosopher, in which case such a dream, on account of the slower movement of the ears, predicts good, because they hold the hearing of philosophers to be steady. Again those who dream of having several ears are threatened with long servitude, since ears show many commands. If this dream should befall a householder, it signifies the size of his household; if craftsmen, it presages profit — dreamers are said to hear many voices of those hiring their labour on account of the multitude of their ears. These things, to confess the truth, show rather the subtleties of the human mind than that they contain any sound doctrine.

[marginalia: quæ in somnis partes humani corporis significant / Caput / Capilli / Oculi / Cilia, et supercilia / Nasus / Aures]

the size of a household it signifies; if craftsmen, it presages profit — since dreamers are said to hear the many voices of those who hire their labour on account of the multitude of their ears. These things, to confess the truth, show rather the subtleties of the human mind than that they contain any sound doctrine.

If we proceed through these trifles: these interpreters assign grace of face, injury, and hatred to the mouth; modesty, dignity, and health to the lips; authority, profit, and gladness to the beard; family and kinsmen to the teeth; the cook and the sweetness of life to the palate; life and punishment to the throat; the foundation and basis of one's reputation to the chin; to the space beneath the chin, a wife, children, and other things that are kept and cherished; death to the hollow of the jugular, because animals are slaughtered there, as well as feminine ornaments; and finally to the whole neck, strength on account of the nape, pleasure, and the beauty of a house.

If we descend to the chest: the breast, according to the dream-interpreters, signifies courage, counsel, and secrets; the ribs, because they protect us, indicate attendants and stewards; the back, because it bears burdens, designates labours — indeed grandchildren too, because they come after us. The shoulders finally indicate servants of lesser authority; the arms, brothers; and the elbows, lighter tasks. By the hands they understand skills and strength; by the palm of the hand, labours and extreme poverty; by the left hand however they predict a sign of grief and of business to be managed, since this hand is better suited for protection. Moreover, according to their view, if a man has been excellent in conducting lawsuits and in sleep sees himself as having more hands, he ought to expect prosperity — since this portends an abundance of clients, friends, and money. On the other hand if the dreamer be a wicked man and sees himself in sleep furnished with several hands, evil is to be expected — since bonds are managed by means of several hands. Hands taken away in a dream, as Artemidorus held, signify skills; and if the hands are beautiful, they presage a happy outcome of affairs, and especially for those who complete some work with their hands.

From the hand hang the fingers, which among the oneirocritics have their own significances: through them small tasks and trustworthiness are indicated. The thumb separately signifies strength and literary skill; the forefinger faithfulness, religion, learning, and the ability to write; the middle finger impudence and base actions; the ring finger a wife, children, and dignities; the little finger boys and their keeping; the nails finally show protection and firmness.

The oneirocritics liken the navel to parents and one's native land: for just as the foetus is nourished through the navel, so nourishment is likewise received from the fatherland and from parents; wherefore the things that appear in dreams concerning the navel are interpreted as predictions about the fatherland and parents. The belly too is said to signify wealth: for as a man draws nourishment from wealth, so the body draws it from the belly. Otherwise, according to the opinion of Hippocrates, the belly is likened to the sea; for if anyone in sleep seems to himself to see the sea disturbed, he would conjecture that that person suffered or would suffer from an affliction of the belly: for just as rivers discharge themselves into the sea, similarly all excretions flow together toward the belly.

Something must be said about the intestines: through the heart, parents, children, and a wife; through the lung, words and speech; through the stomach, pleasure, estates, and annual revenues; through the gall-bladder, indignation, anger, and disease; through the spleen, laughter; through the kidneys, children and strength; through the intestines, hidden wealth; through the bladder, the world of women; and through the uterus, they understand sons and daughters. Nor are the private parts passed over: these, among them, denote honour, pleasure, wealth, and strength; the anus separately, cares and impediments, since excrement is thrust out through that part; the womb, base pleasure; the buttocks, as the most abject parts, impudence, baseness, and also slaves and tenant farmers.

Furthermore they assign maidservants and boy-guardians to the hips; to the knees, heavier tasks; to the legs, servants and friends by whose help one is sustained, ornament and the protection of rights; to the heels, abject slaves and those on whose support one most depends; to the feet, the foundation of the whole household, and likewise slaves — since the feet bear the weight of the whole body, just as slaves labour ever at home and in the field, and those who labour ill are punished by the shackle on their feet; to the heel finally, supreme strength is assigned, and that especially upon which a man can most firmly rely; and lastly to the skin, defence and adornment.

So much for the parts; we judge that something must now be said about the whole body. For they write

[catchword: enim]

[marginalia: Ceteræ faciei partes / Pectus / Brachia / Manus / Digiti / Venter, et umbilicus / Cor, ventriculusque / Pudenda / Coxæ / Pedes]

HIEROGLYPHICS.

For if a married woman with children and a husband should dream that she is transformed into a man, they hold that she will shortly become a widow and perform the duties of a man; but if she be without children, she will bear male offspring; if she be a virgin, it will come to pass that she will celebrate her marriage without delay. On the contrary, if a man — and particularly a prince or ruler — should observe in sleep that he has degenerated into a woman, they judge it will come to pass that, expelled from his seat, he loses his dignity, because women are subject to the authority of men. Nazarius relates that a man seen in dreams naked and vexed by flies, yet not driving them away, denotes the idleness and sloth of a man; another, afflicted with paralysis, signifies an attempt at some undertaking. Another, as though drunk, holding a vessel full of wine, betokens drowsiness. Another, lacking feet and hands yet sitting upon a stout horse, denotes idleness. Another, carrying a stone upon his head with veiled face and hands bound by a chain issuing from his mouth, indicates forgetfulness. Another, with a right foot like an ass's and a left like a roe-deer's, with an eagle's wing upon his shoulders, describes slowness. Another, having a broken sky and a hammer without a handle, denotes negligence. Another, sitting upon a monkey with a club lacking a handle, betokens lack of perseverance. Another, having his limbs divided into several parts, denotes dissolution; and many others of this kind are read in the same author at the place cited.

Valerius Maximus likewise relates that two Arcadians travelling together arrived at Megara, of whom one lodged with a host and the other at an inn. To the one who slept in the host's house, his companion appeared in a dream begging him to come to his aid, for he had been overpowered by the treachery of the innkeeper; whereupon, awaking and rising from his bed, he attempted to go to the inn, but, thinking the dream empty, betook himself to rest again. Yet again his companion appeared in his sleep, grievously wounded, beseeching him that, since he had neglected to bring aid to his life, he should at least not refuse vengeance upon his death: for his body, slain by the innkeeper and covered with dung, was being carried in a cart to the gate. Roused once more from sleep, he rose immediately and hastened with swift step to the gate, where he found the cart that had been shown him in his dream; and upon uncovering the body of his murdered companion, he brought the innkeeper to capital trial.

Similarly there is told a certain dream of Galen: that when he was unable to free a certain patient labouring under a chronic disease by the use of many remedies, he was at last admonished in sleep that the opening of a vein situated between the ring finger and the little finger would prove of the greatest service to the said affliction; and so the following day, being already instructed by the dream, he ordered such a vein to be cut; and after the letting of blood that followed, the patient recovered a little while thereafter. Otherwise, for the most part, when the human body is in the best condition, no other thoughts than those images arising from the actions and daily duties of the day revolve in the minds of the sleeping — as Claudianus expressed in these verses:

> *All things which roll through the sense in the day's desire,*
> *All those things does the night's brief rest restore and repay.*

[catchword: HIEROGLYPHICA]

[marginalia: Lib. 4 / Valerius Maximus / Galeni somnium]

It is clearly established that the Egyptians derived their hieroglyphics from all parts of the human body: and indeed, beginning from the upper parts, they called the delineated human head the hieroglyphic of *beginning*, since from medical doctrine all the senses and nerves arise from the head — over and above the fact that the common people are wont to call the beginning of any matter whatsoever the "head." Moreover, by the figure of the head they signified divinity, since the other members are governed by the head: for this reason the Egyptians so revered the head that they abstained entirely from eating the heads of brute animals — so much so that the Platonists handed down that the human head was fashioned in the likeness of the orb of the world and is the most divine of the members. Moreover, by the image of a head bound with a fillet, they understood sovereignty, since the interpreters of dreams foretold that a head seen adorned with a ribbon in sleep was a sign of lordship. A shaved head indicated servitude, and a long-haired head was noted among both Greeks and Latins alike as a token of effeminacy.

In a different sense, by the icon of a shaved head, they signified that all superfluous things are to be removed. But when the icon of a human head partly adorned with hair and a beard and partly bare was displayed, it was understood by the Egyptians, on the authority of Valerianus, to represent a foreigner: because Osiris, making war against the Giants, nurtured his beard and hair in Italy where he was a foreigner, but on returning to his homeland, he laid aside not only his beard but his hair as well. The picture of a nude woman's head adorned with no ornaments — such as is the head of nymphs — Diodorus maintains to be the hieroglyphic of the Muse. Otherwise, among the Corinthians, the head of terrible female aspect was an image of terror; concerning which they relate that Domitian wore upon his breast the head of Medusa delineated, so that he might inspire fear in all.

Thus far of the figure of the head alone. Now when the image of the head is joined with other things, it produces various hieroglyphics. The Egyptians therefore painted the human head together with that of an ass to indicate an ignorant man, and especially one who has worn out the whole of his life at home, not travelling abroad to observe the ways of other men. Moreover, by the effigies of two human heads they expressed guardianship; and through the figure of three heads they signified the Moon, since she holds dominion in the heavens, on the earth, and in the subterranean realms. Although others would indicate by this the past, present, and future time, or the threefold division of the month, since every month is distributed into the Kalends, Nones, and Ides. And when the four-headed or four-faced Janus was formerly painted, the four seasons of the year were demonstrated. Finally, by the seven-headed man, they denoted the man of wide knowledge, since — according to the opinion of certain astrologers — at the fifteenth degree of Gemini there is placed a hieroglyphic adorned with seven heads; inasmuch as, as they themselves report, one born under this degree proves a man of manifold learning.

From the head let us descend to the eyes, which form various hieroglyphics. In the first place, the figure of an eye signified God: for if in the lesser world the eyes are held the most beautiful and most excellent of all parts, as the governors of all actions, so likewise in the great world God Almighty governs all things — over and above the fact that the eye partakes of light, and sometimes of so efficacious a light that it is able to see even amid the horrible darkness of a stormy night. Not undeservedly, therefore, is the figure of the eye likened to God, whom we proclaim as the perpetual fount and origin of everlasting light.

Valerianus indeed wrote that the eye delineated at the summit of a sceptre for a king denoted the governor of all things, since the sceptre signifies dignity and the eye signifies light. Yet Caelius Calcagninus maintained that by such a figure Osiris was denoted, adding that through the eyes of Horus in the Egyptian hieroglyphics the Sun and Moon are demonstrated. Cartarius likewise understood the Sun by an eye placed at the top of a sceptre, since the Sun surveys the whole sky and all things beneath the heavens from day to day; whence afterwards certain men styled the Sun the eye of Jupiter.

Moreover, the Egyptian Priests depicted an open eye to demonstrate the preserver of Justice: wherefore Plato not without cause sometimes called Justice the beholder; and Chrysippus made the eyes of Justice keen and motionless, so that they could not be deflected hither and thither from what is honourable. Yet others understood by an open eye *life*, and by the same eye closed, *death*: although others, to express the author of momentary pleasure, painted the eye — in accordance with that saying of the Poet:

> *Fish gape: in love the eyes are the leaders.*

Pierius, however, expressed the man devoted to luxury through the image of eyes with bare eyelids, since through habitual indulgence in the pleasures of love the hairs are wont sometimes to fall out. Furthermore, on the authority of Valerianus, the picture of an eye denotes favour and benefit: for those whom we favour we regard with benevolence — over and above the things pleasing to us being compared to the pupils of our eyes. Moreover, the faithful man was indicated by the picture of the eye, in accordance with that common saying: *the eye is a more certain judge than the ear*. But when two eyes were depicted above two heads, the divine shades were expressed, since by the eyes divinity was understood and by the heads the shades of the dead.

The eye was finally, among the Egyptians, the hieroglyphic of speech; and although the figure of the tongue indicated simple discourse, nonetheless, to denote cultivated and eloquent speech, they delineated an eye of somewhat reddish hue together with the tongue.

From the eyebrows, on the authority of Valerianus, the hieroglyphic of one contemplating lofty matters is derived, because the eyebrows are placed in a more elevated situation.

[marginalia: Caput mundi similitudo / Caput muliebre / Caput triplicis Lunae / Homo septiceps / De oculis hieroglyphica / Pierius lib. 21 / Cal. Calcagnin. de reb. Aegypti / Cartarius / Pierius lib. 21 / Valer. lib. 21 Hieroglyph.]

Indeed Pierius considers that from the same, the hieroglyphic of severity is to be elicited; for old men with copious brows are peculiarly characterized by severity. For according to the opinion of Aristotle, the eyebrows grow as age advances, since they are placed upon the junction of certain bones which become looser with advancing age; hence a more copious nourishment is supplied to the eyebrows. The nose, in the judgement of Pierius, is constituted the hieroglyphic of sagacity: wherefore Festus not undeservedly called a sagacious man *nasutus* — that is, sharp-nosed — because he instantly detects the scent of any matter whatsoever. The same author declared by the open ear the sign of obedience, and by the closed ear the hieroglyphic of contumacy. And Clement of Alexandria indicated the supreme God hieroglyphically through ears and eyes fashioned from some precious material, according to the understanding of the Egyptians, since God alone hears and beholds all things.

The mouth and its parts are set forth by Valerianus as the hieroglyphic of a household: for the upper teeth represent the domestic members of the household, and the lower teeth represent strangers, since the upper jaw, immovable, cleaves to the head, and only the lower one moves. Next, they depicted the tongue grasped by a hand, to intimate eloquence; for by the tongue alone they interpreted simple speech, since the Latins at other times named the tongue from the verb *dico*, "I say," and through the figure of the hand they signified delivery; for speech, aided by some art, passes into eloquence. Likewise, the tongue painted upon an altar signified sleep; for it was a widely received custom to burn offerings to Mercury as god of the tongue whenever men wished to induce sleep, inasmuch as they held that speech — of which the tongue is the instrument — flows from Mercury, and then, as sleep comes on, lies quietly still.

Pierius adds that by the severed tongue, silence is signified. It is also established that the Egyptian Priests, wishing to indicate a light taste, displayed the figure of a tongue slightly protruded between the front teeth. But to show the complete sense of taste, they depicted the front parts of the throat adhering to the root of the tongue, since, according to the opinion of Physicians, the perfection of taste is celebrated in those parts of the tongue.

The beard, certain authorities proclaim the hieroglyphic of virility, because Diogenes replied that he wore his beard to the extent that he remembered himself to be a man.

Valerianus assigns the neck as the hieroglyphic of Pride; because in the Psalmist, as a token of subdued pride, we read that the necks of the ungodly have been cut down. Pierius likewise declares the shoulders the hieroglyphic of strength, for upon them heavy burdens are borne. The back follows as the hieroglyphic of flight: since those who flee show their backs. Otherwise, the ancients used the figure of the spine of the back as the hieroglyphic of tickling (*titillatio*), since they supposed that the seed descends from the brain through this part. Moreover, because the kidneys and other vessels serving generation adhere to the loins, the Egyptians, painting the loins, understood Venus.

Furthermore, certain inward parts also are not excluded from hieroglyphics. For they painted the heart suspended upon a strap and hanging upon the breast, to intimate the speech of a man extremely studious of truth: for those things which are uttered by the mouth ought to correspond with those which are conceived in the heart — that is, with things truer than truth. But when the Ancients displayed the figure of a heart placed upon a gridiron over fire, they expressed fury and indignation: since the Philosopher proclaimed that the kindling of blood about the heart is anger. Pierius, however, thinks that by the image of the heart, life is explained, since life depends upon the soul, and the soul has its chief seat in the heart; hence certain men styled the heart the belly of the soul.

Moreover, others approved the picture of the heart to signify the human mind, since in the Holy Scriptures God is held to be the searcher of hearts. What more? To signify Egypt, they made use of the image of a heart and of a burning altar: for by reason of the part turned toward the south, they celebrated Egypt as hot and moist like a heart; over and above the fact that, as the heart inclines with its apex toward the left side of a man, so the Arctic regions are on the left of Egypt, from which flow infinite springs of water, which thereafter communicate life and fertility to Egypt; and then, by the burning altar with offerings placed above the fire, they intimated that its inhabitants were to be cheered. But what is more wonderful, the Egyptian Priests, wishing to designate the inundation of the Nile, made use of the simulacrum of a heart together with the icon —

[catchword: icone]

[marginalia: Supercilia / Nasus / Auris / Os, dentes / Lingua / Barba / Cervix / Psal. 136 / Cor loro fuspendum / Lib. 34 Hieroglyph. / Pierius]

— of the tongue; for by the image of the heart they understood the Nile drawing from its inward parts a great abundance of moisture, just as the heart in the human body draws to itself abundance of blood and vital spirits; and by the tongue they understood the confluent flood of rain-waters pouring in from every side, since it is perpetually moistened by the moisture that rushes into it. Let us add, from the invention of more recent men, that by the image of two hearts linked together by bonds, concord can be signified. The ancients also depicted the spleen to indicate the public treasury, since when the spleen swells the rest of the members waste away.

The genital parts themselves also are not averse to hieroglyphics: for the Egyptians signified magnanimity by the icon of the virile member, since such an icon carved upon many monuments of the ancients is found employed to denote men who are vigorous, warlike, and magnanimous. But to demonstrate the cause of human generation, they depicted their Osiris in human form with the genitals obscenely aroused; understanding by Osiris the Sun, which is held to be the cause of all generation. In a different sense, wishing to indicate efficacious speech, they depicted Mercury bearded with his genitals aroused: for just as aged Mercury possesses the power of generation, so efficacious speech must deliberate and persuade. On the contrary, to signify inefficacious speech, the same Mercury as a youth was depicted with his genitals retracted: for just as boyhood possesses no power of generation, so speech issuing from the mouth of one not yet of age partakes of no efficacy and no power of persuasion.

The same Egyptian Priests, to manifest continence, delineated the virile member restrained by the hand, since they believed that by this gesture they described the bridle of lust. Finally, by the image of the female member, they made manifest the man who is drowsy and unwarlike, since women are seen to be timid, unwarlike, and utterly unfit for battle.

There remains now for us to say something of the remaining external parts. The hand, therefore, was among the Egyptian Priests the hieroglyphic of work: for the hand builds, collects all nourishments, stores them, brings them to the mouth, and performs all distinguished deeds; wherefore it was rightly called the organ of organs. But with hands thrust into the bosom they expressed idleness, since man has been equipped by nature with hands for action, not for leisure: wherefore Anaxagoras called man, on account of his hands, the wisest of all animals. Furthermore, wishing to demonstrate a man useless in war, they painted a hand without a thumb: since once that finger is removed, a man is rendered useless for operations and especially for fighting. Finally, certain more recent thinkers, to demonstrate dialectic, depicted a hand with the fingers compressed into a fist: for dialectic employs the brevity of arguments. Otherwise, for the hieroglyphic of good and evil, they display the right and left hand.

The fingers too, attached to the hands, have their hieroglyphics. For the Egyptians denoted measure by the icon of a finger, and considered measure to be the daughter of the fingers, since the practice of measuring takes its beginning from the fingers; inasmuch as the palm is constituted by the breadth of four fingers, the foot is made up of four palms, and so in turn feet constitute a pace, and paces constitute miles. Likewise, by various gestures of the fingers they made manifest any number whatsoever; concerning which matter we refer the reader to Valerianus. Thereafter, the index finger raised to the mouth was among many nations the hieroglyphic of silence: yet among the Romans the letter S. was painted as a mark of silence in dining-rooms and upon the doors of chambers, by which sign silence was indicated to the guests, since during drinking many things are uttered more freely than is fitting. But the picture of the middle finger was the hieroglyphic of the stomach, because by this finger, as the longest, thrust into the throat and vomiting excited, the stomach burdened with debauchery is relieved: for it had become a custom among the Egyptians to heal all afflictions of the body by vomiting and fasting. Otherwise the middle finger extended, with the other fingers contracted into a fist, was the hieroglyphic of dishonour, since this form presents a certain simulacrum of the virile member. Whence it is related that when certain guests were asking where they might find Demosthenes, someone indicated him not with the index finger but with the middle finger extended, in order to attach to him the mark of ignominy.

The ring finger the Egyptian Priests established as the hieroglyphic of the heart, because they persuaded themselves that a certain nerve or vein penetrates —

[catchword: pene-]

[marginalia: Cor et lingua / Liena ad Fiscum / Partes genitales / Hieroglyphic. ex pudend. / Manus / Digiti / Lib. 36 Hieroglyph. / Medicina Aegyptiorum]

— directly from the heart to that part: and for this reason they were accustomed to honour it with a ring as with a crown; moreover, those serving about the altars of the Gods fumigated it with agreeable perfumes. Likewise they depicted the same finger placed in a ring of gold on the right hand as the hieroglyphic of pardon sought from the Gods.

Finally, coming to the signification of the feet, we must consider that the Egyptians, wishing to indicate the winter solstice, imagined two feet entangled with fetters, because at that season the Sun appears to advance with a slow pace. Furthermore, to intimate the impossible, they painted two human feet walking upon water; or, according to others, a man walking with a severed head. Moreover, just as feet placed on the surface of water demonstrate something vain and empty, so feet touching the surface of the earth show the hieroglyphic of a foundation, whence to "plant one's foot" is said to mean to "lay a foundation."

Furthermore, on the authority of Valerianus, feet immersed in water were painted to manifest purification; and this picture was, according to Horus, the hieroglyphic of a fuller, whose concern it is to cleanse all garments diligently from stains.

So much for the parts of the human body as they pertain to hieroglyphics. Now we shall weigh those things in which the whole figure of a man is delineated. Wherefore: for Meditation, a man gnawing his nails; for Constancy, a man standing with his eyes directed toward the ground; for Humility, a man kneeling; and for Contempt of Death, two men fighting were displayed. The simulacrum of Mercury standing was the hieroglyphic of a learned man as an old man, since a sage without strength and strength without wisdom are each of no avail. Prometheus fashioning a man from clay was the simulacrum of a Preceptor, for the Preceptor imparts skill and learning to a dull and rough man. Otherwise, for this hieroglyphic, many depicted a man making water, of which others thereafter drink: another hieroglyphic for the Wise Man and the Fool was the image of two naked men, since when considered by strangers these will indicate by words what distinction falls between them. For Honesty, a woman of beautiful form, and for Labour, the figure of Hercules was represented. Although others, to signify Labour, painted the sea, which is called *Pontus*, as if from *πόνος* — a word signifying labour in Greek. But the hieroglyphic of a man measuring his own strength was the figure of a porter investigating the weight of a burden before lifting it upon his shoulders.

On the other side, for the display of vices and crimes, they also employed the human image: wherefore, in demonstrating an inexpiable crime, a human body composed of unequal members and disfigured with various scars was painted. The image of a Traitor was a man displaying a stone in one hand and bread in the other. The image of the Unjust Man was a man carrying water in a perforated urn: for thus they intimated that the unjust man, being as it were infamous and wretched, labours in vain in all things, being odious to all. For the Ingrate, a man slaughtering an ox was depicted, in accordance with that common verse:

> *Now he bows the weary neck, and lamentable gives it*
> *To the ungrateful plough, worn out and loathed.*

For the Hypocrite, the icon of a Player was used, who upon the stage feigns to be what he is not. For the Wrathful Man, a man supplying wood to a fire was represented. For a man striking his own forehead was the hieroglyphic of Indignation. To express the Curious, they used the figure of a porter carrying a veiled burden, for an Egyptian replied to one who inquired: it is veiled — you shall not know. The hieroglyphic of the base litigant was the icon of Marsyas, who dared to contend with Apollo. For the Impudent, Cupid shattering a thunderbolt was painted: since it is said that Alcibiades, the most impudent of all, bore this symbol upon his shield. To show the Coward and fugitive in battle, they painted a mother showing her womb to her son, as though through fear he would re-enter that from which he had emerged. For the Talkative and Foolish, a man furnished with very large ears was depicted, since from the doctrine of physiognomy the size of the ears is held to be an indication of talkativeness and folly. Wishing to signify Pleasure, they depicted a maiden beautiful as far as the navel, and thereafter fish-formed, since the end of pleasures always grows foul. The hieroglyphic of the effeminate man was also the picture of a man scratching his head with one finger only — which he appears to do with one finger only lest he disturb his hair that has been carefully dressed. Wherefore for the *cinaedus*, a long-haired youth was painted.

[marginalia: Digitus annularis qualis / Lib. 33 Hieroglyph. / Integrum hominis simulacrum / Hippocrita / Ignaui Hieroglyphica]

PROBLEMS.

These matters concerning the hieroglyphics of vices now set forth, we must hasten to the rest: for in expressing *time*, Saturn was depicted devouring his children, since time is said to be all-devouring. It was also observed, among the Egyptians, that a man devouring the hours signified a man counting the hours, inasmuch as through each successive hour different kinds of nourishment are supplied to the human race. But the hieroglyphic of *Perpetuity* was the picture of a man lifting a new Moon with his right hand. A *Paterfamilias* was expressed by the figure of a man with eyes both on his front and his back side. The picture of a *Bastard* was a boy throwing pebbles among the people, since someone might say to him: take care lest you injure your own father. The hieroglyphic of a *Wife* was Venus treading upon a tortoise, for it is the concern of women both to be silent and to guard the house. The icon of a man joining his right hand to another's right hand showed a man overcome in battle. The hieroglyphic of a *mercenary soldier* was the picture of a butcher slaughtering livestock; for the soldier, in hope of gain, slaughters men — in accordance with that well-known verse:

> *No faith, no piety, in men who follow camps.*

But among all things admirable was the hieroglyphic of the Judge, in which Apollo led the Graces with one hand and bore a bow and arrows with the other. Mercury depicted with a cock indicated a merchant, for Mercury — that is, Hermes — was named as one who is, as it were, the guardian of merchandise; the figure of the cock was added, because it makes men vigilant by rousing them. Then the image of the youth Narcissus denoted calamity, and a woman sitting upon a ball denoted the instability of fortune.

When a young man was depicted bearing a banner above his head, it was the hieroglyphic of the intellect, which is always devising something. Likewise, a man holding a dish in his right hand and ears of grain and a poppy in his left signified a good outcome: for they who make use of the fruits of their fields easily induce sleep for themselves. Moreover, Valerianus writes that the figure of a man placing his knee behind his knee denotes an impediment, since the ancients, as Pliny reports, believed that by this gesture both the delivery of a child could be delayed and every action impeded. The governance of all things was signified by the figure of a woman holding a cubit measure and a bridle, since among the Romans of old the goddess Nemesis was painted with a bridle and this measure, as though nothing should be done without bridle and measure. Finally, a man depicted between two women, of whom one draws him toward herself and the other recalls him from afar, designated *Utility* and *Honesty*. To conclude, for the hieroglyphic of Italy they employ the icon of a crowned woman sitting upon the orb with a sceptre in her right hand and a cornucopia in her left — and let this suffice on the subject of hieroglyphics.

PROBLEMS.

Very many propositions with questions attached are in circulation concerning man. But at present the more important ones relating to age, parts, congress, learning, and diseases present themselves for examination.

Concerning the parts, they first investigate why the hair and beard of the sick and of the aged increase more than those of the healthy and the young. Some answer learnedly that the sick and old abound with excremental superfluities more than the healthy and young: whence the natural heat, being weaker in them, is less able to consume and dissipate those superfluities. They then inquire why nature has granted man a small mouth, and to the other animals a very ample one. The common answer is that man has been provided by nature with a mouth for eating, breathing, and speaking, since the other animals use the mouth not only for eating and breathing but also for the defence of their lives.

They also inquire why man alone has been endowed with hands, and not the other animals. They answer that brute animals, lacking intellect, have no need of a hand; because the hand is called the organ of organs, since it executes the commands of the human intellect. There also arises the question concerning the breadth of the human chest, since brute animals —

[marginalia: Spuria pictura / Boni eventus Hieroglyphicum / Lib. 33 Hieroglyph. / Cur manus seniori car. / Problematic circa partes]

— lack it. But the answer to this problem is elicited from Galen, who committed to writing that men, on account of the action of the hands, had need of a broad chest; otherwise another form of chest would have been an impediment to the actions of the hands: and therefore the other animals, which have been furnished with parts directed both front and back only for the progressive motion, have likewise acquired a pointed chest for easier motion. Finally, certain men wonder why man, in comparison with other animals, is furnished with very large feet; and they do not observe that this has come about because man alone, walking upright and needing to sustain the mass of his body, had need of two large feet.

Concerning age, it is asked why, in man, in the change of age, an evil temperament is sometimes transformed into a good one, and conversely a good into an evil one. The answer is that the natural heat governing adolescence is sometimes so feeble that it cannot dissipate the superfluous matters, and sometimes is so vigorous that it not only dissipates the excremental matters but also disperses and consumes the radical moisture before the appointed time. Furthermore, certain men inquire why boys commit things to memory more easily than adults. The reason is assigned to the softness of the body, since something is more easily and better imprinted upon a soft substance than upon a dry one. They ask again why boys so receive something through the ears that they kiss those who are related to them or of the same blood. Clement of Alexandria is ready with an answer to this problem, saying that the sense of love is generated through hearing; and hence hereafter there will be no reason to wonder at the love of that youth —

> *who never burned with love for a girl.*

Some also inquire why boys are more easily and more frequently moved to laughter than those settled in other ages. They answer because Venus, the tutelary goddess of boys, loves joy and jesting; and therefore in former times it was the custom for boys coming to puberty to be led to the temple of Venus, where they left behind the nuts of boyhood. Nonetheless, a better answer can be that boys abound with a plenty of vital spirits, with whose fervent activity they can easily play the part of Democritus. Finally, they ask why boys have been forbidden by Plato to hear tragic or comic performances provoking excessive laughter. Ficinus resolves this problem, saying that boys ought to be removed from those things which can render them soft: for they become equally soft who are compelled to weep every day and those who dissolve into excessive laughter.

Concerning young men, it is asked why some, seized by a sudden fear, incur an untimely whitening of hair. They answer that in fear the vital spirits and blood flow toward the inner parts, whence the outermost parts, conceiving a certain cold intemperament, carry on an imperfect concoction, and therefore the hairs contract whiteness. Finally, they ask why old men, furnished with a cooler brain and satiated with food, sleep little — when the common saying is:

> *For the one well-fed delights to swell with refreshing sleep.*

It must be believed that this arises from the imperfect concoction which old men accomplish in the stomach: hence unconcocted vapours ascend to the brain, whereas natural sleep is produced by perfectly concocted vapours. Likewise it must be asked of old men why they do not receive correction, whereas young men are easily corrected. It must be understood that old men, by the passage of time, on account of the dried-out body, have contracted a certain hardness, the opposite of which is observed in young men, since they have not yet been affected by such hardness.

Concerning the human congress it is customarily asked why men and women of both sexes are ready for intercourse at all times, whereas nature has fixed a determinate time for mating in the other animals. The answer is that from the genitals of brute animals at the fixed season a certain strong-smelling odour diffuses through the air which, striking the nostrils of males and consequently the brain, kindles in them the imagination and desire of coupling. But since the pleasures of Venus have been conceded to man not only for the propagation of offspring but also for the alleviation of the miseries of human life, therefore men are ready for congress at all times — over and above the fact that a certain charm is observed in the beautiful appearance of a woman, which is by no means found among brute animals.

Hence another problem arises: why, among animals, man alone pursues masculine Venus. Some answer that the female sex does not satisfy in every respect, since a man, by reason of his lewdness, is never free from an excess of venereal indulgence. But some think it is better to answer that brute animals, as has been set out above, are excited to Venus by smell alone, whereas man is kindled to love only by sight —

[marginalia: Lib. de Usu par. cap. / Memoria potentior in pueris / Problemata iuvenum / Senum natura / Problemata ad Congressum attinentia]

— whence the adage is wont to be said: *that the face is what a woman sells*. But because some youths now and then surpass girls in beauty both of face and of bodily gifts, men are sometimes led astray by these; although others write that masculine Venus is a certain kind of madness, with which men are sometimes seized, just as they are at other times by other passions.

From this we shall descend to another problem: namely, why men are more inclined toward Venus in winter, and women more in summer. It must be understood that women, in comparison to men, are cooler; wherefore in winter, made justly cold, they do not so easily dissolve into wantonness, since Venus delights in heat and not in cold. Men, however, since they are warmer, are even in winter more ready for congress; otherwise in summer, dissolved by the excessive heat, they are rendered weaker. Finally, they inquire why pale women are more lascivious than ruddy ones, and lean women more than stout ones.

They declare this to arise because those women are more inclined toward softness and prodigal luxury who teem with a greater and keener heat — as do pale women, lean women, and those of a somewhat swarthy complexion — and therefore, imbued with a certain lasciviousness, they crave moistening; whereas stout and ruddy women, since they abound in more copious moisture and consequently in more diluted seed, are not so inflamed by lust.

Concerning knowledge, they ask why learned men distinguished by virtues are fewer in comparison with others. Some hold this to arise because many impediments present themselves in learning — and chiefly illnesses, which frequently carry off scholars — or because men fitted for study are compelled by necessity to apply themselves to the mechanical arts. Protagoras warns us of this, who was an eminent Philosopher, yet as a young man, constrained by poverty, carried wood for sale from the forests to the city; and this man, as Gellius relates, was recognized by Democritus, brought into the city and instructed by him, and became such a Philosopher as Plato afterward greatly esteemed. Although others would have this arise from the fact that our age lacks Maecenases; wherefore that writer said:

> *Were there Maecenases, Virgils would not be lacking.*

Nor is the answer of those to be dismissed who hold that the number of those endowed with virtue is smaller because virtue is a habit acquired by choice, not by force; and virtue consists in the mean, the extremities of which mean are occupied by vices — for since the extremes of virtue are vices, these will be more numerous, since virtue alone is unique. Hence it comes about that someone can perform evil works in many ways, whereas he is able to contrive good actions in one way only. They also inquire why men of sharp intellect and mind are least suited for practical affairs. The reason is that those furnished with keen intellect contemplate unceasingly and direct all the forces of the mind toward meditation; and conversely, those devoted to practical works draw all forces, even of the intellectual part, toward the sensory functions. Finally, they inquire why men have a happier and more fruitful intellect than women. The common answer is that through the humidity of women the sharpness of intellect is blunted, so that a woman cannot exercise it — unless we choose to sing with a certain learned man:

> *Why is Marius wiser than wretched husbands?*
> *Eve was the daughter of a rib, not of a head.*

It remains for us to examine the problems relating to human afflictions. First, they investigate why a pregnant woman, in comparison with the females of brute animals, suffers greater alterations. They answer because in idleness the excremental superfluities increase, from which afterwards various diseases arise; but a pregnant woman is greatly at leisure, whereas the females of brute animals exercise themselves even when with young. Thence they inquire why men who suffer from gout are strongly prone to Venus. Some answer that this arises from custom, since they hold gout to be the daughter of Venus and Bacchus; or because those oppressed by this disease are compelled to lie upon their backs, and therefore, by reason of this decumbent posture, a more copious matter flows to the genital parts — unless we prefer, and perhaps better, to assert that gouty sufferers abound in a certain sharp and subtle humour, which is wont to render men prone to Venus. They also ask why gouty sufferers cannot be freed by any remedy. We can answer that the material cause of this affection is the mixture of hot and cold matter; hence complicated therapeutic indications arise, which it is very difficult to satisfy —

[marginalia: Problemata Mulierum / Problemata spectantia ad scientiam / Lib. 5 cap. 3 / Problemata ad affectiones]

— and Physicians rightly and deservedly consider the cure of gout most difficult; unless we prefer to assert that the joints vexed by gout are by their nature inclined to admit a flowing matter which they can neither wholly expel, nor completely consume and digest; and thus, daily rendered more feeble, they are made less capable of overcoming the morbific cause.

Another problem is added: why man alone, among the other animals, incurs consumption. The answer of some is that this depends upon the delicate temperament of man, whence the lung is easily injured even by slight causes. Although others refer the cause of consumption to variety of food, from which a sharp and salty matter results, apt for the generation of the said affection: or better let us say that this affection falls principally to man on account of the uprightness of his body, since matter descending from the head easily slips into the chest — which disease the other animals, being prone, do not incur. Furthermore, it is asked why men labouring under the stone, if they take to the sea, are cured. It is answered that seafarers are frequently purged through vomiting, and thus the material cause of this affection is expelled; or it is to be said that the temperature is changed by the sea air, and thus the efficient cause is destroyed.

Likewise they inquire why many who are dreaming rise from their beds, seek various places, and accomplish many things from which they would shrink while awake. The reason is that such persons abound with turgid and subtle blood, whose fervent spirits impel the instrumental parts to action: and therefore, when such blood is carried upward, it comes about that by its power they are incited to such actions in sleep. For men of this kind are of spare and loose bodily texture, of small mass, but with great agility of spirits and a fervent mind.

They also investigate why a man oppressed by intense heat emits sweat more from the head and face than from other parts. The better answer is that the channels of those parts are wider — which is known from this, that they abound with more numerous pores. It is further asked why a man excited by the motion of sneezing is generally vexed by several sneezes. It is to be said that this arises from the abundance of matter, which cannot be dissipated by a single sneeze.

The curious inquire whether a man who is hunchbacked, maimed in some part, or monstrous will rise again at the universal resurrection associated with these bodily defects. It is to be noted that men will rise on that day with every bodily defect removed — in accordance with those verses of Prudentius:

> *For if weakness returns, the reason is not sound:*
> *What chance took away, what disease, what pain devoured,*
> *What devouring age cut off, rottenness consuming,*
> *Will all return restored to the members,*
> *Such is the power of the immense Creator.*

Over and above the fact that this is the opinion of Saint Augustine, who declared that on that day all monsters will rise again with their members restored to a beautiful and heaven-worthy form. Furthermore, it is inquired why men, whether wearied by labour or by anything else, when seated for greater rest, lay one thigh upon the other. Some answer because the compressed parts feel less fatigue; but the better answer seems to be that if we say fatigue arises from the dissipation of vital spirits, then when the parts are compressed, the dissolution of the spirits is impeded, and consequently greater rest is felt.

It must also be asked why certain men perceive near things imperfectly and distant things distinctly, while conversely others there are who see near things excellently and distant things not at all. The answer is that this arises from the fact that the visual spirit proceeding from the eye is sometimes dense, and does not perfectly perceive a near thing, yet recognizes a distant one, being attenuated along the way and rendered more subtle. On the other hand, if the spirit be subtle and sparse, it perceives near things excellently, since it does not view distant ones, as it dissolves and vanishes on the way. Finally, it must be investigated why certain men can live a long time without food: for Abaris the Hyperborean, according to Textor, traversed the whole globe of the earth, eating nothing at all; likewise Albertus Magnus left it written that there was a woman in Cologne who lived without food —

[marginalia: Cur podagra curationem non admittat / Phthisis / Lithiasis / Problemata de resurrectione / De oculis / Ciuit. Dei]

— for a space of thirty days. The cause of this is referred to melancholy; for that celebrated Scot who lived long without food was melancholic: moreover Albertus declares that he knew a certain melancholic who abstained from food for nearly forty days, taking only a drink of water on alternate days. It must be noted, however, that not every melancholic humour is the cause of prolonged abstinence from food, but only that one which, lodged in an opportune place — namely in the meatus of the liver and in the hepatic veins — participates in viscosity and density.

It remains for us to weigh various problems pertaining to men as well as to women. First, certain men investigate why men are born, when they are yet hastening toward destruction and remain but a brief space of time in this globe of the earth. The answer is that of Lactantius Firmianus, who held this to have been done so that men might acknowledge, worship, and revere God Almighty, the maker and governor of all things. Hence another problem arises: whether wild men who continually dwell among beasts, being without reason and salutary teaching, and consequently without knowledge of damnation, are capable of it.

Saint Augustine resolves this question when he says that when in feral and even monstrous men some trace of reason or mind is discerned, then without doubt they are to be numbered among men, even if they be of wild nature, because — as he himself relates — they can with the passage of time become both docile and capable of divine worship. Furthermore, it is asked why men shudder at human corpses and at tombs; the reason is assigned that no one loves his own destruction; over and above the fact that they have a presentiment that a like evil will befall themselves. It is also investigated why men are offended by foul smells but take delight in pleasing and agreeable odours. The answer is that the vital spirits governing the human body are refreshed by sweet odours, and conversely are dissipated and diminished by foul-smelling ones.

Likewise, they inquire why men are nourished more by meat than by any other kind of food. We can answer because like is nourished by like; and therefore meat generates flesh more quickly than any other kind of food. It is asked why men, when they hear a shrill sound — such as that made by polishing iron — are affected by a certain shuddering. It must be understood that a sharp movement is impressed upon the air with speed, and consequently upon entering the ears strikes the innermost parts as though piercing them; wherefore it produces shuddering. It is also investigated why men toil greatly in ascending, whereas they descend easily and proceed along a flat plain without any inconvenience. Whether because man consists of four elements, of which two are light and two are heavy, which when mixed together contract a certain middle nature; and therefore man in walking is neither light nor heavy, but in ascending the heavy bodies press with their own weight, wherefore then man labours greatly.

It must also be asked why men, unlike other animals, avoid the rays of the sun in summer. We can answer that man is more excellent in the sense of touch, and consequently feels contrary qualities more keenly; or whether because many brute animals are of a dry nature, and therefore delight in the heat of the Sun for the preservation of that nature.

Certain men ask why some men desire one kind of food and drink, and others desire another. This can happen because some humour is contained in the stomach which, as if gnawing, compels men to desire the contrary, or because this arises from the various temperament of men, which excites hatred and desire of things. Likewise they inquire why men who follow a military life lead a longer and healthier life. They answer that this arises because Venus has no place in war, since she, by dissipating the vital spirits, renders life shorter; or rather let us say that through exercise all excrements are consumed which are wont to beget various diseases. They ask why certain men are fitted to perpetrate great deeds and suffer torments easily. The answer is that black bile sometimes occupies the supreme citadel of the brain and drives the mind from its seat; whence this humour impels men toward crimes, compels them to boldness, and in a wonderful manner helps them to endure tortures.

There follow now more curious problems: namely, why Giants are not born in our age, since it is clearly established from what has been narrated above that they once lived. Pliny attributes this to burning, for in speaking of the stature of man he says that men are being made smaller almost —

[marginalia: Problemata homini / Ciuit. Dei / Sugendi affectiones / De cibos potus qualis / Gigantes cur non oriantur]

we observe that men become smaller day by day, and that children rarely exceed their parents in stature — a thing which confirms the exhaustion of the seed's fertility. Hence many authors following Pliny assign this to the senility of the World, from which exhaustion subsequently proceeds, and from it dryness, and consequently the fertility of seed and the force of innate heat are consumed; and so the argument tends rather toward a cause of decrease than of increase. In like manner they ask, of Dwarfs and Giants, why Dwarfs have a larger member. Whether it is because, as Aristotle wrote, just as a man lacking a tail has that matter turned into his buttocks, so the matter that did not serve the growth of stature was transformed into the member. Hence we also gather the answer to another problem, namely why men mutilated in some part are more lustful: since the nourishment that ought to have fed the missing limb remains in the veins and draws itself together, and from that abundance lust is generated. They further inquire why a man approaching a fire to warm himself first holds the palms of his hands toward the flame. The answer is that, in order for the inner parts to receive heat more easily and quickly, those parts must be held toward the fire through which heat can readily penetrate; but the palms of the hands are filled with many arteries and are very sensitive parts, through which heat at once penetrates to the inmost regions; and therefore these parts are first presented to the fire.

There follows a problem of another kind: namely, why a man suspended by his feet turns his face toward the Sun. Some hold that this comes about because the face, on account of its obliquity, seems to look in whatever direction it will; but the common opinion is that it proceeds from the heat of the Sun, which, drawing moisture to itself, accomplishes this more readily through the face than through any other part. Likewise there is inquiry concerning a slain man: why, when the murderer approaches, blood flows anew from the wounds — a thing which many record to have been observed in very many corpses. Some authors write that this proceeds from the spirits of the striker and the stricken, which we consider to be absurd, seeing that no spirits can issue from cooled blood.

Pomponazzi holds that this flow of blood arises because the soul of the slain man feels indignation at the murderer; but a soul separated from the body can conceive no anger, since it lacks the body in which the workshop of irascibility resides. For this reason Maggi, in his *Miscellanea*, finding no cause for this effect, thinks one must have recourse to miracles. We therefore, as our opinion runs, think it must be said that this does not happen in every case, since even with the murderer present the blood has not flowed from the wound; and if it has sometimes occurred, we consider that it came about accidentally, inasmuch as the veins of the victim overflowed with ichor and watery blood.

Concerning women, finally, many problems are raised. First, why a woman's corpse floats face downward in water, and a man's face upward. They answer that the breasts and womb in a woman are open parts, which are easily filled with water, and consequently the front part will become heavier than the rear; conversely in a man the anterior parts are closed, and hence, swollen with the air contained within them, are rendered lighter. There is also inquiry why women carry a burden on their heads more readily and easily, and men upon their shoulders. The first answer is that this is not true in all cases: for we know many men who carry loads on their heads just as well as women; nevertheless some hold this to be the cause, that the skull of a man, being compounded of many sutures, is easily loosened when weights are placed upon it, and hence pains arise; while they assert that the contrary befalls women, who have a more solid skull. Again they inquire why women, in comparison with men, conceive violent movements of anger. The reason is that women — and especially younger ones — abound in a quantity of humours tainted by excrement; whence when they boil over with anger, vapour is disseminated throughout the whole body, which thereafter nourishes a heavier anger. Again they ask why women are more talkative than men. The cause of this they attribute to the excessive moisture of the female brain, in which, just as the various images of things are easily impressed, so they easily slip from memory; on which account, as soon as something is apprehended in such a brain, lest it be taken away by forgetfulness, it is sent to the imagination and thence to the tongue; wherefore secrets ought by no means to be entrusted to women.

[catchword: PHRE-]

PHRENOLOGICAL DEVICES.

Men of no common erudition, in designing phrenological devices, have employed not only human parts but also the whole figure of a man, as well as of a woman, of all of which we shall here set forth certain examples. Regarding individual parts, Percinallus mentions one who painted a human hand with the thumb erect, together with the Italian motto: *VEDREM GIACCIAR IL FOCO ARDER LA NEVE* — We shall see fire freeze and snow burn — which beyond doubt agrees with that verse of Ovid of this tenor:

> *The waves will give forth flame, and fire will give forth waters.*

It must therefore be noted that the thumb is so called because it possesses great power; and hence, following Pliny, this finger is wont to be called the other hand; indeed from the same Pliny, to press the thumb is to favour someone. Hence it is to be gathered that the author of the phrenological device perhaps intimates that to one who is willing, nothing is difficult. The same author again designed two hands joining in darkness, with the motto: *ET IN TENEBRIS* — Even in darkness. Since it is plainly established that the hand is the symbol of faith, the author wished to intimate that faith must always be preserved, wherever one may be.

Nor are there wanting examples with male human figures. For Lucas Contilis, an Italian writer, depicts Mercury in a triangular figure, at whose feet the letter *e* is noted, with the motto: *GRATUM FATI DONUM* — A welcome gift of fate. This image represents, as we conjecture, Mercurius Trismegistus, King and wise Priest of Egypt, placed in a triangular figure, because the benign influences of the twelve celestial houses are constituted in the trine or sextile aspect of the beneficent planets Jupiter, Venus, and Mercury, with the fortunate participation of the Sun; wherefore we can conjecture what the author's nativity was, for that letter *e* signifies Mercury in retrograde. The same author exhibits the figure of Mercury, who holds the caduceus in his right hand and with his left waters the roots of a laurel from a vessel full of water, with the Greek motto: *parorou me gaia* — May the earth be watered. For the author of the phrenological device was properly imploring the welcome rain of Mercury upon the earth, since Mercury presides over the sciences, and the author desired to attain not only the sciences but also the laurel. From Russelius we have the figure of a standing man, with the motto: *EXCELSAE FIRMITVDINI* — To lofty steadfastness — by which the author denotes that from youth he directed his mind toward the splendour of the virtues, and intimates that he never wishes to depart from them.

Again, from Russelius, there is a picture of a young man supporting a sphere upon his head, with the motto: *MAIVS OPVS* — A greater work — by which it is signified that when the task of serving someone, or of commending someone, is undertaken, it seems a greater work than that of Atlas, who was said to sustain the orb of so many lands upon his shoulders. Again, from Russelius, there is the figure of Prometheus ascending to the stars with a torch, and the motto: *ALTIOR AA* — Higher still — It is most well known to all that Prometheus, when man had already been formed, stole fire from the sphere of the Sun with the aid of Minerva, that he might benefit the human race with this gift; wherefore the author of the phrenological device is rightly to be called most prudent, who professes that he wishes not only to imitate Prometheus but even to surpass him. Moreover at Russelius there is seen the image of a Pilgrim, with the motto: *ET CAETERA* — And the rest — From which it is to be gathered that a man born for virtue alone, and journeying along its pathless ways, can never have regard for his own life. This seems to be said as an intimation, for once the meaning of the desire is understood, each man can from thence gather the rest. From Jovius there is drawn a wild man with the motto: *MITEM ANIMVM AGRESTI SVB TEGMINE SERVO* — I preserve a gentle spirit beneath a rustic covering — seeing that the author of the phrenological device, though of a stern and rigid appearance, was nevertheless imbued with a gentle mind and peaceable manners.

Nor are there wanting phrenological devices adorned with the image of a woman. For Lucas Contilis exhibits the figure of Minerva, with the motto: *HAVD SIMPLEX VIRTVTIS OPVS* — The work of virtue is by no means simple — by which we are taught that no action can be perfect without wisdom. The same author figures Pallas naked, leading the equinoctial circle, for by this reckoning, following Aristotle, the governance of the universe is held to proceed from wisdom.

[marginalia: Fidei symbolum / Mercurius / Promethei figura cum face]

Images of the phrenological devices of certain cities.

The title is: *SEMPER NON SEMPER* — Always, but not always — since Wisdom always exerts its influence, and ignorance does not always impede it. Likewise there was a cleverly devised phrenological device attributed to the City of Padua, in which Minerva armed is seen bearing a shield marked not with a Gorgon's head, but with a lion's, together with the Greek motto: *puxéri gorgolm kephalén* — as if the shield of Pallas were no longer adorned with the Gorgon's head; for by the image of the Lion, the heraldic device of the Venetians, the greatest reverence is shown toward the Venetian Republic, which all those who are under another's power ought to display toward their natural Princes. Perciuallus mentions one who depicted a most beautiful and gracious woman, namely Pandora, with the motto: *CVI MINERVA CEDIT* — To whom even Minerva yields. The Poets once imagined that Pandora had been fashioned by Vulcan at the command of Jupiter, and was afterward adorned by each of the gods with his own gift; for Minerva communicated to her wisdom, Venus beauty, Apollo music, and Mercury eloquence — whence she obtained her name.

Contilis depicted a woman, namely Truth, with a sceptre in her right hand and a mirror in her left, gleaming on all sides with rays, with the motto: *HAC PRAEVIA* — With this as guide — for the right path is thus made manifest, since with truth as leader, pathless and inaccessible ways are avoided. The same author exhibits the image of Faith, namely a woman seated upon a square stone, holding lilies in her right hand, with the motto: *VTRIQI* — To both — for thus the author intimates that he will be, as it were, a noble man and as it were a faithful Christian. Russelius also painted Justice, with the motto: *CVIQI SVVM* — To each his own — This device is attributed to a most prudent Prince, who signified that the concord of the people proceeds from the administration of Justice. Russelius likewise exhibited a picture of a woman expressing Patience, with the Greek motto: *houthos* — which in Latin means: *SIC OMNIA* — Thus all things — for a certain Prince, the author of the phrenological device, wished to intimate that all things must be governed by tolerance and constancy.

Perciuallus records a certain phrenological device in which there is seen the image of a woman representing Night, with the motto: *MATRESSA DE MON DESIR* — Mistress of my desire. Hence it must be noted that night is taken for the shadow of the earth, as opposed to day, as it were diminishing the power of the Sun; and among the Poets, night is proclaimed as the daughter of earth and the mother of the Fates and the Furies, in which silence holds sway, and sometimes silence is used for secrecy and reticence, which Lovers are wont to desire; wherefore that poet sang:

> *Cytherea commands that her rites above all be kept in silence;*
> *I give warning: let no babbler approach them.*

Moreover Russelius exhibited the figure of a woman representing Fortune, with the motto: *AVDACES IVVO* — I favour the bold — provided this be understood of boldness in governing affairs by the best reason. Perciuallus also mentions a certain clever man who depicted the image of a beloved woman, with the motto: *SENSVS SENSVM PARIT* — Sense begets sense — For the understanding of which it is to be noted that the word *sensus* in the masculine gender properly signifies the outward senses; but uttered in the neuter gender, it indicates opinion, mind, and inner sense. Finally Camillus de Camillis, an Italian writer, drew the image of a nymph, whose right hand clasps a cornucopia and whose left pours water from an urn, with the motto: *ABVNDANTIVS* — More abundantly — The exposition of which is known to all.

Sometimes authors have depicted two human images in their phrenological devices. Russelius depicted a man kneeling touching a book placed upon the knees of a certain King, with the motto: *SANGVINE POTIOR* — Stronger than blood — by this image faith is represented; for though the bond of consanguinity is most close, he nevertheless signified by this motto that faith is to be esteemed more highly. He likewise painted the image of death striking a kneeling man with a sword, with the motto: *IMPROBVS NVLLO FLECTITVR OBSEQVIO* — The wicked man is bent by no service — for thus he showed that men stained with every kind of cruelty can never be moved by any submission. Perciuallus also painted two men, namely two slaves drawing a chariot, with the Italian motto: *VIEN GIOVE INCATENATO AVANTI IL CARRO* — Come, Jove, chained before the chariot — For the understanding of which, Seneca must be read, who showed that a certain chain is represented by mutual love.

At Lucas Contilis one may behold the image of a woman who, holding an infant by the feet, immerses it in a river, with the motto: *HVMANA PRVDENTIA MINVS* — Human prudence falls short. This picture represents Thetis, who immersed her son Achilles in the Stygian marsh, that she might render him invulnerable to swords; and yet she did not foresee that he would at last perish from a wound to the heel: wherefore the author seems to argue thus — if Thetis, a goddess, was not so cautious in providing protection as to guard her son Achilles from impending wounds, far less will men be able to accomplish this. Finally one author, without a motto, exhibits the figure of an elegantly and royally attired woman with the image of a court page, cleaning her royal garments upon rocks; and he asserted this to be the phrenological device of a certain Prince, who believed that Italy was governed by his care, and yet did not perceive that the hem of his garment was [...]

[marginalia: Pandorae fabula / Fidei simulacrum / Icoues Fortunae / Fidei simulacrum / Patientiae simulacrum / Tetis cum Achille]

[catchword: CAPO-]

HEADPIECES.

The moral sentiments of the soul pertaining to the virtues, vices, and misery of human life are here to be recorded in their probity and humanity. As touching virtues, we have at John chapter 19 these words: Pilate said to Jesus, Speakest thou not to me? Knowest thou not that I have power to crucify thee, and power to release thee? Jesus answered, Thou couldest have no power at all against me, except it were given thee from above. Hence we gather that human power, if not granted from above, is to be esteemed as nothing. Augustinus, from Possidonius, being asked why he was unwilling to live with his sister, replied: The women who live with my sister are not my sisters. Likewise Bion the Abbot, sent by Antony to his sister, entered her dwelling with eyes closed, and then withdrew immediately; when she cried out and invited him, he said: I have seen what you wished, and it is enough. Concerning the desire of Tribunes to see John of the Fasting, a Tribune, as Marulus related, invited the just man to return.

But he replied that he would by no means do so, but would come to him in a dream; for the sight of a woman can bring great peril to the soul. Hence from Surius we have that when a comely young woman came toward the Monk Sabas as he journeyed with another, and when she had passed, Sabas, testing his companion's candour, said: What did that woman look like to you? To me she was certainly one-eyed. His companion denied it, for he had looked at her more attentively. Then Sabas rebuked him: Take heed of the living and the dead alike.

A Roman woman also, though at some time of an upright and holy life, is wont to be called the girdle of chastity. Scipio Africanus, as Plutarch relates, was accustomed to say that more spirited horses ought to be given to tamers, that they might thereafter be more easily handled; thus men unbridled by prosperity are to be led back into the circle of reason, so that, perceiving the frailty of human affairs and the vanity of fortune, they might become more moderate. Musonius, from Stobaeus, describing man, was accustomed to say: Man alone of all creatures dwelling on earth is the Image of God and possesses virtues like his; for in God nothing more excellent can be conceived than Prudence, Justice, Fortitude, and Temperance. Erasmus intimated that men growing old must so live as to show those growing up a straight rule of life, since the best road to old age is learning. For in former times the aged were held in great honour for this reason, and none but old men entered the Senate, which Ovid intimated in these words:

> *Nor was the Senate then open to any but old men.*
> *The very name of the age bore gentle Senators.*

Hence someone, having come to Lacedaemon and having seen how old men were respected, is said to have uttered these words: In Sparta alone is it well to grow old. Philo's wife, when asked in a gathering of many women why she alone among so many women used no costly ornament, wittily replied: My husband's honour is ornament enough for a wife. And when the Cypriots had fought unsuccessfully against Astyages king of the Medes, the women of Cyprus went out to meet those who were fleeing and, baring their bellies, said: Where are you going, cowards? Do you not know that you cannot enter here again, whence you were once born into the world by nature? Hence it is to be gathered that men are sometimes animated by women.

[marginalia: Aug. ex Possidonio lib. 4 / Lib. 4. / Lib. Sa. / Scipio Africanus ex Plutarcho / Musonius ex Stobeo / Ovid. / Firi a feminis animati]

Nor are there wanting apophthegms that censure the vices of men; wherefore Aristonymus used to liken the life of man to a theatre, in which the worst men almost always hold the first place. And Archytas was accustomed to say that, just as even with the greatest diligence a fish without bones cannot be found, so likewise no man, he affirmed, could be found who did not have something deceitful mixed in him. Hence Erasmus with perfect justice pronounced that men are more inclined to pleasure than to virtue. And from the same, a man ignorant of Philosophy is useless for every function of life; wherefore he compared man to a vessel, which one can know to be whole or not when liquid is poured in: so with a man, when authority is committed to him. Diogenes likewise, from Laertius, likened men who squandered their wealth on cooks, harlots, and flatterers to trees growing on precipices, whose fruit is eaten not by men but by vultures and crows: for he signified that they were by no means men who are slaves to pleasure and gluttony. The same Diogenes, on one occasion beholding a youth of little manly bearing in dress and gesture, uttered these words: Are you not ashamed to cast away what nature granted you? For she made you a man, yet you make yourself into a woman.

Likewise the same Diogenes, carrying a lighted lantern even at midday, was said to be searching for a man, since he considered that the common manners of the city were scarcely worthy of a man; for the same reason, returning from the Olympic games, when asked whether he had seen a great crowd there, he replied that the crowd was very great, but that men were very few. Indeed at one time the same Diogenes, standing in the forum surrounded by a throng of men, cried out: Come, men! And the bystanders, indignant, said: Here we are! Then Diogenes, driving them away with his staff, cried out yet more loudly, saying: I bid men to come, not dunghills — intimating that the name of man by no means befitted those who in no way live according to reason.

Stilpo also, from Laertius — when someone, on seeing him in a crowd of men, said: These men admire you as a prodigy — replied by no means, but as a true man; since strange beasts are customarily brought into view as a spectacle, and common men are admired by none: and so he incidentally taxed his interlocutor as not being a true man. Anacharsis, from Stobaeus, when asked what was most troublesome to men, replied: their very selves. Cato the Elder, to Lentulus, who had spat in his face, immediately wiping his face clean, said: I will assure everyone, Lentulus, that those who say you have no mouth are mistaken; and so with that clever retort he branded such great impudence.

Canute, King of England, thus reproved a flatterer who affirmed that all things turned at the King's nod: he had his seat placed on the seashore, and when he had mounted it, he said to the sea: You are of my dominion, and the land on which I sit is mine; I command you therefore not to rise upon my land nor to wet the garments of your Lord: meanwhile the sea, as usual, moistened the King's feet without reverence with its waves; then the King, stepping back, said: Let all who dwell in the world know that the power of Kings is vain, and that no one is worthy of the name of King save him at whose nod Heaven, Earth, and Sea obey; nor thereafter did he place a crown upon himself. Cyrus, from Plutarch, used to say that those men who would not profit themselves ought to be compelled to serve others — for he signified that those who are born servile in spirit and useless to themselves should be driven by authority to serve the advantage of others.

Concerning the vices of women also, and especially of wicked women, some apophthegms remain to be recounted. Wherefore Secundus the philosopher, when asked what a wicked woman was, replied: the shipwreck of her husband, a storm in the house, an impediment to quiet, a captivity of life, a daily loss, a voluntary battle, a costly war, a constant anxiety, a lion in ambush, an adorned Scylla, a malicious animal, a necessary evil. Hence Theophilus the Emperor, about to take a wife, summoned from every quarter many girls of chosen beauty; when therefore he beheld the Virgin Irene as more outstanding in the dowry of beauty, he is said to have uttered these words: Evil things have issued from woman. But she, reddening with honest blush, replied that better things also proceeded from woman. But Diogenes, on one occasion beholding loquacious women talking together, published this sentence: The viper borrows venom from the asp.

Hence Democritus, when asked why, being of great stature, he had taken a small wife, is said to have

[marginalia: Arbores per praecipitia nascentes / per quas assimilantur / Diogenes / Canuti Regis Angliae factum / Vitia mulierum taxantur / Aspisà vipera veneno mutuatur]

[catchword: Vitia mulierum]

answered as follows: In choosing evil, I chose what was least. And Protagoras, when asked why he had given his daughter in marriage to an enemy, said: Because I could give him nothing worse. The same philosopher, beholding an aged woman elegantly adorned, exclaimed: If you are deceiving men, you are adorned; if a tomb, you are adorned. And from Aristippus, a woman beautifying the face with cosmetics indicates a deformed soul.

When Solon was once asked whether a wife ought to be taken, he replied: If you take an ugly one, you will have punishment; if a beautiful one, you will have her in common. Socrates, however, from Laertius, was accustomed to say that a woman of beautiful and excellent form is a temple built above a sewer.

Hence we must pass on to apophthegms touching human misery. Wherefore Aristotle, from Stobaeus, when asked what man was, replied: an example of frailty, a plunder of time, a plaything of fortune, an image of inconstancy, a balance of envy and calamity, and for the rest, phlegm and bile. Hence Philip, from Rhodiginus, after he had routed the forces of the Athenians at Chaeronea, began to be agitated by such arrogance that he thought himself in no way subject to misfortune; and therefore, coming to his senses and presaging that some evil impended for him from such great felicity, he imposed this duty on one of his court pages, to enter his dwelling each day as soon as it grew light and cry out: Remember, O King, that you are not a god but a man exposed to many hardships and miseries. For this reason Democritus, when asked what he thought of the condition of men, declared that the condition of men was miserable, since good things, though sought, barely come to those who seek them, and evil things, though not sought, come beyond all expectation.

Hence Aeneas Silvius, hearing men disputing about the misery of human life, pronounced that our life is a comedy whose last act is played in death. Bias likewise was accustomed to declare that a man must measure his life as if he were to live a long time and a short time alike; for Antiphon likened the life of man to a one-day imprisonment. On this account Xerxes, when he saw the entire Hellespont covered with his ships and all the shores and the plain of Abydos filled with his vast army, shed tears; when asked about this, he replied that he had fallen to thinking how brief was the life of men, since of so great a multitude not one would survive after a hundred years.

Likewise Socrates, when asked how life could be lived without troubles, denied it was possible in any way, since those who dwell in cities and live among men cannot spend their age without hardships. Wherefore Silenus, from Plutarch, captured by Midas and asked what was best for man, replied: it is best never to be born, or if born, to be taken away as soon as possible. Solon also, when asked what man was, is said to have given this answer: he is corruption at his origin, a wild beast in all his life, food for worms in death. Wherefore Francis Borgia, as Ribadeneira related, being gravely afflicted by fever, was accustomed to exclaim that nothing in human affairs is lasting; whence thereafter Justus Lipsius inserted these words in his epitaph, which is seen at Louvain:

All human things are smoke, shadow, vanity,
And the image of a stage — in a word, nothing.

Alexander also, from Plutarch, when he was everywhere called a god on account of his successful deeds, understood from two things, namely from sleep and from congress, that he was mortal: since sleep bears the image of cold death, and coitus is referred to species of epilepsy. Indeed the same Alexander, when he was struck by an arrow in the siege of a certain city and was compelled to abandon his enterprise and summon a surgeon, said: Everyone proclaims me the son of Jove, but this wound warns me that I am mortal. Likewise the Emperor Ferdinand testified that man is far inferior to the heavens, the earth, the sea, the trees, and the brute animals; since all these can foresee a coming storm, yet man can neither foresee his own ills nor provide against them.

Furthermore Diogenes, from Laertius, when in contemplating human life he beheld the governors of cities, philosophers, and legislators, at that moment proclaimed man the most excellent of all living things; but when conversely meditating upon interpreters of dreams and those who are slaves to glory and riches, he exclaimed that nothing seemed to him more foolish than man — intimating that the genius of man, being adapted to the best things, is praiseworthy, and that the man inclined to vices is blameworthy. Wherefore Favorinus, from Stobaeus, declared that men are in part ridiculous, in part odious, and in part miserable:

[marginalia: Miseria humana qualis / Vita humana est comoedia / In Vita Borgiae / De Alexandro]

ADAGES

ridiculous because through boldness they aspire to greater things; odious, those who attain them; miserable, those who are frustrated in their hope. Hence Socrates considered that God always laughs at the vain pursuits of men, who, once they have accomplished them, think they will live for ever. Finally Crantor, from Laertius, declared that whatever befalls any one man may befall every one.

MANY are the proverbs that draw their origin partly from human parts and partly from human properties, concerning which we have determined to speak here severally in order. First then, looking to the parts, and especially to the head, we shall find singular things. *Scratching the head* is an adage similar to *gnawing the nails*; for all these are the gestures of a man deep in thought: wherefore Horace, alluding to this, sang:

He scratches his head, bites his nails —

There is another proverb: *With head brought close*, by which we are admonished in what manner a friend ought to be reproved: namely, first with gentle and not harsh words, then in secret, with witnesses removed — that is, with the head drawn close. *The head empty of brain* is a proverb cast at those who excel in bodily beauty but lack understanding. *To be carried on the head* — this was recorded by Plato, and is applied to those whom we regard with affection. Transferred perhaps from mothers or nurses, who sometimes carry infants, fondled and laid in their arms, upon the head. *Earth upon the head* is an adage derived from porters, who carry burdens not only on their shoulders and neck but sometimes also on their head. This can be turned against men distracted by various affairs. *To fit a greave on the head and a helmet on the shin.* This was uttered by Lucian concerning those who do all things preposterously. *Neither head nor feet* is said of a business so involved that no method can be found to disentangle it: wherefore the ancients said that such a business had neither head nor feet. *From head to heel* — this is pronounced when we wish to embrace the whole of a matter; as if we were to say otherwise, *from head to foot. From entry to cornice. From crown to ankle. From finger-nail to hair. From foot to head. From hair to the bottom of the heel.*

The head follows the tongue is applied to those who, present at discussions and consultations, always assent to the opinions of others: wherefore this can also be said of the pedary vote; for the pedary senators of old were those who, sitting in the Senate, were not asked for their opinion, but simply voted in person with the feet in favour of the opinions of others. *He knows not the difference between head and groin.* This is said of those to whom the distinction between the honourable and the base is unknown; for the head is reckoned among the honourable members, and the groin among the dishonourable. Hence Juvenal of a drunken woman sang thus:

For what care has a woman full of wine?
She knows not what distinctions there are between groin and head.

Having four heads is an adage reported by Athenaeus of men who are drunk, to whom all things appear doubled.

Moreover, the hairs also have given occasion for adages. For it is said: *Even a hair has its shadow*, understanding thereby that any advantage, however small, is of use, and that any thing, however trifling, can also harm. *A slave's hair* is applied to those of servile condition, whose hair was of old shaved. *To be dragged by the hair* is said of those who are driven by force. For Pallas, at Homer, is said to have called Achilles back from battle by the hair. Not unlike this is another, *To seize the forelock*, which Plautus used to show that an offered opportunity must be seized and, once seized, held fast: the adage seems to be taken from the custom of men, who are sometimes held back by the hair.

[marginalia: Homo ridiculus, odiosus et miserabilis / Lib. 1 Satyr. / Repub. / Lib. 10 Dipnosoph. / In Macr.]

Worthy of a hair is used for a man of the basest sort, for nothing baser than a hair or single strand can be found. *To stretch out someone's hair* is used to mean making sport of him; for the hair of the stupid and insensible is wont to be clipped in derision. Indeed even today it is commonly said: *Do not clip me*, that is, do not mock me. *To pluck hair from a bald head* is pronounced of one who labours in vain. *A bald man with a wig* is applied to one who, having squandered his true goods, boasts of borrowed ones; or to an unlearned man who publishes another's work as his own.

The adages of the brow are these. *At first sight*, namely at first glance or on first inspection. *The brow before the back of the head* — antiquity signified by this adage that it is better and more correct to deal with the present business when it is present; for the word *prior* is interpreted as stronger and better; since all knew that the brow is the front part and the back of the head the rear. *From brow and back of head alike* is said of those who judge that knowledge of all things is admirable, which knowledge consists of understanding of the present, memory of the past, and foresight of the future. *To see through the brow* is applied to those who, as it were by a nod, apprehend a matter. The adage is derived from physiognomists, who profess to know from the features of the face the character of a man. *Open-browed* — this is published of one who freely and openly, and not under compulsion or in concealment, sets forth something. *To see through the forehead* is said of those in whom there is no shame: for the brow was in antiquity consecrated to modesty; wherefore those were said to be of a rubbed brow who, as if modesty had been wiped from the brow, laid aside all decorum. Finally *to smooth the brow* and *to furrow the brow* are two adages opposed to each other, since the brow is relaxed in joy and furrowed in sorrow. Not without reason, therefore, did Pliny write that the human brow is the indicator of sadness, gladness, clemency, and severity.

Now let us pass to the eyes. *The eye envious of neighbours* is pronounced of malevolent neighbours. Wherefore Ovid, alluding to this, perhaps sang:

> *The harvest is always more abundant in another's fields,*
> *And the neighbour's cow has a fuller udder.*

The eye of woman — this is an adage applied to a pernicious thing; because at one time Virgil sang:

> *O woman, everywhere to be seen —*

Indeed it was explained elsewhere that love enters through the windows of the eyes; on which account Ovid rightly sang:

> *Through these eyes, which once captured my own —*

To have eyes in the back of the head is published of a shifty man whom it is most difficult to deceive; for this reason Persius called such a man a Janus. Homer therefore commended a Prince as seeing both before and behind. This adage has penetrated to our own age; since the common people of today say that a crafty man has eyes in his back. *Eyes are to be trusted more than ears.* For things that are seen are more certain than those that are heard. To the point, therefore, Horace sang:

> *Things delivered through the ear stir the mind more sluggishly*
> *Than those that are presented to the faithful eyes.*

Wherefore we can affirm the truth of that sentence: one eye-witness is stronger than ten who heard. *To gaze with fixed eyes* — this is published when we contemplate something more attentively and carefully. The adage seems to be taken from Lovers, who behold the beloved thing with eyes never averted. *To throw dust in the eyes* is published when someone deliberately obscures a matter and robs an adversary of his judgment. The proverb seems to have arisen from warfare, where by stirring up dust against the enemy, victory is carried off. Today this is said of a buyer who buys at a cheap price what is otherwise dear, as if he had thrown dust in the seller's eyes that he might not look upon a precious thing. *Seen by eyes and touched by hands* — this is used when something is known in every possible way; for there are some men so perverse that, even if they see, they do not believe unless they touch with their hands. *To sleep with either eye*, this proverb is similar to that other, *To turn a willing ear*, and is chiefly applied to those who live without troubles.

[marginalia: Proverbia de fronte / Oculorum proverbia / In Arte poetica]

Shame in the eyes — this is reported by Aristotle for when we are ashamed before those who see us; for appearance either generates or renews shame; for this reason boys, when they are ashamed of something, cover their eyes, and Socrates in Plato, about to speak of love, covers his eyes out of modesty; hence the Poets, moved by this reasoning, depicted Cupid as blind, because he is most shameless. To this applies that assertion of Cicero, namely that a letter does not blush, since it lacks eyes. Likewise we observe that those who lack eyes are strangers to modesty; hence finally Ovid declared that night, being as it were blind, is free from shame. *My right eye is leaping* — we say this when we hope to see something we have wished for. It seems to be taken from a certain superstition of women who wish to divine from the twitching of some limb what is to come; wherefore even in our own age people say, by way of joke, that their right ear is ringing, meaning that mention of them has been made with praise.

And this Pliny attests, saying that it was at one time believed that the right ear of one who was praised in his absence would ring, and the left of one who was blamed. *Pertains more to the eye than to the bladder* — this was uttered by Varro of something pertaining more to pleasure than to profit: for in this context the bladder stands for profit, since the ancients used to employ pigs' and oxen's bladders as purses and receptacles for money. *Eyes of Atreus* — these are applied to severity, because Atreus was brought on stage in tragedy with stern and threatening eyes.

From blindness and the defects of the eyes, some proverbs derive. Such as *Replacing one blind man with another* — this is applied when in correcting one word, another of equal force is substituted. *To put out an eye* — this is said if a thing succeeds that could not possibly succeed; wherefore that old man in Plautus said: Put out my eye, if I have given it. *The prescription of a blind man* is published of an absurd matter, namely when he who prescribes does not understand what he says. *A man blind in both ears and mind* — this is pronounced of a very stupid man. So it is reported by Stobaeus: *ti to tuplō kai katoptrō* — that is, what has a blind man to do with a mirror? — as if one were to say, of what use are books to an unlearned man? *To act with closed eyes* — this properly applies to those who undertake actions without any prior deliberation. *An eye diseased does not endure the rays of the Sun.* This can apply to men of crude character who cannot comprehend the mysteries of some faculty.

There follow the eyebrows, from which two expressions have passed into common use as proverbs; for one says *to raise the eyebrow* and *to put down the eyebrow*. The first is applied to arrogant and proud people, whom we also call supercilious; indeed the very eyebrow is sometimes used for conceit; likewise the eyebrow is put down when pride is blunted, since in the eyebrows a portion of the spirit is displayed while we assent and dissent with them. *A censorian eyebrow* — this Seneca produced of singular gravity and stern severity, since at Rome the office of Censor was quinquennial, in whose hands such authority rested that they were permitted to remove senators from their place, strip knights of their horses, and brand commoners with infamy.

The nose too supplies adages. For we say: *To hang by the nose* — when someone is mockingly deceived; hence men are called sharp-nosed who cleverly make sport of others. *A refined nostril* — this is pronounced of a man of keen judgment.

Beneath the nose lurks the mouth, which lacks its own adages; and so we say: *To put predigested food into the mouth* — when in teaching someone one explains a matter most diligently, a metaphor taken from nurses, who put predigested food into the mouths of infants still without teeth. *To anoint the mouth* — this is published when words are given and someone is mocked. Nonius Marcellus thinks the adage arises from a certain kind of ancient game in which the faces of sleeping persons were painted. *To have no mouth* — this applies to an impudent person, since the mouth denotes modesty. *To spit out* — this applies to those who rid themselves of something; for Valerianus wrote that what we abhor is wont to be spat out. *A mouth of twelve springs* — this is the name given to a man who possesses magnificent eloquence, a metaphor taken from a certain Athenian fountain that poured out an abundance of water through twelve jets.

Concerning the tongue, many things have been made common as proverbs, which must now be enumerated. *Tongue-soldiers* — these are called those who in a marvellous way merely threaten the enemy when matters are safe; wherefore Hesychius calls such men *glōssaspidas* (tongue-shielders), because they use their tongue instead of weapons. *A friend in tongue* is one who is called a friend only in words;

[marginalia: Proverbia superstitiosa / Oris adagia / In Pseudolo / Proverbia de lingua]

for since he does not love from the heart, he merely displays goodwill in speech. *To change an old man's tongue* is published of those who act out of season; for it is well known that any language is easily learned by boys, which adults can hardly acquire. *What is in the mouth of a drunk is in the mind of a sober man* — this is used by Plutarch in place of a proverb: for a sober man, either from shame or from fear, does not say what a drunk man, his modesty wiped away by wine, easily makes public. *A tongue not confuted* — this is applied to those who, overcome by arguments, do not yield, but always become more obstinate. *A tongue under lock* is publicly recited when a trustworthy hope of silence is promised; for the tongue seems to be locked, as it were, as often as it does not reveal secrets: wherefore that poet sang:

Let the tongue hide a secret; the mouth must be shut tightly.

Whatever has come upon the tongue is celebrated of those who speak many things rashly and arrogantly, since they pronounce whatever has come into their mind. *A tongue that has slipped tells the truth.* For what someone has imprudently made public is believed to be true, since it seems to lack the suspicion of invention: wherefore Cicero among the things that produce conviction reckoned imprudence, drunkenness, childhood, and madness; hence today common people are wont to say: children and fools prophesy. *Tongue, where are you going?* — this is recounted by Suidas thus in Greek: *glōssa poi hupomnenē, kaolim orthoisousa kai ptolin anastrophousa* — that is, tongue, where are you going, about to set a city upright and the same city to overturn again; for he wished to intimate that the tongue can bring very great benefit and very great harm.

Wherefore Bias, as Plutarch relates, when the tyrant of Egypt Amasis commanded that the best and worst thing found in the sacrificial victims should be indicated to him, sent him a tongue cut out, signifying that this member's principal use is whenever someone wishes to benefit or to harm. *To some, the tongue; to others, the teeth* — this is commonly said of the talkative and the gluttonous, as not rarely happens at banquets, when some chatter and others silently devour the food. *The tongue has stammered* — this is publicly recited when someone does not fulfil the faith of a promise, or when he does not promise from the heart. Finally from Diogenes we have: *oux epiglottes omai* — that is, *I will not attack with the tongue.* Hesychius cites from Aeschylus *epiglottesthai*, namely to yield to the reproaches of the tongue; and this properly applies to those who speak ill omens.

There follow the adages of the teeth and lips. *Tooth against tooth* is published of one who carps at and bites someone of equal mordancy: *to him who does not eat, the table is hostile* — since what does not fall to us, we ought not to envy others. *To be gnawed by the Theonian tooth* is said of those who are lacerated with abuse: the adage is derived from Theon, a poet of rabid loquacity and malice; whence Ausonius was at one time compelled to surname some unlearned and mordant poet Theon.

To bite the lip is a proverb derived from the gesture of those who are indignant; wherefore Aristophanes at one point said: he ate his lips from anger. *To taste with the front lips* — this signifies to touch something lightly; the adage is derived from those who, lightly sipping food or drink, put nothing into the stomach. *The lip moistens but does not wet the palate.* This can be applied to those who, giving a small gift, do not satisfy a present need; or it can be turned against those who, promising mountains of gold, never give anything. This adage is said to have been taken from Homer, when he speaks of Andromache mourning the death of her husband Hector, to whom a certain cup was offered to dispel grief from her mind.

Now the proverbs of the ears present themselves for examination. *It reaches the ears of the gods* — this is recited of some crime that has been committed. *Reserved for the ears of the gods* — this is pronounced of something worthy and notable. *Take this* — it is recorded from ancient memory concerning one whose ear is touched; and he who is to be a witness: for there was an ancient rite of twitching the ear of one who was being led to trial; for they wished him to remember as a witness. *To accommodate an ear to cultivation* — this seems to pertain to obedience, since Horace sang in this manner:

No one is so fierce that he cannot become gentle, if only he lend a docile ear to cultivation.

To stop the ears with wax — this applies to those who do not follow warnings, or who are unwilling to hear just or unjust things. This proverb is said to have drawn its origin from Ulysses at —

[marginalia: De eloquacitate / Bias lib. de eloquacitate / Dentis proverbia / Labia / Aurium adagia]

of Homer, who stopped his own ears and those of his companions against the treacherous songs of the Sirens. *It sits upon the topmost ears* is cited when we listen to something cursorily, or when we can scarcely believe some reported thing. *To speak into the ear* means to communicate something secretly to another; the adage arose from those who whisper something close to the ear. *There is not even leisure to scratch the ears* is pronounced when not even the least moment of time remains for doing anything. *With purged ears* — that is, to listen to something attentively and diligently; for which reason Plautus once wrote thus: *We both give you our attention with thoroughly purged ears.*

Helluo and *up to both ears* is said of those who, with a deep belly ever craving, gorge themselves continually. The adage seems taken from gluttons, whose mouths, crammed full of delicacies, are stretched wide to either ear. *Softer than the lobe of the ear* — this concerns a man of no severity whatsoever: the metaphor is transferred from that part of the ear which is softer than anything else in the whole body. *To carry oil in the ear* is applied to those who disdain another's speech; the metaphor is seized from divers, who are wont to pour oil into their ears so that water cannot enter. *Batavian ears* relates to severity: for Domitius Calderinus interprets Batavian as *severe*; the Batavians were a people of Germany who, driven out by domestic sedition, occupied the outermost shores of Gaul that lay empty of inhabitants, and above all the island which today is called Holland. *Kings have many ears and eyes* — because princes see and learn all that is said and done in the city, through their spies. *To tell a story to deaf ears* is nothing other than to pour out oil and effort in vain; in accord with that verse of Ovid:

> *What profits it, if Phemius sing to deaf ears?*

This is not unlike another saying recorded by Suidas: *to break wind before a deaf man*. *A man deafer than a thrush* — the adage is to be applied to those who, forever chattering, do not hear what others in turn say to them; for deafness is attributed to the thrush, that most talkative of birds.

Proverbs of the Beard and Face

There still remain the beard and the face, from which these are drawn. *To pluck the beard* looks toward the utmost contempt and mockery, in accord with that verse of Juvenal:

> *And therefore he offers you his foolish beard to pluck.*

To pluck a beard from the cheeks of boys — Lucian records this of those who undertake vain labour, since no kind of beard can be plucked from the soft chins of boys. *To teach an old man to grow a beard* is published when a beardless youth instructs someone older. *Wise only to the beard* — so were called those who, beyond a beard and a philosopher's cloak, displayed nothing of philosophy. Wherefore Bagoas, in the *Eunuch*, says: if a philosopher must be measured by his beard, the he-goats will without doubt hold first place. *The beard of Pronomus* is pronounced of something unseemly; for Pronomus was a flute-player with a very long beard, which seemed superfluous to flute-playing. *The face shows forth the good man* — this concerns the man from whose appearance we conjecture the endowments of his soul. *Your face reckons your years* pertains to those men whose facial wrinkles betray old age; it was recorded by Juvenal and applied to a certain woman who, though laden with years, still sought to act the girl.

Now descending by way of the chest, the shoulders, and the elbow to the hand: *To be brave in the breast* is a proverb pronounced of imprudent men, since wisdom and prudence are said to reside in the breast and heart; hence the prudent are called *cordati* — men of heart. *The lung would have arrived sooner* — this looks toward men who are slow and sluggish in their deeds; for the lung, dwelling in the chest, is ceaselessly in motion, yet never moves from its seat. *To sustain the heavens on one's shoulders* is used of those who with the utmost industry preserve another's welfare; wherefore those who uphold the commonwealth when it is about to collapse are commonly called Atlanteans. *To blow the nose with the elbow* is cast at men of base condition, the proverb drawn from fishmongers, among whom the custom has become ingrained of wiping the mucus of the nostrils with the elbow, since their hands are steeped in brine.

Since the hand is the instrument of instruments, it furnishes proverbs without number; nevertheless we shall bring forward only the more important ones. *With a full hand* — this is expounded as abundantly, the adage taken from those who give something not sparingly but with a full hand. The opposite of this is: *to have it in a dry hand* — Theocritus recorded this of the tenacious and slow to give. The hand —

[catchword: Long]

[marginalia: On Martial / In the commentaries / Prouerbia ex barba et facie / Pectore esse prouerbium / Prosumus]

To give with a long hand and to give with a short hand. Those are said to give with a long hand who deal in promises and offer hope alone. Those in turn are said to give with a short hand who immediately proffer what they have pledged. *You seek with a hand and you extend a foot* — the blessed Jerome used this adage against Rufinus, and it may be applied to men of a perverse disposition who, when asked one thing, answer with another. *Not even to turn a hand* is expounded as: it matters nothing to me; since nothing is easier than to turn a hand. This resembles that other saying: *I would not extend a finger*. Today we commonly say: I would not stir from my seat. *It is not mine and not in my hands* — this is pronounced when we wish to indicate that some affair is not within our capacity. *A hand wise in counsel, idle in act* — this is said of a man helpful in counsels but by no means vigorous in deed. It is cited by Ephestion the grammarian to signify that wisdom and talent, without the assistance of the hands, labour in vain; and conversely, that strength without talent and prudence avails nothing; but if these be joined together, they render a man invincible: for which reason the famous device of Mithridates of Pontus, which read thus, alluded to this:

COUNSELLOR AS A GENERAL, SOLDIER WITH HIS HAND.

To hold in the fist — this looks toward what is perceived by the senses; Plato used it when he asserted the opinion of those who believed that nothing exists in the nature of things save corporeal objects exposed to the senses, and who rejected secondary intentions as empty, even though those things which are gathered by reason are more certain than those which are handled with the hands; for the judgment of the senses is not seldom caught in deception. *Between the hand and the chin* — this concerns the brevity of a space; for between the hand holding a cup and the chin there is the smallest interval; yet within so brief a space much may befall: thus it will accord with that other saying: *between the cup and the lip much may fall. Hand scratches hand* — this arises from the mutual service which men are wont to render one another, or rather from a verse of Epicharmus the comic poet, which reads as follows:

ἡ δὲ χεὶρ τὴν χεῖρα νίπτει· δὸς τι καὶ λάβοις τι.

That is:

The hand washes the hand; give something, and you shall receive something.

It warns that no one will be found willing to confer a benefit upon another from whom he does not hope some advantage to return to himself; for service is sustained by service, and benefit provoked by benefit, since the convenience is mutual when hand washes hand: hence this distich circulates among the Greeks:

ἀνὴρ γὰρ ἄνδρα, καὶ πόλις σῴζει πόλιν·
ἡ χεὶρ χεῖρα νίπτει, δάκτυλός τε δάκτυλον.

That is:

For man preserves man, and city preserves city;
The hand washes the hand, and finger the finger.

To lay a hand upon — this is found in Plautus and means nothing other than to mock; the adage is transferred from those who, touching someone's ear with a hand, deride him. *To add the final hand* is said of the completion of some work; it is transferred from the craftsman who first fashions a rough likeness of the work — this is called the first hand — and when it is refined with the utmost diligence it is called the final hand. Among the ancient Greeks one reads τὴν χεῖρα ἐπιβάλλειν — namely, to apply the hand — as often as some enterprise needs our effort. Conversely in Pythagoras one reads μὴ παντὶ δεξιὰν ἐμβάλλειν — namely, that one's right hand is not to be extended to just anyone: by which we are admonished that not every person is to be admitted to friendship or familiarity. *To put the hand to* was simply said of those who insinuated themselves into some task of distinguished character; the adage was transferred from sacrifices, in which it sometimes happened that while others were performing the rite, another, arriving and placing his hand upon the victim, thereby became a partaker of the sacrifice as well. *Fortune is to be invoked with a helping hand* — the adage warns that one must indeed trust in divine aid, but then apply one's own industry. Suidas traces the origin of this adage to a certain fable: for when a certain peasant, following his oxen and seeing a cart that was pulling a wagon fall into a ditch, stood idle and implored the aid of Hercules, a voice was heard saying: apply your hand to the wheel, goad your oxen, and then call upon God. *Law of fists* — this is pronounced when affairs are conducted not by laws but by force; it was perhaps taken from Plautus, where a certain slave threatened to conduct his lawsuit with his fists. *To beat with bare hands* — they are accustomed to say this of those who strive with the utmost effort at some undertaking.

[marginalia: Prouerbium / Elogium Mithridatis / Beneficium manus / In Persas / Fortuna imploranda quomodo]

With hands and feet — this is pronounced when extreme exertions are signified.

Many hands make a burden lighter. This signifies mutual assistance, or that even difficult things can be accomplished easily if several persons undertake the task. For one reads in Hesiod: ἐπὶ πλείων, καὶ ἀλκιόνων μελέτη — namely, that more can be done, and by the industry of many persons.

Hands in the lap — this is cast at the idle, who when seated are wont to fold their hands. *With unwashed hands* — this is pronounced of irreverence, the proverb drawn from the purity required at sacrifices; for Hesiod forbade anyone to pour wine to Jupiter with unwashed hands. *To have hands hidden under one's cloak* — this is applied to those who live in idleness. *One must sow with the hand, not with the sack* — this warns that a measure must be observed in all things, the adage taken from farmers who sow, who scatter their seed not from a sack but sparingly by hand. *Not to extend a folded hand to friends* — this is held from Diogenes: he wished to signify that benevolence must be coupled with affability. *To throw a stone at the bird* — this suits those who pursue what they cannot attain, or who threaten those whom they cannot harm. The proverb is drawn from boys who, observing a flying bird and wishing to strike it, bend down to pick up a stone; meanwhile the bird flies off, having suffered no ill. *To carry water in one hand and fire in the other* — this may be applied to those who flatter outwardly and do harm inwardly, or to double-tongued men who now praise and now blame; akin to this adage is that other one: *in one hand a stone, in the other bread. Raise the hand with prayer* — this adage warns that no one, trusting in divine aid, should neglect his own industry. This is not unlike that other adage: *Goad the oxen and call upon God. The hand of kings is long* — this is cited by Ovid in his *Epistles* when he writes:

> *Or do not the hands of kings extend afar?*

It is also commonly repeated that one must be on guard against princes, for their arms are very long, since through their agents, whom they use in place of arms, they can afflict even those who are absent. *To lay on the hand of Briareus* — this is said of a thieving and violent hand; for Briareus was an immense giant and fierce pirate, to whom a hundred arms and hands are said to have belonged. Wherefore even today, when it is wished to indicate that something is to be looked upon but not touched, one says: *Be Argus, not Briareus. To wrest the handle out of the hand* — this is a proverb of Plautus, used when the capacity to act is torn from the hands of a man who already hoped for something. *We have withdrawn our hand from the ferule* — namely, we too have learned letters; for the old-time schoolmasters used to beat the hands of their pupils with the ferule. *A lean hand to a fat foot* — Hesiod used this adage as a kind of riddle to express poverty: for beggars are those who touch a fat foot with a lean hand, since their hands grow thin with hunger and their feet swell with cold. *To thrust the hand knowingly into the flame* — this is pronounced when a man knowingly exposes himself to dangers, the adage taken from the story of Mucius Scaevola, as it is read in Cicero. *To give hands* — this is said of those who profess themselves conquered. *He has the hands in Aetolia* — this proverb is of Aristophanes, concerning a covetous man who is easily corrupted by gifts; for the Aetolians were a people named from αἰτεῖν, to ask, because they demanded everything; hence Homer in the *Odyssey* quite justly depicts a beggar as sprung from Aetolia.

Proverbs of the Fingers

So much for the hand; now we must hasten on to the proverbs of the fingers. *He scratches his head with one finger* — this has already been explained above among the proverbs of the head. *To touch heaven with a finger* — this suits those who have reached the summit of prosperity; wherefore Lysimachus, when he returned in triumph to Thrace and had secured the borders of his kingdom, is reported to have spoken these words: the Byzantines come to me, now that my lance touches the sky. *A finger's day* — this is cited from Alcaeus in Athenaeus, δάκτυλος ἡμέρα; the adage signifies that the span of human life is short, of a finger's measure. *To place the finger on the mouth* — this indicates that one must proceed no further in speech. *A finger to show the way* — Cicero used this in the speech *Pro Caecina*, as if he wished to say that the man has not even a finger to point the way, indicating that he has nothing to say or do. The adage is taken from the gesture of orators; which gesture, according to Quintilian, is of various kinds, but the simplest is to extend the finger. *Not worth even the snap of a finger* — for the understanding of this adage it must be noted that Aristobulus, in Athenaeus, records that on the tomb of Sardanapalus there was placed a figure with the fingers of the right hand arranged as though about to snap, to indicate that the affairs of men are to be derided and not worth a snap of the fingers; indeed this

[catchword: gesture]

[marginalia: Dextrum in calceolo, lauum verb in pede. / Digitorum prouerbia / Retorum gestus qui / Lib. 2.]

gesture has persisted to our own times, applied above all to those things which we esteem as nothing. *At the snap of a finger* — this looks toward those who wish to signify something in an arrogant manner; for this gesture is said to have belonged to masters commanding their servants to some menial service. *At a small finger* — this is used to signify that we can prevail with no effort whatsoever. *Raise the finger* — this was pronounced of one who in a contest confessed himself beaten; it seems akin to those other sayings: *to give grass*, or *to give hands*, of which mention was made a little before. *To press the thumb, and to turn the thumb* — these were pronounced of favour; for the ancients indicated favour with the thumb, and those who showed favour pressed the thumb, while those who showed less turned it; for this reason Juvenal sang thus:

> *When the turned thumb of the crowd*
> *Is wont to slay each man at will.*

To show the middle finger — this is brought forth in token of supreme contempt and infamy; for this finger was called *impudicus* by Martial and *infamis* by Persius. *To measure with the fingers* — this pertains to those who contemplate a thing more carefully than is proper; the adage seems taken from poets, who are wont to count and measure the feet of their verses with their fingers. *The fingers of counters* — those may be so called who are subject to the varied chances of fortune; for just as the fingers of arithmeticians now denote myriads and now only a single number, so in like manner the friends of princes can at one time accomplish everything and at another nothing. *To touch with the tips of the fingers* — that is, lightly; another way of saying it is *with the tips of the lips*, and it is employed when someone merely pretends or feigns something in words but not in heart.

Proverbs of the Belly and Lower Parts

It remains that we descend to the lower parts; concerning the belly these things are recorded. *To leap into the belly* — this is said of one who directs all his care toward food and drink. Another is celebrated by Plutarch: γαστὴρ οὐκ ἔχει ὦτα — namely, *the belly has no ears.* This signifies that when one is driven by appetite, honest reasons find no admission; hence today we also say: a hungry belly has no ears. *To take counsel on a full belly* — because where hunger intervenes, a man cannot deliberate, for deliberation demands delay and tranquillity of mind. *A tongue that is not refined has no fine sense* — this is recorded by Galen against Thrasyboulus; by it is signified that in a corpulent man no sharpness of mind is to be found. Wherefore, among the Lacedaemonians, it was said to be shameful if anyone were exceedingly obese, for from that they inferred a dullness of intellect.

The remaining parts still furnish their proverbs. *The fundament overcomes washing* — this is cited in the commentator on Aristophanes of those who plunge themselves into some evil; for the fundament, even if washed, soils itself again; indeed the proverb can also be applied to those who undertake a vain labour. It is read in Diogenianus: πορδή γε — namely, *and a stinking fundament*; hence Hesychius notes that this proverb should be used of flesh made putrid through age: for Saturn was the most ancient of gods, and the ancients called whatever was rotten *Saturnian. So much as the bending of a knee* — that is, not in the least; the proverb taken from those who wish to take their rest, for they first bend their knees. *The shin is closer* — this is cited from Aristotle, and the adage is said to have had its origin in an event in battle, where a certain man, seeing both his brother and his cousin in danger of their lives and being unable to help both, rescued his brother alone, and then pronounced this saying, which passed into a proverb. Today we also say in the same sense: the shirt is closer than the coat. *With broken shins* — this is applied to those who cannot be driven to undertake some affair except by great force; the proverb was drawn from those who in former times were crucified for crimes, since for them death was hastened only by breaking the shins.

Proverbs of the Feet

We shall now come to the feet, which have given occasion to many adages. For there circulates among the Greeks περὶ πόδα — that is, *near the foot* — which is pronounced of a thing excellently fitted; the metaphor taken from sandals well made to the measure of the feet. Suidas cites from Aristophanes this adage in verse:

> *Δεξιὸν εἰς ὑπόδημα, περιφερὲς εἰς ἀσκοπόδιον.*
>
> *The right foot in the shoe, but the round one into the wine-skin shoe.*

[catchword: Suidas]

[marginalia: Dare herbam quid significet / Adagia ventris / Proverbia Aliarum partium / Lib. 9. Metaph. / Pedum adagia]

Suidas writes that this adage is wont to be used of those who fit themselves excellently to the condition of the present matter, according to place, time, and circumstances; wherefore they are said to have the right foot in the shoe and the left in a basin. *To fit the same shoe to every foot* — the adage is to be applied to unskilful physicians who, with no regard for the nature of their patients, prescribe the same remedies for all the sick alike. *No higher than the foot* — the proverb teaches that tasks equal to one's strength are to be undertaken, for no one should conduct himself beyond what his condition demands. *He has his feet in his sandal* — this is said of one who knows the praises that belong to him: for just as a shoe does not suit every foot, so likewise every praise does not become every man. *With silent foot* — this is used for *secretly*; hence Cornelius Gallus sang thus of those who stir up wars:

> *What madness is it to summon black death with wars,*
> *When it comes hidden and steals upon us with a silent foot?*

He has nowhere to put his foot — this is to be said of those who possess no stable goods. *Measure yourself by your own foot* — the adage warns that no one should go beyond his own condition; wherefore Martial sang aptly on the matter:

> *He who weighs his own burden can bear it.*

One must stand on every foot — this is said of the utmost virtue, and seems taken from those who in the battle-line steadfastly defend their part and by no means abandon their post. *To show the hollow of the foot* — Hesychius mentions this, where he says κοῖλον τε ποδὸς δεῖξαι; it is used for flight, since those who take care of themselves by means of their feet show the hollow of their feet. *He retreats with his feet* — this looks toward one who, out of fear, yields his place to a more powerful man; it can also apply to those who change their intention. In Plato it is found: ἀκροποδεί — that is, *on tiptoe.* This pertains to one who knows something only on the surface. Conversely, *with a whole step* — this looks toward those who pursue something with great earnestness. *To go over to one's view with one's feet* — this refers to approval of another's opinion; the adage is transferred from the ancient custom of those who cast votes when there was a large crowd: Livy explains this in the following manner: *if you wish to ratify my opinion, you will cross over silently to the right side;* and a little further on: *let those to whom these measures seem salutary cross over to the right side with their feet;* and this manner of casting votes by walking across was called *discession on foot. To set foot in another's dance* — this pertains to those who meddle in the affairs of others; the proverb is taken from dances, to which if some stranger approaches he is hissed by the circle of bystanders. *To have one foot in Charon's bark* — this suits a man placed in the extremity of old age; indeed Plautus called such an old man *Acherontian. To pursue with hurrying feet* — this is said of every affection and effort. *I walk on my feet; I have not learned to swim* — this suits those who, inexperienced in greater matters, exercise themselves only in trifling affairs. *To flee on two feet* — this pertains to the celerity with which a business is dispatched; the adage is said to derive from ships running before a favourable wind, as though one said *with two rudders,* because they call the ship's rudder a foot. *At the feet* — this is proclaimed of what is obvious, or present, or imminent. *He has his feet out of the mud* — the proverb is taken from travellers and applied to one who has escaped some danger. *The courage falls to the feet* — this is uttered whenever we are exceedingly frightened.

Now we shall say something of the nails, of the blood, and of the skin. *To begin from the nail* — this suits those who begin from the very smallest things. *To mark with the nail* — this is said of what pleases little, since a sign of disapproval is wont to be placed with the nail. *To depart from the spot by a broad nail's breadth* — this signifies moving from one's place by the smallest amount; it is cited from Stobaeus. *Blood and soul* — this is pronounced of something exceedingly welcome. *Not beyond one's own skin* — each person is admonished not to forget his own station and strive to perform more than his capacities demand; this seems akin to the adage inscribed above. *To sleep in one's skin* — this adage is held to have arisen from commanders who in former times slept in skins. Martial therefore, inveighing against a certain cobbler who, though he had become rich, was reduced once more to his former poverty, sang thus:

> *You have played, he says, and sufficiently; but trust me, rightly*
> *Does Cerdo keep himself within his little skin.*

Already —

[catchword: Now]

[marginalia: Medicorum imperitia / Ne supra pedem calcans / In Lachete / Lib. 9. Metaph. / De pedibus / Vsuras, flagitans reuerti / Manus macilenta pinguen pedem quid significet]

Now that the proverbs relating to the parts of the human body have been set down, those derived from ages, dignities, and the other prerogatives and accidents of man must be weighed. With respect to age, one first says: *The jests of youth ill befit old age* — by which it is shown to be unbecoming that an old man should do what once befitted a young man. *We are made more prudent by age* — this demonstrates that men become wiser through experience of things and increase in prudence according to the common verse:

Time consumes all else; wisdom alone it augments.

If we contemplate particular ages, other adages will emerge. For it is said: *To fit the buskins of Hercules to a dwarf* — this is brought forth of something incongruous, when the greatest things are applied to the smallest. *A child of seven years who has not yet cut his teeth* — this can suit those who, though of greater age, are still occupied with trifles. It is found thus in Basil: τοῦτο καὶ παιδὶ γνώριμον — that is, *this is known even to a child.* This seems similar to that other proverb: καὶ τυφλῷ δῆλον — namely, *it is clear even to a blind man.* This is wont to be pronounced of things most universally known. *Even boys praise the peacock* — Juvenal recorded this of the avaricious, who commend only the verses and meanwhile bestow nothing on the poets. *Do not put a sword in a boy's hand*, that is, by implication, entrust it not: the adage warns that power is not to be granted to the young, the inexperienced, or the foolish, lest they abuse it to their own or others' ruin.

Oaths for men; games of knucklebones for boys in sport — this teaches that playful things belong to boys and serious things to men. It is found in Suidas: παῖς κρύσταλλον — that is, *a boy and ice.* This was brought forth of those who could not retain something yet were unwilling to let it go. It seems taken from Sophocles, who compared love to boys grasping ice, which they could neither easily hold, as it melts away, nor throw aside; hence love too, on account of the pleasure joined to it, cannot be shaken off, and, on account of the pains joined with its pleasures, cannot be retained. *I dislike children of precocious wisdom.* The opinion has prevailed among the common people, penetrating down to our own age, that boys who are wise earlier than usual will either not prove long-lived or will become mad; and thus Pliny reports that Cato the Censor declared it as if from an oracle: wherefore he recorded that a senile youth was the sign of premature death. One finds in Greek νεωτερίζειν — that is, *to play the youth* — meaning to act as recklessly as the young. *Youth is powerful in strength* — this is pronounced of an age that is flourishing and vigorous. *The works of youth, the counsels of men, the wishes or prayers of the old.* This teaches that the young are to be employed in certain tasks, since that age is powerful in strength, as was set down a little before; but men of middle age are to be called to counsel, because in them prudence has been increased through experience of affairs; and that old men, being as it were devout, are wont to pray best to the gods. Boethus the poet, however, expressed this adage differently in this verse:

ἔργα νέων, βουλαὶ δὲ μέσων, εὐχαὶ δὲ γερόντων·

The deeds of the young, the counsels of those in the middle, the prayers of the old.

Now that we have come upon old age, in this place we shall weigh the proverbs relating to it.

Proverbs Relating to Old Age

For it is said: *An old man learning* — this is said of one who undertakes some work late and out of season; for just as youth is teachable, so old age is intractable and forgetful. *Be old early, if you wish to be old long* — this warns that while age is still whole, the labours of youth should be laid aside and care taken of one's health, when there is yet far to go through a lengthy old age. *An old man among boys* — this fits those so educated that they can seem persons of some knowledge among the common people, yet among the learned appear ignorant. *Old men's prudence* — this proverb is cited because old men are experienced in the use of very many things, and because they remember much that was done in former centuries. It is found in Sophocles: ὀργὴ γέροντος — that is, *the anger of an old man.* He wished to signify a mild anger which can easily be extinguished, since at that age the heat of the blood grows faint. *A thrice-childish old man* — this looks toward a decrepit old man who seems to relapse into childhood. Akin to this is another: *old men the same as boys* — this will suit those who, though weighed down with a greater age, still devote themselves to certain childish pursuits. Likewise in Greek one reads: ἀνδρὸς γέροντος, ἀσταφὶς τὸ κρανίον — that is, *the skull of an old man, a raisin.* The adage teaches that the body of an old man is weak and flaccid, the juice having been exhausted, just as happens in a raisin. *I grow older and learn ever more* — this signifies that through the experience of life and the knowledge of many things prudence is generated; wherefore Seneca wrote in a certain letter to Lucilius that one must learn as long as

[catchword: one]

[marginalia: Prouerbia ex aetatibus / Adagia ex pueris / Pueri sapientia praecoci / Adagia ad senectutem spectantia / Iracundia Senis qualis]

one is ignorant; since each later day is said to be the pupil of the earlier. Likewise in Greek one reads: φυπεῖον γερόντιον — that is, *tow of the old man.* This adage seems to draw its origin from tow that is shaken from an ass; for it is dry and useless, just as a man placed in the extremity of old age. *Old age or wine drives even the old man to the dance* — we are taught that there is nothing so absurd, and so far removed from what is fitting, to which drunkenness does not incite a man. *Confer no benefit upon an old man* — this is cited from Aristotle; though it is also commonly said that neither an old man nor a boy is to be benefited: because the one returns no thanks, and the other does not remember. *To an old man the jawbone is a staff* — for those weighed down by age need more copious nourishment, to restore what is daily lost. Hence it is sometimes said that old men walk on their teeth, whereas other men walk on their feet. *To straighten an old man* — understanding that it is exceedingly difficult; because an old man steeped in vices from youth is with difficulty corrected. *To throw sixty-year-old men from the bridge* — this looks toward those who, being weighed down by age, as though lost to all public function, are relegated from every public duty. Many hold it to have been a proverb because in former times those of sixty years of age had no right to cast votes; though others hold that the Roman youth, in order that they alone might cast votes, once cast the infirm old men from the bridge, since the voting was done over a bridge; hence the old men were called *depontani* — as though set aside from public affairs. *An old man always weds a younger woman* — the adage warns that a man of more advanced years should rather take to wife a girl than one of his own age, lest, cold added to cold, Venus grow faint and the marriage prove barren; though this adage can be applied to many other things, and above all when we wish to signify that something is to be tempered. *At the second omen the old man leaped* — this is pronounced whenever a matter first led into danger succeeds beyond all expectation as one could wish. Servius explains the origin of the adage and says that while games were being celebrated to appease the Mother of the Gods and she could not be appeased by any sacrifices, a certain old man danced in the circus games, and reported that this had been the cause of appeasement; whence the proverb afterwards spread abroad.

If we look to rank and authority, various proverbs arise. As: *The master is monosyllabic with his slave.* For masters and the powerful have need of only the briefest word — namely, that they nod assent or dissent. *Do not fight with a prince* — this teaches that it is exceedingly difficult for a private man to overcome a prince; in accord with that saying:

> *It is a hard thing for mortal man to speak against a god.*

The commonwealth teaches the man. This signifies that no one is fit for the conduct of affairs unless he has been exercised by long practice. *Office reveals character* — this was cited by Aristotle, intimating that the characters of men in private life can scarcely be sufficiently observed; but in public office it appears of what disposition they are who exercise authority. Wherefore Plutarch himself was wont to say that the magistracy reveals the man and the man the magistracy. *A senator without an appeal, a legate without instructions* — Cicero records this, and it can be applied to those who, though they have no authority whatsoever, yet wish to be first in every place; for from the opinion of the jurists no one is ignorant that appeals were wont to be made to the Senate; and furthermore, no one can be a legate who is not furnished with legitimate mandates from his prince before he betakes himself elsewhere. *I am king* — Plautus used this proverb when he said: *I am king, if I draw that man to me today* — as if he wished to say, I shall attain the highest happiness; since antiquity, to express the greatest prosperity, said: *I am a god. Every man a king in his own house* — this is proclaimed when we wish to indicate that we may freely do what we will in our own dwelling. *Either king or ass* — this is the same as if one said: either conqueror or conquered. *A tragic king* — this is pronounced of a proud and haughty man who has neither force nor authority; one might otherwise call him a king of paper, the metaphor taken from comedies or tragedies, in which the power of one who takes on the person of a king lasts only so long as the play continues; hence Dionysius once called a certain king who, having assumed a kingdom, shortly after departed this life, a tragic king. *No man is a god to man* — this is pronounced of one who brings sudden and unhoped-for aid. For the ancients thought nothing else to be a god than to be of use to men; hence those who invented laws, wine, and the like were held and worshipped as gods. Opposed to this adage is that other one: *man is a wolf to man*, of which we made mention in the history of the wolf; these two adages are explained by this distich:

[marginalia: Quid Stupa cum sene / Lib. 9. moral. / Senes Depotani qui / Senex senior sio / Rem publicam docet / Lib. 9. moral. / Rex tragicus qualis]

The rich man gives nothing to his needy friend;
He who snatches is a wolf, he who gives is a god.

A man who honours himself honours another — since according to the opinion of Aristotle, honour is said to reside not with the one honoured but with the one who honours.

Proverbs Relating to Wisdom and Prudence

By reason of wisdom or prudence, various adages emerge. *A wise man carries his goods with him* — for learning and virtue consist not in riches but within one's breast. The adage seems taken from an apophthegm of Bias, who, when once asked why he carried none of his belongings with him out of a fire, replied: *all my goods I carry with me. A wise man lacks nothing* — this seems to confirm the preceding adage, for the true goods of men are knowledge and virtues; and thus it is easy for a wise man to grow rich, if he wishes. *For a wise man, reason serves for necessity* — this is cited by Pliny the Younger, to signify that the wise man, led neither by fear nor by necessity, conducts all things by counsel. *All things are easy for a wise man* — since there is nothing so difficult that it does not become easy by prudent counsel, nor anything so burdensome that a wise man does not bear it with equanimity. *No mortal is wise at all hours* — this signifies that there is no one who does not err and fall short in some part of life. It is found in Aristophanes: ἄνθρωπος Θαλῆς — that is, *a man is a Thales*; Thales was one of the seven sages of Greece; hence the adage is pronounced ironically of a fool who desires to be held wise by everyone. *Few words but learned* — this looks toward a man who says few things, yet such as are worthy of being heard.

Proverbs Relating to Folly and Madness

By reason of madness these are published. *A foolish man knows a deed* — this pertains to those who become prudent only after the event; wherefore by Titus Livius the event is called the teacher of fools. *A foolish man speaks many words* — for in no mirror does the figure of the body appear better than in the mirror of speech; hence men are known from their speech. *A tall man is mindless* — the common people circulate the saying that those of great stature lack intelligence, and those of small stature have much spirit in defect. *Fool is wiser than Melitides* — for Melitides was one of those fools whom Homer immortalised; after the destruction of Troy, this man is said to have come to the aid of Priam.

Proverbs of Friendship

Friendship too furnishes adages. Namely: *No man is a friend in word alone* — this suits one who simulates goodwill in speech but thinks otherwise in his mind. *A friend as far as the altars* — the adage warns that we should serve the convenience of friends, but not depart from the right path — that is, we must not, for a friend's sake, violate the reverence of the gods; for the ancients, when swearing oaths, touched the altars with their hand. *Nothing is more opportune than a friend to a friend* — the adage signifies that a service rendered in season is most welcome, and conversely that an untimely service is burdensome. *Where there are friends there are riches* — since friends are worth more than money, and friends without money are of more assistance to the protection of life than money without friends. In confirmation of this is added: *No man is born for himself alone* — this is cited from Cicero, who says that we are not born for ourselves, since our country claims one part of us, our parents another, and our friends another. *Far from sight, far from friends* — this proverb censures the manners of common friends who, after the fashion of swallows, according to the season fly in and fly out, or after the manner of ants, which never approach empty granaries, in accord with that verse of Ovid:

Ants never make for the empty barn.

Wherefore Cicero once wrote that true goodwill can only be perceived in some danger. Otherwise one must say that friends who beg are found everywhere, while those who give are very few.

Proverbs Relating to Wealth and Convenience

By reason of convenience and wealth, various adages are recorded. *A wealthy man cannot be condemned* — Cicero brought this forward in the *Verrine* orations, when he wrote that the rumour had spread among all men not only at Rome but also among foreign nations, that in the courts of those times even the most guilty wealthy man could not be condemned. *At Rome everything is for sale* — this is noted by Sallust in the Saguntine war. *A gentleman from a purse* is called one who, born in an obscure place, is classed among the nobility on account of his wealth, since wealth is said to engender nobility. *An absent man will not be heir* — this looks toward those who, by reason of their absence, lose some advantage; and the proverb is taken from those who, by a certain kinship, await a lawful succession, but being absent are deprived of it. *Others sow,*

[marginalia: Homo homini Deus / Homo homini Lupus / Adagia spectantia ad sapientiam / Adagia amentiae / Prouerbia Amicitiae / Lib. 1. de offic. / Adagia copiositate]

others reap — this is proclaimed when some have laboured and others afterward receive the benefit. *Every man remembers his own affair* — by this adage the common habit of men is censured, who are wont to sleep in another's business and to keep wakeful watch over their own.

Proverbs Relating to Poverty

If the mind is directed toward poverty, adages will not be wanting. Such as: *A hungry man must needs steal* — this suits those who, driven by extreme necessity, do whatever is required. *The bag of a beggar is never filled* — the adage signifies that beggary is insatiable, but it can also be applied to the dishonest, who always demand something from their friends, or even to the avaricious rich, who are never satisfied with their wealth, in accord with that verse of Ovid:

> *And though you possess many things, they seek yet more.*

Modesty is useless to a man in need — the adage warns that when necessity presses, shame must be cast aside. *Not even parents are friends to a beggar* — since wealth wins friends, while poverty has not even those friends whom nature has joined to it. *A man naked down to his pegs* — this pertains to a man in the most extreme necessity, since even the bark can be stripped from the pegs. Not unlike this is another: *A man naked as at birth from his mother* — this is said of the most extreme poverty, for we are born utterly naked, which does not happen to the other animals. *To strip a naked man of his clothing* — this signifies hoping for gain where none can be extracted. *Let the needy man be found in a crowd* — since gain is made where there is a concourse of men. Finally there is found in Greek: ἄνθρωπος πτωχόμαχος — namely, *a man skilled in poverty.* This suits grammarians and others in need, who pursue letters for no reason other than the belly.

Proverbs Relating to Probity

By reason of the prerogatives pertaining to probity, certain adages emerge. First it is wont to be said: *First tears are lamentable* — of those who are moved by entreaties and are roused to compassion; while those who are roused to compassion by no words are called inexorable and adamantine. *In danger it appears who is a man* — this is pronounced in a dangerous and difficult affair, which demands only a man endowed with virtue and vigour. *More prompt to give than to receive* — this is brought forth of some generous man who easily distributes what he has acquired, the metaphor taken from a steward of the household, whose duty it is to draw out certain things from the store and to put certain others into it. *A squared man* — this suits one who is not changed in adversity and prosperity; the comparison is taken from the four-sided figure which, turned in whatever direction, is always like itself. *A man for all hours* — this is said of one who easily accommodates himself to both serious and playful matters. *A man more chaste than Melanion* — he is so called who shrinks from the company of women; for they report that a certain Melanion, out of hatred of women, withdrew into solitude. *A new man* — this was formerly said of a man coming from an unknown region; indeed those who, adorned by no ancestral portraits, acquired nobility for themselves through virtue alone were called new men, as though suddenly appearing, and sons of the sky. *The brother approaches first* — this is pronounced of trusty aid, and is cited from Plato; for in dangerous affairs a brother rarely fails his brother. *A slow man overtakes a swift one* — this is cast at one who, though he has feeble strength, yet surpasses a more powerful man by art and ingenuity. The origin of this proverb is said to refer to the tale told of Vulcan in the *Odyssey*, who, being lame and suspecting his wife Venus, and having no such strength as to apprehend the adulterer, had recourse to artifice, and surrounded his wife's bed with invisible chains, then caught Mars and Venus in the act of coming together in these bonds, and summoned all the gods as witnesses of the detected adultery; in accord with that verse of Ovid:

> *Mars too, caught, felt the craftsman's chains,*
> *And no tale was better known in heaven.*

Proverbs Relating to Beauty

Beauty too proposes adages to be weighed. Such as: *A handsome man without beauty* — this looks toward those who strive to acquire an exotic form for themselves by means of cosmetics and pigments. *Handsome in the graffiti* — this is brought forth of those who are held to be graceful; the adage seems taken from the custom of the ancients, who wrote the names of the handsome and of their lovers on the bark of trees, and on leaves, and on walls; indeed the proverb can also look toward those who are praised through flattery. *Fair-complexioned men are of no use* — this pertains to soft and effeminate men, who are said to be useless in the conduct of affairs.

[catchword: If]

[marginalia: Adagia egentium / Adagia spectantia ad probitatem / Melanior quis fuerit / Lib. 1. de Repub. / Prouerbia Pulchritudinis]

If we contemplate the contemptibility and frailty of men, other adages present themselves, such as: *A man of three letters* — pronounced by way of irony of someone who thinks himself freeborn and of noble birth. The origin of the proverb is traced to the ancient custom by which the praenomen, name, and cognomen of a freeborn man were noted with three letters in their inscriptions — namely, for Marcus Tullius Cicero they wrote M. T. C. *A man worth three obols* — this is cited from Plautus of a man of no worth, as though he might be bought for three obols. Not unlike this is another: *A man worth a tressis* — that is, of no value whatsoever and to be esteemed at three asses; for antiquity called a certain kind of small copper coin an *as*. *A man not worth an ace* — this looks toward a man of the basest kind, the metaphor taken from the game of knucklebones, in which the number of one is the lowest. Akin to this is another: *Worthy of an obol* — this was spoken in jest of one who wished to be counted in the number of men. The adage arose from the custom of the Athenian commonwealth, which assigned to those enrolled in the number of citizens a single obol from the public treasury each day, and these were called *probati* — approved; while those who were not yet approved and enrolled were judged not yet worthy of an obol. *A man more wretched than a single combatant* — this was formerly said of an unhappy man; for in single combat either one or both perish. It is found in Greek: πομφόλυξ ὁ ἄνθρωπος — that is, *a man is a bubble.* This is pronounced of the frailty of human life; the adage was perhaps taken from Lucian, who compared the life of men to bubbles arising in water, which, appearing in a moment of time, immediately vanish. Very similar to this is another: ἄνθρωπος κέραμος — that is, *a man is an earthen vessel* — that is, soft, weak, and fragile; the adage is taken from vessels of fired clay, which are broken by even a slight blow.

Proverbs Drawn from the Vices of Men

The vices by which men are frequently polluted have given place to adages. *Ambrones* — those were so called who lived by plunder and by wicked arts; for the Ambrones, according to Festus Pompeius, were a people of Gaul whom the sea, inundating their borders, expelled from their territory, and wandering on alien soil they were compelled to live by plunder. *Even the mouse bites the impudent man* — this signifies that wicked men lack no means of vengeance, whatever form it takes. *A man always contradicting* — this is brought forth of a dull and ignorant man who in disputations never admits himself to be beaten; it seems to have been recorded by Galen in that book in which he refutes a certain Julian who slandered the aphorisms of Hippocrates. *One thing is proper for a man, another for humanity* — this was cited by Varro, and applies to those who in speaking follow custom rather than right reason. It must be noted, moreover, that humanity in this place is taken to mean refinement. It is found in Greek: ἀνὴρ ἐλαφεῖος — that is, *a deer of a man* — signifying timid men who trust more in flight than in strength; for so they imitate the deer, who do not resist hunters but seek their safety in their feet. *For idle men there is always a feast* — the proverb arose among the Tarentines who, on account of their idleness and pleasures, celebrated more feast-days within the course of a year. This proverb accords with another: *for the Ionians it is always a festival* — since the pagans refrained from secular affairs during the time of festivals; indeed certain holiday days were conceded to farmers, that they might refresh their weariness with play.

A man quiet as a statue — this strikes the man who is taciturn and melancholic; for a statue conveys the likeness of some wise man, yet emits no speech. Opposed to this we have an adage in Greek: ἄνθρωπος βομβύλιος — that is, *a man is a bumble-bee* — this applies to a talkative man, since the bumble-bee is a kind of bee named from its buzzing, useless for making honey. *A drunken and sleeping man is not to be roused* — the adage warns that hornets are not to be stirred up, and that hatred upon which time has laid forgetfulness is not to be rubbed raw again. *Neither god nor man* — this is cited from Pindar, perhaps of a crafty man whom neither a god nor a man could deceive. Similar to this is another common saying in Greek: ἄνθρωπος χηναλώπηξ — applying to a man garrulous after the manner of geese and cunning after the manner of foxes; for that word is compounded from *goose* and *fox*. *A man like the Euripus* — this is proclaimed of an inconstant man; for the Euripus is that part of the sea between the port of Aulis in Boeotia and the island of Euboea, as Strabo records, which turns with a very rapid revolution seven times in the day and night. *Croesus the Lydian had no business at home but went abroad and prepared his own ruin* — this likewise can pertain to an inconstant and restless man; the adage is said to have arisen from Croesus the King of the Lydians, who, formerly fortunate, provoked Cyrus against himself, by whom he was at last overcome and fell into countless calamities. *The manners of men answer to their region* — this seems taken

[marginalia: Homo trium litterarum / Homo Bulla / Prouerbia a vitijs perita / Homo semper contradicens / In Pythijs / Animo terzio]

What the proverb taken from the apophthegm recalled by Plutarch signifies — namely, that wheat in certain fields, by a defect of the soil, degenerates into darnel — is equally true of human temperaments, which vary according to the character of the region: for in a soft region men too are born soft and effeminate. Sardanapalus passed into a proverb on account of his extraordinary softness; hence Aristophanes, speaking of a thoroughly effeminate man, said *ὑγρὸς Σαρδαναπάλλαξ ἦσθα* — "what manner of Sardanapalus art thou?" For this man was so effeminate that he was accustomed to live among eunuchs and girls; which agrees with what was said before: *man more pliable than wax* — though this seems to apply to a soft man, it may nonetheless also fit a docile one. *Scythian man* denotes a savage and fierce man, by reason of the barbarity of the Scythian nation, just as the common people of our own day call such a man a Turk.

Very similar to this is *Tenedian man*, cited by Plutarch, which refers to a man of stern and formidable aspect. Suidas records that the origin of this proverb lies in a certain king of Tenedos who enacted a law that someone should stand behind the judge holding an axe, so that whoever told a lie before the judge should immediately be struck down: hence also the *axe of Tenedos* passed into a proverb.

By reason of motion, other proverbs spring up. We say: *to urge on a running ant* — when someone labours in vain — in accordance with the saying:

> *It is idle to spur a horse that is already running.*

The proverb may also be applied when we encourage someone toward the very thing to which he is already inclined of his own accord. *The sound of the lyre does not hold back a fleeing man.* The proverb signifies that in dangerous situations lesser things are disregarded, for it is not credible that a singer can detain a man fleeing from battle. *He who flees will fight again.* The proverb warns that one should not cast away courage for fear, since those who have been defeated can conquer again. They trace the origin of the proverb to Demosthenes, who, having thrown away his shield, fled from that battle in which Philip, King of the Macedonians, defeated the Athenians at Chaeronea; and for this reason he was surnamed *rhipsaspis* — that is, "shield-thrower" — and is said to have mocked his enemies' reproaches with this verse:

> *ἀνὴρ φυγὼν καὶ αὖθις μαχήσεται,*

That is:

> *A man who flees will fight again another day.*

The man present is absent? — pronounced of one who takes no notice in conversation of what is said, his mind being occupied with other things. *One thing when standing, another when sitting* — that is, a man speaks differently. By this proverb we may tax a man's inconstancy, when within a short space of time he changes his opinion.

The various activities of men have given occasion for various proverbs. It is first said: *a man now wearing a cloak, now a toga* — spoken of an inconstant man. For the pallium was the garment of the Greeks and the toga that of the Romans. *As is the man, so is the speech* — this is to be pronounced when we examine any person's nature from the style of his discourse. *The man who wins loses, and the bowman perishes* — circulated when each side of an army departs with great loss to itself. The proverb may also be applied to plaintiff and defendant in lawsuits. It is read in Aristophanes. *The life of the bridegroom* (βίος νυμφίου): this is applied to a soft and delicate life, since in former times bridegrooms were accustomed to come to weddings crowned with garlands. *Do not trust a man unless you have first consumed a bushel of salt with him* — the proverb signifies that a man's character can only be known through long companionship and extended familiarity. *Men who say agon* — this applies to those who hesitate and deliberate and never set about doing any work. The proverb draws its origin from those who in former times at Rome struck the sacrificial victims, since these were called Agones; for, according to custom, before they struck the victim they would turn to the people and utter this word — *ago ne?* (shall I strike?) — asking the people whether they should still slay the victim. Hence Ovid in the *Fasti* recalls this custom thus:

> *He who always asks "Shall I?" acts only when bidden.*

The man who knows goes as a spectator — spoken of one who contrives harm for himself. The origin of the proverb is traced to Hercules, who at Olympia, beholding a statue by moonlight and taking it for a robber, hurled a stone at it; the stone rebounded from the statue with great force and wounded Hercules. *He draws the fishing-net of a sleeping man* — this seems to fit those to whom the things they desire fall without effort; the proverb arising perhaps from men sleeping beside their boats, since at such times fish entangled in nets are easily caught.

[marginalia: Plutarch. apophth. / Aristophanes / Suidas / Demosthenes / Ovidius in Fast. / Hercules Olympiae]

[catchword: dormientibus]

Numbers of men furnish us with many proverbs. In the first place it is commonly said: *one man in place of many* — of a man distinguished by virtues. *A single man — no man* — since no notable affair can be accomplished by one man entirely deprived of all aid. *Affairs have been reduced to the triarii* — pronounced when no further ground of hope remains; for the triarii were soldiers drawn up in the third rank of the battle-line, to serve as a last resort. *Seven a dinner-party, nine a mob* — the proverb signifies that few should be invited to a banquet; otherwise it is full of insults and disorder. *Sixty men* — the proverb was pronounced of ridiculous matters, for the Athenians were most mightily pleased by those who provoked laughter by words or actions; to this end, in a certain place in the city sixty men were continually assembled, and so if anyone produced something worthy of laughter it was said to have merited the approval of sixty men. *A hundred men cannot despoil a single pauper* — since, in the judgement of Chrysostom, the greatest poverty is defended by its own resistance, being free from all fear and wandering everywhere undaunted, fearing no thieves — in accordance with that saying:

> *The penniless traveller will sing in the face of the highwayman.*

As many men, so many opinions — this is very like the saying of Terence, when he wrote *every man has his own custom*.

Death and sickness also have made room for proverbs: hence we say, *to address a dead man* — applied to what is vain and empty. *To anoint a dead man with unguent* — not only may this be proclaimed of an empty thing, but also of superfluous expenditure, and may furthermore apply to one who applies a remedy too late. *Dead men do not bite.* This fits those who can harm no one in any manner. Plutarch records the origin of the proverb from an apophthegm of Theodorus of Chios, who, being asked whether Pompey was to be turned away from Egypt or admitted, declared that when received he should be put to death, saying: *νεκρὸς οὐ δάκνει* — that is, dead men do not bite. *As long as there is life in the sick man there is hope* — otherwise stated: *while there is breath there is hope.* The proverb warns that even in calamities and in the most desperate affairs, one should not utterly despair.

In the final place, proverbs that have originated from women are to be weighed. *A modest woman is never alone* — this was reported by Homer of Penelope, whom two handmaidens always accompanied. *Silence becomes a woman.* For a woman is by nature garrulous, but is called virtuous when she holds her tongue, and especially in the presence of men when serious matters are being discussed. *A girl gives birth, even if matters go poorly with her husband* — this proverb is brought forth whenever a business succeeds easily according to one's wish, even though it has been handled negligently, since a girl, by reason of her blooming age, is easily accustomed to conceive. *Marry a strong woman* — others read: *marry a brave wife.* This is turned against those who, being of the lowest rank, yet covet the dignities and the weighty offices of the city: the proverb is drawn from those who, being plebeians, nevertheless take wives from among the more powerful, and thereby acquire not kinsmen but masters. *A woman general and a woman soldier* — pronounced when a business is entrusted to faint-hearted men. *Let not a woman take up the sword* — this does not depart from the preceding proverb. It warns that an enterprise should not be undertaken by those who cannot accomplish it. *Let him not show hope who cannot make good on it beforehand, or let him not provoke an enemy whom, once provoked, he cannot overcome.*

Not unlike this seems another: *We are playing the woman's game.* This is brought forward by many against fools, but applies more particularly to cowardly and inconstant men — in accordance with that saying of Terence:

> *What you wish they will not; what you wish them not, that they desire.*

Nothing more pestilent than a woman — this is cited concerning wickedness, and is quoted from Homer:

> *ὡς οὐδὲν κύντερον καὶ κύντερον ἄλλο γυναικός* —

that is:

> *So far there is nothing more shameless, nothing worse than a woman.*

In confirmation of the preceding the following proverb is added: *Trust neither in young nor in old* — Festus Pompeius proves this proverb to be true, because a woman is by nature light-minded, and it commonly happens that when she rises in the night, things that had been leaned against her fall down of their own weight.

[marginalia: Chrysostomus / Plutarch. apophth. / Theodorus Chius / Homerus / Terentius / Festus Pompeius]

[catchword: Nouerca]

Indeed, this judgement of Festus is more firmly established by another proverb, which runs as follows: *Trust not a woman, not even when dead.* The proverb warns that women are cunning creatures who are accustomed to counterfeit death itself. For there is the well-known tale of the stepmother who, even after burial, killed her stepson, namely by the pyramid that collapsed upon the boy's head. We may therefore rightly pronounce another proverb: *The worst death* — this applies to those who perish miserably, since women are held to be the authors of nearly all calamities. *A woman does not enter the seat of Hercules* — spoken of those who undertake a task they do not deserve. The proverb draws its origin from the religion of the Ancients, who excluded women from the temple of Hercules. *Thessalian woman* — this is turned against women who practise sorcery and are skilled in evil arts, since the Thessalian people were notorious for the practice of sorcery. *A woman dances badly* — said of one who performs indecently whatever he does. Very similar to this is another: *She revels like one past her prime* — pronounced of one who, on account of age, wantons indecently, since the licence of the Bacchanals is permitted to young people only. *An old woman, like an old horse, will have a deep ditch.* This fits those who are cast out altogether as useless; since aged horses are cast into deep pits; likewise a woman once beloved, when she has faded, is scorned by all.

METAMORPHOSES.

Now whereas the supreme Artificer of things has revealed, above the order of nature, certain transfigurations that pertain to the human race, while nature has granted others, and the poets have at last invented still others: we shall in the present work set down first the fabulous ones, so that, once these are understood, the true and genuine metamorphoses may shine forth the more clearly. Ovid, then, compressed the simulated transmutations from the beginning of the world to the death of Julius Caesar into fifteen books.

Thus in the first book, after setting forth the origin of the world and of men, and the expulsion of Saturn from power, he recounts Jupiter reigning and bearing with an angry spirit the injury of the Giants, who by piling mountains upon mountains strove to drive him from his heavenly homeland; and how he at last destroyed them with his thunderbolt. He likewise narrates how, Jupiter bearing the crime committed by Lycaon the tyrant of Arcadia — who savagely slaughtered guests received with honourable hospitality — with deep sorrow, Lycaon was transformed into a wolf; and thus the poet sings:

> *He howls, and, striving in vain to speak, rages from those very jaws,*
> *And, as his wonted savagery, turns to the fleecing of flocks, and still delights in blood.*

Not content with this, Jupiter, in order to strike the human race with great terror, gathered so great a quantity of waters from every side that, with the highest mountains inundated by the flood, all men perished by drowning, save for Deucalion the son of Prometheus and his wife Pyrrha, who, distinguished by extraordinary piety, escaped unharmed through the waters by the divine permission of the Deity; since after the flood, by the command of Jupiter, casting stones behind their backs, they restored the human race: thus the stones cast by Deucalion were turned into males, and those cast by Pyrrha into females; and so the poet sings of the universal flood:

> *In a brief space, by the power of the gods above, the rocks*
> *Drew the face of men with their hands,*
> *And women, renewed from the female cast, were restored.*

Now among the women of that age, Daphne, the virgin daughter of Peneus the river of Thessaly, shone with surpassing beauty; she was beheld by Apollo and at last beloved by him. But when she could be prevailed upon neither by prayers nor by promises to comply with the will of Phoebus, she implored her father's aid and was transfigured into a laurel tree; hence is to be gathered the reason why the laurel was consecrated to Phoebus. Ovid introduces her speaking thus:

[marginalia: Ovidius Metamorph. lib. 1 / Lycaon in lupum / Diluvium universale / Daphnes transmutatio]

[catchword: Et paulo]

And a little further below:

Scarcely had the prayer been uttered when a heavy numbness seized her limbs;
Her soft breast was girdled with a thin bark,
Her hair grew into foliage, her arms into branches.

Meanwhile, to assuage the grief of Peneus weeping over the unhappy end of his daughter, the other rivers drew near — all save Inachus, who was himself lamenting the loss of his daughter Io. For Io was endowed with such remarkable gifts of beauty that Jupiter was kindled with love for her; and therefore, after lying with her, lest the matter reach the ears of Juno, he transformed her into a heifer. This is explained by Ovid thus:

He had foreknown his wife's approach, and had changed the Inachid's countenance into that of a heifer —
A heifer too is beautiful.

Juno, however, receiving this fair heifer as a gift, entrusted her to the herdsman Argus, who was endowed with a hundred eyes. But Jupiter commanded Mercury to kill Argus; and when Argus had been slain, Juno converted him into a peacock and adorned the peacock's tail with his hundred eyes, as is read in the poet:

Argus, thou liest; and the light thou hadst in all those lamps is quenched,
And a single night occupies a hundred eyes.
Saturnia receives them and fits them on her bird's feathers,
And fills the tail with gem-like eyes.

Likewise Pan, the god of Arcadia, was desperately in love with the nymph Syrinx, most beautiful of the Naiads; fleeing his advances, she was converted, with the help of her sisters, into a reed, from which the god Pan fashioned his pipe. Hence a certain learned man, alluding to this, sang:

Syrinx of the reeds, who was all too churlish in her refusals of Pan,
Became the Arcadian's flute.

Some report that Mercury used this pipe so that with its sweet sound he might lull Argus to sleep and thereafter slay him. Of the transformation of Syrinx, Ovid speaks thus:

As the nymphs, to whom he had prayed, were turning themselves into water,
And Pan, already thinking he had seized Syrinx,
Instead of the body of the nymph held in his arms marsh reeds.

And when Argus was thus transfigured into a peacock, Io, driven by the Furies and wandering through the whole world, came at last to Egypt, where, the anger of Juno being appeased and the shape of the cow laid aside, she recovered her former form and received the name of the goddess Isis:

The goddess, soothed, restored those former features,
And she became what she had been before.

From her was born Epaphus, who grew up to be very like Phaeton, the son of Apollo and Clymene; and Phaeton, bearing this ill, since by reason of the likeness Epaphus boasted himself to be Apollo's son, went to his father's abode and, to manifest better the nobility of his birth, obtained leave to drive the chariot of the Sun, which was drawn by four horses whose names are Pyrois, Eous, Aethon, and Phlegon. When then Phaeton had mounted the chariot, the horses, alarmed by the fear of an unknown charioteer, turned toward the lowest part of the world, and thus the whole globe seemed to burn; then Jupiter, moved by the prayers of men, struck Phaeton down into the river Po for his boyish audacity. Hence the Heliades, the nymphs who were sisters of Phaeton, lamenting their brother's fall and searching for his body in the river, were by the mercy of the gods transformed into poplar trees, and their tears into drops of amber. Of this transformation Ovid sings thus:

Bark creeps over their groins,
Their legs in succession, their breast and shoulders and hands —
Bark covers all.

Cygnus, the son of Sthenelus, King of Liguria, joined to Phaeton by ties of kinship on the mother's side and by the warmest affection, was present at this transformation; lamenting by the bank of the Po the unhappy fall of his friend and kinsman, he at length flew away into the bird of his own name, a bird that shrinks from fire and haunts marshes and pools, uttering a plaintive song.

[marginalia: Ovidius Metamorph. / Io in vaccam / Argus in Pauonem / Syringa in arundinem / Heliades in Populos / Cygnus transformatio]

[catchword: Nec]

So the swan is made a bird, nor does he trust himself to the clouds or to Jove, Mindful of fire unjustly sent by him, He seeks pools and broad lakes, and, detesting fire, Chooses to inhabit the element that is fire's contrary.

But Jupiter, surveying the globe scorched by the madness of Phaeton, while wandering through Arcadia, fell in love with Callisto the daughter of Lycaon; and when he could obtain nothing from her by prayers, resorting to stratagem, he at last had his way with her, since he assumed the form of Diana and, encountering the girl, lay with her:

Forthwith he wore the face and countenance of Diana.

Juno, however, understanding what had happened, transformed Callisto into a bear; and Jupiter thereafter placed her together with her son Arcas among the northern constellations.

The ancient mind remains, even though she was made a bear.

Callisto having thus been changed into a bear, and her son Arcas converted into her guardian — whom the Greeks call Arctophylax — Juno was borne in her own chariot drawn by peacocks up into Heaven, while the Crow, hurrying to inform Phoebus that he had caught Coronid, daughter of King Coroneus of Phocis, Apollo's beloved, in adultery, was pursued by the garrulous Jackdaw — that same Corone — with these words: "Look, O Crow, how I am a bird, and hear the cause of my calamity. When Minerva had lifted Erichthonius, the son of Vulcan, as he fell to the ground, and had entrusted him enclosed in a chest to the daughters of Cecrops — namely Pandrosos, Herse, and Aglauros — to be guarded, having warned them not to show him to anyone, the curious Aglauros opened the chest and showed me the boy lying with a serpent beside him. I, imprudently, immediately disclosed this to Minerva; and she, turning the force of her anger against me, banished me from the ranks of the Maiden attendants of the goddess to the seashore, where Neptune, catching sight of me from a distance, conceived a passion for me; indeed he was on the point of doing me violence, had not Minerva immediately transformed me into a crow:

I stretched my arms toward the sky.
The arms began to darken with soft feathers;
I strove to cast the garment from my shoulders, but it was
Feathers, and had set deep roots into the skin."

The Jackdaw then continues, saying that this crime had been more worthy of pardon than of blame; for greater was the offence of Nyctimene daughter of Nycteus, who, driven by shameless lust, did not shrink from intercourse with her own father; for which crime the gods, bursting with indignation, transformed her into an owl that, loathed by other birds, conceals its unspeakable crime in the darkness of the night. And thus it is set forth by the poet:

Didst thou not hear that Nyctimene has defiled her father's bed?
A bird she is, indeed — but conscious of her guilt
She flees from sight and from the light, and hides her shame in the darkness,
And is driven from the face of the sky by all the birds.

Thereafter the Crow, in no way moved by the Jackdaw's arguments, and hastening to report the prey he had captured, told Phoebus that he had observed Coronid lying with a young man; at which words Apollo, indignant, pierced the girl with an arrow, though she bore in her womb the son of Apollo. But a little after, when Apollo had repented of the deed, he changed the white feathers of the garrulous Crow to black; and moreover, opening the dead woman's womb, he extracted the infant, named him Aesculapius, sent him to the Centaur Chiron to be reared and taught, and especially, that he might learn the art of medicine from him. Now Chiron had a daughter Ocyroe, born of Charicte, who was sometimes moved by a certain frenzy to foretell the future; she accordingly foretold that Aesculapius would make progress in the art of medicine, would restore the dead to their former life, and would at last perish struck by a thunderbolt. But after these prophecies, Ocyroe acquired the form of a mare, as the poet sings:

As she spoke, the closing words of her lament
Were only half understood, confused and mingled;
Presently neither words nor the sound of a mare seemed plain,
But she simulated a mare, and in a little time
Uttered distinct neighings &c.

Thereafter Phoebus, having become a shepherd while tending the herds of Admetus, King of Thessaly —

[marginalia: Callisto in Vrsam / Argus in Pauonem / Cornix in auis / Nyctimene in Noctuam / Ocyrpe in equam / Aesculapius / Chiron Centaurus]

[catchword: Mer-]

— Mercury, in order to make sport of him, stole the cattle he was guarding when they had strayed far off and hid them in a certain wood. But lest one Battus, a keeper of mares who had observed everything, should reveal the theft, Mercury gave him a most beautiful heifer as a gift. Then, to make trial of Battus's loyalty, he immediately assumed another form and, approaching the same man, promised him a great reward if he would point out where those cattle were. Battus, led by greed of gain, most readily showed him the place; by which deceit Mercury, provoked, transformed him into a stone of denunciation, as Ovid sings:

And turned his perjured breast
Into hard flint, which even now is called the informer.

Departing from here, Mercury, flying through the air, among the virgin daughters of the Athenians who were celebrating the rites of Minerva, fell in love with Herse the daughter of Cecrops, conspicuous for her elegant beauty; wherefore he asked Aglauros her sister to assist him in this love, and she, having agreed upon a price in silver, promised him her services. Minerva, however, conceiving great anger at the girl's greed, stirred up in her a consuming envy; and thus, tortured by it day by day, when Aglauros had not rendered assistance to Mercury, he transformed her into a rock — and he says that the rock held the house:

And Aglauros sat bloodless and stone-cold.
This stone was white, but her own guilty mind had stained it.

Departing thence, Mercury also, by his father's command, made his way to Phoenicia to drive the herds of that region to the shore; meanwhile Jupiter, having taken on the form of a bull, began to wander among the other cattle; and Europa, daughter of Agenor the king, mounting its back, was carried by it to Crete, since Jupiter was held by an excessive love for her. This metamorphosis the poet expounds thus:

Majesty and Love do not go well together, nor dwell in one abode.
He, the father and ruler of gods, whose right hand is armed
With three-forked fires, who shakes the world with his nod,
Lays aside the sceptre's weight, puts on the semblance of a bull,
Lows, and walks in beauty through the tender grass.

In the third book of the transformations it is set forth how Agenor, when he had lost his daughter Europa, commanded her brother Cadmus to seek her out with the greatest diligence and not to return home until she was found. Agenor, however, consulting the oracle, received the reply that he should follow the tracks of the first heifer he should meet, and wherever she halted, there too he should found a Boeotian city. Cadmus therefore, obeying the divine will, while marking out the city, sent his companions to draw water from a spring nearby; and when they did not return, Cadmus, suspecting some evil, went there and found them all slain by a great serpent; thereupon he killed it, and, at Minerva's command, sowed the teeth of the beast, from which there sprang a band of armed men who, falling into strife among themselves, all perished save five companions; and then the metamorphosis is read as follows:

First appeared a spear-tip thrusting up from the furrows,
Then helmets with nodding plumes,
Then shoulders and breasts and arms laden with weapons:
They arose, and a harvest of men bearing shields grew up.

In the city thus founded many descendants were born of Cadmus and grew up; of these, one, Actaeon the son of Aristaeus, brought him the greatest grief. For when Actaeon, wearied with hunting, arrived at a spring in which Diana was bathing naked with her companions, he was immediately transformed by the goddess into a stag, and was then torn apart by his own hounds; this is expressed by the poet thus:

She gave spreading antlers to the head of the swift stag,
She gave length to the neck, and pointed the topmost ears.

But more aptly elsewhere concerning Actaeon it is sung:

Actaeon, unknowing, beheld Diana without her garments —
He was prey no less than his own hounds.

Juno received incredible pleasure from the accident of Actaeon, since she had always pursued the race of Agenor with bitter hatred — not only because Jupiter had lain with Europa, but also

[marginalia: Battus in lapidem indicem / Aglauros in saxum / Iuppiter in Taurum / Europa in Cretam / Actaeon in Ceruum]

[catchword: etiam]

— because he had been accustomed to lie with Semele, daughter of Cadmus. Therefore Juno resolved to assume the form of Beroe, the nurse of Semele, so that she might persuade the woman not to receive Jupiter into her bed chamber in any other fashion than that in which he was accustomed to approach Juno. Thereafter Jupiter, in order to gratify his beloved, entered her house armed with thunder and lightning; but with so great a blaze did the house catch fire that Semele was consumed in a sudden conflagration. Jupiter therefore, in order to save from imminent mortal danger the son conceived in Semele's womb, took the child from the matrix, sewed it into his own thigh, and preserved it there until the birth had ripened to completion, and then handed it to the nymphs to be nursed. Of this transformation of Juno into Beroe, Ovid writes thus:

Then she put on the face of an old woman, furrows at her temples;
She made her hair white and her limbs tremble as she walked;
She gave herself the voice of an old woman,
And was herself Beroe, the Epidaurian nurse of Semele.

Furthermore they report that Juno and Jupiter contended in jest as to whether a man or a woman receives the greater pleasure in congress; and for judge of this dispute they appointed Tiresias, the son of Everes, since he had experienced both sexes. For once in a wood, striking with his staff two serpents that were mating, he had been changed into a woman, in which state he passed six or seven years; and striking the same snakes again he recovered his former male form.

He adjudicated between the great deities,
And Venus favoured this his verdict.
For with his staff he had violated the coupling bodies of two great serpents
In the green wood,
And, being made from a man — marvellous! — a woman, he had spent seven autumns;
In the eighth, seeing the same snakes again,
He said: since the power of a blow upon you has such strength as to change
The author to the opposite lot,
Now too will I strike you — and, having struck the same snakes,
His former shape returned.

Tiresias therefore, approving Jove's judgement, condemned Juno, who in her indignation blinded Tiresias; but Jupiter bestowed upon him the knowledge of foretelling the future. The first to approach his oracle was the nymph Liriope, daughter of Oceanus and Tethys, desiring to know whether Narcissus, whom she had borne of Cephisus, would live to great age; to which Tiresias promised all good things, provided Narcissus should not come to know his own beauty. For they report that Narcissus was a young man conspicuous for his beauty, whose company not a few nymphs sought, and in particular Echo, daughter of Juno, who, burning with love for the youth and pursuing him in vain as he fled, wasted away and was changed into a voice, which is called Echo even to this day.

Leanness drew the skin, and moisture left through the air;
Voice only, and bones, remained.
The voice remains; the bones, they say, took on the shape of stone.

Narcissus had likewise mocked other nymphs; and that the goddess Nemesis might avenge them, she compelled him, wearied by the hunt, to a spring, into whose waters he looked and, seized by love of himself and consumed by the greatest grief, perished; and from his body afterwards sprang the flower of the same name.

This boy, wearied with hunting and the heat,
Lay down, and, drawn by the beauty of the place and the spring,
And while he sought to slake his thirst, another thirst grew in him;
As he drank, seized by the image of beauty he saw,
He loves a hope without a body, and thinks that a body which is only a shadow.

And a little further below:

Nowhere was there a body; in place of the body they found a flower,
The yellow heart girt with white petals.

On account of the death of Narcissus, Tiresias was held to be far more truthful as a prophet. But Pentheus alone, son of Echion and Agave, scorned the prophecies of Tiresias; indeed,

[marginalia: Iuno in Beroem / Tiresias vtriusque sexus expertus / Echo in vocem / Narcissi Metamorphosis]

[catchword: quia]

— because from the prophet he learned of the arrival of Bacchus and that the sacrificial rites in his honour would be to his own hurt, he commanded his people not to comply with the precepts of Bacchus but to lead him bound fast into prison. Bacchus however, in order to make sport of him, was transformed into Acetes the companion of Liber, as the poet sings:

When those who were asked where Bacchus was
Denied that their masters had seen Bacchus,
They said this one was his companion and servant of his rites;
We seized him, and they delivered him with his hands bound behind his back.

Such therefore was the power of Bacchus that, when he had been captured by Tyrrhenian sailors on account of his exceptional beauty of form and placed on their vessel, he struck them with great anger and transformed the crew into beasts and serpents; and the Tyrrheni, alarmed with fear, leapt headlong into the sea and were changed into dolphins and swam; as is sung in these verses:

As in a short space he saw his hands shrink and grow small, and those hands
Were now no longer hands, and could now be called fins,
Another, trying to throw his arms about the twisted ropes,
Had no arms, and with his body bent and arched
Leapt into the waves; his tail was curved like a sickle,
Such as the horns of the half-moon are depicted.

Pentheus at last, in accordance with the prophecy, scorning Bacchus and hastening to Mount Cithaeron where the sacrificial rites of Bacchus were being celebrated, was suddenly changed into a boar and torn to pieces:

That boar that roams the largest fields
Is the one I must strike — and all the frenzied
Crowd rushes together.

The poet in the fourth book openly and plainly sets forth how, besides Pentheus, Alcithoë, daughter of Minyas, not only made light of Bacchus, but during the time of the sacrifices likewise devoted herself to weaving along with her sisters. While these women then were intent upon their work, they resolved to tell tales in turn by way of narration, and thereby alleviate their labour in some measure. And so one of them, rising, debated whether first mention should be made of Babylonia, who had been changed into a fish, or of her daughter Semiramis, who had been transformed into a dove, or of the Naiad nymph who by songs and herbs turned certain youths into fishes and at last herself put on the form of a fish also. Or whether cause should be given why the fruit of the mulberry tree, formerly white, has in the course of time grown black — which they say came to pass from the blood of Pyramus and Thisbe. This story, not yet heard, they accordingly set down; and the poet speaks of the aforesaid matters thus:

Whether it be Babylonian Dercetis, whom the Palestinians believe
To have dwelt in their pools with her face changed and covered with scales;
Or rather how her daughter, having taken on wings,
Spent her last years in high towers;
Or how a certain Naiad, by song and the great power of herbs,
Turned the bodies of youths into silent fishes,
Until she herself suffered the same change;
Or how the tree that once bore white fruit
Now bears black, stained with their blood —
This story pleases, and since it is no common tale
Let her spin her thread as she weaves.
Pyramus and Thisbe, the most beautiful of youths the one,
The other, of girls, the first that the East possessed.

This fable having been set forth, Leucothoë, the sister of Alcithoë, now girded herself to relate another. But before setting forth how the daughter of Orchamus, King of Achaemenia, and of Eurynome was transformed into a frankincense tree, she expressed the adultery of Mars and Venus; for since the Sun had informed Vulcan that he had seen Mars lying with Venus, Vulcan, by artfully fashioning a net, bound Mars and Venus together and brought them before the sight of all the gods. Wherefore Venus, indignant, arranged that the Sun should be inflamed with love for Leucothoë alone; and he thereafter, in order the more easily to possess her, transformed himself into

[marginalia: Bacchus in Acetem / Tyrreni in Delphinos / Pentheus in Aprum / Alcithoe Minei filia / Pyramus et Thisbe / Martis et Veneris adulterium]

[catchword: in]

— Eurynome her mother.

While the divine cattle graze there on heavenly pasture,
The god performs the lover's office and breathes upon the desired chamber,
And turns toward the face of Eurynome the mother.

But when Clytie, who was herself desperately in love with Phoebus, incited by a certain envy, had informed Orchamus, Leucothoë's father, that his daughter had been violated by the Sun — the father, moved with great rage, buried her alive; and the Sun, pitying his beloved friend, transformed her into a frankincense tree. This metamorphosis is thus expressed:

And gradually, putting forth roots through the mound,
A frankincense shoot rose, and broke through the top of the tomb.

The nymph Clytie, however, bearing it ill that Leucothoë had been preferred over her in love, though she herself cherished the Sun with the greatest affection, was afflicted with immense grief and spent nine days without food; but at last, by the kindness of the gods, was changed into the herb heliotrope, which plant, still mindful of its former love, bends its head and follows the Sun from rising to setting.

Though it is held by its own root,
It turns toward him, transformed, and preserves its love.

This fable having been concluded, Alcithoë was bidden to bring her own story in turn; she, beginning in good cheer, said: not as Daphnis, the son of Mercury and a shepherd of Ida, was turned into stone by a nymph his wife out of fear for some concubine, will I tell — nor will I speak of Scython, who had now passed into a man and again into a woman, nor will I omit the cases of Celmus, of Adamantine, and of the Curetes, who are said to have been born of showers, nor will I speak of the young man Crocus and the maiden Smilax, who took on the form of flowers.

She was silent of the arts of the shepherd
Daphnis of Ida, whom a nymph's concubine-rage
Turned into stone.
Nor speak I of how in olden days with renewed nature
Ambiguous Scython was now a man, now a woman.
Thee too, Celmus, once most faithful, Jove being a child,
And the Curetes born of copious showers,
And Crocus himself turned to a flower together with Smilace.

I shall relate, said she, how Hermaphroditus, the son of Mercury and Venus, reared of old by the Naiad nymphs on Mount Ida, left his own abode and arrived at a certain spring in Caria, where the nymph Salmacis chanced to dwell. When this nymph beheld him entering the spring naked, she pursued him with so immoderate a passion that, embracing the youth, she could in no wise be separated from him, but both thereafter presented a single body, complete in both sexes; and this is expounded thus:

And pressing close, and with her whole body clinging,
Wanton though resisted, she said:
You shall not escape; and the gods are enjoined
That no day henceforth shall part me from him, or him from me.
The prayer had its gods; their two bodies are joined together,
And they are covered with a single face;
As one.

Concerning this transformation Busonius has an elegant epigram, which we considered not to be left in silence. It reads thus:

The nymph, made one with the wished-for husband, is compacted:
Happy maiden, to have a man within herself.
And permit it, beautiful Salmacis, to the girl:
Doubly happy, to be one yet two at once.

These fables having been set forth, and the Theban sisters falling silent, suddenly by the divine power of Bacchus frightened by the darkness and the sound of drums and flutes, they were terrified and at the coming of night departed in the form of bats; as is read in these verses:

A thin membrane spreads through the small limbs;
Trying to speak, they emit a tiny voice in place of speech
And voice their complaints with a slight hissing;
They haunt no woods; they detest the light
And fly by night, and take their name from the evening.

[marginalia: Leucothoe in arborem thuris / Clycie nympha in Heliotropium / Hermaphroditus et Salmacis nympha / Sorores Thebanz in vesprtiliones]

[catchword: Iam]

Now, the fame of Bacchus having been rendered most celebrated by the examples set forth, among the others Ino, the nurse and maternal aunt of Bacchus and wife of Athamas, spread wide the power of Bacchus; for which reason she incurred the deep hatred of Juno, who, descending to the Underworld, solicited one of the Furies against Athamas; and he, seized by madness, slew his own son Learchus. But Ino, fleeing the frenzy of her husband, cast herself with her other son Melicertes into the sea; and they were thereafter changed by Neptune into sea-gods — namely Melicertes into Palaemon and Ino into Leucothoe — and this is said to have been done by Neptune at the entreaties of Venus, since she herself had declared that she drew her origin from the sea-foam:

Ino, who had descended to Venus — she pitied the undeserved toils of her kinswoman,
And caressed her own uncle: O power of the waters,
Great indeed is what I ask, but show compassion for those
Whom you see tossed upon the immense Ionian sea,
And add them to the gods — if there be some favour toward me from the sea —
I who was once congealed in the deep mid-ocean;
The foam was mine, and my name from it still remains.
Neptune granted her prayer, and from them
He stripped away what was mortal, and laid upon them
Majestic dignity; and renewed their name and face together:
Leucothoe he called the god, and Palaemon with his mother.

The companions of Juno who were Theban, for their part, turned some into rocks and some into birds; wherefore Cadmus, pondering these calamities, fled from Theban soil with his wife Hermione to the region of Illyria, where at last he was transformed by the gods into a serpent. The wife of Cadmus is thus introduced by Ovid:

Cadmus, stay! put off this monstrous shape, unhappy man!
Cadmus, what is this? Where are your feet? Where are your shoulders and your hands?
And your colour? And while I speak, why do not the heavenly ones
Turn me too into this same thing?
And suddenly there are two; they writhe together in coiling,
Until they glide away into the shade of the wood opposite.

Of the stock of Cadmus, Acrisius still reigned among the Argives, who scorned not only Bacchus but other divine powers as well. In particular he gave no credit to his grandson Perseus, born of Jupiter and Danae; and this disbelief is said to have brought him no slight harm. For Perseus had been sent by Polydectes to fetch the head of Medusa, the sight of which turned men into stone. And now Perseus, with the assistance of Minerva, had brought back the head of Medusa; and as he made his way across Africa, from the bloody drops falling from the head to the ground there were engendered serpents; and from the womb of Medusa there came forth a winged horse, namely Pegasus.

And as the victor hung above the Libyan sands,
The bloody drops fell from the Gorgon's head,
The earth received them and quickened them into various serpents.

Now Perseus had come to Atlas the son of Iapetus, who, when he had once received from Themis, the priestess of the gods, the reply that he should honour with no hospitality any of the stock of Jove, if he wished the garden in which the golden apples grew to be preserved, denied hospitality to Perseus, wearied from his long journey. But Perseus exposed the unveiled head of the Gorgon to him; and at the sight of it, Atlas was immediately changed into a mountain of the same name, which by reason of its height is held to support the heavens. For Perseus is thus introduced speaking:

Since your goodwill avails so little to me,
Receive this gift, said he, and from one side exposed Medusa —

[marginalia: Ino in Leucothoen / Melicerta in Palemonem / Venus orta ex spuma Maris / Sorores Thebanz in aues / Cadmus et vxor in serpentes / Perseus / Medusa / Atlas in montem sui nominis]

[catchword: ipse]

He himself brought forth eggs tending toward warmth.

How great was Atlas, of such measure was his beard and his hair;
Into forests they depart, his shoulders are the ridges, his hands the summits;
What was before his head is now the peak at the top of the mountain.

When these events were concluded, Perseus, making his way through Aethiopia, came to that place where Andromeda, daughter of Cepheus and Cassiopeia, could be seen exposed to a sea-monster on account of her mother's arrogance. For when Cassiopeia had boasted among the Nereids that she was the most beautiful, Neptune, moved by the prayers of the nymphs, incited a sea-monster to lay waste to Aethiopia. On that account Jupiter Hammon was consulted as to what means might appease the power of the Nereids, and he replied that it could not be done unless someone born of Cepheus, Andromeda, and Cassiopeia were thrown to the beast of the sea to be torn apart. When Perseus therefore espied Andromeda bound to a rock and given over to be devoured by the monster, he was ensnared by the gifts of her beauty and promised to set her free, on this condition however, that she should be given to him in marriage. Cepheus consenting, the monster was overcome, and the maiden was given to Perseus in marriage. When Perseus arrived at the palace of Cepheus, he related by what means the hairs of Medusa's head had been transmuted into serpents: namely, that when she herself was distinguished by her golden locks, and was a spectacle of beauty and desired by Neptune, unable to escape his embrace, she lay with him in the very temple of Minerva. Wherefore, the sanctity of the place having been violated, Minerva, driven headlong into wrath, transformed her golden tresses into so many coiling serpents.

Since this wickedness had gone unpunished —
The Gorgon's locks he changed to foul serpents.

In the fifth book the Poet relates that when Andromeda had been given in marriage to Perseus, a splendid banquet was prepared. Meanwhile Phineus, brother of Cepheus, to whom they had once promised Andromeda in marriage, came upon them at that moment with a company of armed men and attempted to snatch the maiden from Perseus. But Perseus, in no way terrified, on the one side slew many,

Apollo into a raven. Bacchus into a he-goat.

and the rest, the head of Medusa being displayed, he transformed into stones.

Two hundred bodies were fighting fiercely;
Two hundred bodies fell stiff, the Gorgon's face having been seen.

At last Perseus, departing hence toward his homeland, transformed Proetus — by whom his grandfather Acrisius had been driven from his kingdom — into stone by displaying the head of Medusa, and restored the kingdom to his grandfather (though undeservedly, since he himself had been enclosed with his mother Danaë in a chest and cast into the sea).

[...] of the king
With Medusaean face he made his fortune from, or gave it from, the blood.

Thus far Minerva had assisted Perseus in accomplishing so many and so great exploits; but at the same time Pallas came to Mount Helicon in Boeotia, and learned from the Muses that the winged horse Pegasus, of whom we made mention a little before, had been born together with Chrysaor from the blood of Medusa's severed head, and that he, coming to Mount Helicon, had struck the ground with his hoof and opened the welling of a spring which is called *Hippocrene*. After this, one of the Muses related to Pallas how the Muses themselves had once been transformed into birds. For while they were hastening toward Mount Parnassus, a storm arising in the way, they turned aside to the dwelling of Pyreneus who invited them, and he, seized with desire for their beauty, ordered them to be shut up in a certain chamber that he might do them violence. But the Muses, transformed into birds, made their escape.

Pyreneus shut up his house,
And prepared violence, which we evaded by taking up wings.

Meanwhile, while these things were being related by the Muse, nine magpies chattering among the branches of a tree and uttering words almost human were observed by Minerva. But that the Muse might deliver Pallas from her wonder, she explained the whole matter, saying: that Pierus had begotten daughters from his wife Euippe, and that the beauty of these daughters had so swelled the mother's arrogance in her mind that she dared compare them to the Muses in beauty and to challenge them to a contest. Wherefore one of the Pierides began to deliver a sweet song, relating how Typhoeus and the rest of the Giants oppressed the gods with great fear (which was recounted so that the deeds of the gods might be held in contempt) — indeed she added how the gods, struck with great terror, fled into Egypt; where afterward Jupiter was transformed into a ram, Bacchus into a he-goat, Diana into a cat, Juno into a cow, Venus into a fish, and Mercury into an ibis.

[marginalia: Andromeda exposed to the sea-monster. / Medusa's hair transformed into serpents. / Perseus transforms Phineus and his men into stone. / Proetus transformed into stone. / Pegasus born from Medusa's blood. / The Muses transformed into birds. / Pyreneus. / The Pierides transformed into magpies. / Jupiter in various forms. / Bacchus into a he-goat. / Diana into a cat. / Juno into a cow. / Venus into a fish. / Mercury into an ibis.]

Apollo into a raven. Bacchus into a he-goat. Diana into a cat.

> *Their leader, the flock said, and Jupiter, who now in Libya with curving horns —*
> *Now drives with crooked horns:*
> *The son of Semele became a he-goat,*
> *Phoebus's sister a cat, Saturn's Juno a cow,*
> *Venus lay hid as a fish, Cyllene's god under the wings of an ibis.*

Apollo into a raven. Bacchus into a he-goat. Diana into a cat. Juno into a cow. Venus into a fish. Mercury into an ibis.

When these reproaches against the gods had been hurled by the Pierides, the Muses on the other part delivered their own songs, and among them Calliope, first of all, to whom the management of the whole contest had been assigned, did not sing the vilification of the gods but rather the praises of Ceres, and most particularly described with the greatest elegance the rape of Proserpina. She related first how Pluto, the god of the infernal region, while roaming over grassy meadows, caught sight of Proserpina, daughter of Ceres, and was so inflamed with love for her that he placed her upon his own chariot and carried her off to the realms of Tartarus; though the nymph Cyane strove in vain to resist the abduction, for which reason she, afflicted with enormous grief, took the form of a spring.

> *But Cyane, grieving over the goddess ravished and over the rights of her spring despised,*
> *Bears an inconsolable wound in her silent mind, and is consumed entirely by tears;*
> *And into those very waters, of which she had but now been the great divinity,*
> *She melts away.*

Ceres, however, searching for her lost daughter through all the regions of the whole world, exhausted at last and oppressed by thirst, begged a certain old woman to give her a little water to ease her thirst; but she offered her a posset of grain mixed with must, which as Ceres was drinking she was mocked by a certain boy; whereupon the goddess, kindled with anger, spitting the liquid upon this shameless boy, transformed him into a spotted newt sprinkled with various spots.

> *And into a small form, lest so great a power of resistance remain,*
> *He is contracted, and he is a lesser lizard of small measure.*
> *Marvelling and weeping and fearing the portents,*
> *The old woman flees, and seeks a hiding-place, and has a name fitting to his colour,*
> *His body spotted with varied drops.*

At last Ceres, having traversed all the regions and found her daughter nowhere, returned again to Sicily, where from Arethusa, a nymph of a Sicilian spring, she learned that Proserpina had been carried off by Pluto. Then Ceres straightway set out to Jupiter to recover her daughter, and obtained leave to go down to the infernal regions, on this condition however, that she should taste no food until after her return. Having gone and returned, Ceres was accused before Jupiter by Ascalaphus, son of Acheron by the nymph Orphne, because she had tasted a grain of pomegranate on the way; whence this one was straightway transformed into an owl, a bird that always foretells evil.

> *The queen of Erebus groaned, and the unholy one —*
> *She sprinkled his head with the water of Phlegethon*
> *And turned it into a monster, and feathers and great eyes.*

Jupiter therefore, exercising equal justice, decreed that Proserpina, on account of her disobedience, should spend part of the year with her husband and part with her mother. Meanwhile the Sirens, companions of Proserpina, pursued her with such great love that they obtained wings from the gods by their prayers, so that they might more easily seek her over land and sea; and therefore transformed into birds, marked with a human face and voice, they dwell near the Sicilian sea, where they produce such sweet songs that they submerge sailors passing by. The first of these was called Parthenope, the second Leucosia, and the third Ligia.

> *Their feathers and their feet are a bird's, the face of a virgin they retain.*
> *Whether because, while Proserpina was gathering the flowers of spring,*
> *You Sirens were mingled with her in no small number,*
> *And when, after seeking her over the whole orb of the earth in vain —*
> *Straightway, that you might let your comrades sense your presence on the waves,*

Cyane transformed into a spring. Boy transformed into a newt. Ascalaphus transformed into an owl. Sirens transformed into birds.

[marginalia: Calliope. / Pluto ravishes Proserpina. / Cyane into a spring. / Boy in the form of a newt. / Ascalaphus into an owl. / Sirens transformed into birds. / Parthenope. Leucosia. Ligia.]

Arethusa transformed into a spring. King Lyncus into a lynx. Pierides into magpies. Pygmy woman into a crane. Cynara into stone.

That you might ride upon the wings over the winds above,
You wished it, and easily you had the gods, and your limbs
You saw turn yellow suddenly with rapid feathers.

Indeed Arethusa too recounted her own transformation: for this nymph, a companion of Diana, fell into the love of the river Alpheus; and when he pursued Arethusa as she fled, the nymph, having implored the aid of Diana, was straightway turned into a spring.

Whence Arethusa is a sacred spring —
The goddess fell silent; the one who had raised her head from the deep spring,
And dried her green hands,
Told the ancient loves of the river Alpheus.

When these things had been said, Ceres flew to Athens and gave to Triptolemus a chariot drawn by winged dragons, that he might teach men the art of agriculture. He, having come into Scythia, was received with honourable hospitality by King Lyncus, but by the aid of Ceres escaped the grievous treachery of Lyncus; wherefore the goddess, indignant, transformed this king into a lynx.

The barbarian envied, and that he himself might be the author of so great a gift,
He attacked the sleeping guest trying to pierce his breast with a blade of iron;
Ceres made him a lynx.

All the aforesaid things were recited by Calliope in elegant verse; and hence the Muses, by the judgment of the Nymphs, bore away the palm in this contest of singing. But the Pierides, taking this ill in mind and wasting away, were transformed into magpies, which Minerva had observed a little before chattering among the branches of a tree.

And while they wish to lament, moved through the air by beating arms,
They hung in the air, the reproach of the groves as magpies.
Even now in birds their ancient eloquence remains,
And their hoarse garrulousness, and the empty passion for talking.

In the sixth book the Poet sets forth how Pallas, having heard of the contest between the Muses and the Pierides, considered what punishment she herself ought to inflict upon Arachne, a Lydian girl, daughter of Idmon, who boasted that she was more skilled in weaving than Minerva. For that reason Pallas, putting on the form of an old woman, came to Arachne and tried to persuade her not to dare in future to challenge Minerva. But the girl, scorning the precepts of the old woman, boasted herself all the more; whereupon Pallas, returning again to her divine form, rebuked the girl for her impudence.

Pallas feigned the countenance of an old woman, and added gray hairs to her temples,
And steadied her weakened limbs with a staff.

Indeed Pallas not only called Arachne impudent and incompetent, but also declared that a trial should be made whether she might be surpassed by her in such a work. At these words, Pallas first, weaving her own web, designed in it how she herself had contended with Neptune over the naming of Athens, and how Neptune had drawn forth a horse from the rock, and Minerva an olive tree from the earth. Furthermore, weaving, she depicted how Rhodope, daughter of the river Strymon, and Haemus her husband, who had boasted themselves to be gods, were transformed into mountains; to which she added the transformation of a pygmy woman into a crane, who had dared to proclaim herself more beautiful than Juno; likewise the transformation of Antigone, daughter of Laomedon, into a stork, who did not hesitate to contend with Juno. She likewise delineated the transformation of the daughters of Cinyras, King of the Assyrians, into the stone steps of the temple of Juno, and also the transformation of Cynara into a stone which embraced the aforesaid steps of the temple as so many bodies of daughters. These things are set forth in the following verses:

The Cecropian rock Pallas designed in the citadel,
And the ancient quarrel over the name of the land.
Twice six heavenly ones sit in their lofty seats, with Jupiter in the midst,
Of solemn gravity, each god written with his own face;
The image of the king is gracious.
She makes the god of the sea to stand and strike the rough rocks with his long trident —

One corner holds Rhodope and Haemus,
Now icy mountains, once mortal bodies;

[marginalia: Arethusa into a spring. / Lyncus into a lynx. / Pierides into magpies. / Arachne's contest with Minerva. / Rhodope and Haemus into mountains. / Pygmy woman into a crane. / Antigone into a stork. / Daughters of Cinyras into stone steps. / Cynara into stone.]

[marginalia: Arethufa in fontem. / Rex Lyncus in Lyncem. / Pierides in picas. / Mulier Pygmza in gruem. / Cynara in faxum.]

The wretched fate of the pygmy woman occupies one corner,
How Juno, having conquered her in battle, transformed her into a crane that fights against her former people,
She depicted; and how Antigone once dared to contend
With the great consort of great Jove, whom royal Juno
Turned into a bird; she herself, with snapping stork's bill, applauds herself.
One corner alone, now bereft, holds Cynara,
And he who clasps the steps of the temple, as the limbs of his daughters,
And weeps, lying upon the stone that was once his children.

On the other part Arachne wove into her web the transformation of Jupiter into a bull on account of Europa daughter of Agenor, into an eagle on account of Asterie, into a swan on account of the daughter of the Caÿster, into a satyr on account of Antiope daughter of Nycteus, into Amphitryon on account of Alcmena daughter of Electryon, into gold on account of Danaë, into fire on account of Aegina daughter of Asopus, into a shepherd on account of Mnemosyne, and finally into a serpent on account of Proserpina. Though another Poet remembers only four of Jupiter's transformations in this couplet:

Made a bull on account of Europa, a shower of gold on account of Danaë, a satyr on account of Nycteis, Jupiter a white swan on account of Leda.

But let this be said in passing. Furthermore Arachne added to her weaving the images of the loves of Neptune, who transformed himself into a river to embrace Iphimedeia, into a bull to enjoy Aeolia daughter of Aeolus, into a ram to overcome Bisaltis, into a horse to pursue Ceres and Medusa, into a dolphin to lie with the maiden Melantho. Moreover to the same web she wove the loves of Phoebus, showing that he had been transformed into a hawk at one time, at another into a lion, and at other times into a shepherd on account of Isse daughter of Macareus. Nor did she omit the images of the loves of Bacchus, who transformed into a cluster of grapes deceived Erigone. At the end of the web she delineated the image of Saturn, who, putting on the form of a horse, lay with Philyra, daughter of Ocean, from whom afterward he begot Chiron the Centaur. These are the verses:

The descendant of Maeonia depicted these in the web of deception: the bull
And Europa deceived [...];
She made him an eagle on account of Asterie,
She made Leda to recline beneath the wings of the swan.
She added that, concealed under the image of a satyr, he
Had filled twofold the daughter of Nycteus with offspring;
That he had been Amphitryon when he had taken you, Tirynthian nymph;
That as a golden shower he had beguiled Danaë, as a flame Asopus's daughter,
As a shepherd Mnemosyne, as a varied serpent Deöis.

You too, changed into a fierce bull, Neptune, she placed here,
You appeared as Enipeus to the daughters of Aloeus, a ram you deceive Bisaltis;
And you, most gentle mother of crops, yellow of hair, felt you as a horse;
You, the snake-haired mother of the winged horse, felt you as a horse;
Melantho felt you as a dolphin.

She likewise depicted wild Phoebus in the image of a fieldsman,
Now bearing the feathers of a hawk, now the back of a lion,
How as a shepherd he beguiled Macareus's daughter;
How Liber deceived Erigone with a pretended cluster of grapes;
How Saturn as a horse begat twin Chiron.

After Arachne had observed the images of Minerva's weaving, made with wondrous artistry, and that her own work was in no way comparable to it, bearing this most bitterly, she ended her life with a noose. Then Minerva transformed this girl into a spider, and

Pallas in pity raised her as she hung.

Her hair fell away, with it her nostrils and ears;
The head becomes most tiny, and all her body likewise is small.
Her slender fingers cling to her sides in place of legs.
The rest is belly; from which, nonetheless, she spins a thread

Jupiter transformed into various forms. Neptune transformed into various forms. Bacchus into a cluster of grapes. Saturn transformed into a horse. Arachne into a spider.

[marginalia: Iupiter in varie formas transformatus. / Neptunus in varie forma transformatus. / Bacchi in vuam. / Saturni in equum transformatio. / Arachne in araneam.]

And exercises its ancient craft in weaving webs.

But Niobe, daughter of Tantalus, taking no warning from the fall of Arachne, and having borne from her husband Amphion seven sons and as many daughters, not only held the sacrifices of Latona in contempt but also thought herself to be preferred to her in honours; wherefore Latona, stung by this presumption, ordered her sons to be transfixed by the arrows of Apollo and Diana; and the father, afflicted with excessive grief, slew himself, while Niobe assumed the form of a stone.

She did not stand [...] she could not bring back her expression,
Nor could her feet go; even within her vitals was stone.

Moreover Latona, making her way to Lycia and vexed by burning thirst, approached a pond, and being hindered by the Lycian farmers, straightway transformed them into frogs.

[...] the goddess lifting her hands to the stars:
Live in your pool then, she said, for ever.

She fixed their necks where they bent,
And they themselves, condemning fate with their crooked mouths,
Their backs turn green, their belly — the largest part of their bodies — turns white;
The new animals leap about in the muddy pool.

These stupendous miracles of the gods were being celebrated among the Thebans; indeed there was none among them who would pass over in silence the vengeance of Apollo against the satyr: for Marsyas the satyr, challenging Apollo in flute-playing and at last overcome by him, was flayed of his skin, and the blood flowing from his whole body was transformed into the river Phrygia flowing through Phrygia and called from the name of the satyr.

The blood of Marsyas became the clearest river in all of Phrygia.

They report that Pelops was present at these calamities, who was a son of Tantalus the tyrant of Arcadia, and who, having been cooked by that same father and served among the gods reclining at a sumptuous banquet, was spared by all the gods except Ceres; indeed his limbs were reassembled, his soul recalled from the shades by the aid of Mercury, and because his left shoulder was wanting, they supplied him with an ivory one, and hurled his father Tantalus headlong to the seats of Tartarus; where amid food and drink he is tormented by continual hunger and thirst. Such was the state of affairs when princes of many regions were setting out for Thebes to take part in the public spectacles; the Athenians alone were absent, because their city was being attacked by neighbouring peoples. And so Pandion, King of the Athenians, obtained aid for the war from Tereus, son of Mars and King of the Thracians, and gave him his daughter Procne in marriage. She therefore, living in her husband's palace and seized with an incredible desire to see her sister Philomela, begged her husband Tereus to go to Athens and bring her sister to Thrace. Tereus, to please his wife, came to Athens and fell in love with Philomela; wherefore having brought her to Thrace, he did violence to her, and lest this crime be made known to anyone, having cut out her tongue, he shut her up in stables, and then told his wife that her sister had perished on the road. Meanwhile, that so great a crime should not remain hidden, Philomela sent her sister a garment on which the crimes of Tereus were depicted. Therefore Procne, understanding this, as if struck with frenzy, opened the stables and led her sister into the palace, and served up her son Itys, murdered and carved before his father to eat. Tereus, observing this, pursued his wife and Philomela, and as a result all of them, by the mercy of the gods, put on the wings of birds. Thus Procne was transformed into a swallow, Philomela into a nightingale, Tereus into a hoopoe, and Itys into a pheasant.

Then follows: the bodies born of naked steel, of Pandion's race, pay the penalty with wings as birds.
One hung on wings, pursues the other through the sun,
The other seeks refuge under the eaves, nor even yet from her breast
Have the marks departed, and the feathers are stained with blood.

He, driven by his own grief and swift desire for vengeance,
Is turned into a bird, upon whose crown crests stand.

And the author sings thus of Philomela:

Procne into a swallow. Philomela into a nightingale. Tereus into a hoopoe. Itys into a pheasant.

Philomela tells the crime of lustful Tereus, and
The mute girl, they say, became a garrulous bird.

[marginalia: Niobe in faxum. / Agricola Lycii in ranas. / Marfyas fanguis in fluuium. / Tantalus. / Progne in Hirundinem. / Philomela in lufciniam. / Tereus in vpupam. / Itys in Phafianum.]

Upon the death of Pandion, Erechtheus occupied the Athenian kingdom with the aid of Pallas. He had four daughters, but of the two more beautiful, one, Procris, he gave in marriage to Cephalus, and the other, Orithyia, was carried off by Boreas the Thracian wind and taken to Thrace, from whom he received the sons Zetes and Calais, who afterward set out along with Jason to bring back the golden fleece.

In the seventh book Ovid recalls that the Minyans, people of Thessaly, and others sailing with Orithyia, came at last to Phineus, who was in the most wretched state of misfortune. For since he had blinded his own sons Orythus and Arabus, he himself was afflicted with the same punishment; moreover he had Harpies, winged birds that snatched his food from him, which afterward Zetes and Calais, to gratify Phineus, put to flight. Then, arriving at Colchis, they demanded the golden fleece; but they received the answer that the bulls breathing fire from nostrils and mouth must first be tamed, and the attack of armed men springing from sown teeth must be repressed, and also the Dragon guarding the golden fleece must be put to sleep. With these tasks Jason, son of Aeson, had set out; and arriving at the palace, he was beloved by Medea, daughter of the king; wherefore by her aid, having overcome all difficulties, and bringing back the golden fleece, he returned to Corinth together with Medea; where he restored Aeson his father to the age of forty years, with the like aid of Medea his wife, skilled in the magic art. Bacchus, observing this miracle, asked her to restore his nurses [...] to youth, which Medea not only gladly undertook, but also bestowed upon Bacchus perpetual youth. Meanwhile the daughters of Pelias, enemies of Jason, were conversing familiarly with Medea; and having witnessed these miracles, they besought her to eliminate the old age of their father Pelias. She however, so as to take vengeance upon the enemy of Jason, persuaded the women to slay their own father and boil him; which having been done, Medea mounted the chariot drawn by dragons and flew away to Mount Othrys in Thessaly, where once in the time of the flood of Deucalion, Cerambus [...] was changed into a bird.

[...] the old vows of Cerambus,
Raised to the stars on the wings of the Nymphs by their aid.

Then she went to the grove of Ida, where she saw Maera transformed into a dog.

And those whom Maera terrified with new baying.

From this region Medea came to the city of Eurypylus, where the matrons of Cos, boasting themselves more beautiful than Venus, departed as horned cattle.

And the city of Eurypylus [...]

She also came to Cos, the island, where Alcidamas had seen a dove created from his daughter.

One father marvelled at the dove born from his daughter's body,
She who almost was able to be a white dove.

Then Medea visited other places where a certain Phyllius had been mad with love for a boy Cycnus, who, when he could not obtain the bull he had sought, cast himself from a high place and put on the form of a swan.

Leaping from the rock, all believed him fallen —
He became a white swan; he hung in the air on snowy wings.

Then his mother, grieving daily over the fall of her son, was in the end turned into a lake, being uncertain what form to take.

Hyrie, uncertain what to do, melted away in tears,
And became a lake; that pool takes its name from her own name.

Then she went on to the city of Aetolia called Pleuron, where the sister of Combe, grieving at the death of her sons, flew away as a bird.

There lies Pleuron, where on trembling wings
Ophias escaped the wounds of her children.

Then she visited Calaurea, where they say King Lathonius with his wife was transformed into birds.

Nurses of Bacchus restored to youth. Cerambus into a bird. Maera into a dog. Hyria into a lake. Combe into a bird.

[marginalia: Natrices Bacchi in iuuentutem. / Cerambus in auem. / Maera in canem. / Hyria in lacum. / Combe in auem.]

Men born from mushrooms.

> *Then from Calaurea he beheld Lathonius*
> *Transformed into a bird together with his wife, who was privy to the king's schemes.*

After the fall of the aforesaid, Medea observed Cephisus lamenting the fate of his grandson and transformed into a seal by Apollo.

> *Far hence Cephisus, lamenting the fate of his grandchild,*
> *She beheld transformed into a seal by Apollo.*

Then she sought the city of Euhippe, where it was first reported that human bodies were born from fungi.

> *There the bodies of mortal men were first*
> *Spread abroad, brought forth from rain-swollen fungi.*

When Medea had arrived there she complained that she had been scorned by Jason on account of Creüsa, daughter of Creon, King of the Corinthians; and therefore, inflamed with fury and having torn her children apart before their father's eyes, she was carried to Athens on winged dragons, where she observed the granddaughter of Polypemon transformed into a bird.

> *[...] who saw the granddaughter of Polypemon on wings.*

Aegeus, seeing her approach, received her not only with honourable hospitality but also took her to his bed, from whom he begot a son Medus. Meanwhile Theseus, son of Aegeus, long absent from his homeland, returned to Athens — and his father, owing to the long lapse of time, did not recognise him. But Medea, fearing his arrival both for herself and for her son, persuaded Aegeus to offer Theseus aconite as an enemy. But when the latter was recognised by his father at last, Medea, covered in clouds, fled to Asia together with Medus. Meanwhile Aegeus, flooded with great joy at the arrival of his son, ordered great sacrifices to be celebrated at which the praises of Theseus were commemorated — namely how he slew the Marathonian bull, and Sciron who afterward for his notorious cruelty was transformed into a rock.

> *He refuses his bones a resting place, a resting place his bones refuse;*
> *They say these endured for a very long time as a cliff:*
> *The rock of Sciron clings to the cliffs.*

Aegeus could not attain complete joy, for Minos, son of Jupiter and Europa, declared war on the Athenians and assembled various peoples from all around, among whom those dwelling on the island of Sithon are counted; this island the girl Arne, captivated by the beauty of gold, betrayed to the enemies attacking Athens, for which she was transformed into a jackdaw.

> *The impious one had betrayed [...].*
> *From this gain received, which the greedy one had demanded, it too —*
> *She was changed into a bird, which even now loves gold,*
> *Black of foot, clothed in the black plumage of a jackdaw.*

After this, Minos's request for aid against the Athenians was refused by the peoples. Meanwhile a ship of the Athenians, in which Cephalus was ambassador, came to Aeacus to obtain assistance from him against the Cretans; then Cephalus, having been liberally received, and Aeacus having promised aid, recounted the calamity of the region — namely that a wandering pestilence had carried off all the inhabitants. But Aeacus himself, being a son of Jupiter, implored his father most humbly, and was answered that the ants which he saw should be changed into so many men, who were called Myrmidons.

> *Jupiter granted it, and the omen was auspicious —*
> *He shares them, and repopulates the fields that their old tillers have left empty,*
> *I call them Myrmidons, nor is the origin false to the name.*

When these things had been said by Aeacus, Cephalus ascended the palace, where he was received with honour by Phocus, son of Aeacus, and was asked about the elegant javelin which he held in his hand, to which he replied that it had been given to him by his wife Procris, daughter of Erechtheus, King of the Athenians, together with a dog which afterwards, pursuing a fox, was transformed together with it into stone.

In the eighth book he relates how Cephalus returned to Athens with a force of soldiers. But Minos meanwhile, on account of the slaying of his son Androgeus, began to besiege Megara, where Nisus reigned, so that, having stormed it, he might the more easily win victory. During this siege Scylla, daughter of Nisus, was accustomed often to mount the walls of the city to watch Minos busy with his warlike operations; thus she fell in love with him, and that an opportunity might be given her to obtain him, she secretly cut off the golden lock of her father Nisus — upon which the life of the city depended — and sent it to Minos.

[catchword: secretly]

[marginalia: Homines ex fungis nati. / Polyphemonis neptis in auem. / Sciron in fcopulum. / Arne in monedulam. / Formice in homines. / Cephalus et Procris canis et vulpes in lapidem.]

When Minos received this, he admired the treachery but held the traitoress in abhorrence, and carried off victory. Then Scylla, being disdained by him, was transformed into a ciris — that is, a lark — and her father Nisus flew away as a bird of the same name; Nisus in Greek is called *haliaeetus*.

But when her father saw her — for he was already hovering in the air,
And now made a bird, a sea-eagle on tawny wings —
He swooped to tear the clinging one with his hooked beak;
She in terror let go the stern, and the light wind —
A light breeze seems to have held her as she fell, lest she touch the water.
She became a feather, changed by feathers into a bird named
Ciris, and has this name from the shorn lock.

Minos, now triumphant over the Athenians, imposed upon them that every year also they should send fourteen children of noble men to the labyrinth of Crete, built by Daedalus, to be devoured by the Minotaur, son of Pasiphaë and the bull. Wherefore when the third lot fell upon Theseus, son of Aegeus, he set out to Crete and, by the aid of Ariadne, daughter of Minos, slew the Minotaur and came out of the labyrinth unharmed. Though afterward, forgetful of so great a benefit, he abandoned Ariadne, whom he had taken away from there together with her sister Phaedra, on a certain island. Meanwhile Daedalus, detained in prison by Minos, made wings of feathers and wax in order to flee thence together with his son. But Icarus, in no way obeying his father's instructions and flying too high, with the wax of his wings melted, fell onto the island, which was called Icarea from the name of the boy. Daedalus, his son having died, came to Cocalus, King of Sicily, where he delighted exceedingly in the partridge bird: for this one, once called by the name of his sister's son, who had been given over to be educated by Daedalus, was thrown down from a wall out of jealousy of his sharp genius, and transformed by Minerva into the partridge bird.

[...] now changed into wings,
The feet pass away, the name that was before him remained.

Yet this bird does not lift its body on high wings,
Nor makes its nests in the branches and on high ground.
It flutters close to the ground and lays its eggs in hedges,
And mindful of its ancient fall, fears lofty places.

Theseus, the Minotaur slain, won the greatest fame and glory for himself; wherefore the citizens of Calydon implored his aid to slay the boar that was laying waste their regions. For when Oeneus had sacrificed to all the gods except Diana, the goddess, indignant, sent an enormous boar into the region of Calydon to lay it waste. Meleager, having summoned the princes of Greece, strove many times to slay it, but first of all Atalanta wounded the boar, whose fortitude Meleager admired and granted her the spoils of the slain boar; which afterward the brothers of Althaea, attempting to take from Meleager, were slain. But Althaea, learning of her brothers' deaths, handed over to Vulcan the brand which had been laid up by the Fates and which contained the life of Meleager, and when it was consumed, Meleager perished. His sisters, mourning, were transformed into birds, which even now are called *Meleagrides*.

[...] along her stretched-out arms she sends long wings,
She makes from them a bird, and sends it through the air.

Afterward Theseus, returning to Athens, learned from the river Acheloüs that certain islands called Echinades had once been nymphs — Naiads — who disdained Acheloüs; and he also heard the origin of another island not far distant from the Echinades: for this had been Perimele, daughter of Hippodamas, upon whom Acheloüs did violence, wherefore the girl, thrown into the sea by her father, was transformed by Neptune into this island.

These were Naiads, who with twice five companions
Had slaughtered [...] and invited the gods to the sacred rites.
Unmindful of me, they led festal dances.

And a little below:
You yourself see her afar; far off, away, she has retired —
An island dear to me; called Perimele by name.

As Acheloüs was relating these things, Theseus and his companions were present; but among them a certain son of Ixion

[catchword: et]

[marginalia: Nifus in auem. / Scylla in cirim. / Perdix in perdicem. / Sorores Meleagri in aues. / Naiades in infulas.]

— Ixion's son — denied the power of the gods to give and to take away forms. In turn Lelex, another companion of Theseus, by the example of Jupiter and Mercury, was instilling the divine power into the ears of his listeners. For Jupiter and Mercury, in human guise, were received with honour in Phrygia by Philemon and his wife Baucis, and granted them whatever they might desire to ask of the gods and obtain. The other townsfolk, who denied hospitality to the gods, were punished in such a way that their town passed into a lake. But the house of Philemon and Baucis was transformed into a temple, and they themselves in extreme old age passed into trees — one into an oak and the other into a linden.

Philemon into an oak, Baucis into a linden.

> *Before the steps of the temple, they happened to be talking of the place,*
> *And Baucis saw Philemon putting forth leaves,*
> *And old Philemon saw Baucis putting forth leaves.*

Nor was this to be called into doubt, since the gods also permitted Proteus, son of Ocean and Tethys, to be transformed into various forms himself; just as likewise Mestra, daughter of Erysichthon, was able to perform this by the permission of the gods.

In the ninth book the Poet makes known how the aforesaid examples were being recited by Acheloüs, so that divine power might be impressed upon human minds; since even Acheloüs himself was once accustomed to put on various forms, and most especially when the father of Deianira — most beautiful of the Aetolian maidens, daughter of Oeneus — had decreed to give her in marriage to whoever should win the victory in a contest. Thus Acheloüs, descending to a contest with Hercules, represented various figures, mocking Hercules; but at last he put on the form of a bull, whereupon Hercules tore the horn from his brow, and Acheloüs, overcome, melted entirely into a river.

Acheloüs into a river.

> *Acheloüs was shamed, and his mutilated horn he hid his head in the middle of the waters.*

This horn afterward the Naiads, daughters of his, filled with every kind of flower and fruit and called it the *cornucopia*. Therefore Hercules, the victor, having won Deianira, after slaying the centaur Eurynomon, was returning with his wife to his homeland. But arriving at the river Evenus, he entrusted his wife to the centaur Nessus to carry her across the river, who wishing to do violence to the woman was slain by Hercules with an arrow dipped in the blood of the Hydra. But Nessus, dying, gave Deianira a garment stained with his blood, affirming that there was in that garment such power that whenever Hercules should put it on he would hold all women in hatred except Deianira. When therefore it had reached Deianira's ears that Hercules was burning with a mighty love for Iole, daughter of Eurytus, she took care that this garment be brought to Hercules; and he, putting it on, straightway driven into a frenzy, cast his servant Lichas from Mount Cenaeum into the Euboean sea, whom afterward Tethys transformed into a rock.

Servant of Hercules into a rock.

> *The earlier age had produced, once rigid, the flint;*
> *Even now a low rock stands out in the Euboean sea,*
> *And keeps the shape of a human form, and sailors*
> *Fear to tread it as if it could feel.*

At last Hercules composed himself upon a built-up pyre; and, having laid aside his human form, was placed by Jupiter among the heavenly hosts. But Alcmena, mother of Hercules, was divulging the exploits of her son and sometimes related her own misfortunes to a single maiden alone: namely that, while bearing Hercules in her womb, and on account of the difficulty of birth invoking the goddess Lucina, that goddess by the command of Juno sat in the form of an old woman before the door of Hercules's mother, clasping her knees — not to assist but to hinder the birth. But Galanthis, a handmaid, suspecting some mischief, came forward and announced to the old woman that Deianira was already delivered of her child, which Lucina believing rose up, and straightway Deianira bore Hercules; Lucina therefore, deceived by this stratagem of Galanthis, transformed her into a weasel. The Poet expresses this transformation thus:

> *For the deceived one, it is said, Galanthis was seen to have laughed,*
> *Laughing; the fierce goddess seized her by her very hair*
> *And dragged her, and prevented her body from touching the ground;*
> *She turned her outstretched arms into forelegs;*
> *Her former swiftness remained, nor did her back lose its colour;*
> *Her shape was different from what it was before.*
> *Because through her lying mouth she had aided one in labour,*

[marginalia: Philemon in quercum. / Baucis in Tiliam. / Achelous in fluuium. / Famula Herculis in fcopulum. / Galanthis in muftelam.]

She gives birth through the mouth, and frequents our houses as before.

These things having been narrated by Alcmena, she would not let the misfortune of Iole's sister pass over in silence. For since Dryope, her sister, beloved of Apollo, had torn a branch from the Lotus tree — into which tree the nymph Lotis, fleeing the violence of Priapus, had once been transformed — because she had violated the sacred foliage, Dryope was transformed into a trunk.

Lotis, the nymph, fleeing the obscene pursuit of Priapus,
Had been changed into this tree, keeping the name unchanged in form;
Nor could it easily be seen unless one looked closely;
The bark was creeping upward around her feet;
She wished to tear it away with her roots [...].

While these things were being related, Iolaus, son of Hercules and Hebe, was recalled by the mother to a youthful age; which privilege Hebe declared had been granted to no one else; unless Themis, goddess of justice and religion, were to testify that the sons of Callirhoe had been straightway translated from infancy to youth, so that they might avenge the death of their father, slain by treachery. Jupiter by a speech appeased the gods who were indignant at so many miracles; from whose words the Poet falls into mention of Miletus, so that he might the more easily describe the transformation of Byblis into a spring. For from Miletus the Cretan, who built a city in Asia bearing his own name, there sprang Byblis and Caunus. But when the girl pursued her brother with wanton love, Caunus, detesting such wantonness, fled from his homeland. She however, pursuing her brother, came into Caria, where her tears were transformed into a perpetual spring.

Thus consumed by tears she melted herself away,
She was turned into a spring, which even now in these valleys
Bears the name of its mistress, and flows under the dark linden.

When the fame of this miracle had come swiftly to Crete, something else more worthy of admiration was said to have happened in that region. For a certain Ligdus, a man of low condition, took Telethusa as his wife, to whom, pregnant, he commanded that if she bore a female she should be slain, and only if a male should she be reared. Wherefore to Telethusa, grieved by the savage commands of her husband, the goddess Isis appearing in sleep persuaded her to rear a female child when born, promising that, the occasion arising, she would be at hand. Thereupon Telethusa bearing a female, let her husband believe she was a mother, and gave the child the name of her grandfather — namely Iphis. When the girl was in her thirteenth year, her father gave her in marriage to Ianthe, daughter of Telestes; wherefore Telethusa together with her daughter came to the temple of Isis, where Iphis was transformed into a man.

The maiden goes to the temple, her mother follows,
She was accustomed to go with one such step; this white colour in the face
Remained, and the vigour increased, and the gait grew bolder,
The features, and with the hair unadorned the measure of the face,
And the strength of a man she had to that degree, which as a
Woman she lately was, now a boy she is.

In the tenth book we have first from the Poet the marriage of Orpheus and Eurydice; for this Orpheus, son of Apollo and Calliope, or according to the opinion of others, son of Oeagrus, and of Polymnia the Muse, took in marriage a certain Eurydice, an omen of unhappy name: for she, wandering through very wide and lush meadows, was slain by a serpent lurking in the grass. Orpheus therefore took this so bitterly that he descended to the seats of the dead to recover his wife; where with the sweetest melodious song he obtained from Pluto that he might lead his wife back to the upper air on this condition, that he not look at her before he reached the upper world; but this condition not having been observed, Eurydice was again snatched back to the shades. Wherefore Orpheus, deprived of all hope of recovering his wife, afterward pursued women with the greatest hatred, and fell prey to the abominable love of males. At last, singing on a certain hill, on account of the sweet sound of his cithara, many animals and trees drew near, among which was the Pine sacred to Cybele, into which tree Atys, her priest, was transformed.

And the hair-clad Pine with shaggy summit,
Dear to the mother of the gods, for Cybele's Atys
Had laid aside his human form in it, and hardened into that trunk.

[marginalia: Dryope in truncum. / Byblis in fontem. / Puella Iphis in virum. / Orpheus. / Atys in pinum.]

Among these trees the Cypress also was once present. Cyparissus was a youth of the greatest beauty who, having carelessly slain with a javelin a Stag he loved with the greatest devotion, and then wishing to end the grief he had conceived from this with a sword, was transformed into a Cypress by Apollo.

This tree was once a boy, beloved of that God
Who tempers his lyre with strings, and strings with his bow.

Orpheus then began to narrate the love with which the Gods had formerly pursued boys, speaking of the Cypress. First, how Jupiter, seized by so great a contagion of love for Ganymede, son of Tros king of the Dardanians, flew up to Heaven changed into an Eagle and appointed him as divine cup-bearer.

The king of the Gods once burned with love for Phrygian Ganymede,
And something was found that Jupiter would rather be
Than what he was; yet he did not deign to take the form
Of any bird save that which bears his lightning.

Hyacinthus, son of Amyclas, would also have been carried to the celestial abodes by Apollo, had he not perished by the weight of the discus; and therefore Phoebus, wishing to preserve that beloved body, transformed it into a flower of the same name.

Behold — the blood poured on the ground had ceased to stain the grass;
It ceased to be blood; a flower brighter than Tyrian crimson arose.
It took a form like the lily, save that where those were silver,
In these the colour was crimson.
Phoebus himself — for he is the author of the honour —
Inscribed his own laments; the flower bears the letters written,
Sad characters tracing a name and a lamentation.

Orpheus continued with many arguments showing that boys had been pleasing to the Gods and an ornament to cities, while women, on the contrary, had been hateful to the Gods and brought disgrace upon cities. This was made manifest in the Propoetides, who, denying that Venus was a Goddess, not only fled from their fellow citizens but were also at last changed into stones. Still, the fear of denying Venus her divinity was not strong enough to deter them.

Pygmalion, terrified by the crimes of these women, had embraced the strictest chastity. Being an excellent sculptor, he carved an ivory image of a maiden so elegantly that, inflamed by an incredible love for it, he implored Venus, who granted that the statue be turned into a living woman.

He seeks the sacred rites, falls on his face, and prays.
The ivory, hitherto rigid, softened; his fingers pressed it,
It yielded beneath them — and Pygmalion wavered, uncertain
Whether this was wax.
It was a body; the veins pulsed, pressed by his thumb.

From Pygmalion issued children, namely Paphos and Cinyras; the latter would have ended his life in notable felicity had he not begotten Myrrha, who, tormented by a sinful love for her father and aided by her nurse, lay with him in ignorance. When her father discovered this, he pursued his daughter with drawn sword all the way to Arabia, where, by the mercy of the Gods, she was transformed into the myrrh-tree that drips its resin.

Her body was enclosed in bark; yet though she lost her former senses with her body,
She weeps still, and the warm drops flow from the tree.

When Myrrha was already with child, Adonis was afterwards born from that tree, distinguished by such elegant beauty and such lovely bodily gifts that Venus, burning with love for him as he devoted himself to hunting, persuaded him to beware wondrously of wild beasts. To impress this more firmly upon his mind she used the example of Atalanta and Hippomenes, for Hippomenes, with the help of Venus, had by the cunning of golden apples overcome Atalanta the daughter of Schoeneus the King, who could be surpassed in running by no one. Afterwards, ungrateful for the benefit received, he rendered no thanks to Venus, whereupon

[catchword: Venus]

[marginalia: Cyparissus transformed into a Cypress. / Orpheus on the love of boys. / Hyacinthus transformed into a flower. / Pygmalion. / Myrrha into a tree. / Adonis in a flower.]

Venus, indignant, sent upon them a frenzy of lust; driven by this madness, Hippomenes lay with Atalanta even within a temple sacred to the mother of the Gods. Thereupon the Goddess, so greatly defiled by this outrage, transformed Hippomenes into a Lion and Atalanta into a Lioness.

You seemed gentle; yet in what manner did their tawny necks
Bend beneath the yoke? Their fingers curved into claws,
From their shoulders arms became forelegs, all their weight
Fell upon their chests, their tails swept the sandy ground.
Their faces held anger; in place of words they gave forth roars;
Instead of a bridal-chamber, they haunted the woods; dreadful to others,
They press the Cybelean yoke beneath their tamed Lion-forms.

When Venus was exhorting Adonis with these examples to avoid wild beasts, the boy was nevertheless slain by a boar that had long been hunted by himself. And so Venus changed the blood of her beloved into a flower of crimson colour, just as Proserpina had power to transform Minthe the nymph, concubine of Pluto, into the herb mint. The transformation of the blood of Adonis into the flower called the Anemone is described thus:

A flower sprang up, blood-red in hue,
Such as the seeds which pomegranates hide
Beneath their slow-ripening rind are wont to bear;
Yet its enjoyment is brief,
For the winds that shake all things also blow it,
Too heavy and too light, to its fall.

Of the transformation of the concubine-nymph of Pluto the Poet sings thus:

To turn her womanly limbs into fragrant mint.

In the opening of the eleventh book is set down the unhappy end of Orpheus, who, as was related a little earlier, despising the Thracian women had fallen into their grave hatred. Wherefore while the rites of Bacchus were being celebrated, the women, catching sight of Orpheus singing the loves of the Gods above amid the wild beasts and the trees, rushed upon him with great fury and tore him apart, and having taken his head from his body, they cast it and his lyre into the river Hebrus. Accordingly Bacchus, bearing it sorely that the blood of Orpheus had desecrated his rites, transformed those women into various trees.

Yet this crime did not go unpunished;
And the god, grieving for the loss of the poet of his rites,
Straightway bound in the woods all the Aedonid mothers
Who had witnessed the deed, with tangled roots.

Thereafter Bacchus departed from Thrace to Mount Tmolus in Cilicia, accompanied by Satyrs. Silenus was absent, however, having once been captured and held in the prisons of Midas king of Phrygia. But the King, learning of Bacchus's arrival, freely offered Silenus to him; and on account of such great generosity obtained from the God that whatever he asked should be granted. But since the King was most avid for gold, he asked that whatever he touched should be turned into gold. Wherefore Midas, touching gold instead of food and drink, repented of his petition; and therefore begged Bacchus to make the conceded gift void. Warned by Bacchus, he washed himself in the river Pactolus, and, the golden power having been communicated to the waters, the sands of this river are said to be golden. Thereafter Midas, detesting gold and riches, withdrew into the forests, where he venerated Pan the god of shepherds. When this God took delight in the sound of his pipe, he on a certain occasion dared to challenge Apollo; but when all had judged Apollo the victor in the contest, Midas alone thought the victory should be awarded to Pan. Hence Apollo, on account of Midas's great foolishness, transformed his ears into those of an ass.

Nor did the Delian god suffer
Those dull ears to keep their human form,
But stretched them out, filled them with shaggy white hair,
Made them unsteady, and gave them power to move;
All the rest remained human; in that one part alone he was condemned,
And bore the ears of a slowly-stepping ass.

And so Midas, having acquired his ass-like ears, concealed them with such great care that no one save his barber knew of them; and he, not daring to share the secret with anyone, whispered it in a low voice to the earth, from whose words reeds are said to have grown, which, agitated by the wind, whisper of Midas's disgrace. Apollo then departing with Neptune came to Laomedon who was building the walls of Troy, promising that for the agreed wage he would quickly bring such walls to completion. But when the work was finished, Laomedon swore he had promised nothing; whereupon Neptune devastated the Trojan fields with a flood and brought it about that Hesione the daughter of Laomedon was exposed to be devoured by a sea-monster, whom Hercules afterwards rescued, in the hope of obtaining the horses promised by Laomedon. But he too, angered at the wage denied him, stormed Troy and gave Hesione to Telamon; Telamon's brother Peleus was alone among mortals in having a Goddess for a wife, since he, by the counsel of Proteus, bound the sea-goddess Thetis as she transformed herself into various shapes, and from her begat Achilles, that most valiant of men.

[marginalia: Adonis into a flower. / The nymph into mint. / Women into trees. / The ears of Midas, of what kind.]

Dedalion into a Hawk.

Those transformed into Halcyon birds.

Aesacus into a Diver.

Peleus, however, fell into the greatest misfortune when he slew Phocus his kinsman; driven by this crime, he went to Ceyx the King of Trachis, who was himself sunk in the deepest grief, for his brother Dedalion had had a daughter, Chione, of great beauty, who, having been taken by Apollo disguised as an old man, bore Philemon who was most devoted to the lyre, and likewise lying with Mercury in her sleep, bore Autolycus the thief. For this reason, when she on one occasion boasted that she was more beautiful than Diana herself, she perished with her tongue transfixed by arrows; whose death Dedalion mourned so grievously that he cast himself from Mount Parnassus into the sea, but Apollo straightway, before he reached the waves, transformed him into a hawk.

Perhaps you think this bird, which lives by plunder and terrifies
All other birds, has always had its wings.
He was a man, and such constancy of spirit,
So fierce he was, and bold in war, and ready for violence —
His name was Dedalion.

While these things were being related by Ceyx, a herdsman of Peleus's cattle reported to his master that all the oxen had been slain by some rabid wolf, which at last was transformed into a stone. Peleus did not linger long in those regions, however, but went to Acastus king of Thessaly. Meanwhile Ceyx, of whom we made mention a little before, saddened by his brother's fate and about to set out to consult the oracle of Apollo, had promised his wife Halcyone that he would return within two months. But when he had been overwhelmed together with his companions by a storm that arose in the Aegean Sea, Halcyone, after the appointed time had passed and her husband had not returned, was informed by Morpheus, the son of Sleep, through the aid of Juno, of her husband's death. Whereupon approaching the shore and catching sight of her husband's corpse upon the water, she flew thither transformed into the Halcyon bird. And Ceyx, as though feeling his wife's arrival, was changed into a bird of the same kind.

She alighted upon it — and it was a wonder that she could fly —
Beating the yielding air with her newly formed wings.
She touched the mute body, pale from the bloodless cold.
This he felt; and at last, the Gods above showing pity, both
Were turned into birds, subject to the same fate.
Even then their love remained.

For this reason these birds always nest on the shore; just as also that little bird called the diver does, for this was once Aesacus the son of Priam and the nymph Alexirhoe, who, while he was pursuing the nymph Hesperia, she, fleeing and bitten by a serpent, ended her life; hence Aesacus was seized by such great grief that he cast himself headlong from a rock into the sea, but Tethys, before he reached the waves, changed him into a diver, which still takes the greatest delight in the waves.

He sends his body over the waters;
His feathers break his fall, Aesacus plunges ever
Prone into the depths, and repeatedly seeks death's path.
Love made him lean; the long joints of his legs stretch out,
His long neck remains, his head is far from his body.
He loves the sea, and keeps his name because he is plunged into it.

In the twelfth book, the grief of Priam and his sons mourning for Aesacus is first expounded; Paris alone was absent, having — by the seizure of Helen — furnished the occasion for the Trojan War.

[marginalia: Dedalion into a hawk. / Those transformed into Halcyon birds. / Aesacus into a diver.]

The Greeks, bitterly resenting the abduction of Menelaus the King's wife, declared war on the Trojans and dispatched a thousand ships fitted out for battle; a storm drove these to Aulis, a city of Boeotia, where the Greeks, while performing the rites of Iphigenia, observed a serpent first devour eight chicks in a nest in a nearby plane-tree, and then the mother-bird circling around it; from this Calchas foretold that Troy would be taken in the tenth year. The serpent thereafter was transformed into stone as an eternal monument of the event.

At the same time Agamemnon, preparing to make war against the Trojans, carelessly slew a Hind sacred to Diana; whereupon the Goddess in her wrath stirred up the sea with winds, and the Greeks could not depart; nay, a pestilence arose among them. Calchas accordingly advised that they appease the divine wrath with the blood of Agamemnon's daughter. And so Iphigenia, daughter of Agamemnon, was led to the altar to be sacrificed, but Diana afterwards carried her off and substituted a Hind. When the fame of the Greeks' approach to storm Ilium had been spread throughout the world and they had already come down to battle, Protesilaus son of Iphiclus was the first of all to be slain by Hector; and by Achilles was slain Cygnus son of Neptune, who, because of the hardness of his skin he could not be cut down; therefore, choked by his throat, his body was changed into the Swan bird.

The God of the sea gathered the white body
Into a bird, of which it bore the name.

All the Greeks, reclining after overcoming Cygnus, recalled his hardness; someone among them brought forward a case said to be similar to that of Caenis. Nestor, speaking, said that Caenis had been a most beautiful girl who, having been taken by Neptune, obtained from him that she should be changed into a man, and afterwards that she should never be pierced by any weapon. Moreover, when she came to the feast of Pirithous son of Ixion, who was taking Hippodamia as wife, together with the other Centaurs and Lapiths, and a great battle arose among them, Caeneus could be harmed by no weapons; wherefore, overwhelmed by a great quantity of trees heaped upon him, he was smothered and transformed by Neptune into the bird Caenis.

Once a great man, but now a unique bird — Caeneus.

Cenis into a bird.

While these things were being related by Nestor, mention was made of his brother Periclymenus, who had obtained from Neptune the ability to transform himself into various shapes. Wherefore, having dared to fight with Hercules and eluding him in the form of an Eagle, he was wounded by Hercules's arrow. Neptune then, bearing most bitterly that his son Cygnus had been slain by Achilles, obtained from Apollo that the arrow of Paris should transfix the ankle of Achilles. And so, Achilles having been slain, a contention arose between Ajax and Ulysses over the arms of Achilles, and Agamemnon was appointed judge of the question.

In the thirteenth book the Poet shows us that Agamemnon the judge, not wishing to offend either party, declined to pronounce sentence, and committed the judgment to the other princes of Greece, who afterwards, led by the persuasive eloquence of Ulysses, pronounced in his favour, and consequently handed over the arms of Achilles to him to possess. Ajax on the other side, seized with immense grief, ended this pain with his sword. But from the blood flowing onto the ground a flower similar to the hyacinth burst forth.

The reddening ground, from blood,
Brought forth a crimson flower from the green turf,
As had once sprung from the Oebalian wound;
Letters are inscribed on it common to the middle of both —
Here a name is written, there a lamentation.

Ulysses therefore, having won the victory, was sent to Lemnos to fetch from there Philoctetes who possessed the arrows of Hercules. Returning thence, after Troy was destroyed and the fleet of the Greeks was crossing into Thrace, he sacrificed with his own hands Polyxena the daughter of Priam and Hecuba. When Hecuba went to the shore in order to wash the body, she caught sight there of the corpse of her son Polydorus, slain by Polymestor king of Thrace. For Priam had sent his son Polydorus, the youngest of the others, to Polymestor on account of the uncertain outcome of the Trojan war; but Polymestor, having received the boy with honour, killed him and cast him into the sea. And Hecuba, unable to endure so great a crime, blinded Polymestor together with other women; whereupon, as they report, Hecuba, fleeing and pelted with stones by the Thracians, was changed into a dog.

Hecuba into a dog.

[catchword: The slaughter]

[marginalia: Cygnus into a bird. / Cenis into a bird. / Hecuba into a dog.]

Maddened by the slaughter, the Thracian people assailed the Trojan woman
With javelins and with stones.
She pursued with her jaws a stone that had been thrown with a hollow growl,
And though her mouth was ready for words, she barked
When she tried to speak.

This notable calamity stirred the hearts of all the Gods, with the exception of Aurora, who was tormented by a more weighty cause of grief: for her son Memnon, the child of Tithonus and of Aurora herself, having been slain in the Trojan war by Achilles, obtained from Jove that the embers of his pyre and all his comrades should be transformed into the birds called Memnonides, which gather every year at the tomb of Memnon and fight among themselves.

The Memnonides:

The spirit from the fire, its own lightness supplying it with wings,
First resembling a bird, then truly a bird,
Rang out with its feathers; its sisters rang out in like fashion,
Innumerable.

Moreover the tears of Aurora their mother dropped down as cold dew. After Troy was destroyed, Aeneas, a fugitive with his father Anchises and his son Ascanius, arrived at Delphi, where he was received by Anius the Priest of Apollo with generous and honourable hospitality. Nay, Anius related in what manner he had lost all his daughters; for these, by the gift of Bacchus, turned into wine, oil, and grain whatever they touched; when Agamemnon learned this, he attempted to take them away so that by their services he might more easily feed his army, but Bacchus transformed them as they fled into doves.

As doves they flew away.

Anius afterwards gave to Aeneas on his departure a mixing-bowl engraved by Alcon of Lydia, on which could be seen the images of the daughters of Orion, who freely offered themselves to be sacrificed on behalf of the Theban people, and from whose funeral pyre two youths sprang forth, named — from their crown of stars — the Stephani:

That two youths might emerge from the maiden ash,
Lest their race should perish — those youths whom fame
Names the Crowns.

Thereafter the Trojans came to Crete, then they went to Ambracia, and thence they departed for Aonia, where the sons of the Molossian King were transformed into birds.

The impious sons of the Molossian King
Fled the fires they had kindled beneath them on swift wings.

Sons of the Molossian King transformed into birds.

Finally the Trojans visited Sicily, where Galatea daughter of Nereus and Doris was sharing her own misfortune with Scylla and the other nymphs. Acis, born of the nymph Symaethis and of a Faun, was desperately in love with her; wherefore the Cyclops, observing the two sporting together and himself burning with love for the nymph, hurled a rock at them; accordingly Galatea immediately hid herself beneath the waves, while Acis, overwhelmed by the rock, was transformed into the river that bears his name.

We caused Acis to take on his ancestral strength;
Crimson blood was flowing from his face, and within
A brief space of time the redness began to fade,
And became first the colour of a river muddied by rain;
Then, cleared completely, the rock rang with waters leaping.

Glaucus, the God of the sea, admiring from afar Galatea as she told these things among the waves, addressed her with blandishing words, but she plunged her head beneath the waves. Then Glaucus, from a prominent rock, declared aloud that he was a God. He had once indeed been a fisherman, who, having eaten the herbs upon which fishes had lain, leapt into the sea and was changed by the Gods into a God of the sea.

Farewell to land; I plunged my body beneath the deep,
And the Gods of the sea deemed me worthy of sharing their honour.

Wherefore Glaucus, perceiving that he was scorned by Scylla, went to Circe so that by her aid, or by magic charms, he might win his beloved.

In the fourteenth book Glaucus arrived at Circe daughter of the Sun, who was mighty in words and herbs, so that she might bring about an easy love between him and the nymph. But Circe, inflamed with love for Glaucus, was endeavouring to detain him with herself; but when she perceived that she was scorned

[marginalia: The Memnonides. / The Stephani — who they were. / Sons of the Molossian King transformed into birds. / Glaucus departs.]

by him, she turned all her fury against Scylla, and by means of magic words brought it about that Scylla, tormented by a sort of frenzied madness, cast herself into the Sicilian sea, and was turned into a rock, which is still avoided by sailors.

Before transformed into a rock, which even now as a rock
The sailor avoids.

Scylla into a rock.

When Aeneas had therefore avoided this rock, he approached the islands called Pithecusae, which are named from the multitude of Apes. For Jupiter, having conceived a hatred for the treacheries and perjuries of the Cecropians, transformed them into apes, and for this reason the islands which they had inhabited were called Pithecusae.

For the father of the Gods, detesting the trickery and perjuries
Of the Cecropians, and the deceptions committed by that race,
Changed the men into a deformed animal, so that
They might seem at once different from men and like them.

Then afterwards Aeneas made his way to the Sibyl, daughter of Glaucus, by whom he was led into the Elysian fields and learned of the race of his descendants yet to come; and likewise he learned from the Sibyl how she herself had obtained from Apollo that she might live for as many years as she could hold grains of sand in her hand. Subsequently Aeneas, journeying into Italy, encountered Macareus the Ithacan, companion of Ulysses, who recounted the innumerable mishaps of their company: for when the companions of Ulysses had sought the house of Circe, they beheld various beasts who had once been men; nay, Macareus himself had been changed into a quadruped by the cups of Circe; but at last Ulysses, having implored the aid of Mercury, recovered all his companions.

Circe's companions:

We took in our right hands the cups offered to us, holy things,
And with parched mouths thirsty we drained them at a draught;
The dread Goddess touched the tips of our hair with her wand,
And — I am ashamed, but I will tell it — I began to be rough with bristles,
No longer able to complain; instead of words I gave forth a hoarse
Murmur, and fell forward with my whole face to the ground.

Wherefore Macareus, most expert in examples, persuaded Aeneas with strong arguments not to touch the shores inhabited by Circe; since Picus also, a King, had flown away at a touch of Circe's wand alone, transformed into a Woodpecker.

With a switch she touched the youth three times, with spells thrice uttered;
He fled — but marvelling at himself that he seemed
To run more swiftly than usual, he saw feathers on his body.

Picus the King into a Woodpecker:

Indignant at so suddenly approaching the wide forests,
In the form of a bird, he fixed his hard beak in the oaks
And in his anger gave long wounds to their branches.
The feathers took on the colour of his crimson cloak;
What had been a brooch and had bitten the gold of his garment
Became gold, and his neck was encircled with tawny gold.

Moreover, his companions, seeking King Picus, were themselves changed into various forms.

Calling for their king,
They give him his answer, and prepare to attack with weapons;
She scattered venom and noxious juice;
From whose contact monstrous forms of various beasts
Came to the young men, and each one lost his own shape.

The wife of King Picus, named Canens, worn away by grief for her lost husband, melted away beside the river Tiber; which place was called Canens from her name.

She pined away, and little by little faded into the thin air:
Yet fame has marked the spot, which the old settlers
Named Canens, from the nymph.

And so Aeneas, warned by Macareus, avoiding the abode of Circe, set out for Italy; where fighting against the Rutulians on behalf of King Latinus he obtained aid from Evander. Turnus, the general of the Rutulians, sent Venulus as ambassador to Diomedes, to obtain from him assistance against Latinus and Aeneas; which Diomedes by no means granted, asserting that Venus fought on behalf of Aeneas, and that the power of this Goddess was such that

[marginalia: Scylla into a rock. / Picus the King into a Woodpecker. / The pastor into an oleaster.]

all ought to fear her; for indeed the very companions of Diomedes, who had gone to war against Venus's will, were gone away into birds resembling swans, which authors call the birds of Diomedes and the common people call Ardeas.

The companions of Diomedes into birds:

Their voice and their very desires became attenuated and birdlike, and their hair
Passed into feathers; feathers also clothed their necks,
Their faces and backs received larger pinions,
Their elbows curved gently into wings —
Their feet grew great.
If you would ask the form of these dubious birds:
Not like swans, yet nearest in whiteness to white swans.

Diomedes therefore offered this excuse for not compelling soldiers to go for Turnus against Aeneas. Wherefore Venulus, having received his answer, left the fields of Apulia; though Pan son of Mercury and the nymphs invited him to stay — nymphs whom a certain Apulian shepherd had offended with ill-fitting speech, and was transformed into a wild olive tree.

He disliked the nymphs; irritated at the glade
He added rude insults to his coarse and murky words.
He fell silent no sooner than the tree covered his throat:
For he is a tree; and one may recognise his character from his fruit,
For the wild olive reveals in its bitter berries
The mark of his tongue; let the bitterness of his words pass into them.

At last, all hope of Diomedes's aid gone, Turnus, trusting in his own forces, strove to rout the Trojans, and had already thrown fire into their fleet; when the mother of the Gods (since the ships of the Teucrians had been built of timber from Mount Ida in Phrygia, where she was especially venerated) obtained from Jupiter that all of them should be turned into nymphs. Finally, when Turnus had been slain by Aeneas, the city of Ardea which he had inhabited was set on fire, from which a bird of the same name as the city flew out.

Ardea: whence the bird of that name.

And so Aeneas, when he had reached extreme old age, after so many and so great deeds, was by the prayers of Venus changed into an indigenous God. Aeneas was succeeded by Ascanius, then by Silvius, Latinus, Epitus, Capys, Capetus, Tiberinus (from whom the Tiber takes its name), then Agrota, Aventinus (from whom Mount Aventinus was named), and finally Palatinus succeeded; during whose reign Vertumnus the God was accustomed to change himself into various forms, and was in love with the Goddess Pomona; and since he had never been able to possess her, at last transformed into an old woman he related many things by which a woman's mind is wont to be moved. But since Pomona could in no way be drawn from her former opinion, at last he placed before the eyes of her mind the example of Anaxarete of Cyprus, whose excessive cruelty caused the young man Iphis, who loved her, to end his life with a noose, and she was afterwards transformed by Venus into a stone.

Iphis:

The warm blood fled from his lovely body,
Tinged by the spreading pallor; and when she tried to draw back
Her feet, she could not; when she tried to turn away her face,
She could not do that either; and gradually the stone
Took over her limbs, which had long since already been stone in her hard heart.

Hearing these things, the rigid spirit of Pomona began to be moved; and therefore Vertumnus, putting on his former shape, embraced her. Now after Palatinus, the brothers Amulius and Numitor succeeded as kings of Alba; then from the daughter of Numitor, taken by Mars, Romulus and Remus were born, who when grown slew Amulius and restored the kingdom taken by him from their grandfather Numitor. Nay, they themselves built the city of Rome; and when Romulus, captivated by the beauty of the gold, had freed it after it was betrayed by the virgin Tarpeia, and had finished the war undertaken against Titus Tatius for the seizure of the virgins, and had composed all things with law, he was received into Heaven and called the God Quirinus; and since his wife Hersilia mourned him as lost, Juno made her immortal, and she was called by the Romans the Goddess Ora of Quirinus, whose temples were built by the Roman people on the Quirinal hill.

In the fifteenth book we have Numa Pompilius the successor of Romulus, who in order to hear Pythagoras as his teacher was accustomed to go to Croton — a city founded by a certain Myscellus son of Alemon, called Croton after

[catchword: Croton]

[marginalia: The companions of Diomedes into birds. / Ardea: whence the bird of that name.]

Croton, who was buried in that place. There Pythagoras of Samos, detesting the tyranny of his native land, had betaken himself; where among other precepts he taught that it was a sin to eat animals, since he asserted that the souls of mortals migrate from body to body. Wherefore in the times of the golden age men abstained from eating animals. Moreover he proclaimed that all things are in change: namely the courses of the seasons, the ages of men, and the elements; which transmutation of the elements into one another our own philosophers also declare. Furthermore Ovid sets down many things which seem by no means to remain constant in the same nature: for in Africa there is a lake of Jupiter Ammon which is said to be cold by day and boiling at night. Wood plunged into the water of the spring of Arabamantis catches fire. There is a river among the Cicones whose water turns into stone one who drinks it. The Crathis and Sybaris, rivers of Calabria, make hair golden. The spring of Salmacis in Caria makes men effeminate. In Ethiopia there is a lake whose waters drive men either to madness or to sleep. The spring of Clitorius in Arcadia, after Melampus the physician threw into it the herbs with which he freed the daughters of Proetus king of Argos from madness, makes those who drink from it sober. Conversely, the Lyncestius river of Thrace makes those who drink it drunk. In Arcadia waters flow which, drunk at night, are harmful, but by day are beneficial. In the city of Pallene in Hyperborea, men who plunged themselves into the Tritonian marsh were transformed into birds.

It is said that in Hyperborean Pallene there are men
Who are accustomed to cover their bodies with light feathers
When they have plunged nine times beneath the Tritonian marsh.

Various marvels.

Finally Pythagoras asserted that in the course of time all things change; and that this has befallen great cities and empires is well known: for Troy, Sparta, Mycenae, Thebes, and Athens, once established in a happy condition, have been reduced to nothing. Conversely, Rome grew from a humble beginning into an immense empire, which Helenus son of Priam once prophesied to Aeneas. Such indeed is the vicissitude of all things. When Numa Pompilius had diligently received this doctrine from Pythagoras, he returned to Rome and, taking up the sceptre of the kingdom, guided the Roman people toward the pious worship of the Gods. He at last, worn out by old age, ended his life in death. Wherefore Egeria his consort-nymph, afflicted with grief, withdrew into the Arician forest, where Hippolytus son of Theseus endeavoured to console her by narrating his own misfortune. For Phaedra daughter of Pasiphae and wife of Theseus had shamelessly fallen in love with her stepson Hippolytus; whereupon he was accused before his father of having wished to do violence to his stepmother, was sent into exile, and while being carried along the shores in a chariot was slain by a sea-monster; but by the prayers of Diana and the remedies of Aesculapius he was restored to his former life and was led into the grove of Aricia, where, laying aside whatever was mortal in him, he was created the God Virbius.

Unless restored to life by Apollo's powerful medicine —

And a little below:

Hippolytus, he said, am I now, under the name of Virbius;
I dwell in this grove henceforth.

But these words of Hippolytus, full of consolation, carried no weight with Egeria; for she wept so long that her constant tears flowed into a spring. At this Virbius marvelled no less than that Tyrrhenian peasant to whom a clod of earth in his field seemed to be transformed into the boy Tages, skilled in prophecy:

The boy skilled in prophecy:

He marvelled no less than when the Tyrrhenian ploughman
Saw the fateful clod in the middle of his fields first move
Of itself, none urging it, then take on a human form
And put off the form of earth,
And open his prophetic mouth to things to come.

These fables having been set forth, the Poet proceeded to write of Roman affairs, in order to be able to publish more easily the metamorphosis of Julius Caesar and his glorious deeds. And so the Romans, oppressed by a severe pestilence and warned by an oracle, brought to Rome Aesculapius in the form of a serpent, and afterwards built him a sumptuous temple on the Tiber island. He had come to Rome as a foreign God; but Julius Caesar was established as a native God in the city, who having discharged various functions was thereafter slain in the Senate, and, received by Venus and the other Gods, was placed among the stars.

[marginalia: The teachings of Pythagoras. / Various marvels. / The boy skilled in prophecy. / Lib. de copiug. vet. / c. 20. leg. Rom. / Centar. 1. / Celesz. / Aim. cap. 3 / Li. V. Thetr.]

Scarce had he spoken, when in the midst of the Senate
Kindly Venus stood, invisible to all, and snatched
The soul of Caesar from his limbs, and did not suffer it
To dissolve into air; she bore it to the stars above.

Since we have so far busied ourselves with setting forth the transformations of men as described by the poets, it will now be our concern to publish true and natural metamorphoses, as well as those wrought beyond the order of nature. Pliny first relates that he found in the Annals, during the consulship of P. Licinius Crassus and C. Cassius Longinus, that a boy at Cassinum had been made male from a female, in the presence of witnesses, and was by command of the augurs carried to a desert island. Likewise Licinius Mutianus, as Pliny reports, attests that he knew at Argos one Arescon, formerly called Arescusa by name, who had married as a woman but, a beard then breaking through, had acquired virility and taken a wife. The same Pliny records the case of L. Cossicius, a citizen of Thysdrus, who was transformed into a male on his wedding day. Livy adds, who mentions the consulship of C. Fabius Maximus and M. Claudius Marcellus, at which time a certain man at Spoletum was made from a woman. In the age of the Emperor Constantine, as the Blessed Augustine reports, a certain girl in the Campanian region was changed into a male, who was afterwards brought to Rome. The same event is said by Volaterranus to have occurred in the times of Alexander. Nay, Empedocles of Agrigentum, of the Pythagorean sect, declares, according to Philostratus as authority, that he himself had been both a girl and a boy. Among the Portuguese, in a town called Esqueria situated nine leagues from the city of Coimbra, a certain noble girl, as Amatus Lusitanus attests, when she reached marriageable age, put forth a penis that had been lying hidden within. And from a woman of Gaeta also, as Jovianus Pontanus wrote, who had married a fisherman, at a certain time the male organs burst forth; and on this account, since she was ashamed of her condition because she was mocked by all, she withdrew to a convent, and when she had died was buried in the Temple of Mary at Minerva. Likewise, from Fulgosus: at Naples during the reign of Ferdinand I, Lodovico Gnarra a citizen of Salerno had five daughters from his wife, of whom two, the elder, the one named Francesca and the other Carola, in their fourteenth year became male and, their names being changed, were called Franciscus and Carolus.

These metamorphoses, therefore, are exceedingly true and beyond doubt: for in the beginning of generation, the male organs of such persons are formed within the skin, while outwardly only a cleft of the skin resembling female pudenda is visible; but in the course of time, either through an accident or through a leap, the cleft being enlarged, the male organs, now perfectly formed, spring forth, and one who previously seemed a female straightway degenerates into a male. We know surgeons of our own age who have sometimes detected, by touch, the male organs lying hidden within, and who have afterwards, by cutting open with an iron the cleft of the skin through which the infant made water, caused the penis together with the testicles to burst forth. Our opinion is confirmed by Albertus Magnus with the story of a person born in his own time who contained the male organs within the skin, yet had between the thighs two prominences presenting the appearance of the vulva; but when the surgeon made an incision, the testicles together with the membrum virile sprang out. This opinion may be further established by Ambroise Paré, to whom, while he was staying in the French county of Vitry in the time of King Charles IX, a certain German named Maria was shown, who had formerly been called Maria as a woman. He was held for a virgin until his fifteenth year; and while more vigorously pursuing pigs under his care that had broken into the crops, he leapt across a ditch with a great bound; whereupon the skin having broken, the male organs hitherto hidden emerged; and he went home weeping, telling his mother that in making so violent a leap, his intestines had come out. Thereupon the mother, together with the summoned surgeon, observed that he had degenerated into a male; and so the matter being brought before the most eminent Cardinal Lenancurius the Bishop, a meeting of the congregation having been convened, they changed his name and dress to those of a man. The same author relates a not dissimilar case from the year sixty above fifteen hundred, concerning a certain person held as a female up to his fourteenth year, whose male organs, hitherto tucked away, burst forth while he was at play with other maidservants. When the parents learned of this, the ecclesiastical faculty intervening, his name being changed, they thereafter called him John instead of Joan. Similarly, Montus, a man of the greatest renown, reports that he learned from the most serene Eleonora, sister of the Emperor Charles V, that a certain maidservant had been changed into a male. But he prudently adds that in such cases the sex is not changed, but is uncovered.

[marginalia: Lib. de copiug. vet. / c. 20. leg. Rom. / Centar. 1. / Celesz. / Aim. cap. 3 / Pugiet 4. 6. / Leo est. / Li. V. Thetr.]

On the other hand, careful consideration must be given to whether boys or men have undergone the metamorphosis of women, in such a way that the male sex, vanishing in the course of time, came to display the female; and especially since Ausonius makes mention of a boy of Benevento transformed into a virgin, in these verses, in which he recalls women changed into men not only among human beings but also among brute creatures, and at the end mentions a certain Ephebe transformed into a girl; the verses run as follows:

A thing well-known in the valley, and scarcely to be credited by poets,
But set forth from true history:
A winged creature transformed males into the female form,
And a doe stood changed before eyes accustomed to a buck.
The country-folk marvel at the strange monster; but gentler than a lamb,
A ram turned from the flock into a tender female.
Why do you marvel at cases of known prodigy in Solidi?
Do you not read the poems of Ovid?
Saturn's offspring changed the children of Caeneus,
And Tiresias was ambiguous in his body,
The spring of Salmacis saw a hermaphrodite of female nourishment,
Pliny saw a hermaphrodite marrying.
What is not ancient enough — that in Campanian Benevento
One among the Ephebes suddenly became a virgin?
Yet I do not wish to summon the examples of ancient fame:
Behold, I myself am made a woman from a boy.

Furthermore, one ought to read Galeotus on miscellaneous learning, Cardanus on the variety of things, Wierus on the delusions of demons, Gemma in the Cosmocritica, Marcellus Donatus in his history of marvels, and many others; but in everything they have said on this subject we judge it to be a deceptive babbling of words, since it is by no means possible that the male organs should vanish unless they are amputated, nor can they be so contracted by any disease as to resemble the female sex. Unless we choose to bring into the field the histories of those who feigned the male or female sex; from which, perhaps, the opinion has prevailed among the common people that women sometimes become masculine and return again to their original nature.

For one reads, in Lipomanus concerning Pelagia, who left all her possessions of immense value and those acquired by the proceeds of prostitution to be distributed to the poor through a Bishop, and lived in the male habit among Monks until her sex was discovered by death. Similarly Eugenia daughter of Philip the Consul, in order the better to obey the commandments of Christ, believed to be Eugenius, discharged even the office of Abbot. Likewise Euphrosyne, from Metaphrastes, in the city of Alexandria, having spurned marriage, concealing herself under the name of Smaragdus among Monks, lived a most religious life for eight and thirty years. And so if these women, having laid aside the male dress, had returned to their former life, the common people would have asserted that they had degenerated from males into females.

Women in male dress.

As to what is circulated concerning Pope Joan, an English woman believed to be the eighth Pope of Rome, we judge it to be an incoherent delusion, because not one of the authors who have committed her records to the annals is ever read to have written this.

It is indeed true that sometimes, by the illusion of the devil, men appear to be transformed into beasts; for it is recorded in the Lives of the Fathers that a certain girl, who appeared to all under the form of a horse, appeared to the Blessed Macarius in human form only, because in the presence of a holy and just man the diabolic illusion ceased. Likewise a certain man took on the form of an animal for a space of three years, serving a sorceress, until the sorcery was detected and the man restored to his former shape, and the woman was put to death with the last punishment. For the Blessed Augustine writes that by the pernicious art of women and the power of Demons, men can be turned into wolves and beasts of burden, and return again to their former shape — provided we do not suppose that a bestial mind is produced in them, but that the rational mind is preserved, since Demons do not create natures, but are only able to bring it about that what is not appears to be. Wherefore, citing Pliny, he reports that Demarchus at a certain sacrifice of the Arcadians was, after tasting of the entrails, turned into a wolf, and at last after ten years was restored to his former form. And this is to be believed more on the authority of Demons, since things similar to natural things are produced; for a certain herb placed on beams, as the Blessed Thomas attests, makes the beams, once fumigated, appear to observers as so many serpents.

[marginalia: Iulib. ac / que mart. / Lib. de copiug. vet. / c. 20. leg. Rom.]

To this we may add a lamp filled with hare's fat, which, when burning in women's chambers, so constrains all present that, with their bodies bared, they dance until the flame is extinguished. Likewise, if the wicks of lamps are steeped in cuttlefish ink and a little verdigris and set alight, those standing around will appear partly black and partly pale. Among the Massagetae there grow trees, according to Homer's testimony, whose fruits, when cast into a fire, render those nearest to the flames stupefied, so that they at once leap up from their seats and give themselves over to dances and leaping. Since demons, then, are most learned in the matters of natural things, there is no doubt that they are able to produce many metamorphoses of this kind.

Finally, metamorphoses wrought above the order of nature are to be weighed. Among those — if we set aside the transformation of King Nebuchadnezzar, which is read in the sacred pages of Daniel — there presents itself that of Tiridates, King of the Armenians, who, pursuing the virgins Rhipsime and Gaiane with abominable designs in order to violate their chastity, and at last subjecting them to martyrdom, was himself transformed into a swine not long afterward, God so permitting. Likewise, in the borders of Britain there reigned a certain tyrant by name Ceretic, who, to turn the minds of Christ's faithful from the divine law, employed every kind of imposture, deceit, and ultimately the supreme penalty. For this reason Saint Patrick, having heard of the tyrant's cruelty (on the authority of Eusebius the Jesuit), endeavoured by admonitory letters to recall him to a sober life and to the way of salvation. But he, scorning every manner of admonishment, spread the bloody slaughter of Christians more and more from day to day. Wherefore Saint Patrick is said to have prayed thus to God: "Lord God, even as thou wilt and art able, cast out from the face of the earth this fox-like man, defiled with every kind of wickedness, and himself monstrous, now also in a monstrous manner." Then God Most Merciful, hearkening to the voice of his servant, transformed the tyrant, who was standing in the marketplace thronged by his retinue, into a fox; which fox, fleeing at once from the sight of men, never appeared again.

WONDERS OF THE HUMAN BODY

Nearly infinite things wonderful to tell and to hear concerning the human body would need to be enumerated here, but we shall meditate upon only the more important, for the reader's benefit. First among them, hair presents itself for consideration, since in certain persons it has turned white in a single night. Indeed, on the authority of Schenck, there was found a nobleman at the court of the Emperor who had violated the chastity of a virgin whom he desired — an offence forbidden there on pain of capital punishment. Accordingly he was led to prison, and on the following day was to be beheaded; during that night, seized with the terror of death, he was so altered that on the next day, when he was set before the tribunal, he was recognised by none of those who had been on intimate terms with him, nor even by the Emperor himself. His colour had changed from ruddy to livid, his face was cadaverous, his beard disfigured by filth, and the whole of his head at last covered with white hair. The Emperor, therefore, beholding him, suspected that he was an impostor; nay, he ordered an investigation as to whether that white hair was false, and the beard smeared with some liquid; and when he perceived that there was no fraud, struck with horror at the young man's appearance, he turned his mind from vengeance to compassion.

Yet we ought to admire still more those boys who are born white-haired and grow darker as they advance in age. For it is established from Solinus that the Albanian peoples are so named because they are born with white hair. The natural reason may be that hair in the first beginnings of life is nourished by phlegm, which in the course of time is converted into blood; and for this reason the hair, white at first, gradually becomes black as it is afterwards nourished by blood. Rhazes, on the other hand, reports that he knew a certain man who, having swallowed one drachm of chalcanthite, lost all his white hair in a single night; but this remedy is not to be approved for all persons, since Galen disapproved of the use of chalcanthite in internal medicines.

Furthermore, from Dodonaeus we learn of a woman at Maestricht laden with heavy old age who

[catchword: having]

[marginalia: Lib. 2. observ. 1. / Lib. 7. Polybii cap. 19. / Observ.]

having shed her white hair and wrinkles, put forth black hair, her facial wrinkles fell away, and her breasts swelled up anew to such a degree that it shamed this respectable woman on account of this novelty. There were also men, according to Cardano, who could draw their hair forward to the forehead and back again with the head kept still — though it is well known that hair lacks the power to do this of itself, unless it be referred to the strength and looseness of the skin.

Moreover, there have been women remarkable for their beards: for according to Wölf, in the household of Albert, Duke of Bavaria, there was a woman conspicuous for a long, flowing beard; and in the museum of the Most Illustrious Senate of Bologna there is to be seen a portrait of a German woman who, passing through Bologna in former times, wore a beard two palms in length.

If we direct our attention to the eyes, we shall still find much worthy of admiration. For Pliny, mentioning certain persons endowed with remarkable keenness of sight, brings forward in evidence a certain Lynceus who, in the Punic War, from the promontory of Lilybaeum in Sicily could see the fleet departing from the harbour of Carthage — nay, at an interval of a hundred and twenty-five thousand paces he could count the number of all the ships. Likewise he marvels at the exceedingly keen vision of Callicrates, who fashioned ants out of ivory so delicate that to others their parts were invisible. Similarly, from Pliny, we learn that certain persons lived in Illyria who, when roused to anger, would fascinate with their gaze anyone they looked upon for a longer time. The same is said to be effected by the women in Scythia called Bythiae, who are endowed with a double pupil in each eye; indeed, according to Solinus, all those who have a double pupil are said to be endowed with poison. Cornelius Gemma also writes that he knew a certain man who was accustomed to read letters at night without the use of external light. Nay, Suetonius in his Life of the Emperor Tiberius asserts that Tiberius himself could see everything clearly at night without a lamp.

Since mention is made of vision, we must not pass over the wonderful peculiarities of certain persons. Scaliger records a certain Jew known to him who, at the mere sight of the simple plant called cress or water-cress (*sisymbrium aquaticum*), was seized with such horror that he was compelled to flee from it at once. And Marcellus Donatus knew at Mantua a nobleman, Hippolytus Lappone, who so greatly feared the sight of a hedgehog that, upon beholding it, he was immediately struck with a swoon. Concerning those who have a strong dread of cats and mice, the matter has been explained in its proper place. Avenzoar likewise left a record about himself that he suffered a fainting of spirit upon beholding even a simple wound; but this peculiarity is observed in very many others as well.

Concerning blindness we read that Diodorus the Stoic, deprived of his sight, taught Geometry, directing his pupils where, whence, and in what direction any given line was to be drawn. Didymus of Alexandria also, the bishop of Caesarea, blind from the very beginning of childhood, learned Dialectic and Geometry, and moreover left behind written commentaries on the Psalms, according to Volaterran. In our own age, namely four years ago, Johannes Gambatius of Volterra, a distinguished sculptor, went from Florence to Rome. He, around his twentieth year, lost the use of both eyes; wherefore for a decade he had worked nothing in that art, but thereafter the thought came upon him to try once more the powers of the sculptor's art, and, having carefully handled with his hands a marble statue representing Cosimo I, Grand Duke of Tuscany, he fashioned another in clay so similar to it that he rendered all who beheld it astonished at the novelty of the thing. Wherefore, by order of Ferdinand, Grand Duke of Tuscany, he went to Rome, and presented to him a portrait of Pope Urban VIII modelled in clay, the most faithful likeness of him; and afterwards he fashioned also many portraits of other persons. Today a blind butcher named Lanius dwells at Bologna, who by touch alone estimates how much the beasts to be slaughtered weigh, counts out coins, recognises currencies, rides on horseback, and performs many other things belonging to the office of a butcher with great success. Finally, Dodonaeus mentions a nearly ninety-year-old man of failing sight who, having received a wound above the forehead, was so far from dying that his sight was rather restored after the wound healed, to the admiration of all.

It has also been handed down to memory that the Emperor Vespasian restored sight to a blind man by sprinkling his eyelids with saliva — which the blind man had been warned in a dream by Serapis to beg of the victorious prince. But while this is doubtful, the following is most certain and known to all: that the Kings of France and England free those afflicted with scrofula from their disease by the cross made with saliva alone — as Polydore Vergil records of King Edward of England.

What has been said with admiration of keenness of sight is to be understood as well of subtlety of hearing; for, from Pliny, the battle in which Sybaris was destroyed was heard at Olympia itself on the very day it was fought, carried over the vast intervening distances of sea and land — as Orosius also recounts when he speaks of the war of Xerxes.

[catchword: auditum]

[marginalia: Sculptor blind. / Lib. 7. cap. 1. / Lib. 1. Cosmog. cap. 7. / Exerc. 274. / Marcellus Donatus de med. hist. c. 4. / 15 observ. / Lib. 8. hist. Angl.]

Finally, as regards hearing, Hippocrates mentions a certain Nicanoris who, through fear of the sound of a flute, could not go forth to banquets at night when invited, yet in the daytime was not at all moved by such a sound. Scaliger also records the wonderful and amusing peculiarity of a certain man who, upon hearing the sound of the *phormix* or lyre, was immediately compelled to pass urine.

Now the wonders pertaining to the tongue and teeth are to be set forth. Atys, the son of Croesus, as Textor relates, was still an infant of six months when he perceived a sword threatening his father's throat, and spoke from his cradle. Likewise, from the same author, Eyles the Samian athlete, when he had observed that the drawing of lots among his companions was not being conducted in good faith, conceived such great anger that he spoke — though before that time he had always been mute. On the contrary, from the same Textor, the wife of Nausimenes the Athenian, upon discovering her sons in an act of incest, struck with horror at the unspeakable crime, lost her voice. Finally, Pliny asserted that certain men's tongues are possessed of venom; wherefore Isidorus wrote that in Africa there are certain families whose words, once proved, cause crops to wither, trees to dry up, and infants to perish. In our own time too, a certain soldier wandered through Catalonia who, by pursuing anything with his praises, utterly destroyed it. Concerning teeth, there are noted certain persons born with teeth, and others who had continuous bone in the place of teeth, such as a certain son of Prusias, King of the Bithynians. Timarchus, son of Mestor of Cyprus, was furnished on each side with a double row of teeth — as was Drypetis, daughter of Mithridates. While Ion of Chios, according to Caelius, attributed a triple row of teeth to Hercules, this need not occasion wonder, since Columbus, the most celebrated anatomist of our age, records a boy who carried a triple row of teeth.

Concerning smell we are struck with admiration: for Amatus Lusitanus committed to writing that in his age there lived a monk of the Order of Preachers, a Venetian nobleman of the Barbarigo family, who fell into a swoon at the scent of a rose. Nay, Venerius, formerly Doge of Venice, was nearly destroyed by the odour of a rose. Marcellus Donatus knew a valiant soldier who could in no way endure the smell of rue, but would at once take to flight. There were also certain persons who, by merely smelling a medicine, were purged more thoroughly than if they had swallowed it. Finally, to be referred to smell are those whose excretions breathed a not unpleasant odour: for Quintus Curtius, writing the history of the deeds of Alexander the Great, reports that a most sweet odour emanated from the sweat of Alexander.

Concerning taste certain matters are to be touched upon: for Amatus Lusitanus writes that there were persons who greatly abhorred the eating of fish, and to whom, if the flesh of fish had been offered mixed with other foods, they would immediately fall into anguish of spirit with vomiting and looseness of the bowels. Brasavola knew Julia of Tarragona, younger daughter of King Frederick of Naples, who could not taste meat, and if she had unwittingly touched it, she was held by a violent swoon. Conciliator of Abano, as reported by Matteo Gradense, so abominated milk that he could not even behold those who were eating it without nausea. Likewise Marcellus Donatus knew at Mantua a nobleman who could neither taste nor even look upon that kind of preserved roe prepared from sturgeon's eggs commonly called *caviale*, as he observed had befallen another man in the case of the other kind of preserved roe commonly called *botarga*. What we have said so far of solid foods, we think must be asserted of drinks also: for Pontanus writes that in his times there was a man who throughout his entire life abstained from wine — nay, when under the reign of Ladislaus, King of Naples, he had touched wine with the tips of his lips, he was struck with great injury. On the contrary, Andron of Argos was almost never tormented by thirst; and indeed, travelling through the dry wastes of Libya, he never needed drink.

The wonders of other parts also are not to be buried in silence. For Pliny, from Ctesias of Pergamon, reported that in the Hellespont there still lived certain men called Ophiogenes, who healed serpents' bites by touch alone — as was explained in the History of Serpents. Nay, from the same Pliny, the great toe of the right foot of Pyrrhus, King of the Epirots, by its touch alone freed those afflicted with disorders of the spleen; so that when his body was being consumed on the pyre, and the rest of his parts had burned, that one toe alone remained unconsumed.

[catchword: Item]

[marginalia: Lib. 5. morb. / Lib. 7. cap. 2. / Lib. 3. observ. / In lib. Anat. / Centur. 2. Ind. med. / In lib. de reb. celest.]

Likewise, whatsoever Most Unconquered King of France, by the touch of his hands alone, relieves and heals the ailment of the throat, namely scrofula — as was explained a little earlier.

Schenck records a certain respectable citizen of Breslau from whose opened vein there flowed not only blood but also the milk which he had consumed the day before. Likewise, from Dodonaeus, it is said that a Syrian man, having lost his wife, nourished his infant son in the following manner: he frequently put the infant to his own breasts, and the child, on account of the unceasing suckling, was nourished by milk flowing from them. Nor will this seem marvellous in the doctrine of Aristotle, since he taught that milk can be produced in the breasts by constant suckling.

But we ought to admire still more bones without marrow: for Lycamnus the Syracusan, according to Solinus a man of the greatest strength, not only lacked marrow in his bones, but moreover was never thirsty, and never emitted sweat, and he was the first to carry off the prize of the Pancratium at the Olympic games. Finally, concerning the skin of the inhabitants of Brittany a remarkable thing is reported: that infants are born there marked with a certain token of nobility, having some degree of whiteness on their posterior parts; and those who lack this sign are believed to have been born of adultery.

Solinus, among the wonders of human nature, reckons the laughter of an infant before the fortieth day. But Zoroaster laughed at the very hour of his birth — whereas Crassus, the grandfather of Zoroaster, was never observed to have laughed, and was afterwards slain in the war against the Parthians. Thus, in the mind of Solinus, early laughter was held to be a favourable omen, inasmuch as Zoroaster was most learned in the good arts; while conversely, tardy or absent laughter is referred to an ill omen. Just as, therefore, there lived men who never laughed — such as Anaxagoras of Clazomenae, Cato, and Marcus Crassus — so also there were those who never belched, like the poet Pomponius, and who never spat, like Antonia, wife of Drusus; and finally those who could never restrain their laughter, like Zenophantus.

Concerning the intelligence and memory of men, certain things are celebrated in superlative terms. First among them, many women were noteworthy for their cultivation of the Muses' pursuits: such as Aspasia, Sappho, Elpis the wife of Boethius, and Cornelia the mother of the Gracchi, who, on the testimony of Cicero, wrote letters of the greatest erudition, sprinkled with the abundance of an orator. But, setting these aside, we shall approach memory, which is itself worth commemorating; for Petrarch, in his *Rerum memorandarum historia*, mentions Clement VI, Supreme Pontiff, who was unable to forget anything that he had once read, even if he wished, and he acquired such a memory from a great blow to the head, before he attained the height of his supreme dignity — inasmuch as it can sometimes come to pass that from a blow to the head, with blood flowing, memory is rendered more excellent and distinguished. We also have from Eusebius of Caesarea the remarkable memory of Valens, a deacon of the city of Aelia, who was versed in all the written words of God. The same is reported of John the Palestinian, blind from birth, who, when questioned about the sacred Scriptures, would at once bring forth everything as from a certain storehouse of letters. There also lived a boy, according to Maiolus, in the year of the Lord eleven hundred and twenty, in the city of Soissons, who recited the entire history of the Old Testament in rhyme — and admiration is increased because he was a keeper of cattle; yet he affirmed that he had learned it from no other source than from grace infused divinely by the Blessed Mary, ever Virgin. Furthermore, from Pliny, Cyrus could recite the names of all the men of his army; King Mithridates, ruling over twenty-two nations, administered justice in as many languages and understood each without an interpreter. Seneca himself also testifies at the beginning of his declamations that he was endowed with such great memory that he could retain two hundred verses recited to him in his mind and repeat them in reverse order, nay, he could also repeat two thousand names in the same order in which they had been given.

We ourselves have known here in Bologna a young man illustrious in the gifts of intellect who had proposed a hundred theses for public disputation, and repeated to the letter, in reverse order, a hundred arguments brought forward to overthrow those theses. And so memory is a very delicate and fragile part of the mind, which old age easily despoils; moreover it is lost through accident, a blow, or a severe illness. For Pliny tells of a certain man who, from a blow on the head by a stone, forgot all his letters; similarly of another, who after falling from a roof forgot his parents and all his relatives; and finally of one whose severe illness obliterated the memory of his own name.

Contemplating the propitious fortune of man, there first presents itself Telephus the son of Hercules, exposed in the forests by his grandfather's command, and nourished by a hind. Then Semiramis, that distinguished woman, who as an infant was nearly lost before she saw the light of the world —

[marginalia: Wonderful memory. / Lib. 8. hist. cap. 21. / In Colloq. / Lib. 3. observ. 63.]

for she lay as an infant beside the Syrian den, on the point of perishing soon from lack of nourishment, had not the birds ministered sustenance to her; hence she was taken up and reared by the king's shepherds, and growing to adulthood was given in marriage to the king, who not only obtained the kingdom but also extended it. Pyrrhus, son of Aeacides, fell from his royal house, and was barely preserved as his enemies pressed upon him from behind; but, entrusted to Glaucias, he was at last, when grown to manhood, restored to the kingdom. Cyrus, as soon as he was brought into the light of day, was exposed and — as much by chance as by his mother's design — was nourished and preserved. Romulus and Remus, at last, in peril on the Tiber, were deposited by the current on the bank and would assuredly have perished, had not their wailing attracted a she-wolf — not to seize them, but to give them suck.

We may add the propitious and memorable natal day of certain men. Let the example of Charles V serve as a representation of all: born on the twenty-fourth day of February, on that same day he led captive the King of France, defeated near Pavia; and on that same day he received the imperial crown from Clement VII, Supreme Pontiff, at Bologna. On the contrary, Antipater of Sidon always found his natal day inauspicious, because he suffered from an annual fever on that same day, and was at last consumed by it on that same natal day.

Moreover, the strength of bodily powers brings us immense admiration: for David, as a boy, was far superior to all others in bodily strength and greatness of spirit, when, according to the sacred pages, he outran the lion and the bear in his running. Among the feats of Milo we read in Pliny that he carried an ox while running and slew it with his fist. The gladiator Tritanus overcame an armed man with a single finger alone, and carried him off, once overcome, on one finger to the camp of his commander. A German rustic also lifted whatever heavy burdens presented themselves, and proclaimed that he had acquired this strength from eating bread found on the edge of a certain spring. Cleomenes of Astypalaea, a man of exceptional size, is said to have accomplished many feats by the strength of his body rather than of his mind. He at last entered a school, and, breaking the column that supported the building, immediately crushed a great number of children; and for this, when punishment was at last demanded of him, he entered a tomb and, having pushed down the lid over himself, held it against those trying to force it open for some time; but at last, when it was broken, he appeared nowhere. Likewise Maiolus reports that he saw an Asiatic man in the presence of the Marquess of Pescara who seized a marble ball of three feet in circumference, hurled it into the air, and, as it fell again and again from above, caught it in his arms — and then, with a swift throw, received it before and behind like a ball in play.

The remarkable strength of Rodamantus Mantrani of the house of Gonzaga is also celebrated, who twisted iron horse-fetters with his hands, and by wringing and re-wringing a rope as thick as his arm, tore it asunder. Finally, Olaus Magnus marvels at the men of Sweden and Gothia, conspicuous for manly virtue, who, lifting a horse or an ox, carry it, bearing a weight of a thousand pounds for many miles. Lastly, the valiant deeds of Uberto della Croce of Milan are celebrated in the histories: for in the year of the Lord twelve hundred and ninety, he could bring a galloping horse to a standstill, and carried a pack-animal laden with wheat on his shoulders.

The many things handed down by the poets concerning the strength of Hercules we deliberately omit as fabulous, and we likewise deliberately pass over in silence the strength of Samson, which resided in his hair, since this is most well-known from the sacred pages.

Among men outstanding in both kinds of strength are to be placed those who endured torments with a calm mind — such as the courtesan Leaena, who, when put to the rack, did not betray Harmodius and Aristogeiton, the tyrannicides. Anaxarchus likewise endured tortures with equanimity; when racked, he bit off his own tongue, lest he should reveal those who had deliberated on the assassination of the tyrant.

Now we must hasten to the wonderful likenesses of faces: since sometimes human faces are found so alike that they cannot be distinguished from one another by sight. For Solinus tells that Artemon, a commoner, was so similar to Antiochus, King of Syria, that Laodice, the king's wife, by beholding this man, dissembled the death of her deceased husband for so long a time until a king of her choosing had been established elsewhere. Vives, the commentator of Augustine, reports that twin sons were born at Mechelen so similar in face and bearing that not only strangers but even their own parents, calling one for the other, made mistakes in recognising them. Nor perhaps unlike these were the twins whom Albertus Magnus reports seeing in Germany, of such great similarity —

[marginalia: Natal day. / Lib. 14 dies. cap. 12. 14. 15. / Remarkable strength of body. / Lib. X. Reg.]

that they could in no way be distinguished from one another — nay, the same gestures, the same emotions of the mind, the same voice and speech increased the admiration, and especially since each fell into the same illness and recovered at the same time. Pertinent to this is the reading in Fulgosus that Medardus, Bishop of Noyon, and Gildardus, Bishop of Rouen, were brothers born in a single birth, placed on the episcopal throne on the same day, died on the same day, and were jointly enrolled in the number of saints. Of these Maiolus therefore preserves the following six-line verse:

A single birth gave them life, another gave them their mitres,
Another gave them death, and the same bed received each among the saints.
Happy brothers, whose common beginning,
Life, crown, death, glory, and feast-day are one;
Indeed their impulse was common and their heart was one: say but this,
Two bodies can be governed by one heart.

On the other hand, Pliny marvels at the great diversity of faces in human nature, since among so many thousands of men he could never observe two countenances of one and the same conformation; nay, he quite reasonably assigns the cause of this to the imagination, which is very active in the generation of man — which does not occur in brutes, since they lack reason. And so man, endowed with free will, has a mind exceedingly swift and mobile; hence it cannot come to pass that two men should acquire the same conformation.

Concerning the agility and lightness of the human body, wonderful things are reported. For Maiolus brings forward in evidence a man of the Canary Islands who, standing on the sole of his left foot, exposed himself over an interval of eight paces to those wishing to strike him with a stone, and by now inclining his head, now raising it, now withdrawing his whole body, now crossing his legs, evaded the incoming blow with the greatest agility. But Philetas the Coan, the elegiac poet, according to Textor, was so light and slender of body that it was necessary for him to fasten lead to the soles of his feet to prevent his being carried off by some gust of wind.

Pliny, however, mentions many who were distinguished in running by reason of the lightness and agility of their body — such as Philippides, who ran from Athens to Lacedaemon, a distance of two hundred and forty stades. There was also another who from midday to evening completed seventy-five thousand paces. Recent authors in the history of the New World record that Mexican postal runners travel with no less speed than horses are wont to, and that there have been some who covered seventy leagues in four days. Not to mention tightrope-walkers, who display much that is worthy of admiration daily through the marvellous agility of their bodies.

To these may be added those who were most agile in the water: for Pontanus and Alexander ab Alexandro report that in their age there was at the city of Catania in Sicily a man called the Fish Glaucus, who spent nearly the whole course of his life in the water, and even in a great sea-storm swam through the waves without danger; Peter Mexía records another of the same nature called the Fish Nicholas, who feared death unless he were living in water.

Concerning fasting and eating, wonders also are reported. Pontanus writes that there was a man who at no time drank wine or water. We know indeed from Solinus that the Ethiopians are never tormented by thirst as often as they make use of the herb lotus. He mentions a certain man living at Venice who went without food continuously for forty-six days on end, but his constitution was of an exceedingly cold temperament. A certain Philinus, in Textor's account, during his lifetime used no food or drink, but milk alone — as others have used urine alone. Inasmuch as, in the year of the Lord fifteen hundred and fifty-two, as Schenck reports, François Peluse of Lyon, a man of sixty, while digging a well forty feet deep, was buried alive under the earth that fell in upon him to a depth of thirty-five feet; and there he lived for seven days and nights without food, refreshing his stomach only with the drink of his own urine; and at last, when the earth was dug away so that he might be buried, he was found alive. Pliny indeed testifies that men can endure hunger for a space of eleven days, though a man sustained by divine aid may maintain a prolonged fast. Finally it is to be noted that, just as there lived those who endured fasting, so also there were those who devoured things wholly inedible. We knew here in Bologna, in the year of the Lord sixteen hundred and twenty-six, a certain porter who, willingly or moved by payment, would devour pitchers, glass vessels, nails, leather, wood —

[catchword: eels]

[marginalia: Lib. 1. de reb. celest. / Lib. 3. observ. / Priorat. sylv. tom. 1 p. c. / Lib. YY. cap.]

eels, unfledged birds, and live mice, and without risk to his life expelled everything through his anus.

Concerning the human passions, things worthy of admiration ought to be noted; but in the interest of brevity, only some of the more important will be set down. In a woman of Sens, Schenck observed a perfectly formed foetus which, carried in the womb for the space of twenty-eight years, had turned to a stone-like hardness, and after the death of the mother was removed and seen by many. Likewise, in the year of the Lord fifteen hundred and ninety-five, in a woman of thirty-five years, the whole uterus was seen to be as of stone, weighing seven pounds, together with a stone bladder and a very hardened peritoneum. From the same Schenck we learned that there was a woman who carried in her womb for the space of thirteen years a skeleton of a dead foetus, perceived by all as rotted through.

Nay, from the same author, there was a woman in the castle of Pomponius, in the year fifteen hundred and forty, who, while carrying in her womb the skeleton of a dead foetus, conceived again; and when labour pains and danger to life ensued, after the skeleton was removed and the uterus consolidated, the living conception came into the light of day with fertility unharmed — for she gave birth four times after this treatment. A girl was born, as Fernel reports, with the joints of her limbs so loose that she could easily turn any limb in any direction. But greater admiration is brought by what Hollerius recounts about a certain woman of Paris whose body was soft, flexible, and without solid bones. The complete opposite is reported by Columbus about a certain man observed in the hospice of the incurables at Rome, who could move no part of his body except the tongue, eyes, abdomen, and chest, because his skeleton from head to foot resembled a single bone.

Concerning the affections of the urine, many record that worms have been passed by way of urine; but rare is what Argentier reports about a winged dragon which he observed issuing through the channels of the urine. Schenck increases the admiration by having observed a living scorpion expelled with the urine; whence we are to conclude that living creatures besides worms are sometimes generated in human bodies. For it once came to pass in Hungary that serpents resembling natural ones were generated in the bowels of many men, and on this account many thousands of people perished. It is pleasing to exhibit in this place the images of certain small animals that were generated by putrefaction in human bodies, expelled partly by vomiting, partly through the uterus, and partly through the urine.

Before we complete the wonders of human afflictions, it is to be noted that many persons were born in former times, and are still born, with no perforation — those whom Aristotle called *atrêtinoi* ("imperforate"), and Swessanus in his commentaries called this condition "marmoreal." But what is more to be wondered at is that some persons, struck with this affliction, have survived: for Schenck mentions the daughter of a certain Hebrew called the German, who expelled faeces through the vulva — whom Mercurialis confesses to have seen. And the same Schenck again mentions a boy, the son of a quarryman, who was born without a perforation and forced his excrement through the urine channel; but because a certain bold surgeon wished to open the anus with a knife, he died as the blood flowed copiously, and upon dissection of the body they found that the rectum had insinuated itself into the bladder.

[marginalia: Lib. 4. observ. / Rerum caus. / In lib. Anat. / Lib. 3. observ. / Lib. 1. de morb. puer.]

A serpentine worm expelled by vomiting.

A serpentine monster born from the womb of a virgin.

An image imitating a scarab beetle, passed out through urine.

The rudiment of a millipede excreted in urine.

[Full-page engraving — no further translatable text]

Furthermore, Albertus Magnus and Swessanus report that they saw imperforate foetal humans; and Aristotle mentions a cow, formerly of Perinthos, a town of Thrace, which not only lived without a perforation, but moreover, as often as the anus was opened by the surgeon's art, so often did it close again. Yet the beast lived, in Aristotle's view, because nature, reducing the dry excrement to a thin consistency, forced it through the bladder. Mercurialis likewise, in his work on excretions, records that in our age a certain man lived at Rome who throughout nearly the entire course of his life purged the excrement of his bowels through his mouth. Likewise Schenck tells that at Constance, around the year fifteen hundred and thirty, a certain Andreas, a leader among the mendicants in his office, vomited all dry excrement for the space of twenty years, passing nothing through the bowel; he was in the meantime moderately healthy, and performed his office until old age.

Similarly Schenck enumerates a girl of twenty years who, at Cologne, was accustomed every third day to evacuate the excrement of her bowels through her mouth, and so continued for three years with enemas and purging medicines applied to no avail; she lay constantly bedridden because her legs were altogether contracted; she was in the meantime fairly well-coloured and of rather keen intelligence. Furthermore the same author mentions others of this kind in the sixty-eighth observation of his third book, to which we refer the reader.

To these let us add, following Textor's opinion, that the peoples of Locri and Crotona were never afflicted by plague.

Concerning the marriages of men, infinite matters worthy of astonishment ought to be set down; nevertheless at present we shall note only that there was a woman who experienced two and twenty marriages — just as conversely, in the age of Pope Damasus, there lived a man who married not a second or third time merely, but was the husband of twenty deceased wives. Wherefore let no one hereafter mock Martial, who sang of the seven wives of Phalerus in this manner:

> *A seventh wife is now being buried for thee, Phalerus, in the field.*
> *No field, Phalerus, yields thee more than thine.*

Lastly, among the wonders are to be placed those men who are said to have come back to life after death. For Pamphilus of Pharos, as Textor relates, lay in a battle line for ten days and then, being taken up and laid upon the pyre, came back to life. Aviola, a man of consular rank, from Pliny, laid upon the pyre, resumed breath; but since the violence of the flames prevented him from being helped, he was burned alive. The same records Corfidius, who was carried to his burial pit and brought back the house to those burying him; and also a woman who lay without life for seven days, who returned to life. In the same author mention is made of a certain man who in Sicily, by Pompey's order, was beheaded, and after lying on the shore for a full day, revived his life, and after he had related to Pompey the commands of the gods below, he expired again. To the foregoing let us add as a crowning instance certain men who perished of grief, others of joy, others of love, and yet others of fear. Inasmuch as Pliny mentions a man who ended his life in grief when the consulship he sought was denied him; the philosopher Chilon, upon hearing of his son's victory at Olympia, expired from joy.

Likewise, Dionysius the tyrant, and Sophocles, both, upon hearing the announcement of a tragic victory, with their vital spirits diffused by delight, were struck lifeless. Similarly, a certain woman, having learned that her son had been struck by a mortal wound in the battle of Cannae, and afterwards beholding him safe and unharmed much later, was seized with such great joy that she gave up her soul. Pyramus and Thisbe were afterwards driven to death by supreme love. But more fittingly a certain pilgrim soldier who, having visited with the utmost piety all the places where Christ had dwelt, at last arrived at the Mount of Olives, and being unable to follow Christ further, died suffused with supreme love and immense joy; and when his body was opened, these three words were found carved upon his heart: *AMOR MEUS IESUS*. What we should say at present concerning fear is beyond our resources.

[catchword: HISTORICA]

[marginalia: Lib. 3. observ. / gener. anim. / Lib. 3. observ.]

HISTORICAL MATTERS

Many things pertaining to the human race, which do not admit of great admiration, we have thought ought to be referred to the heading of Historical Matters. We shall set down first certain matters concerning sight. Democritus, on the authority of Tertullian, when he found he could not look upon women without concupiscence, put out his own eyes. The poet Stesichorus, according to Politian, having published a poem that brought reproach upon Helen, was struck blind; but when he sang his *palinode*, he is said to have recovered his sight. No one doubts that the poet Homer was blind — so called, as some hold, because he needed the shoulders of asses to make his way on a journey; but whence he contracted his blindness is not sufficiently established. Others held the opinion that Homer's blindness was produced by a chronic disease; others said it was from old age. Ovid, however, in his *Ibis* reported that Homer fell into blindness through the stings of bees. Belisarius too, on the testimony of Procopius, general of the forces of the Emperor Justinian — having defeated the Vandals, triumphed over the Persians, and more than once freed Italy from the Barbarians — fell under the suspicion of the Emperor on account of his fortunate successes; and so he was blinded. He therefore built himself a hut on a public road, where he begged his sustenance from passersby with these words: "Traveller, give an obol to Belisarius, whom valour raised up and envy struck blind."

Concerning the various ailments of men, much is read in the histories: for Pliny writes that Ptolemy Philadelphus, King of Egypt, suffered from a tumour; but, his chest being wounded — since he sought death in battle — he found his remedy, for, the purulent matter having been drained and evacuated, he was freed. Likewise, Servius Clodius, a Roman knight, once suffered from gout; tormented by its not inconsiderable pain, he spread poison upon his feet and, as Suetonius reports, was immediately deprived of all feeling in those parts. The aged woman Accon, as Caelius has reported, seized as if by a kind of madness, was accustomed to converse before a mirror with her own image as with a living woman.

Into no lesser foolishness fell the Emperor Claudius, who adopted Domitius Hermes, when, according to Sabellicus, he could have had Britannicus, born of a lawful marriage. To these must be added the foolishness of Cippius, who pretended to snore and sleep so that his wife might the more easily commit adultery; and hence that adage in Cicero appears to have arisen: *Non omnibus dormio* ("I do not sleep for everybody"). And six hundred instances of this kind could be brought forward which, in the interest of brevity, we omit.

But since we have fallen into the subject of sleep, we shall in like manner record certain things about it and about wakefulness that are worthy of note. Pliny mentions a certain boy who, tired from a journey, entered a cave and there slept for the space of fifty-seven years, and at last, upon awakening, marvelled at the changed face of affairs. On the contrary, Gaius Maecenas spent the last three years of his life without any sleep; nor is it surprising, since they report that the Ciceronian Nizolius dragged out a decade without sleep, and after recovering from a severe illness, regained his former sleep.

Concerning parricides, fratricides, and other kinds of death, things not unpleasant to hear would be recounted; but we shall rehearse only a few matters. The prophet Amos struck Ozias his father with a staff because he had preached the word of the Lord, defying the command of King Jeroboam. Telegonus, his son, deprived Ulysses, returning from Troy, of his life, as though he were a stranger. Nicomedes, spurred by the lust for power, killed Prusias, King of Bithynia, his father. Nero, attempting to destroy his mother Agrippina — too curiously inquiring into his deeds — by various means, and above all by poison, at last ordered her to be killed. Orestes likewise, in vengeance for his father Agamemnon, slew his mother Clytemnestra. Mithridates, according to Caelius, was filled with such great impiety that he murdered his mother, his brother, three sons, and as many daughters. Giovanni Maria, son of Giovanni Galeazzo, formerly Duke of Milan, shut up his mother Catherine in a tower because she rebuked his deeds too harshly, and drove her to death.

On the other hand, there were fathers who did not lack the will to bring death upon their own children. Herod, King of Judea, on the testimony of Macrobius, besides the slaughter of the Innocents, also deprived three of his own children of the breath of life. Hippomenes, leader of the Athenians, punished his daughter caught in adultery in this manner: he shut her up with a spirited horse, providing food for neither; whereupon the horse, driven to frenzy by hunger, devoured the girl. Hence arose that proverb: *A man more impious than Hippomenes*. Hercules too, according to Crinitus, seized by epilepsy and maddened, slew his sons. Manlius Torquatus, as Livy relates, struck his son with an axe because he had fought against the Samnites contrary to his edict.

[marginalia: Which poets have been blind. / Foolishness. / Parricides.]

Likewise Cassius the standard-bearer, from Plutarch, while the Romans were fighting against the Latins, killed his son Crassus Brutus because he had wished to open the gates to the enemy. Finally, Diodorus, following the view of Caelius, having fathered many sons, slaughtered all but one, so that the one who survived might prove the richer and more powerful.

Moreover, if we wished to enumerate those who killed their brothers and sisters, and likewise women who killed their husbands, and conversely men who killed their wives, our time would assuredly fail us.

Now we must hasten to disclose those who inflicted voluntary death upon themselves. Lactantius Firmianus at first enumerates the philosopher Cleanthes, who, knowing of the immortality of souls, sought a voluntary death. Menander reports, in Textor's account, that the poet Publius Terentius drowned himself after losing a hundred and eight plays which he had rendered into Latin from the Greek. From the same author we collected that Empedocles, the Sicilian poet, aspiring to immortality by a novel kind of death, cast himself into the burning cavern of Mount Etna. Likewise, Labienus the poet, upon seeing his books consigned to the flames by public decree on account of his excessive liberty of censure, was unwilling to survive his own writings, and submitted to the yoke of voluntary death. Hipponax the poet, writer of iambics, taking it bitterly that the painter Bupalus had portrayed him with an ugly face, pursued the painter with verses so abusively that he drove him to end his life by a noose. Hence arose that proverb, "The invective of Hipponax" (*Hipponacteum praeconium*), which is used as a mark of infamy; Cicero sometimes used this proverb in his familiar letters.

Similarly, Archilochus the Parian poet, having been repudiated by Neobule, daughter of Lycambus, already promised to him in marriage, attacked Lycambus with such infamous iambics that he drove him and his daughter to the gallows; whence Horace sang thus of this poet's anger:

> *Rage armed Archilochus with his own iambus.*

Sardanapalus, King of the Assyrians, once a man so soft and effeminate, when he saw his affairs ruined and all hope now gone, built a pyre in his palace, and with his furniture brought there, voluntarily committed himself to the burning of the flames — and in this way alone, fearing death not at all, he manifested that he was a man. Of this manner of death Ovid makes mention in the *Ibis*:

> *May you send to the pyre with you your most dear possessions,*
> *Such as the end of life that Sardanapalus has.*

Themistocles, son of Neocles of Athens, banished by the envy of his citizens, took refuge with Artaxerxes; and when he was being compelled by him to fight against his native land, he died by drinking bull's blood. Likewise Nero, son of Domitius and Agrippina, that cesspool of all wickedness, when he had been declared a public enemy by the Senate, lest he should suffer something worthy of his deserts, went out of the city and ran himself through with his own sword; of this death Ausonius speaks thus:

> *Nero the matricide ended his own life by his own hand.*

Porcia, daughter of Cato, according to Plutarch, upon learning of the death of her husband Brutus, sought iron with which to inflict death upon herself, and, this being concealed from her, swallowed burning coals, and so by an unheard-of kind of death breathed out her spirit. Likewise Cleopatra, her husband Antony being dead, upon learning that she was being kept alive by Augustus to be led in triumph, stretched forth her arm to a serpent to be bitten and departed from this life.

But why do we digress here? When we read in Josephus the Hebrew that Herod, King of Judea, son of Antipater — after massacring the Innocents and murdering three of his own sons, namely Alexander, Aristobulus, and Antipater, in order to intercept the sacred birth of the Blessed Virgin ever — died by reason of worms teeming throughout his entire body, a death he brought upon himself. Likewise Judas, having made Christ available to the Jews for a vile price, weighing the gravity of his crime, and despairing of pardon, hastened to the noose. After these follows Pontius Pilate, a native of Lyon —

[marginalia: Those who inflicted death upon themselves. / The death of Sardanapalus. / The invective of Hipponax. / The death of Herod.]

MYSTICAL DOCTRINE CONCERNING THE PARTS OF MAN

All parts of the human body, from the very crown of the head down to the heel, must assuredly be weighed with care, inasmuch as beneath them something hidden lies concealed. First, hair in the Holy Scriptures signifies the thoughts of the soul: for just as the whole head is adorned by hair, so likewise the soul is adorned by thoughts. Therefore Saint Gregory, through hairs growing imperceptibly above the brain, expressed the cares of the present life, which are sometimes wont to be an impediment to the soul, lest it betake itself to divine contemplation. For this reason Christ, in the reading of the Gospel, declared that the hairs of our head are numbered — signifying thereby that God is the searcher of the human heart and of its thoughts.

Hair, moreover, according to the opinion of Saint Augustine, in the case of a woman denotes the superfluous things possessed by men. Hence monks and others who dedicate themselves to God in religious servitude shave the head, leaving only the smallest portion of hair, to show that they care but little for the things of this world. Finally, through the hair of God, Saint Augustine interprets the holy angels and all the just, of whom it is said: *The hairs of his head are like white wool* — or, as it is said in the Apocalypse, that he appeared with a white head. The same Augustine, in his epistle to the Galatians, signifies through this the antiquity of truth.

The head, according to the opinion of Goropius, was called *Heet* in the first tongue, a word which manifests authority; for to the head is destined the dominion over the whole body. In another form it was called *Hoet* in the first tongue, with the letter T added — a letter which possesses the faculty of binding; for the head binds us to God Almighty. Otherwise, in the first tongue the head was also called *Huet*, a word by which guardianship is designated, since the head by its own providence guards the whole man. And so, since the head enjoys so many and such great prerogatives, it is no wonder that it is attributed to God — as we read in Daniel, where the essence of the divinity is designated, to which all things are subject. Therefore in the Apocalypse the Seraphim are said to veil the head of God, that the deep mysteries of God may be indicated — those mysteries which concern his divinity and his power. The Psalmist likewise named the head overshadowed, by which the divinity concealed at the time of Christ's Passion is expressed. But the head full of dew, and of the drops of the nights, as it is written in the Canticle of Canticles, shows the love of God toward the Church, cooled by the sins of men.

The manner in which Pontius Pilate prepared his own death is reported by Gregory of Tours: having with his own hand passed the wicked sentence against Christ, he brought destruction upon himself.

The various kinds of death by which illustrious men have been destroyed are innumerable. Quintus Catulus Lutatius, the Orator — as Valerius Maximus attests — who had been colleague of Marius in the consulship and had together celebrated a triumph over the Cimbri, was, by the order of Marius, shut up in a certain dwelling and suffocated by the vapour of glowing coals. Likewise Zoe, wife of the martyr Nicostratus, led to the worship of Christ by Blessed Stephen, was hanged by her hair and died suffocated by smoke. The virgin Felicula, when she could by no promises be recalled from the Christian Religion, was, by the command of Count Flaccus, cast headlong into a cesspit and perished. In like manner the Divine Bartholomew the Apostle, son of the King of Syria, at the order of Astyages, having been stripped of the skin covering his whole body, took flight to heaven. Other illustrious men were pierced with arrows, beheaded, struck by lightning, burned, destroyed by hunger, dispatched by poison, crushed by stones, slaughtered, and drowned; for Galeazzo of Mantua, according to Pontano, while wintering at Pavia, cast himself jokingly into the river, at the urging of a girl for whom he pined. Finally, men of note who were struck down by horses, killed by falls from horses, slain by serpents, butchered by boars, torn apart by lions, mangled by dogs, and killed by the bites of other beasts, have been recorded in the histories of the aforesaid animals, to which we refer the reader.

[marginalia: Pilati mors / Ignis lib. de atu, in Hermath / Capitis Myfteria / Cani. cap. 5]

When we read in Genesis that the head of Jacob was placed upon a stone, we ought to understand the sovereignty of Christ resting upon that anointing. In like manner, through the head and the tail in Isaiah, Christ — who is the beginning and the end — is to be understood. Again, through the severed head of John the Baptist, Christ taken away from the Jews and from the law is designated. The head of Christ was sought by Herod, as we read in Matthew, that man might learn to bind God to himself by excellent works. And when in the same Evangelist a crown woven of thorns is placed upon the head of Christ, God is said to be offended by the sins of men as by so many thorns. In Leviticus the head of the priest was not shaved, that it might be a mystical teaching that wisdom must by no means be separated from priests, so that they might be able to rebuke the vices of laymen. Likewise in the same book, the bare head of the leper may indicate the loss of the helmet of salvation, or Christ separated from the soul. In Proverbs, moreover, grace being added to the head — the Glossa ordinaria expounds this as the doctrine of the New Testament being given together with the hope of the Kingdom of Heaven. Finally, the covered head in the history of the Kings can publish sorrow; for those who were sorrowful were accustomed to cover their heads.

If we turn our attention to the forehead, we find in Exodus that a golden plate inscribed with the name of God was wont to be placed upon the forehead of the Priest — signifying the interior thought of the heart, or the confession of mouth and deed with which the faithful ought to be filled, as the Glossa ordinaria explains. We read also in the Holy Scriptures that the forehead of Goliath was struck; the mystical sense of which is held to be that those who are in no wise fortified by the sign of the cross are struck down and perish, since the forehead may designate the mind, as Lauretus affirms in the *Sylva Allegoriarum*.

The eye follows next, which in the first tongue was called, as Goropius reports, *Oog*, from *Hog*, that is, *high*; and hence the mystical sense is that we ought to be mindful that eyes have been given to us by the supreme Maker to the end that we may perpetually contemplate things above. But one must observe that eyes in mystical doctrine can bear both a good and an evil sense. In respect of the first, God is understood through the eye: for just as the eye in the lesser world — that is, in man — governs him, so likewise God in the greater world governs all things, sees all things, and orders all things. Or let us say that, as the eye is the receptacle of light, so God is called not only the spring of light but light itself — according to that word of John: *He was the light in the world*.

Indeed the eyes of the bridegroom in the Canticle of Canticles, compared to the pools of Heshbon, signify the perfect vision and knowledge of all things, even before they come to pass — a knowledge which is in Christ the head of the Church. In this head, designated by the bridegroom, the ideas of all things are to be found; and therefore the eyes of the bridegroom are not without reason compared to the waters of the pool as to the ideal reasons of things. For the pool is called Heshbon, that is, of *cognition*; since the ideas are the devised reasons of things to be produced, all of which were in the Word, as Saint Augustine interprets. Unless we wish to assert that, through the eye of God, grace and favour are signified — for God, looking upon anyone, straightway imparts his grace to that person. Otherwise, in worldly matters, the eye signifies voluptuous effects, since men are ensnared by love through their eyes. What if the precepts of the Lord are designated by eyes? For we read in the Psalmist: *The commandment of the Lord is clear, enlightening*. Likewise in the Apocalypse, eyes said to be as a flame of fire signify the precepts of God. And when in the thirty-third Psalm the eyes of the Lord are read to be upon the just, then, in the mind of Basil, the eyes of the Lord are the angelic virtues, which are said to protect men. Differently, when we read in the sixteenth Psalm: *Keep me as the apple of the eye*, then the pupil is said to indicate the spiritual senses.

Furthermore in mystical teaching, benignity and mercy are referred to the eyes, as we read in Deuteronomy: *Let not your eye spare* — and there the eye is taken for mercy. Likewise the eyes of the Lord in the thirty-second Psalm show his mercy and benignity. And in Genesis the eye of Joseph foreshadows the benignity of Christ; indeed in the same place, Isaac raising his eyes signified Christ looking toward the salvation of the human race. Inasmuch as when we read in Isaiah: *The Lord hath made bare his holy arm in the sight of all the nations* — it is asserted thereby that salvation to be obtained through Christ was set before all. Eyes in the Church are also said to be —

[marginalia: In Coment. ad Psalmos / Numer. 24 / Pfalm. 122 / Lib. 16]

— namely, learned men, fit to receive the mysteries. In another sense, eyes read in various places of the Holy Scriptures are wont to signify the understanding power of the soul.

Beyond these, various things are also made manifest by the name of the eyes. First, presence is declared by the eyes, as when we read in Job: *Neither did I remove evils from my eyes* — for things present are said to be before one's eyes, and they are then removed from the eyes when they are taken away from one's presence. According to the well-known verse:

God is far from the eyes, far too from the threshold of the heart.

Therefore the same is signified by Isaiah when he wrote: *And eye to eye shall they see* — that is, they shall look face to face, in which manner the Blessed shall contemplate God; and conversely, that consolation is hidden from the eyes, as we find in Hosea. Saint Jerome expounds this as meaning that consolation is not to be admitted. In like manner the same Saint Jerome interprets the turning away of the eyes from the Sabbaths in Ezekiel as a refusal to think upon the repose of God, which consists in the knowledge of the Scriptures. Again, when in Deuteronomy gifts are said to blind the eyes of the wise, through the eyes, judgment is made manifest.

In another sense, eyes are sometimes employed; for, as we read in Jeremiah, eyes signify the natural judgment of good and evil — eyes which many possess, yet do not see, when they work evil. Hence the eye of the body is called the mind by which we act; and the single eye shows right intention, while, as the evil eye in Matthew expresses, a wicked intention is set forth. Therefore in Numbers, to fall with open eyes — according to the opinion of Lauretus — is nothing other than to sin knowingly. Whence in the Psalmist, *the eyes of servants toward the hands of their masters* are expounded by some as those made ready for the committing of crimes; and *the eyes of the handmaid toward the hands of her mistress* are said to be when the soul serves in voluptuous obedience. Though others interpret the eyes of servants toward the hands of their masters as referring to when servants expect favour from their masters and dread punishment.

These, therefore, are the eyes that are to be plucked out, of which Christ spoke in the Gospel — nor are they to be understood as the eyes of the flesh, as certain heretics impiously and absurdly expound; who, seizing upon this pretext for calumny, in order to embitter the sweetness of the Christian yoke, called the precepts of Christ severe. But these men, in the mind of Chrysostom, Cyprian, and others, are greatly stupid and cannot penetrate the mystical sense of the Gospel reading — since this is to be understood not of the eyes themselves, but of those friends to be kept at a distance and removed, whose company brings ruin to our soul, or who give us offence by a wicked example, or who strive by iniquitous persuasions to draw us away from the path of true salvation.

Moreover, there are many gestures and affections of the eyes that denote vices. To wink with the eyes — in the Psalmist — Saint Augustine declares to denote the hypocrite, who does not show on his face what resides in his breast. Elsewhere, Saul did not look upon David with straightforward eyes; hence through these eyes, many reveal their treacherous designs. Likewise, dimming eyes show the blindness of the Jews. Indeed, eyes shut in Isaiah indicated the Hebrews who did not acknowledge Christ. Again, terrible eyes in Job demonstrated the fierceness of the Jews toward Christ. Similarly in the same Job: *The eye that saw me bore witness to me* — Lauretus in the *Sylva Allegoriarum* designates thereby the Hebrew people, to whom Christ had been announced beforehand by the Prophets, and whose actual presence bore witness to it. Finally, blind eyes from birth, to which Christ in John restored sight, signify the blind minds of heretics, which Christ illuminated by his coming. Moreover, eyes as of a man in the horn of the beast, as we read in Daniel — Saint Jerome through these words asserts that Antichrist will be a man and not a demon. Likewise in Ezekiel, the right eye growing dark shall be obscured — that is, the knowledge which Antichrist falsely arrogates to himself. At the end, when eyelids are attributed to God, Saint Jerome through these interprets the incomprehensible judgments of God Almighty.

The ear, in the mind of Goropius, was called *Oor* in the first tongue — that is, *origin*; and its mystical sense may be that we ought to hear nothing that does not refer back to our first origin. And so the Psalmist assigns ears to God, to give us to understand the power of God, whereby he perceives all things such that nothing escapes him. And elsewhere when he writes that the ears of the Lord are upon their prayers, Saint Basil then expounds that the angels bear our prayers to God Almighty —

[marginalia: Deuter. cap. / Numer. 24 / Pfalm. 122 / Lib. 16 / Daniel c. 7 / Ezechiel / Ioel / Pfalm. 33]

— offering them up. And finally when the same Psalmist has: *Incline thy ear unto me*, this signifies to hearken. Moreover Dionysius says that ears in the angels denote not only the faculty of participation, but also the knowledge by which they understand themselves to be partakers of the divinity. *Hear with the ear*, as we read in Matthew, indicates the apprehension of secret doctrine. Or to hear in the hidden place, as it stands in Jeremiah — Origen interprets this as the spiritual understanding. Again, the ear in the Holy Scriptures designates clemency, and at times also the intellect, as in Luke, where we read: *He that hath ears to hear, let him hear*. The stopped ear in Isaiah proclaims that the occasion of sin has been taken away. Likewise the ear torn away from iniquity — in the mind of Gregory — demonstrates the understanding of cognition laid open. But to reveal the ear, as we read in Job, is nothing other than to enlarge the hearing of the heart through tribulations and chastisements. To have open ears and yet not to hear, as in Isaiah — Saint Jerome assigns these ears to the Jews, who were versed in the letter of the law and were unwilling to give credence to Christ expounding its mystical sense.

Finally, through the ear, in mystical doctrine, all theologians understand obedience, which each one must render to God Most High, mindful of Adam who, having scorned obedience, was deprived of Paradise. This, therefore, Moses indicated when, with the blood of the second ram offered in sacrifice, he anointed the tip of the right ear not only of Aaron but also of his sons. Therefore in the thirty-ninth Psalm we read: *Thou hast perfected ears for me* — others read *Thou hast pierced* — since in Deuteronomy, according to the Mosaic law, servants who had completed the time of their servitude could either embrace freedom or deliver themselves into the power of a master. If this latter was chosen, in token of voluntary servitude the ear of the servant was pierced by his master with an awl.

The same is to be understood of the faithful man of Christ who, while under the law, offered his ear to God, so as to render it capable of receiving the divine precepts. Beyond which, Lyranus expounds the pierced ear as denoting obedience and submission. To the foregoing let us add that the right ear in the Holy Scriptures signifies the intention of the vision of things above, and the left ear signifies the intention of holy activity.

The nose too is assigned to God in the Holy Scriptures, and signifies the investigation by which God scents the hearts of men. Hence we read that when Noah sacrificed, the Lord God smelled the sweet savour — since a sacrifice offered by an upright and just man is supremely pleasing to God. Indeed, nostrils are also attributed to the soul, signifying the interior virtue by which divine things are perceived. Otherwise, in the Canticle of Canticles, the nose that is strong like the tower of Lebanon demonstrates a vigorous and lively judgment.

By the nostrils, from which smoke goes forth in Job, are expressed the nostrils of the Devil ever exhaling his snares, by which he strives secretly to scent out the thoughts of our heart. Finally, when we read in the Psalmist: *They have nostrils, and they smell not*, there are thereby designated those who are furnished with the instrument of spiritual smell, yet make no use of it.

The cheeks (*genae*), which are read in many places of Holy Scripture, may be expounded as the cheeks of the Church — that is, the priests and preachers who adorn the Church, who stand out in the sight of the people and are conspicuously visible, as it were in the face of the Church.

But the cheeks of the bride in the Canticle of Canticles may show the interior affections of the soul. When, moreover, in the aforesaid place the cheeks of the turtle-dove are named, they indicate virgins and others who devote themselves to chastity. There too the cheeks like rows of aromatics set by perfumers are the mystical cheeks of the bridegroom — namely the martyrs of Christ, who did not hesitate to shed their blood for the faith. Hence these are called as it were blushing cheeks, while the beauty of the Christian faith is spread abroad and published by them. Finally, when we read in Isaiah: *I have given my cheeks to them that plucked them*, this — as regards the literal sense — is to be understood of the Passion of Christ.

Concerning the face. Among the four Evangelists the face of a man is read, which may denote Matthew — since he began the exordium of his Gospel from the human generation of Christ — although this human face, in the mind of Saint Augustine, signifies Saint Mark, who demonstrates Christ as man. Likewise when in the Holy Scriptures we read that God breathed into the face of man the breath of life, we are to understand that God communicated all the senses to the head of man; for the face is taken in that place as the nobler part —

[marginalia: Hierarch. / Matth. c. 10 / Navis Myft. / Ioa. cap. 16 / Canis cap. 5]

— the nobler part, drawing after it what follows, as Saint Augustine most excellently and elegantly explained in his book *On the Spirit and the Soul*.

We must now come to the mouth, which in the Holy Scriptures is attributed to God, and is called the generative and spirating power — chiefly in the Canticle of Canticles, where the mouth of the bride is expounded as the virtue of God illuminating the mind. Indeed the mouth of God is said to be Christ himself, and the law of the mouth of God is the law of Christ. Though sometimes the Prophets are said to be the mouth of God, through whom he makes known his will to us. But when mention is made of the mouth of God in the thirty-third Psalm, then there is shown the will, the mind, and the thought, which disseminates the divine proclamations. The open mouth after the devastation of Jerusalem in Ezekiel signifies the Gospel of Christ, which — after Jerusalem was laid waste — was communicated to the whole circle of the earth. Finally, the mouth from which fire goes forth, as we read in the Apocalypse, signifies the mouth of the Church — that is, prayer. In the Psalmist we have these words: *My mouth was not hidden from thee, what thou didst make in secret.* Hilarius, in his Commentaries on the Psalms, says these words indicate that the mysteries of the Church, secretly fashioned by God, are made open and published. Likewise in the history of the Kings: *To depart from the mouth of an old man* — and thus are delivered the words of idle talk pertaining to the old man, which are to be passed over. And when the boy raised to life by Elisha yawned seven times, the mystical sense is that the soul must be strengthened and fortified by the instruction of the seven gifts of the spirit.

They have a mouth and shall not speak, as it is in the hundred and thirteenth Psalm — this pertains to those who know the virtue of confession and how they ought to confess, yet nonetheless do not confess. In the twenty-first Psalm: *They have opened their mouth against me* — this is nothing other than the mouth of the Jews opened against Christ in the Passion, since, as the Psalmist expressed elsewhere, it spoke vanity. But the mouth of the sinner and the deceitful, opened against me, as appears in the hundred and eighth Psalm, pertains to the mouth of Judas the traitor. Inasmuch as the mouth speaking great things in Daniel looks toward Antichrist, who will be filled with a diabolical mouth — though all the impious and fraudulent are similarly furnished with such a mouth. Of these too we read in the forty-ninth Psalm: *Thy mouth abounded with malice.* Finally, the mouth covered with a garment, as it stands in Leviticus, pertains to the wicked and to heretics, to whom preaching must be prohibited, lest they infect hearers with their poisonous speech.

Teeth whiter than milk are read in Genesis, which signify that the judgment of the last day shall be bright, upright, and just. Or these white teeth may be applied to the Church, whose teeth are said to be the Apostles and the preachers, since they instil the Word of God, pre-masticated as it were, into the ears of the faithful, and by the tooth of admonition cutting men off from crimes, they remove them. Teeth *like flocks* are named in the Canticle of Canticles, which may indicate the monks in the Church who, stripped of worldly things, abide strong in doctrine and right works, as teeth abide in the gums. Otherwise, through the teeth of sinners — as we read in the third Psalm — the princes of criminals are to be understood, by whose authority men are cut off and separated from the company of the just. Therefore God shall shatter their teeth, as appears in the fifty-seventh Psalm, when impious men and heretics are confounded by their own words. Finally, the rotting tooth named in Proverbs is compared to the man who places any hope in a frail human being.

The tongue is a human member most excellent not only for forming speech but also for discerning flavours, and it is assigned to God in the forty-fourth Psalm: *My tongue is the pen of a scribe writing swiftly.* This tongue of God, moreover, shows the generative power of the Father producing the Word; and it is called the pen of a scribe, since it produced a word that endures; or it also indicates the divine spirit through whom God makes his secrets known to the human race. The learned tongue in Isaiah is expounded as the tongue of Christ and of preachers.

Otherwise, the tongue cleaving to the palate in the twenty-first Psalm signifies Christ silent in his Passion, or the Apostles likewise silent in the Passion. Though others express the tongue cleaving to the palate of Christ as the Church in no way departing from his precepts. In another sense the tongue of the bride in the Canticle of Canticles, under which honey and milk are contained, demonstrates the mystical tongue of the soul or of the Church — which, though in the conversion of sinners it pour out harsh words, nonetheless beneath it a certain sweetness is hidden away, on account of which they are afflicted with no sorrow, but are refreshed with a most sweet —

[marginalia: Cap. 2 / Lib. 6 moral / Ezechiel 25, 33 / Lib. 1 Reg. cap. 2 / Pfalm. 145 / Pfalm. 3 / Cant. cap. 4]

— recreation. But the tongue of men and of angels, as we read in the First Epistle to the Corinthians, seems to be employed for perfect knowledge and exposition of mysteries. Again, in the Acts of the Apostles the divine spirit is said to have appeared in various tongues, because tongues that had been separated were to be united in the Church.

We read in Job that tongues are hidden beneath the scourge; and Saint Gregory, in his moral teaching, interprets this as meaning that the mind is not at all vexed when it hears words of contumely. And when in the fifty-first Psalm it is said: *All the day long his tongue devised injustice* — then the tongue is taken for the heart. As likewise in the hundred and twenty-fifth Psalm, where it is written that the tongue is filled with exultation. Furthermore, in Isaiah the tongue is said to be parched with thirst — by which words are shown the Gentiles who among the precepts of the philosophers tasted the truth of the Evangelical doctrine as it were like living water. In the same Isaiah, the tongue of the mute opened — Saint Jerome expounds as Gentiles confessing the one God. There likewise he interprets the tongue of the stammerers speaking quickly as the tongue of the Gentiles who, at the coming of Christ, embracing the catholic faith, had recourse to celebrating the praises of God Almighty.

On the other side, the tongue in the Holy Scriptures signifies many evils. For we read in Job: *When that which is sweet has been hidden in his mouth, he conceals it under his tongue.* He who conceals evil under his tongue does so when he does not confess it; therefore the hypocrite does so when he covers with the veil of flattering speech the malice lurking in his mind. The evil would therefore be *in* the tongue and not *under* it, if the hypocrite were to manifest his wickedness by speaking. In the Apocalypse we have tongues which the damned cut with their teeth — designating the evil thoughts of the heart. In the fifty-sixth Psalm: *Their tongue is a sharp sword* — indicating the tongue of the Jews who in the Passion of Christ pronounced the cry: *Crucify him, crucify him.* But the deceitful tongue in the hundred and nineteenth Psalm expresses the tongue of demons who by various temptations urge men on to deadly crimes; indeed it also indicates the tongue of heretics and other wicked men, who secretly draw men toward crimes. To practise deceit with the tongue, as we read in the fourteenth Psalm, is nothing other than to mingle wicked and obscene things with pious and divine words. But when Isaiah writes that the Lord shall lay waste the tongue of the sea of Egypt, the tongue there shows the blasphemy and idolatry of the Egyptians. Finally, in Jeremiah we have these words: *Come, let us smite him with the tongue.* Many learned interpreters refer these words to accusation.

We must now hasten on to the breast. Inasmuch as the breast of Christ in the Holy Scriptures signifies the secret of the Divine Wisdom and the communication of spiritual senses. But the breast of Aaron, as we read in Exodus, may designate the Apostles, who emulate the breast of Christ. The breast in the angels expresses the highest virtue and the power of saving. The silver breast of the statue in Daniel shows eloquence and doctrine without charity. Finally, the pectoral band in Jeremiah manifests the Evangelical doctrine.

The heart is attributed to God, and that hidden secret of divine wisdom is understood by it, from which — without beginning — he begot his Word, that is, his Son. And therefore through the Prophet he speaks thus: *My heart hath uttered a good word* — indicating that the Son Jesus Christ was begotten from the mystery of wisdom, as Eucherius noted. Sometimes, through the heart of God, Holy Scripture is understood, in which God Almighty unfolds his heart. Indeed, he is said to act according to the heart of God who obeys the divine commandments and precepts. Otherwise, the heart in the angels is the symbol of a life representing the divine likeness. God changeth another heart, as we read in the history of the Kings, when he bestowed the sevenfold grace of the divine spirit — for the Apostles who had previously been timid, after the coming of the divine spirit, attained the greatest fortitude against the assault of enemies, as we read in the Acts of the Apostles.

The heart melted like wax in the twenty-first Psalm — Holy Scripture, once wrapped in obscurity, is now opened and expounded; or it is the Church hard before the Passion of Christ, which in that divine Passion seemed to melt like wax.

The enlarged heart in the hundred and eighteenth Psalm indicates a man made joyful by wisdom and charity.

[marginalia: Cap. 2 / Lib. 6 moral / Iob cap. / Ifaias c. 6] [catchword: et charitate]

The troubled heart in the hundred and forty-second Psalm signifies a man vexed by afflictions and temptations, whom it is altogether impossible to resist.

To approach the lofty heart in the sixty-third Psalm — Saint Augustine expounds this as coming to know the secrets of God Most High. The blinded heart in Isaiah signifies the heart of the Jews at the coming of Christ, oppressed by a darkening dizziness. The contrite heart in the fiftieth Psalm designates a man who despises himself and worldly things, and bends himself wholly toward the study of divine things alone. The clean heart in the same Psalm shows a man meditating only upon things sublime. Again, in the hundred and thirty-seventh Psalm, to attribute the heart to God is nothing other than to direct all thoughts and all actions toward God Most High as toward the supreme goal. Therefore in the daily sacrifice of the Mass these words are recited by the Priest in the preface: *Lift up your hearts* — that all may understand that human thoughts are to be laid aside and the mind directed toward the heavenly dwelling.

The hardened and heavy heart in Exodus shows a man so overwhelmed by crimes that he is recalled to his senses by no calamities however great. Akin to this is the heart of stone in Ezekiel. Some not inaptly expound this as the original stain of sin, when the Prophet says: *I will take away the heart of stone and give you a heart of flesh* — meaning baptism, or the inclination toward the law of God to be infused in baptism through the divine spirit; so Galatinus expounds. The heart of the bridegroom in the Canticle of Canticles shows him who meditates daily upon wisdom and mysteries. To find the heart, as in the history of the Kings, signifies to abhor sin. Conversely, in the forty-ninth Psalm, to be forsaken by the heart indicates a soul prone to crimes. The heart of man given to a beast in Daniel denotes a fleshly heart granted to one who is compared to the unintelligent beasts. The heart of the King is said to perish in Jeremiah when Princes and Doctors of the Church fall away from the faith. To look upon iniquity in the heart — as appears in the sixty-fifth Psalm — Saint Augustine interprets as embracing crimes. Finally, the heart, because it lurks in the innermost recesses of the breast, is therefore taken in the Holy Scriptures for the hidden. Indeed it is sometimes used for the sepulchre, which is fashioned in the bowels of the earth, just as the heart is laid up in the breast; and therefore Christ in the Gospel called the sepulchre the heart of the earth, saying: *The Son of Man shall be in the heart of the earth three days and three nights.*

The arms come next to be weighed; and so the arms of God the Father signify the Son and the divine spirit, according to the assertion of Isaiah: *My arms shall judge the peoples* — so Saint Augustine expounds in his book *On the Essence of the Divinity*. Therefore it is not without reason that many theologians interpret the arm of the Lord as the Son; since Isaiah sets forth these words:

> *Hath the arm of the Lord been revealed? He hath borne our infirmities and carried our sorrows; yet he was wounded for our iniquities, afflicted for our crimes; the chastisement of our peace was upon him, and by his bruise we are healed.*

Otherwise this arm is published as the power and justice of God; for we read in the twentieth Psalm: *That I may declare thine arm unto every generation that is to come.* Likewise the uplifted arm in the hundred and thirty-fifth Psalm designates Christ, or his virtue, by which in the Passion he accomplished the most sacred redemption of the human race.

But the arm gleaning ears of corn in Isaiah shows the Apostles and preachers, who drew some of the Jews toward the good fruit and toward the way of salvation. Through the outstretched arm in Jeremiah, many understand those prodigies and miracles which the supreme Maker wrought in calling the people back from Egypt. Though others interpret it as the power of the divine name, which Moses extended into many branches when he brought the law. For the law was nothing other than the name of God extended into its several names and titles, as many theologians affirm.

When the Psalmist writes that the arm of the sinning man shall be broken, Origen understands the weakened arm — since it extends itself to no work of mercy and benevolence. But the arm cast down by God in Malachi — Lauretus in the *Sylva Allegoriarum* expresses as evil works neglected and rejected by God. Isaiah sometimes pronounced these words: *A man shall eat the flesh of his own arm* — many expound this as the symbol of a man seizing another's property, or as denoting the vice of ingratitude; since the arm serves the body with all its strength and even conveys food to the mouth, and yet is thereafter devoured by the man who is unmindful of so great a benefit. *The Lord hath prepared his holy arm*, in the sentence of Isaiah, *in the sight of all the nations* — this was explained a little above, when words were being said concerning the mystical doctrine of the eyes. The withered arm in Zechariah — Saint Jerome understands as the power of Antichrist scattered and dispersed. Finally, the everlasting arms in Deuteronomy — according to the interlinear Gloss — signify the vengeance of Christ the Lord, by which he damns the wicked and liberates the just. After the arm comes the cubit; and it will not be absurd to adduce in the middle the affection of Ezekiel concerning those who take cushions *under every elbow* — for thereby are designated the idle and excessively self-indulgent.

[marginalia: Ifaias c. 6 / Ifaias c. 51 / Ifaias c. 17 / Hiere. c. 32 / Malach. c. 2 / Ifaias c. 9 / Zach. c. 11 / Deut. c. 33 / Ezechiel]

The hand takes on many mystical senses. First it is taken for authority and power; and in this meaning the Psalmist recites these words: *Let thy hand be exalted.* Likewise Jeremiah, speaking of the supreme power of God, said: *As clay in the hand of the potter, so are ye in my hand, O house of Israel* — for Holy Scripture proclaims everywhere that in the hand of God are all the ends of the earth, that is, in the power of God. In another way, theologians understand through the right hand that receives, the divine assistance; since it was received by ancient custom, when rendering help, to stretch forth the right hand, in which more than in the left reside virtue and aptness for action. Therefore in the sixty-third Psalm we read, in direct application: *Thou hast held my right hand* — that is, after the manner of an excellent champion, thou hast seized my hand and led me forth from Babylonian captivity. Though others expound this place differently; for through the right hand seized by God, they understand the better works which are received with a favourable and benign spirit by God. Nor does this seem alien to reason, since elsewhere through hands are understood actions; whence in the seventy-seventh Psalm we read: *I sought God with my hands by night before him.* Hands therefore in this place denote the upright actions which are done by night — that is, secretly — and only before God. And this is the more firmly established, inasmuch as in Leviticus, hands offered with a sacrifice to the Lord are expounded by theologians as works. Otherwise, hands brought near to the sacrifice in the same place indicate theological mysteries — since it suffices us to touch these things but lightly. Sufficient for this is he who is compared, when contemplating sublime things, to one who warms his hands at the fire, yet extends them no further lest they be burned; so likewise he who desires to enter the inner recesses of divine contemplation incurs blasphemy when he cannot attain the understanding of the secrets of heaven. The symbol of this was the Israelite people, who did not ascend the mountain of the Lord, but sat at the foot of the mountain, within the appointed boundary.

Likewise hands in this mystical doctrine are assigned to God: as in Exodus, the mighty hand demonstrates the hand of God — but this hand is said to be Christ the Son, through whom the Father works all things. Again in Isaiah: *My hand hath made all these things* — Eucherius through this hand understands the Son. Otherwise the hands of God, according to others, are the Son and the divine spirit.

The mystical sense of the hands.

Moreover, the hands of God in the hundred and eighteenth Psalm are called the Angels, or the Apostles, or the preachers, through whom as through ministers God acts. Furthermore, the right and the left are considered in God. From the right, through the Son of God, the law of grace and mercy flows; on this account the Son is always said to be at the right hand of God; for from this hand liberality, benignity, and all things pleasing and delightful proceed. And therefore in the hundred and tenth Psalm Christ is seen to sit at the right hand of the Father; hence theologians, through the session, understand the repose and delight of the divine empire, proper to both Father and Son, and equal in honour. And so through the right hand of God we must interpret his immense benignity, and conversely through the left, the severe scourges by which criminals are punished. Hands in the angels indicate the virtue that acts — as we read in Genesis, when Lot was seized.

We must now come to the mystical sense of those things which are said to be in the hand of the Lord. First, in Isaiah a cup is said to be in the hand of the Lord when he exercises actual punishment; likewise the winnowing-fan in the hand of Christ in Matthew may designate the arbitrament of judicial power. Likewise the seven stars in the hand of Christ, as it stands in the first chapter of the Apocalypse, show the peoples placed under his dominion.

The hands of Moses lifted up in Exodus show prayers and supplications joined with actions; or they show the hands of Christ who upon the Cross accomplished the most sacred redemption of the human race. The stone cut without human hand in Daniel was the symbol of the birth of Christ, who was formed in the womb of Mary the ever-Virgin without any human work. Furthermore in the same Prophet, the hand writing on the wall expresses Christ as judge and condemner. Likewise the hand of Abraham stretched out toward the sword — as we read in Genesis — signifies the execution of the zeal of God the Father toward the Son on behalf of the human race.

The hand of man beneath the wings of the living creatures, as appears in Ezekiel, manifests the active life depending upon the contemplative. Finally, the washing of hands in the Holy Scriptures reveals purity and innocence. This is gathered from Deuteronomy, where — when the body of a man is found and the author of the deed is unknown — the elders of the city approaching the polluted place would wash their hands in the deserted valley as they sacrificed, so that by this means both they and all the people might be absolved. Likewise the Psalmist confesses that he will compass the altar of the Lord, provided he shall first wash his hands with the innocent. Again Pilate, when he wished to efface the crime of the wicked sentence passed against Christ, washed his hands before the people in testimony of his innocence. For in former times it was customary that those who wished to make it manifest that they were exempt from any crime and had given no assent to the deeds committed would wash their hands in the gathering of many men — since from that cleanness of hands they supposed they were likewise showing the integrity of the mind.

On the other side, hands are also taken in the opposite sense, and signify chastisements: in which understanding we read in Zephaniah:

> *I will stretch out my hand against Judah and against all the inhabitants of Jerusalem, and I will cut off from this place the remnant of Baal.*

Wherefore the Blessed Job, speaking of his calamities and afflictions, said: *The hand of the Lord hath touched me.* Indeed elsewhere in the Holy Scriptures, where we read: *Thou hast made fast upon me thy hand* — this is to be understood of the scourge and punishment. When the Philistines in the history of the Kings had brought the ark of the Lord into the temple of the idol Dagon, on the next day Dagon fell to the ground with his hands cut off; and therefore learned interpreters, through the severed hands, presage that when the doctrine of Christ had reached the Gentiles, the hands of idols would be cut off — that is, the frauds by which the eyes of mortals were mocked would be dispersed — and henceforth the power of demons would be abolished. *They have hands and shall not touch*, in the hundred and thirteenth Psalm, are said of those who know the righteous actions, yet never strive to enjoy their fruit even once. The leprous hand of Moses placed in his bosom — as we read in Exodus — may show the works of the Jews hidden away and as if useless. Though according to others, this hand of Moses may be the symbol of Christ in the bosom of the Father, where the stature of the Divinity shone forth; but because in some manner it had departed from the bosom through the taking on of flesh, he was counted among the iniquitous; yet through the resurrection it returned again to the bosom of the Father.

The hands of Joseph laid upon the eyes of his father in Genesis may intimate King Jeroboam descended from him, who is said to have placed his hand over the eyes of Israel when he drove the people to idolatry. The violent hand in Job was a symbol of the power of the Gentiles against Christ. Likewise the hands of the wicked in the same text are expounded as the Jews, servants of the demons, who dragged Christ to his torments. Finally, the washed hands of Pilate in Matthew presage the purification of the works of the Gentiles through Christ.

The fingers may, in multitude, show the Prophets — through whom the Divine Spirit, by his own breath, wrote the books of the law. Wherefore the Psalmist, looking to this, in the mind of some, said: *I will behold thy heavens, the work of thy fingers.* Through the heavens many interpret the inspiration of the Prophets, led by which they disseminated so many admirable oracles concerning divine and human things. The finger therefore for the most part is taken in the Holy Scriptures for the divine spirit. For Christ in the Gospel said: *And if by the finger of God I cast out demons, then the kingdom of God is come upon you.* Saint Gregory expounds this finger as the divine spirit; nor is this beside the reason, since where Saint Mark writes *in the finger of God*, another Evangelist reads *in the spirit of God.* Finally, he who weighs the mass of the earth with three fingers in Solomon may be a symbol of the Most Holy Trinity —

[marginalia: Myftéca manum / Exod. c. 33 / Myftíca manus / Digiti / Deán. c. 2 / Ezechiel / Per manus aliquando flagella intelliguntur / Exod. c. 4]

— may be a symbol of the Most Holy Trinity.

The fingers are furnished with nails. And so the nails of a woman to be cut off in Deuteronomy are the symbol of the knowledge of the Gentiles, which must be wholly pared away. And the nail of adamant in which the sin of Judah is said to be written in Jeremiah makes manifest the difficulty of effacing this crime. For since the nail is the extremity of the body, and adamant is so hard that it cannot be cut by iron, hence it is that by the name of an adamantine nail an eternal end is designated.

Let us now descend to the belly, which in the Holy Scriptures is placed as the receptacle of reason and of the mind. For when we read in Jeremiah: *My belly, my belly doth ache* — it is not the bodily belly but the spiritual that is understood. And this is more clearly explained in the Gospel reading, where Christ says: *He that believeth in me, from his belly shall flow rivers of living water*. But the belly like a heap of wheat in the Canticle of Canticles signifies the belly of Mary the ever-Virgin, who bore for us Christ, the grain of wheat and the living bread; and therefore in Isaiah God called Christ from the womb. The belly of the bridegroom likewise in the Canticle of Canticles may denote the human nature of Christ. Furthermore the belly may signify the synagogue, from which Paul, having gone out, had recourse to the faith of Christ, as we read in the Epistle to the Galatians. Similarly Christ is said to have come forth from this belly when, leaving the unbelieving Jews, he turned his steps toward the Gentiles; just as Joseph, leaving his garment in the hands of the adulteress, fled.

In the forty-third Psalm we read: *Our belly is cleaved to the earth* — Saint Augustine understands a man clinging too closely to earthly things. But the filled belly in the sixteenth Psalm signifies gluttony and excess — for Terence once said: *Deal him blows in the belly*; and Donatus expounds this place thus: deal blows to the parasites who, by ever eating, distend their insatiable belly. In Isaiah, Israel is called a transgressor from the belly — that is, from the very time when it went forth from the land of Egypt, since it was then as if carried by God in the womb. Finally, the bronze belly of the statue in Daniel signifies doctrine bent toward vainglory.

Furthermore, since the navel adorns the belly, it must be known that the navel in the Holy Scriptures is referred to concupiscence. Inasmuch as Ezekiel, concerning the profaned Jerusalem, brought forth this: *In the day of thy birth thy navel was not cut* — that is, the soul was not from the very beginning separated from corruption, while it still clings to softness and concupiscence.

Before we descend to the other parts, something is to be published concerning the womb. Inasmuch as the womb too is attributed to God. For we have in the hundred and ninth Psalm these words: *From the womb, before the morning star, I begot thee.* This womb of God the Father indicates the hidden substance or the origin of his essence, from which — in an ineffable manner before all created things — he begot his Son, consubstantial with himself and coeternal. Though others expound, through the womb of God, the incomprehensible judgments of God, which it is granted to no one to investigate. Likewise the womb in which God in Isaiah is said to have carried the Jews denotes the perpetual mercy with which he embraced criminals; indeed it indicates the grace of God, in which the Jews were cherished as in a womb. But since at the coming of the Lord they, frozen as it were by the cold of perfidy, lost the warmth of faith and charity, they were therefore expelled from the hidden bosom of grace and went forth, like ice, as it stands in Job, from the womb of the Creator. Again in Job we read: *Naked came I forth from the womb of my mother, and naked shall I return thither*. By these words there is described one who, vexed by temptations, knows that he was born in the faith through the first grace without any merits, but after temptations — knowing his own weakness and fearing lest he be deprived of his virtues — sustained by great humility of soul returns to grace, and refers whatever virtue he possesses to the divine assistance. The womb of the mother finally in the hundred and thirty-eighth Psalm signifies the wicked custom of the world, from which he emerges who is brought back to good fruit by divine assistance.

The thighs follow, together with the knees, legs, and buttocks. As concerns the thighs, these — in the mind of Giorgio Veneto — formerly designated the Sun, the parent of generation; and therefore in the Holy Scriptures we read that Abraham, being about to send his servant to seek a wife for his son Isaac, from whose offspring Christ was to be born, ordered him to swear above his thighs. Again the thigh of Jacob, made lame after the wrestling with the Angel, denoted the source from which the sons of Israel sprang, who for a long while limped in the law. The knee —

[marginalia: Vmbilici / Iob cap. / Vteri myſtici / Femora]

— may be a symbol of the Most Holy Trinity.

The fingers are furnished with nails. And so the nails of a woman to be cut off in Deuteronomy are the symbol of the knowledge of the Gentiles, which must be wholly pared away. And the nail of adamant in which the sin of Judah is said to be written in Jeremiah makes manifest the difficulty of effacing this crime. For since the nail is the extremity of the body, and adamant is so hard that it cannot be cut by iron, hence it is that by the name of an adamantine nail an eternal end is designated.

Let us now descend to the belly, which in the Holy Scriptures is placed as the receptacle of reason and of the mind. For when we read in Jeremiah: *My belly, my belly doth ache* — it is not the bodily belly but the spiritual that is understood. And this is more clearly explained in the Gospel reading, where Christ says: *He that believeth in me, from his belly shall flow rivers of living water.* But the belly like a heap of wheat in the Canticle of Canticles signifies the belly of Mary the ever-Virgin, who bore for us Christ, the grain of wheat and the living bread; and therefore in Isaiah God called Christ from the womb. The belly of the bridegroom likewise in the Canticle of Canticles may denote the human nature of Christ. Furthermore the belly may signify the synagogue, from which Paul, having gone out, had recourse to the faith of Christ, as we read in the Epistle to the Galatians. Similarly Christ is said to have gone forth from this belly when, leaving the unbelieving Jews, he turned his steps toward the Gentiles; just as Joseph, leaving his garment in the hands of the adulteress, fled.

In the forty-third Psalm we read: *Our belly is cleaved to the earth* — Saint Augustine understands a man clinging too closely to earthly things. But the filled belly in the sixteenth Psalm signifies gluttony and excess — for Terence once said: *Deal him blows in the belly*; and Donatus expounds this place thus: deal blows to the parasites who, by ever eating, distend their insatiable belly. In Isaiah, Israel is called a transgressor from the belly — that is, from the very time when it went forth from the land of Egypt, since it was then as if carried by God in the womb. Finally the bronze belly of the statue in Daniel signifies doctrine bent toward vainglory.

Furthermore, since the navel adorns the belly, it must be known that the navel in the Holy Scriptures is referred to concupiscence. Inasmuch as Ezekiel, concerning the profaned Jerusalem, brought forth this: *In the day of thy birth thy navel was not cut* — that is, the soul was not from the very beginning separated from corruption, while it still clings to softness and concupiscence.

Before we descend to the other parts, something is to be published concerning the womb. Inasmuch as the womb too is attributed to God. For we have in the hundred and ninth Psalm these words: *From the womb, before the morning star, I begot thee.* This womb of God the Father indicates the hidden substance or the origin of his essence, from which — in an ineffable manner before all created things — he begot his Son, consubstantial with himself and coeternal. Though others expound, through the womb of God, the incomprehensible judgments of God, which it is granted to no one to investigate. Likewise the womb in which God in Isaiah is said to have carried the Jews denotes the perpetual mercy with which he embraced criminals; indeed it indicates the grace of God, in which the Jews were cherished as in a womb. But since at the coming of the Lord they, frozen as it were by the cold of perfidy, lost the warmth of faith and charity, they were therefore expelled from the hidden bosom of grace and went forth, like ice, as it stands in Job, from the womb of the Creator. Again in Job we read: *Naked came I forth from the womb of my mother, and naked shall I return thither.*

By these words there is described one who, vexed by temptations, knows that he was born in the faith through the first grace without any merits, but after temptations — knowing his own weakness and fearing lest he be deprived of his virtues — sustained by great humility of soul returns to grace, and refers whatever virtue he possesses to the divine assistance. The womb of the mother finally in the hundred and thirty-eighth Psalm signifies the wicked custom of the world, from which he emerges who is brought back to good fruit by divine assistance.

The thighs follow, together with the knees, legs, and buttocks. As concerns the thighs, these — in the mind of Giorgio Veneto — formerly designated the Sun, the parent of generation; and therefore in the Holy Scriptures we read that Abraham, being about to send his servant to seek a wife for his son Isaac, from whose offspring Christ was to be born, ordered him to swear above his thighs. Again the thigh of Jacob, made lame after the wrestling with the Angel, denoted the source from which the sons of Israel sprang, who for a long while limped in the law. The knee —

[marginalia: Vmbilici / Vteri myftici / Iob cap.] [catchword: Genuo]

are said to bend the knee — those that is who are distinguished by fortitude — as we read in the Book of Kings: *I have left to myself seven thousand men who have not bent the knee before Baal*. Since this idol was a symbol of sin, those who did not bend the knee were shown to be steadfast in their faith. Yet those who bent the knee before Joseph, as is clear in Genesis, foretell that the knee of the mind must be bent before Christ.

The legs of the bridegroom in the *Canticles* represent the Apostles, through whom the bridegroom — namely Christ — traversed the whole circle of the earth, while they spread the sacred faith of Christ among the peoples by divine discourse: as Saint Gregory expounds. Likewise the legs of Christ were not broken according to the ancient custom; inasmuch as these legs of Christ, as the Abbot Robert observed, were a symbol of mercy and truth, which, like two marble columns, can be weakened and broken by no one. Finally, the legs laid bare, as it stands in Isaiah, denote the shameful nakedness of sins made manifest, as Saint Gregory explained in his moral teaching. To these we must add the buttocks, which in the sacred pages indicate that part of man which is inclined toward sin. Indeed the buttocks laid bare in Isaiah signify ignominy.

We have now arrived at the feet, which the mystical teaching does not set aside. For the foot in the primal tongue, according to Goropius, was called *Voet*, a word that signifies to nourish, and is attributed to the divine spirit, which by its fiery warmth cherishes and nourishes what the Father planted and the Son healed. The feet in God moreover demonstrate the divine nature and the stability of eternity; beneath which feet in the seventeenth Psalm darkness is said to be, because the manner of the flesh received by God was hidden and unknown. The feet likewise demonstrate the firmness of God's power, for Isaiah wrote: *Heaven is my throne, and the earth is the footstool of my feet.*

Furthermore the mystical teaching assigns feet to the Angels, who are able to reveal the swiftness, or rather the speed, of the eternal course hastening toward divine things; wherefore in Exodus, where we read: *he touched my feet*, some understand this of Angels. The feet of the soul are said to be chiefly its faculties, namely the intellect and the will, by which it hastens toward good or evil; and therefore the feet bound in Matthew signify the impediment of faculties. Yet the feet bound in Plato, as Ficinus interprets it, show that the just are not led or advanced but are swept along by a certain violence. To this the Psalmist alluded when he said: *my foot stood in the right way*, referring to the intellect and to thought; for just as the feet lead us wherever they will, so thoughts draw us toward doing good or evil.

The feet of Christ designate his humanity, which the feet of the lamb also declare, as is found in Exodus. Indeed the feet of Christ, corrupt for the sake of procuring peace, are the lowest in the Church — the Apostles, the Preachers, and those endowed with a humble spirit who daily exercise themselves in works of mercy. Finally the feet of Christ washed and anointed by the sinful woman in Luke can demonstrate mercy and judgment; or also, according to the opinion of Clement of Alexandria, they signify the Apostles anointed beforehand by prophetic knowledge, who shared in the sweet ointment of the divine spirit.

The feet of the Saints too, which the Lord preserves in the Book of Kings, make manifest fortitude and humility of spirit; inasmuch as by fortitude in adversities, and by humility in prosperity, we are kept unharmed.

Now it remains to consider what the shod or unshod foot foretells. For the Lord commanded the Apostles, setting out to spread the Evangelical teaching, to put off their sandals, since those about to proclaim the happiness of the most blessed life must be free from every mark of mortality: for a sandal partakes somewhat of mortality, since it is made from the skins of dead animals. Hence the priests of Egypt, as Pierius Valerianus records, wore for this reason sandals made from papyrus. Likewise Moses, about to approach the mountain of God, was commanded to strip his feet of sandals, since it befits one who wishes to stand in a holy place to carry nothing mortal with him. Although some interpret the unshod feet of Moses in Exodus as referring to the last ages, in which the Synagogue was dismissed from the law, so that Christ might teach it; yet a little further on in Exodus, the shod feet represent righteous works together with their proper dispositions, and therefore they ought to shrink from nakedness, so that works may obtain a righteous effect.

[catchword: Pes]

[marginalia: Lib. 3. / Cam. c. 5 / Isaiah 6.47 / Ezech. 6. moral. / Exod. c. 3 / Cap. 12 / Psalm 25 / Lib. 10. de Repub. / Exod. c. 3 / Cap. 12]

The right foot, which is anointed in Leviticus, signifies the directing of actions toward good fruit. The foot dipped in blood, according to the sixty-seventh Psalm, designates the flesh of any person soever to be cleansed in the Passion of Christ. The foot that causes scandal in Matthew can represent those who, placing affection before divine love, are excluded from the heavenly kingdom; and therefore such a foot must be cut off. The foot of pride in the thirty-fifth Psalm can lay bare those who insolently glory in the splendour of their fortune, whence estrangement from God is wont to spring. Finally, to set the foot in the waters of the Jordan in Josue is nothing other than to inquire diligently into hidden things in the sacred writings; for in the sacred letters, feet are commonly held to be a symbol of sensual affection; and therefore at the Last Supper of the Lord the feet of the Disciples are washed, so that, every stain of the mind being cleansed away, they might approach the sacred ministry of the Eucharist in purity.

Since feet are also employed to signify thoughts — which, after the manner of feet, sustain and govern the piety of our soul — in this sense are read the words of the seventy-second Psalm: *But as for me my feet were almost moved, my steps had well-nigh slipped.* Otherwise in the hundred and twenty-first Psalm, *Our feet were standing in thy courts*, signify the steadfastness of being and faith. In another sense of the faithless in the seventeenth Psalm it is said: *They have gone lame and fallen away from the path.*

Likewise in the hundred and thirteenth Psalm, those who *have feet and walk not* are called those who, though they possess perfect knowledge, yet make no progress in it. Finally, by the words of Deuteronomy, *that one may approach his feet and receive some of his doctrine*, the interpreters of divine wisdom are expounded. Again, the weary foot in Proverbs is compared to one who, on the dreadful day of judgment, places his hope in man.

At the end, when the Psalmist says: *Thou hast set men over our heads*, others read *thou hast set feet*; however it may be, most eminent men expound it thus: thou hast given to others a triumph over us; inasmuch as it was the solemn custom of triumphant kings to tread upon the bodies of captives with their feet.

There remain still the parts of the foot to be weighed, namely the toe, the sole, and the heel. The toe of the foot in the primal tongue, as Goropius notes, was called *Zeen*, which word is interpreted as *toward the one*; and therefore in the mystical teaching it shall signify that we ought, from the very beginnings of our works, to look toward the one. Likewise the sole of the foot in the primal tongue was called *plant*, if Goropius spoke the truth, which word is interpreted as *to plant*, and is attributed to God the Father; as the Lord said: *every planting which my Father has not planted shall be rooted up.*

Likewise the heel of the foot in the primal tongue was called *Hiel* or *Heel*, a word that is interpreted as *make sound and restore to wholeness*, and is attributed to the Son, to whom the salvation of the human race is owed. Otherwise the heel, in the sacred pages, signifies the weakness of the mind; therefore God in Genesis said to the serpent: *the man has bruised thy head, and thou his heel* — namely the weakness of the mind, which is easily perverted. Unless we wish to affirm with Philo that the heel is that part of the soul which cleaves to earthly nature and is greatly inclined to pleasures. In another sense the heel is used for the end of an action; therefore the Psalmist wrote in this sense: *they shall watch my heel.*

The bones are not to be removed from this teaching. For Eve, formed from the ribs of Adam as is found in Genesis, signifies the Church, which is, as it were, the bone of Christ, inasmuch as she sprang from the bone — that is, from the fortitude — of Christ. Moreover the bones in the fiftieth Psalm can represent the people of the Church. But in the twenty-first Psalm, *all my bones are scattered*, indicates the Apostles, who in the Passion of Christ were scattered and fled, or, according to the gloss, when after the resurrection they betook themselves to various regions of the world to spread the words of the gospel, as sheep among wolves. For by the bones also scattered in Ezekiel, the faithful of Christ dispersed in various regions are understood, who shall at last hasten to the last judgment; unless we wish to designate the Gentiles, everywhere dispersed, who repeatedly flock together to the faith of Christ. But the bones scattered about Hell in the hundred and forty-first Psalm can signify the bodies of the Martyrs, which have burst forth from the earth above the power of nature and shall burst forth on the final day; even as the bones that spring up like grass in Isaiah manifest the glorious bodies in the resurrection. But through the bones humbled in many places of the Psalmist,

[marginalia: Matth. 18 / Proverb. 25 / Lib. 9. Hieroglyph. / Cap. 30 / Ezech. c. / Numer. cap. / Exegese 18]

virtues and the movements of the soul are designated. In turn the aged bones in the thirty-first Psalm indicate that virtues are diminished and dissipated by sins; or according to the opinion of Saint Augustine they denote that the powers of the mind are weakened. Just as in the hundred and first Psalm, bones that wither show virtues that are failing; or the bones that wither like dried brushwood in the same Psalm, according to the exposition of Lauretus in his *silva allegoriarum*, signify that the soul loses all delight in good. Likewise in the thirty-third Psalm, *the Lord keepeth all their bones*, there are then understood the virtues of the soul strengthened, or the strong actions proceeding from virtues. The bones of the dead in Ezekiel designate those works that display the outward appearance of justice.

By the bones watered with marrow in Job, wicked men are indicated who are loaded with public offices and drenched with dignities and honours. Likewise in the same Job, the bones of Behemoth are those who are mightier in vices and daily accumulate the greatest defilement. Finally the bones of the children of Israel scattered about the altars in Ezekiel signify, in the opinion of Saint Jerome, heresiarchs who are confounded in their own errors and are therefore separated from one another.

In the last place we must weigh the skin or the hide, which some in the sacred letters interpret as a harlot; inasmuch as we read in Leviticus: *the garment or the hide that they have, he shall wash with water.* Hesychius of Jerusalem refers this passage to a harlot, and not without reason; since among the ancient Romans, harlots were called *scortae* from the leather hides (*scorteae*) which they used as mats. Beyond this, under the name of skin those above all are understood who occupy themselves solely with external and worldly things. Further in Leviticus, a shining whiteness in the skin reveals the brightness of Evangelical doctrine and the spiritual sense; just as in turn, if the skin be not wholly white, it foretells the suspicion of sins.

MYSTICAL MATTERS CONCERNING MAN.

We have hitherto examined mystical matters pertaining to the individual parts of the body; it is now our concern to direct our attention to the mystical matters that apply to the whole man, so that this teaching may be held complete. It is to be observed first of all that the name *male* in the divine letters signifies a man perfect and strong in virtue; whereas woman is of such great imperfection and weakness that Solomon declared these words in Wisdom: *the iniquity of a man is better than a woman doing good.* Moreover the Lord commands the males only, of the offspring of Aaron, to eat of what has been consecrated, because it is not for all to dispute concerning divine things; since that befits one who participates in no feminine quality in his thoughts. For in the Epistle to the Galatians we read: *when I became a man.* Here the word *man*, according to the opinion of Clement of Alexandria, signifies a faithful follower of Christ; just as *infant* denotes a Jew; inasmuch as Saint Paul, while following the law, was called an infant, but thereafter, meditating on what pertains to Christ, whom the divine letters call a man, he became a man.

Since we have touched upon boys, some mystical matters concerning them are to be weighed. For in Matthew these words are read: *Unless you become as little children.* Clement of Alexandria, through these little ones, understood men aspiring to the heavenly kingdom who ought to have God alone as father; just as young boys flatter only their father, and when they receive some slight hurt, have recourse to him alone. Unless we wish to understand by *little ones* all men who are just, perfect, and innocent, of whom the Psalmist wrote: *Praise the Lord, ye children* — which applies especially to men free from sin who celebrate the divine praises. When indeed in the Book of Kings the boys, upon seeing Eliseus, cried out: *go up, thou bald head*, Lauretus in his *silva allegoriarum* interprets this as the ascent of Christ to the place of Calvary. But the dead girl not yet carried out of the house, whom Christ recalled to life —

[catchword: reuocauit]

[marginalia: Lib. 4. Reg. c. 2 / Psalm. 112 / Lib. 4. Reg. c. 2 / Cap. 4 / Lib. 2. Pedag. c. 3 / Matth. c. 18 / Clem. Alexandrin. / Cap. 4 / Lev. c. 15]

Lib. 1. Reg.

Daniel c. 18 Cant. c. 8. Jerem. c. 15.

Ezech. 16

Numer. cap.

Exegese. 18.

— indicates the soul that has consented to an evil thought, but which has not yet achieved its effect. This is called the soul dead within, which, reviving through the grace of God, returns to the Lord. But the dead youth whom the Lord called back to the air of life outside the gate and restored to his mother represents the soul that has consented to evil thoughts which have achieved their effect; nevertheless, because it repented, for that reason the Lord restores it through the prayer of the mother Church. Lazarus, however, who already stank after four days and was given back to life by the Lord, manifests the soul accustomed to committing crimes, which, wrapped in sins, lies as though buried in them; yet the Lord, the parent of mercy, also restores this soul to grace, according to the opinion of Saint Augustine.

We must now approach the name of *man* and of *human being*, to weigh what it signifies in mystical teaching. The Man of God who rebuked Jeroboam and caused his arm to wither, then healed it, and refused to eat bread with him at his invitation, and then, deceived by a Prophet upon the road and eating, died — as is found in the Book of Kings — denotes those who, on account of certain great works, glory insolently, and afterwards, by God's permission, sin greatly. The man after God's own heart in the aforesaid history is a man imbued with charity who gives God the greatest delight. Otherwise through the Man of God, many understand the whole company of the Apostles. Just as the man clothed in white garments raising his right and left hand toward Heaven, whom Daniel beheld, demonstrates an Angel.

But the man who brings a thousand pieces of silver for the fruit of the vineyard in the *Canticles* is a man who disdains pleasures and worldly things for the sake of Christ. The rich man who takes away the sheep of the poor in the Book of Kings is Christ redeeming the human race and freeing it from the snares of the devil, who is elsewhere called the man of sorrows in Isaiah, when he underwent various torments in his passion. Moreover he was also called the man of God's will, since in all things he satisfied the divine will. Likewise he was called the man of strife and discord in Jeremiah, since he was set up as a sign to be contradicted. Hence he was named the man of God's right hand in the seventy-ninth Psalm. Moreover in Exodus, *the Lord God whose name is Jehovah, the man of war*, signifies Christ the Lord about to do battle with the enemy of the human race and at last to carry off the victory. Likewise according to Zachariah, the man riding a red horse standing among myrtles in the valley, in the opinion of Galatinus, shows Christ the Lord dwelling among just men; but the horse signifies the body of Our Lord, which on the altar of the Cross was to receive the redness of blood.

Otherwise in Exodus the Lord God is called the warrior, since no one can withstand his power. To this is added the man who cries out against Jerusalem in Ezekiel, for he is a symbol of the word of God which the sinning soul spurns. The one man fleeing from the battle-line and announcing the capture of the ark, as is read in the Book of Kings, displays a preacher hastening from among the Jews to the faith — namely the Apostle Paul. Likewise the man fighting against his brother in Isaiah, according to the opinion of Saint Jerome, represents a man who, abandoning precious and dear things, approaches Christ. But one man pursuing a thousand men, as is found in Isaiah, designates the learned doctor routing the forces of heretics. Moreover the man who shall not be strengthened in his fortitude, as it stands in the Book of Kings, is a man strong in divine teaching, without which all fortitude is reckoned as nothing. In turn the verbose and unjust man according to the hundred and thirty-ninth Psalm can be expounded as Judas; and the man with the testicles torn away indicates a man who previously led a pious life and in the course of time turned to wickedness; for since the testicles are signs of virtue, so in turn their avoidance will signify effeminacy.

The name of *man* in the plural number also obtains no few mystical senses in the sacred Scriptures. For in Numbers, *two men carrying a cluster of grapes on a pole* can look to the two thieves crucified with Christ, or they can designate the people walking before Christ and turning their backs on him, together with the people of the Gentiles following and thereby looking upon the face of Christ. Or they manifest the twofold love of Christ — namely toward the Father and toward men; or the two Testaments, in which Christ is contained.

By the three men who appeared to Abraham in Genesis we can understand the coming of Christ, whom Moses and Elijah accompany: the one, through the Law, proclaiming beforehand the coming of the Lord —

[marginalia: Lib. 2. Machab. c. 10 / Ioan. 4 / Cant. c. 3 / Lib. 2. Reg. c. 6 / Zac. 7. 14 / Matth. c. 12 / Numer. c. 31 / 2. Machab. c. 5]

— the other, before the end of the World, heralding beforehand the coming of judgment. By the five men who appeared to help the Jews, as is found in the Maccabees, Georgius Ederus understands the five books of Moses. And the five husbands of the Samaritan woman in John were the five senses by which she had been governed before the age of reason; for the husband of this woman was the rational spirit, which was not a husband, since she did not obey it; or the husband who was not a husband was the error of adultery in which she was then engaged. The twelve men called Patriarchs denote all the fathers of the twelve Tribes, who existed from the beginning until Christ. Moreover the twelve Princes who fell in the Desert, together with those who went out of Egypt, can represent the twelve Apostles with their successors. The sixty strong men in the *Canticles*, standing guard about the bed of Solomon, Saint Gregory interprets as the Saints who fortify the holy mind by their words and examples — in which mind Christ the Lord takes his rest. Finally the thousand men accompanying Saul on Mount Bethel, as is read in the Book of Kings, are expounded by Saint Gregory as the men who are to defend the Church and who cleave to their Ecclesiastical Prince.

There remain still men in the plural who need to be noted; thus the men of the army in Numbers who fought are said to be those who have exterminated every kind of vice. The men of virtue in the Maccabees, applying themselves to the city of Ephron, are declared by Lauretus to be so many Doctors penetrating the spiritual sense, so that they may recall criminals from vices to good conduct.

The men of wealth in the seventy-fifth Psalm are named those who do not possess their own riches; rather, they are possessed by their riches; and therefore they are said to sleep their own sleep and not the sleep of Christ.

The men of Judah who proceeded with David in the Book of Kings to bring the ark can be named the faithful peoples who together with Christ daily apply themselves to the enlargement of the Church; just as the faithful rendering mutual assistance to one another are explained by Saint Jerome through the men who take hold of the hand of their neighbour in Zachariah. In turn the men of Nineveh in Matthew signify the Gentiles.

The men of blood in the hundred and thirty-eighth Psalm can be called the heretics who slay souls with perverse teachings, or the men who still pursue lascivious and venereal acts. Finally the men of Anathoth who seek the life of Jeremiah designate the Jews, but above all the Priests and Scribes who were set against Christ.

Now there presents itself the name of *man* (*homo*), which does not lack its mystical senses; inasmuch as under this name, first many perfect and excellent things are understood — namely Christ, the Blessed Mary ever Virgin, the Angels, the mind, and perfect men — although thereafter by this name many evil things are also signified. As to the first: the first man is called Adam, earthy from the earth; the second man is Christ, heavenly from Heaven, as is read in the Epistle to the Corinthians. Therefore the man whom God is said to have received in the sixty-fourth Psalm signifies the humanity of the Word of God received. Or such a man, according to the opinion of Lauretus in his *silva allegoriarum*, demonstrates the Church, whose head is Christ.

Wherefore the man in Genesis, whom God placed in Paradise, was a symbol of Christ who resides in the Church as its head. Likewise the man in Luke possessing a hundred sheep is expressed as Christ, who rules over Angels and men. The same Christ is the man born in Sion, which in the eighty-sixth Psalm he himself founded. Also in the hundred and eighth Psalm, the redeeming and poor man is called Christ. The same is that man prepared to lead the goat into the desert, as is found in Leviticus. The same is that man who, in Numbers, was to go out from Israel. Moreover Christ is that same man whose enemies in Micah are his own household. Furthermore Christ was that man whom the Paralytic in John awaited, that he might cast him into the pool. Moreover the man going abroad in Matthew signifies Christ ascending to Heaven, as Origen interprets. Finally Christ is that man the King who reckoned with his servants, and the man the father of the family, as we can read in many places in Matthew. Furthermore the Blessed Mary ever Virgin is often named man (*homo*); since Christ is called the son of Man: and Christ is called the son of man —

[marginalia: Lib. 2. Machab. c. 10 / Ioan. 4 / Cant. c. 3 / Lib. 1. Reg. c. 2.13 / Numer. c. 31 / 2. Machab. c. 5 / Zac. 7.14 / Matth. c. 12 / Leuit. c. 16 / Num. 7.24 / Mich. c. 6 / Ioan. 4.5 / Matth. c. 25 / Matth. c. 13 / Genef. c. 2]

— and not man, because, although he descends from the line of Adam, he is not yet a true man, since he is not subject to decay; although he is a worm and not man, as is found in Job. To these let us add that the first man, according to the opinion of the more ancient Rabbis, denotes the Mother of the Redeemer, who as regards matter was produced together with Adam and preceded him; for they relate that God, out of love for the Messiah and his mother, created the world, and by this first man they understand that proverb: *the first to come in his cause seems just to his friend, and he who comes after shall search him out.* This first man, as Galatinus expounds — who is the mother of the Messiah, on whose account Christ himself is also called son of man — is just in his own cause, in which he is accused by adversaries of having been conceived in the stain of origin; whereupon his friend comes, namely God, and investigating this cause, pronounced sentence in the *Canticles* saying: *thou art all fair, my love, and there is no spot in thee.* The name of man is likewise sometimes attributed to an Angel; inasmuch as human form is assigned to Angels, because they are vigorous in mind as men are, they possess the power of seeing, and they are fit for commanding and governing.

Furthermore, man made in the image and likeness of God in mystical teaching denotes the inner man, who existed in the divine mind before God formed the outer man from the slime of the earth; and therefore when in Numbers the name man is used, the inner man is understood who possesses the food and clothing which are required in the outer man; and he is mind, or reason, or soul: inasmuch as those things which belong to the outer man can be referred to the inner.

This therefore shall be that man who in Matthew sows mustard-seed in his field and finds treasure. To confirm this we can bring forward the passage in Genesis where, under the name of man, mind and reason are designated; the words are these: *there was not a man to till the earth* — that is, this is expounded as the time when the mind did not exercise the idea of sense. Man also signifies a prophet and a wise man; inasmuch as in Job, the earth without man was the Gentiles without Prophets. Therefore the man in the hundred and third Psalm who rules over the beasts demonstrates a perfect man who rules over the rude. Likewise the man created who in Genesis rules over the fishes of the sea and the fowls of Heaven indicates the man who is just and perfect, who surpasses others in holiness, wisdom, and learning.

Man joined to the Sun is said to beget a male, as is read in Plato, and this signifies that man joined to the divine light will perform a virile and righteous work; inasmuch as the Sun is held to be the image of supreme light. Conversely man is said to be joined to the earth when he cleaves to concupiscence; and then he begets a terrestrial and feminine work. And this is confirmed by the opinion of Pythagoras, who asserts that it is necessary for man to become one; by which words the mystical sense of a man adhering to God is to be understood; for God is truly one, and he who cleaves to God becomes one spirit with him. Therefore man was created by God as one and not as many, because, in the opinion of Saint Augustine, man was propagated for the sake of concord and the mystery of unity, so that the image of God might shine forth in man by this means; hence, just as from one God all things proceed through creation, so from one man all men spring through propagation.

The man carrying a water-pot, as it stands in Mark, is Moses carrying the letter of the law; for he is not named by his own name, because the Christian name was not yet known.

The man with the withered hand, who in Luke was healed by Christ, designates one who works nothing good, but afterwards, healed by Christ, begins to undertake righteous works. Finally the figure of a man among the four living creatures about the throne of God in the Apocalypse denotes Saint Matthew the Evangelist, who is concerned with the humanity of the Son of God — as we also expounded above when we were treating of the mystical meaning of the face of man.

Furthermore the name of man in the plural number obtains its mystical meanings. For men multiplied in Genesis can designate rational powers multiplied in virtues. Likewise the men of Egypt, and the men of the region of the Amorites, which are read in two places in Exodus, indicate profane men who occupy themselves with worldly and pleasurable things. Finally, *save men and beasts, O Lord*, as it stands in the thirty-fifth Psalm: by these words we must first understand perfect and just men, then men led by sense and not by reason, who are also saved provided that, having embraced perfection, they proceed along the way of salvation.

[marginalia: Matth. c. 13 / Genef. c. 2 / Cist. Dom. / Genef. c. 6 / Exod. c. 12 / Lib. 1. Reg. / Proverb. c. 21 / Daniele c. 18 / Cant. c. 8 / Jerem. c. 15 / Ezech. 16 / Numer. cap. / Exegese 18]

Since we have fallen upon vices, it will not be amiss at the close of this section to reveal the mystical senses of the wicked man. For, according to the vices that occupy a man, he is called a beast of burden, a serpent, a viper, and a fox. Hence in Matthew the man who has not the wedding garment represents the criminal man, and consequently all those given over to vices. Likewise every man is said to be a liar in the hundred and fifteenth Psalm, according however to his natural condition, since he does not attain to those things that pertain to faith; hence Paul writing to the Galatians says that he speaks *according to man*, when he teaches rudimentary things.

Likewise in Paul writing to the Romans is read the *old man*, that is, one devoid of faith; just as in turn in the same place the *new man* is called one who through faith is directed to the right path of life. The man unfit to redeem, as is read in the forty-eighth Psalm, is expounded as the pure man, who rather stands in need of redemption; and therefore it is not permitted for a man to be in the tabernacle of the covenant when the Pontiff enters the Holy of Holies, because when they are able to be there, they are no longer men, that is to say mortals, but have become gods, as is found in Leviticus. Man is also taken to mean the merely natural man in Jeremiah, when he produced these words: *Cursed is the man that trusteth in man.* Moreover the man in Matthew who, going down from Jerusalem to Jericho, fell among robbers, is expounded by Saint Thomas as Adam, who, overcome by the Devil, incurred calamity from a state of peace. But the enemy man who in Matthew sowed cockle is the Devil, who is sometimes called the enemy man. Likewise the man in the same Matthew through whom scandal comes demonstrates the Jewish people, which not only denied Christ but also impelled others to denial. That same people of the Jews is shown by the man who had an unclean spirit in Luke. Although the man in Exodus is also called Judas to distinguish him from the Gentiles. The man of peace in the fortieth Psalm is expressed as Judas, who with the kiss of peace betrayed Christ. Again, the man preparing to send the goat into the desert, as is read in Leviticus, who afterwards washed himself, according to the opinion of Lauretus in his *silva Allegoriarum*, represents Pilate, who had decreed to send Christ to the Cross; nonetheless he washed his hands, so that he might display his works as clean. Finally the man who in Deuteronomy raises not up seed for his father indicates the heretical discourse which, arising from the sacred page, begets no children for Christ.

MORAL MATTERS DRAWN FROM THE PARTS OF MAN.

Just as the human body, made up of various parts, makes use of those same parts as instruments suited to various functions; so similarly the Church of God is constituted of various men, as its parts, through whom, as through suitable instruments, it performs its various offices. Moreover, just as of the parts of the human body, some are called animal, communicating motion and sense to the whole body, others are called spiritual, imparting life to the body, and others are called natural, preparing nourishment for the whole; so likewise in the Church there are animal parts — namely the Prelates, who govern others; the spiritual parts will be the perfect men and those dedicated to the religious service of God, who by their prayers communicate the life of grace to others; finally the natural parts will be the Preachers of the Gospel, who nourish the souls of men with divine precepts. But since in the human body the parts destined for generation are classed among the natural parts, so likewise in the Church all men distinguished in learning are said to perform this function of generation, while they restore criminals — generating them, as it were — to divine grace; for to this purpose the Apostle wrote to the Corinthians: *For in Christ Jesus I have begotten you through the Gospel.*

Since therefore all parts of the human body are to serve moral teaching, we thought it worthwhile to begin from the hairs and thence to descend through the remaining parts all the way to the sole

[marginalia: Matth. c. 22 / Cap. 17 / Math. c. / Luc. A. c. / Senec. iis c. iuuentus / Capitis moralia / Moralia cerebre]

of the foot. And so the hairs cover the head by adorning it and adorn it by protecting it; and although they often fall away from the front part of the head, either on account of the thinness of the skin or on account of deficiency of nourishment, nevertheless the back part of the head, either on account of the density of the skin or on account of the abundance of moisture, is never without them; and therefore the front part represents youth and the back part old age.

Since therefore youth, either on account of a deficiency of the nourishment of piety, or on account of its rare observance toward those above, lacks righteous works, yet old age, however, dense and protected by prayers and abounding in a copious moisture of piety, always applies itself to righteous works; according to that saying of the Psalmist: *my old age is in abundant mercy.* Then it is to be observed that hairs are produced from smoky exhalations; and therefore the greater the abundance of exhalations, the more copiously will the head be covered by hair, and when these fail, the head is deprived of hairs; therefore the human spirit is compared to the head and thoughts to exhalations, which are wont to generate the hairs of virtues and works. Hence the greater the abundance of good affections, the greater will be the abundance of virtues. In turn when the hairs of virtues recede, then the spirit is stripped of righteous thoughts. To the point therefore we read in Matthew: *But the very hairs of your head are all numbered.* Inasmuch as God, according to the opinion of Cicero, cannot be ignorant of the mind of any man.

Moreover the whiteness of hairs is produced by the coldness of the nourishing moisture, because coldness generates whiteness. In old age therefore, on account of an abundance of cold moisture, the hairs become white; and therefore by whiteness, old age is to be understood, in which the cold of divine fear holds sway; hence the whiteness of chaste life springs from it, since old men meditating upon the future life daily, so that this assertion of Wisdom may attain to truth: *white hairs are the sense of a man, and an old age of life without blemish.*

Since we have spoken of hairs, something is also to be noted here about the body hairs and the beard. For the body hairs are hard and rough when they burst forth from a hard and rough skin; and therefore in this teaching, body hairs are likened to works and the skin to affection; and therefore from a hard affection only hard works, and conversely, will be able to spring. Just as we read in Matthew: *the good man from his good treasury brings forth good things, and the evil man likewise evil.* Likewise the beard, composed of body hairs, is held to be the ornament of a man and distinguishes males from females. By the beard prudence is to be understood, adorning the end of custom, which distinguishes women from men — namely the wicked from the good, and the criminal from the virtuous.

Next comes the head, which is reported to be the foundation and principle of the whole body, since the remaining parts draw sense and motion from it. Since therefore the head enjoys good health, the remaining members perform righteous functions, and conversely, when the head is ailing, the remaining parts languish. By the head in this teaching the mind is understood, which, if it be perfect and just, produces thence nothing but righteous works. In turn when the spirit is maleficent, it can generate nothing but evil works. Furthermore the head is like a chimney of the whole body, to which the smoky exhalations of nourishment ascend; but since it is filled with copious passages, the nourishing materials being retained, the excrementitious vapours evaporate through the pores. The head in this place is the Prince; the exhalations are the petitions and complaints of subjects daily ascending to the Prince; wherefore it is necessary that this head be filled with the passages of discernment and prudence, so that what is superfluous may easily go out and only what is necessary may be retained.

In the head the brain is enclosed, which, in the opinion of Physicians, is cold by nature and is generated immediately after the heart; and therefore it is opposed to the most warm heart, so that the heat of the latter may be tempered by the coldness of the former. By the brain we can express the Blessed Mary ever Virgin, who in the body of the Church occupies the first place after the heart — namely after Christ. Thus this Virgin, the mother of Mercy, is said to be opposed to this heart, while by her prayers she soothes and tempers the heat of supreme Justice. Then the coldness and moisture of the brain is wont to generate whiteness of hair, just as in turn its heat and dryness generates baldness. Whiteness of hair is said to be a symbol of wisdom, according to that saying of Wisdom: *white hairs are the sense of a man.* Baldness denotes almsgiving, which shears the hairs of riches; and therefore the man whose brain of conscience is cold on account of the fear of God and moist on account of piety speedily acquires the whiteness of wisdom; according to that saying of the Psalmist —

[marginalia: Senec. iis c. iuuentus / Capitis moralia / Moralia cerebri]

— *the beginning of Wisdom is the fear of the Lord.* Likewise the man who is warm with the heat of charity, and who becomes dry by wasting away, at once acquires the baldness of worldly things.

The forehead, as was recorded in the section on Physiognomy, is that part of the head in which modesty, honour, virtue, and constancy of spirit shine forth; moreover it is a hard part, patient of injury from the air. The forehead of the Church is represented by the Apostles and martyrs, who, patient of the outrages of Tyrants, defended the faith of Christ most pugnaciously. The nose is that which, distinguishing odours and delighted only by sweet ones, greatly abhors foul ones, and which then draws in and breathes out the air. The nose of the spirit is piety, which, delighted by the divine and eternal sweetness, spurns the stench of pleasures, and then, drawing in the breath of grace, breathes out the air of prayer.

Furthermore prudent nature adorned the head with two eyes, so that one might supply the function of the other if it should fail. This doubling of the eyes can therefore teach the condition of charity, which, as Gregory testifies, is administered between at least two persons — when two just men judge that they were born not for pleasures, not for banquets, but for the common good.

Again, eyes set deep see distant things excellently, but prominent eyes can see only nearby things. Sunken eyes are perfect men who, separated from pleasurable things and dwelling in the deep humility of spirit, contemplate distant things — that is, sublime things — to great effect. But prominent eyes are proud men who behold and meditate upon nothing other than the nearby splendour of present fortune. Again, the pupil of the eye sees all things but cannot look upon itself. This is therefore likened to the man who sees others' vices more clearly than his own, and conducts himself more rightly in others' affairs than in his own; and to this point Saint Bernard said: *many men know many things, yet know not themselves. What more?* Nature doubled the eyelid so that the eye, protected by both, might easily ward off external injuries. So the eye of the mind must be closed with a double covering of discernment — namely that which regards spiritual things and that which regards worldly things — lest, looking indiscriminately upon some harmful thing, it should desire it.

Likewise nature doubled the human ears so that the head, placed in their midst, might apprehend the differences of sounds from every side. So a Judge and Confessor must always dwell in a public place, so that they may easily hear complaints and crimes; according to that saying of the Psalmist: *hear with your ears, ye that judge the earth.* Unless we wish, by the head between the ears, to understand Christ, who always dwells among men so that he may give ear to importunate petitioners; according to the assertion of the Psalmist: *the eyes of the Lord are upon the righteous, and his ears are open unto their prayers.*

The teeth, which adorn the human mouth, are white, hard, sharp, arranged in a certain order, enclosed by the lips, and necessary both for forming the voice and for the nourishment of the body. The teeth of Christ, or of the Church, are the Preachers of the Gospel, who attract sinners to themselves by chewing; and therefore in John Christ said: *I have food to eat that you know not.* These teeth therefore are white by austerity, sharp by severity, hard by firmness of mind, arranged in a certain order of concord, surrounded by the lips of humility of spirit, and finally are necessary for nourishing the body of the Church with the truth of doctrine as well as for forming the voice of divine praise. Otherwise teeth are likened to those who sharply assail another's reputation. But if the teeth are straight and close-set, they portend length of life, just as if they are sparse and crooked they portend brevity. Such teeth can be compared to Judges or to the intimates of the Prince, who, if they are joined by good customs and straight for the sake of justice, will doubtless long continue in that jurisdiction; but if, on account of discord, they are sparse, and on account of injustice crooked, then they will spend only a brief span of time in that jurisdiction. Next come the soft gums, upon which the teeth rest with deep roots. These represent the soft virtue of benevolence, which must be present in the human mouth, in which thereafter the teeth — that is, gentle words — take root; according to that saying of Ecclesiasticus: *a sweet word multiplieth friends and mitigateth enemies.*

The tongue is said to be the instrument of taste and of speech; and therefore the Preacher of the Gospel, in the mystical body of the Church, bears the tongue of Christ; inasmuch as, after the manner of a tongue, it distinguishes the flavour of profane things from the flavour of sacred and spiritual ones, and, pouring forth speech, celebrates divine praises and acts of thanksgiving. The lips are the soft parts covering the whole row of teeth; hence the Preachers of the Gospel are said to be the lips of the Church, through whom the tongue of God the Father — namely the divine spirit — makes its

[marginalia: Moralia ad frontem nasum / Oculorum doctrina / Aures / Dentes qui]

— address to the people. These therefore must be gentle and kind, so that they may soften and temper the hardness of the teeth — that is, the severity of divine justice. The cheeks are thereafter those parts of the face that partake of softness, whiteness, and redness, from which the outward manner of life is displayed, in which moral beauty shines forth. They therefore must reflect the softness of piety, the redness of charity, and the whiteness of purity. The mouth is clearly necessary for nourishment: inasmuch as, unless the mouth, preparing food for the stomach, were to dispatch it downward, the members of the human body would without doubt fail. The mouth in the Church of God is the Doctor of theological wisdom, who carefully examines the food of divine teaching and distributes it to the members — namely to the hearers — so that he may restore and nourish their souls. Furthermore it is to be observed that the human mouth is small, whereas brute animals are equipped with a very ample mouth; for man, as a participant in reason, was bestowed by nature with a small mouth, so that he should be sparing in speech and take only a small quantity of food; according to that saying of Proverbs: *he that keepeth his mouth keepeth his soul.* But a vast mouth is observed in brutes — that is, in criminals — because they are not only prone to speak at length, but also employ no temperance, which might moderate the impulse of appetite.

From the mouth the transition must be made to the throat, in which two passages open, one to the lungs and the other to the stomach; the former conveys air and the latter conveys food to the stomach. The throat in moral teaching signifies the mind marked by two affections, of which one is called spiritual and the other pleasurable. The spiritual is that by which the air of goods pertaining to the soul is drawn in; the other is that by which pleasurable goods are sought. Likewise in the throat, the air and the food obtain different passages, since the air descends through the rough artery to the heart, and food through the oesophagus to the stomach; and therefore, on account of their proximity, there is danger that a portion of food may enter by the passage of air, to the greatest inconvenience of the sufferer. Since therefore in moral teaching, air signifies the supreme good and food a chance good — the former seeking the heart and the latter the stomach, that is the purse — the danger is frequently imminent that the chance good may obstruct the passage of the heart; as happens to misers, whose riches, straying from the passage of the purse, make for the heart, and suffocating the soul, prevent it from seeing the afflictions of the poor and hearing their complaints. Hence a certain Poet compared an avaricious man to an insensible thing in this manner:

> *Thy coffer swells with coins, yet feeds not needy friends,*
> *could it feed the wretched, let the coffer speak.*
> *Thy coffer is more faithful and guarding of the weight it bears for thee;*
> *that coffer of thine was once a divine name for man.*

In the aforesaid part the voice is also formed; which, if it be sweet, cheers the wretched, wins love, soothes toil, and recalls the mind from fear to courage, and from anger to clemency. Such is the voice of divine praise and of the best learning, which brings hope and gladness to sinners, arouses piety toward God, soothes toil and sorrow through penitence, and so wins for itself the praise of reputation among God and men.

This voice is best and most perfect when the canals of the lung are smooth and empty of impurities; for when they are filled with some moisture, they produce a heavy and uneven voice. These canals represent the Preachers of the Gospel and the Doctors of theological wisdom, who, if they shall be smooth and free from the impurities of crimes, will pour forth a sweet voice — that is, a teaching pleasing to the people; but if they shall be infected with vices, they will communicate an ungratifying learning to their hearers; wherefore to this point Gregory produced these words: *authority is then lost when works do not accompany the voice*; according to that common saying:

> *Then thus does censure speak, and thus examples are given,*
> *When the Doctor himself does what he exhorts others to do.*

For those who are elders are wont to offend others to a remarkable degree by wicked examples; therefore to this purpose Scaliger in a certain epigram introduces a young man who, having imitated the customs of the ancient Gods, speaks thus:

> *If anyone shall blame me for the fault, that, a slave of love,*
> *I err, and with all my eyes and ears lie in wait for another;*
> *let him know that both Dis and the Lord of the deep*
> *have bowed their necks to the yoke of passion.*

[marginalia: Gen. / Os / Guttur / Vocis moralis doctrina / Auaritia quid / Cap. 21. Proverb.]

and such is the race of men, worthy of imitation by the Gods,
— After Dido: what crime is it to have loved my own?

Just as a harsh and raucous voice disturbs harmony and offends the ears of those who hear it, so the wicked are said to give forth a harsh and raucous voice whenever, not restraining the impulse of their own tongue, they disturb the harmony of honest society, and by this voice are reported to be displeasing to good and perfect men. Finally, the neck of man, as also of other living creatures, is wont to be a symbol of fortitude; for when the neck is bound, the strength of the animal is overcome. By the neck we must understand speech, since the voice begins to be formed in the throat: in this great is the power of the soul; for no one can ever be overcome by the Devil so long as he is able to implore divine aid and confess his sins — according to that saying of Isaiah: *Arise, O Jerusalem; loose the bonds from thy neck, O captive daughter of Sion.* The breath also is celebrated in this part, since a greater quantity of air is drawn in than is emitted; and the reason for this arises from the fact that a great portion of air serves the nourishment of the vital spirits. This air, drawn in, signifies the benefits conferred upon us by God, just as the air breathed out denotes our own service to God. More air is therefore received than emitted, because the divine benefits toward us are far more numerous than what we are able to render back to God. Not without cause, then, did the Psalmist write: *What shall I render unto the Lord for all the things He hath rendered unto me?* — as if he would hint that it can in no wise come to pass that we satisfy God in due proportion.

Now we must descend to the chest, in which the heart — the principal part, first formed by nature — lies hidden. The heart in the interior man is an upright conscience, which each one ought first to fashion and adorn with virtues. Furthermore, since the heart is said to be the fountain of heat and of life, once it is extinguished the animal hastens to its end. The heart can represent right faith in God, from which the warmth of charity, and likewise the life of virtue and grace, flows forth; as Habakkuk has written: *The just man liveth by faith,* which, if it be abandoned, assuredly brings ruin to both soul and body.

Moreover the heart, residing in the midst of the chest, imparts life to the other parts. He is said to be a good heart who, sitting in the midst of the Church, communicates the life of grace and wisdom to whosoever he will. Indeed, since the heart has been named from care (*cura*), the mind of the soul was rightly to be called by the name of the heart, since its own salvation ought to be its care. Furthermore the heart rejoices in various prerogatives. First, it is affected by a perpetual motion, being alternately contracted and dilated. Likewise the heart of human affection ought always to exercise itself in some righteous work — or else to dilate all the recesses of conscience before God; according to that word of the Apostle to the Corinthians: *Our mouth is open unto you, O ye Corinthians; our heart is enlarged.* Second, the heart is so placed in the thorax that it inclines a little toward the left side, and thereby the natural coldness of that part is tempered. The heart is the compassion of the perfect man, which always bends toward the left side of those who are in want and calamity, or inclines toward those who are oppressed by the cold of deadly sin, that, warmed by the fervour of the spirit, they may be roused to righteous deeds. Third, in the opinion of physicians, when the temperament of the heart tends somewhat toward the cold and moist, it produces a soft pulse and renders the man effeminate and smooth. By the same reasoning, when the affection which takes the place of the heart is cold in piety and moist in pleasures, it will produce a soft and feeble pulse of works, and will bring about, as it were, a loss of hairs — that is, a deficiency of virtues. Wherefore we shall be able to pronounce that saying of the Psalmist: *The iniquities have taken hold of me, and my heart hath forsaken me.*

It remains that we weigh the chest, whose anterior part is adorned with the breasts and is enclosed by the back and by the sides. The chest, struck with the hands, gives a sound by reason of its internal cavity: let the man who sins, therefore, strike his breast in indignation against his crimes, utter the sound of confession, and then apply his hands to righteous works; for of certain penitents it is read in Luke: *Striking their breasts, they returned.* The breasts adorn the human chest, whereas in brutes they are seen upon the belly. The breast is a symbol of the benefit which shines forth in the chest of perfect men; for the works of such men proceed from the heart and from grace, while the benefits of the wicked flow from the belly — that is, for the sake of utility — toward others. Furthermore, the breast is the part nearest the heart and possesses the faculty of transmuting blood into milk, that infants may be nourished thereby. The breast is compared to the compassion of the just man, who is nearest to the heart — that is, to God — and who therefore converts the blood of riches into the milk of almsgiving, whereby afterwards the infants, that is, the needy, are nourished.

[marginalia: Collata. / Cordis moralia. / Pectoris moralia. / Mamilla.]

— that is, to God — and who converts the blood of riches into the milk of almsgiving, whereby the infants, namely the needy, are afterwards nourished. Likewise the breasts of a woman with child, according to the judgment of physicians, if they abound with copious milk, indicate that the foetus will be weak. Since the foetus can be a symbol both of action and the milk a symbol of speech, we shall be able to presage that the fruit of action will be feeble whenever the breasts of the lips have overflowed with the milk of words. For this opinion is read in Proverbs: *Where words are many, there is frequently an emission of folly.* Two sides are observed on either side of the thorax, to the right and to the left. These two sides are compared to two men journeying toward a goal, who, when they arrive at the boundary and wish to turn back, find the right become left and the left become right. Likewise those who arrive at the boundary of death incur the same fate: for he who walked by the right side of prosperity finally, at the limit of death, occupies the left side of miseries; and conversely, the poor who have run the way of calamities finally tend toward the right side of eternal joy.

Finally, the back confers upon man this benefit: that he can lie supine — a benefit which brutes do not enjoy. Hence between men and brutes — that is, between the perfect and the wicked — this distinction falls: that just men, lying on their backs, look upward and meditate on eternal things, whereas brutes, that is, the sinful, look at and contemplate nothing but earthly things.

Next come the shoulders, the parts appointed for bearing. The shoulders of the soul are the virtues of obedience and constancy, fitted for bearing the burden of patience and calamity; according to that saying of Ecclesiasticus: *Bow thy shoulder and carry it.* The arm then hangs from the shoulders, made strong and complete with two bones. This may represent Christ depending from God the Father and made complete from two bones — that is, from humanity and divinity — who, by reason of his singular strength, was able to resist the power of the Devil. As the Psalmist has set down in writing: *With the arm of thy strength thou hast scattered thine enemies.* Furthermore, when the body is sick, surgeons inflict wounds upon the arms; nay, when the left part of the body is suffering, a vein of the right arm is opened. The mystical body is the Church, whose right arm is called Christ, through whom the Almighty Father works all things; according to that saying of Ecclesiasticus: *Glorify the hand and the right arm.* But the left arm of this mystical body is the human race, which from the beginning languished; wherefore, in order to free it, it was necessary that the right arm — namely Christ — should be wounded. Moreover, the arms have so great a kinship with the head that, for its protection, they frequently oppose themselves to the blows of those who strike. The arms of Christ are the faithful, who do not hesitate to resist idolaters and to oppose themselves to tyrants in defence of the head — that is, of right faith in God. Finally, the arms, being near the heart, are wont to make manifest to observing physicians the health of the heart through the pulse of the arteries. Now since the heart is a symbol of the mind and of the will, and the arm a symbol of works, therefore through the works of men we shall penetrate to the mind and the human will. For Gregory wrote: *Through those things which are openly performed, that which lies hidden within is made manifest.*

Toward the end of the arms are the hands, which are composed of many bones so that they may be able to undertake any action whatsoever. The hands are our works, made complete from many bones — that is, from many virtues — so that they may be able to assist all men, and especially the needy. Moreover, the hands are certain instruments which appear fitted for extension, for contraction, for labour, for striking, for combat, and for defence. Hence any Prince can be called a hand, which is extended in liberality, closed when benefits are not conferred upon unworthy men, labours in righteous works, strikes by punishing sinners, fights while reproving, and finally protects all those subject to his power. Therefore that saying of Ezekiel may be pronounced concerning this hand: *The hand of the Lord was with me, strengthening me.* The palm is the inner part of the hand, smooth and also flat, yet not altogether wanting in concavity, which — according to investigators of natural things — is never injured by the sting of a scorpion. The Church is the hand, within which those men destined to eternal salvation are contained; according to that saying of Wisdom: *The souls of the just are in the hand of God.* The perfect men represent the palm of this hand: they are flat on account of truth, hollow on account of humility of soul, smooth because they disdain riches, and finally safe from the sting of the diabolical scorpion; as Christ said in Luke: *Behold, I have given you power to tread upon serpents and scorpions.*

[marginalia: Humeri. / Brachia. / Manus.]

Thereafter the fingers hang from the hand, composed of three bones each, straight, slender, flexible, and furnished with nails. The hand is the Church, whose fingers are the faithful, or the men consecrated to God in a religious order. They are said to consist of three bones, because they venerate the Most Holy Trinity; wherefore the Church will be able to proclaim that saying of the Song of Songs: *My fingers are full of the most excellent myrrh.* Moreover, such fingers are straight in justice, flexible toward almsgiving, and finally armed with nails, so that when occasion offers they may exercise a certain severity within the Church. And so the Church will again be able to pronounce that saying of the Psalmist: *Blessed be the Lord who teacheth my hands to war, and my fingers to battle.* Furthermore, this property is observed to be peculiar to the fingers: that they are stouter before a meal and more slender after it. Just men imitate this nature of the fingers, in that before the meal of divine benefit they are swollen with pride, but afterwards are made more slender through great humility of soul.

Next to be weighed is the stomach, which receives any food whatsoever and, having digested it, dispatches both the pure portion and that laden with excrement to the parts to be nourished; the excrement, however, is expelled through the lower parts. The perfect man emulates the stomach in moral doctrine, in that he receives the food of whatsoever teaching and sends it to refresh the powers of the soul, and, retaining only what is pure, immediately expels the impure.

The liver is a viscus warm in temperament, ruddy in colour, and situated in the right hypochondrium. By this principal part, the mind of man is to be understood, which ought to be warm in piety, ruddy with the memory of the blood of Christ, and situated on the right side, while it meditates on the hope of eternal life. Moreover, the liver in man is large, that it may intimate the forceful affection of charity. Finally, the liver occupies a lower rank relative to the heart, that it may draw heat from that organ as from the more principal part. Likewise the warmth and charity of the heart — that is, of Prelates, Princes, and Lords — will temper the coldness of the liver, namely of subjects; for if these grow cold through a deficiency of virtues, they ought to be warmed by the heat of the example of their superiors; according to that familiar verse:

> *At the example of the king the entire world orders itself.*

In the concavity of the liver the bile lies hidden, which by its acrimony cuts and cleanses the humours; wherefore physicians make use of it in collyria. The bile in this place stands for bitter penitence, which cuts and cleanses the humours of sinners; for this reason, just men who address the people make use of the bile of the penitence of the Saints in the collyria of their sermons and precepts, in order thereby to cleanse the eyes of the minds of their hearers.

The spleen, placed in the left hypochondrium, is said to be the cause of laughter, and yet it is none the less a receptacle of melancholy, which is wont to breed incessant sadness. The spleen is a symbol of worldly prosperity, which renders men joyful in the present life, while it carries within itself the cause of eternal sorrow. This can be more firmly established because, from medical observation, when the spleen swells and grows, the body wastes away; and conversely, when the spleen decreases, the body fattens and grows. By the same reasoning, when the spleen of pleasures grows excessively, human virtues diminish; and on the contrary, worldly happiness being diminished, virtues increase in a man in a marvellous degree; wherefore we may rightly declare that which is found in Proverbs: *Give me, O Lord, neither poverty nor riches; yet provide what is necessary for my sustenance.* [Prov. 27:30]

Next follow the kidneys and the bladder. The kidneys, in the first place, are parts free from fat, yet are nevertheless always enveloped in fat. Men of this condition ought to be the rich, who, though buried in the fat of riches, ought yet to be entirely detached from all affection toward them. The kidneys are filled with violent heat, and hence, drawing in superfluous moisture, they expel it from the body. The kidneys of the Church are represented by just men, who work wonders in the body of the Church Militant through the fervour of a fiery charity. For indeed these men, by purging the faithful of the superfluities of vices, set them free. Furthermore, the kidneys are established as the seat of venereal pleasure, since the seed is said to derive its origin from them; hence it is not surprising if they are set down as a symbol of pernicious lust. For this reason priests in Exodus wore a covering from the kidneys down to the thighs, to signify that the kidneys of pleasure were to be hidden.

[marginalia: Digiti. / Moralia ex Stomacho homine. / Hepar. / Lez. (Splen). / Reges.]

For it is read in Isaiah: *Let not the girdle of his loins be loosed.* Furthermore, the bladder has an opening at its upper part, whereas the lower part lacks one. So the upper part of human affection ought to be perforated, that it may be able to receive heavenly things, while the lower part should have no opening, lest an entrance be opened to earthly things. Likewise the bladder, filled with wind, is puffed up into a great swelling, yet upon the infliction of a slight wound it so deflates that it scarcely occupies any space. Men of wealth swollen with pride emulate the bladder full of wind: puffed up with the wind of arrogance, they are vast, but as soon as they are pricked by the sting of death, the wind of peacock ambition immediately vanishes, and they are at once annihilated.

Attached to these parts are the intestines, lodged in the cavity of the belly and appointed to receive the faeces, so that they may at length expel them through the lower passages. The intestines may be called confessors, who, occupying the middle of the body of the Church and hearing sacramental confessions, receive the sins of the whole body of the Church, and then, by the absolution that washes away the contracted impurities of the soul, expel them.

Now what pertained to the parts contained in the belly has been set forth; it seems that something must now be said about the containing parts. The bellies, therefore, according to the opinion of Hippocrates, are warmer in winter, and consequently at that season of the year a greater appetite is generated; but in summer the bellies are less warm, and therefore a lesser appetite is produced. The reason for this effect arises from the fact that the natural heat, driven by the cold of winter, takes refuge in the inner parts, and conversely in summer, tending toward the outermost parts, it is dissipated. By the same reasoning, in the winter of calamities, the fervour of charity, entering the interior recesses of the mind, strengthens the virtues and thus excites the appetite for good work; but in the summer of delights, the warmth of charity is dissipated and the desire for righteous action is destroyed.

In the centre of the outer surface of the belly is placed the navel, through which the foetus living in the womb is nourished; but as soon as the infant enters into the light, the navel-string is immediately cut. By the navel, venereal pleasure is set forth, which resides in the middle of human nature and through which the foetus — that is, the one sinning and wallowing in the belly of worldly happiness — sucks the blood of vices. Wherefore when such a foetus, namely the sinner, comes forth into the light of grace, the navel of pleasures must immediately be cut away, lest he relapse once more into the cesspool of vices.

To the aforesaid parts are added the genitals, the principal members, by the removal of which virile strength is taken away, and a man is thus rendered so soft and effeminate that, as his hairs fall out, he acquires a feminine voice. By the genitals is shown the virtue which produces righteous works: when this is rooted in the soul it begets the offspring of good works. But when the genitals of divine grace are taken away by the violence of vices, then a man becomes so soft as to take on a feminine nature, and thus the voice of prayers and confession is perverted, the hairs of virtue fall away, and all moral hope is corrupted. Among the genital parts is reckoned the uterus, which in woman receives the seed for conception. Yet it sometimes happens that, through the corruption produced by an accumulation of humours, instead of a perfect foetus there is generated a mass of flesh, called by physicians a mole; whence the woman, at the end of her pregnancy, brings forth a lump of flesh. This often befalls those who are believed to have conceived the seed of the Word of God, but who in the end bring forth a dishonest and pernicious work. Wherefore this will accord with the assertion of Isaiah: *I waited that it should bring forth grapes, and it brought forth wild grapes.* Nay, this is not far removed from what is read in Matthew: *Lord, didst thou not sow good seed in thy field? Whence then hath it tares?*

The thighs are the parts extending from the groin to the knees, strong by reason of the abundance of flesh and sinews, which sustain the whole body. By these parts Princes are signified, who sustain the weight of governance and office. They ought to be strong in constancy, fleshy and supple in clemency, and mobile in assiduous diligence. Furthermore, by the thigh the ancients signified offspring, as was declared in the rubric of the mystical matters. Accordingly, as the sword is carried on the left thigh and the dagger on the right, so likewise we ought to apply the dagger of the Word of God and the sword of divine justice to the thighs — that is, to venereal desires — in order that, under the divine guidance of fear, we may restrain the luxury of these parts.

The thighs terminate in the knees, which are said to take their name from the cheeks (*genae*), because the infant lurking in the womb joins its knees to its cheeks. Hence a man bowing his head toward his knees is more prone to tears, as if mindful of the hiding place of the womb, in which for the space of nine months he was changed.

[marginalia: Vesica. / Umbilicus. / Genitales partes. / Femora.]

The knees signify humility of soul and fear of God: for these are the knees which bow the mind toward the contemplation of earthly things; wherefore a man in genuflection ought easily to pour forth tears. God therefore seems to have united the eyes with the knees in the house of the womb, that we might meditate upon the knees — that is, humility of soul and fear of God. Otherwise, the knees are the parts upon which a nurse fondles the infant she is carrying. The knees in this place demonstrate the support of hope and of divine consolation, with which God in the present life fondles the faithful; and they signify also the fondling of eternal joy with which God hereafter will embrace just men. According to that saying of Isaiah: *Ye shall be carried at the breasts and upon the knees they shall fondle you.*

The legs, in some opinions, take their name from running, or are called *tibiae* from their hollow form; these are strong parts fitted to sustain the whole body. The preachers of the Gospel can represent the legs of the Church, not only because, running hither and thither, they infuse the doctrine of Christ into all regions, but also because, after the manner of flutes (*tibiae*), they modulate the divine teaching. Moreover, like columns they sustain the whole body of the Church; nay, as the bones of the legs are moistened with marrow, so these men are watered with the marrow of piety and grace. Therefore of them, and of the body of the Church, we may declare that saying from the Song of Songs: *His legs are as pillars of marble set upon bases of gold.*

The foot occupies the last place in the animal; it is bony, necessary for imprinting a footprint, and for local motion. The feet in moral doctrine signify final perseverance; hence they imprint the footprint of righteous action; they are bony on account of firmness; and they serve the local motion of the soul, so that it may be able to arrive at the heavenly fatherland. According to that golden saying: *He who shall persevere unto the end, he shall be saved.* By the feet are also expressed the affections; hence, on this theme, the divine Augustine wrote: *My love is my weight; by it I am carried whithersoever I am carried.* Thus the feet of our affection ought to be bony in the vigour of constancy, hollow and flat on account of simplicity. Furthermore the right foot has a quicker motion than the left; wherefore a man of robust virtue moves first the right foot, then the left. The right foot demonstrates upright and spiritual affection in the present; the left denotes a depraved and voluptuous affection; and therefore the right foot must always be placed foremost. According to that saying of Proverbs: *The Lord knoweth the ways that are on the right hand; but those that are on the left are perverse.* Finally, it is to be noted that man walks on two feet, whereas other animals walk on four. Men given to vices are likened to brutes, because, like them, they constantly meditate on earthly things; but perfect men, beholding the eternal, walk erect in the posture of contemplation. For the Psalmist said: *He hath perfected my feet as those of hinds, and He setteth me upon high places.*

CHAPTER THE LAST.

The sole of the foot is named from its flatness, and since it is hard, it easily resists the teeth of others; this designates the will of the soul, which ought to be flat on account of humility and hard on account of the imprint of good works. Finally, the heel is the extreme part pressed upon by the whole weight of the body, and once injured it is most difficult to heal, being far removed from the source of heat. The heel is a symbol of old age, which the burden of the vices of life weighs down; and if it is injured by sins, it hardly recovers health, because the vices of the aged, on account of their stubbornness and the deficiency of the heat of grace, are most difficult to correct.

These things having been observed, some further matters concerning the veins, blood, fat, sinews, bones, and skin remain to be weighed. As regards the veins first: they are named either from coming (*veniendo*) or as it were roads (*viae*), through which the blood comes from the liver to the other parts of the body for the purpose of nourishment. They represent pious men in the body of the Church Militant, because through these men goods are communicated to the rest; for other men draw, through them as through veins, the blood of good fortune from the liver — that is, from God. Furthermore, a vein opened at the appointed time, pouring forth corrupt blood, restores health to the patient; and unless it is reopened, the patient incurs death. By the vein is to be understood speech; as is read in Proverbs: *The vein of life is an understanding heart.* This vein of the soul indicates health, which, if it be opened by confession, pouring forth the corrupt humours of sin, imparts health to the patient; but if it be not reopened through confession, it brings ruin to the soul, since death and life are in the hand of the tongue. Likewise sometimes in the veins a putrid and malignant humour is contained, which through contagion can infect others.

[marginalia: Genua. / Cap. ult. / Crura. / Pedes. / Planta pedis. / Calcaneus. / Venae.]

In the vein of human life there also lurks the blood of an evil affection, which introduces the putrefaction of sin, and from which friends are afterwards offended by words and examples.

Contained in the veins is the sanguineous mass, which is distributed by physicians into four humours — namely, blood, bile, phlegm, and melancholy. As regards blood: this is generated in the liver for the nourishment of the whole body, and in moral doctrine is called the memory of the blood and Passion of Christ, which is contained in the liver — that is, in the affection — for the nourishment of the soul. Moreover, when the body overflows with copious blood, far-sighted nature, expelling it through some hemorrhage, wards off ill health. This blood expresses a voluptuous affection; hence far-sighted nature — namely reason — ought to evacuate it through the hemorrhage of penitence. Nay, when any part of the body is injured, blood immediately flows toward it to give it aid; by the same reasoning, a friend burning with charity ought so to imitate the nature of this blood as to bring help to his needy friend, so far as it can be done. Finally, menstrual blood is not without a poisonous quality; for indeed a woman affected by this flux of blood does not look upon another person with impunity. He therefore who is possessed by dishonest and pernicious lust is compared to the aforesaid woman, since the glance of such a person is poisoned and renders others inclined to licentiousness. Thus when the aforesaid blood is evacuated at the appointed time, the body is preserved in good health; but if it be retained in the veins, many infirmities are generated. Such blood is a symbol of sin, which, diligently evacuated by sacramental confession, preserves perfect health in the soul; but if it be retained, many infirmities of vice flow therefrom.

Bile is a humour bearing a resemblance to fiery matter, and renders the man quick and bold in action. In perfect men, bile is nothing other than the zeal of justice; hence it incites them to righteous actions. Nay, bile, dominating the other humours in the human body, renders the man light in mind, irascible, and unmerciful. Bile in this doctrine represents deadly sin, by which the man it has struck is rendered light in mind, irascible, and unmerciful.

Phlegm is a cold and moist humour, which in the veins gradually acquires the nature of blood, so as at length to nourish the members. Likewise in the veins — that is, in the Church — God has placed not only blood, namely perfect men, but also phlegm, namely imperfect men, so that, when the perfect are failing, others might attain to perfection. Unless we prefer to interpret phlegm as the undigested humour, meaning the sinner, whose affection is undigested, that is, imperfect; accordingly Isaiah said: *I have smelted thee, but not as silver.*

Finally, melancholy in the human body is a black humour that breeds incessant fear; wherefore it is not surprising that physicians report the melancholic person to experience dread without any manifest cause. This humour can beyond doubt be called a symbol of sin, which, lacking the splendour of grace, partakes of blackness; hence those who are infected with such a humour are darkened by vices, driven by whose goads they are forever in fear.

From the mass of humours, flesh and fat are generated. Flesh is soft, and also warm and moist, which covers the bones and fills the empty spaces of the muscles. By flesh is to be understood the perfect mind, which, full of the moisture of piety and the heat of charity, provides a covering for the bones — that is, for the needy — and is said to fill the empty spaces of the muscles when it satisfies the empty purses of the poor. Moreover, flesh is said to be impatient of labour on account of its softness; wherefore animals abundantly supplied with fleshy feet, such as man, cannot endure prolonged labours unless they wear shoes. By the same reasoning, fleshy men — that is, those wrapped in delights — can with difficulty endure the labour of calamities; as is read in Matthew: *But the flesh is weak.* Wherefore it is necessary to take refuge in the footwear of examples and of the doctrine of the Saints.

Fat, generated under the skin, softens it, obstructs the channels when it increases, compresses the veins, and is in the end a nourishment for fire. The fat of pleasures likewise softens the skin and so obstructs the channels of the affections that divine grace cannot penetrate into the inner recesses of the heart; nay, as it grows it dominates the powers of the soul, compresses the veins of the will, and in the end feeds the fire of avarice.

Finally, excessive fat is wont to prevent a woman from being able to conceive; and those who are overwhelmed by excessive fat, if they fall into ill health, are most difficultly restored to soundness.

[marginalia: Massa sanguinis. / Bilis. / Pituita. / Melancholia. / Caro. / Pinguedo.]

Likewise those who abound in the fat of riches, when they fall sick through their sins, recover with the greatest difficulty; nay, they do not easily conceive the offspring of righteous resolution. For the fat of riches extinguishes the warmth of charity, takes away the motion of perfect action, and obstructs the ways of the interior affection.

The sinews, drawing their origin from the brain, are spread throughout the whole body to impart motion and sensation to all the parts. The sinews are set forth as the virtues emanating from the brain — that is, from Christ — and communicated to the whole soul, so as to excite the motion of righteous action and the sense of compassion. Furthermore, the nearer the sinews are to the brain, the softer they are; the further they are removed, the harder they become. These sinews can signify judges or legates sent by the brain — that is, by the Prince — into various regions; for indeed, the nearer they are to the head, namely the Prince, the softer they are, exercising benevolence toward the people, for they fear lest, through their proximity, the complaints of the people should reach the ears of the Prince. But when they are more remote from the head by reason of the distance of their station, exercising greater cruelty, they become harder. Finally, according to medical observations, if the sinews are cut they do not regenerate, nor do they knit together. By the sinews we are able to understand the schismatics — a schism (*σχίσμα*) in the Church is called that which occurs when the flock is split into opposing factions, from the verb *σχίζω*, to split; for with the bond of unity broken they are at variance who were formerly in agreement — who never return to the unity of faith and grace.

The bones, sustaining the other parts, are dry, hard, strong, white, hollow, moistened with marrow, joined together by sinews, and covered with flesh. By bones, perfect men and those consecrated to God are represented in moral doctrine, who uphold the other parts — that is, other men weak in the doctrine of Christ — by the best precepts. These must be dry through fasting, hard through patience, strong through constancy, white through chastity, hollow through poverty, filled with the marrow of piety, coupled together by the sinews of charity, and finally covered with flesh, while they constantly contemplate the weakness of humanity.

Otherwise these dry bones, insensible, moistened with marrow, which when broken are healed with the greatest difficulty, can be compared to sinners, who are said to be dry in stubbornness and insensible, since they do not feel the promptings of compassion, and who are moistened with the marrow of a voluptuous affection; nay, broken by the violence of sins, they are joined to God again with the greatest difficulty by the glue of penitence. The bones, hard on the outside and filled within with a soft humour, can also signify Princes who ought to exercise an outward hardness and severity, and an inward softness of benevolence toward their subjects.

Finally, there are also found some bones devoid of marrow, which when struck together give off sparks. Likewise many men are found in this world whose bones — that is, whose interior affections — lack the marrow of piety, and therefore emit nothing but the fire of wrath and cruelty.

At the end there is also the marrow, a certain white, fat, soft substance, which is said to be a remedy for many infirmities. This is divine grace — white in the purity of innocence, fat in charity, glutinous, and soft in piety — which assists very many affections of the soul; for it, descending from the brain — that is, from God — through the sinews of affection into the soul, leads it from sickness to health, and from miseries to joy. For it is read in Job: *His bones shall be moistened with marrow.*

At the conclusion of this section, something must be said about cartilage, which according to the opinion of Galen is a simple part of the animal, hardest of all others in truth, but softer than bone, and intermediate between bone and flesh; and therefore it is easily bent without fracture. Cartilage is called the propensity of the soul toward good, which must be placed between hardness and softness; for it ought neither to be incredulous nor to believe all things rashly; as John has written: *Trust not every spirit, but prove the spirits whether they be of God.* [1 John 5] Likewise, cartilage is a part wanting in sense and motion; nay, if it be cut away, it does not regenerate. The cartilages are the sinners of the Devil, who are flexible and prone to every kind of vice, and who moreover lack the sense of compassion and the motion of righteous action; nay, if they be cut away from the Church by the sword of sin, they are unwilling to be joined to it again by the glue of penitence.

Last of all, the skin is the outermost part of the body, exposed to the injuries of the air, to protect the other parts of the body. The skin in this doctrine is the patience of the soul, which is exposed to the injuries of the air — that is, to calamities — and through which the other parts — namely the interior affections of the soul — are defended. Hence of this skin of patience it may be understood

[marginalia: Nerui. / Ossa — moralia in doctrina. / Medulla et quaedam substantia alba. / Galeni lib. 1 de usu part. cap. [...] / Cartilago. / Io. cap. 5. / Cutis.]

that assertion of Ezekiel: *I will spread skin over you, and I will give you spirit, and you shall live.* Finally, man among other animals is furnished with the thinnest skin; wherefore, since he easily feels the injury of cold or heat, he is clothed with garments against the injuries of the air. Likewise, man is furnished with so thin a skin of patience that he can endure little or nothing for his salvation when he is pricked by the stings of calamities; and therefore it concerns him to clothe himself with the garments of the examples and doctrine of the Saints, that he may be able to resist the cold of calamities and the heat of afflictions, pronouncing that saying of Job: *I have sewn sackcloth upon my skin.*

MORAL REFLECTIONS DRAWN FROM MAN

And from his various Attributes.

Thus far we have discoursed of the human parts; now we shall proceed to examine man himself and his attributes, so that from the moral teachings elicited therefrom our history here may be completed. First, some distinction of the human sexes is to be weighed: for males in comparison with females are warmer, more robust in body, bolder in spirit, more hairy, furnished with more teeth, and overflow with a greater supply of innate heat; and accordingly they also require a greater quantity of food. By the same reasoning, just men, and those who have been dedicated to the religious service of God, are said to be males in comparison with laymen; wherefore they are warmer in charity, stronger in constancy, bolder with a ready will, more hairy in assiduous humility of soul; they have moreover more teeth of discretion, and since they employ the fervour of charity, they are therefore daily conversant with the aliment of more abundant meditations.

If man be considered as a bridegroom, he beyond doubt at first entices his bride to love with gentle words and gifts, then expresses his desire by messengers and letters, exposes himself in games and spectacles, indulges himself too much in the renewal of his attire, and finally leads her, having been diligently and carefully regarded, as his wife. We are able at present to assign the name of bridegroom to Christ, and the name of bride to the Church, or to the soul: since this bridegroom, loving this bride from the beginning of the world, resolved to receive her in marriage; and therefore from the beginning he destined for her gifts — that is, all his offices — and to express his desire he made use of the Patriarchs and Prophets as messengers; he exposed himself to the spectacles of the scourges and of the cross; he clothed himself with the garment of human flesh; and finally he addressed her, diligently and carefully regarded, with gentle speech; as is read in Psalm forty-four: *Hearken, O daughter, and see and incline thine ear; and forget thy people and thy father's house.*

If we contemplate the seven ages through which, as through so many steps, man approaches the last boundary of life, we shall find that these too can be drawn toward moral doctrine; inasmuch as the seven ages are the seven spiritual virtues, through which the life of grace advances toward the desired end of eternal glory. The first age, then, in this kind is humility of soul, which emulates infancy; for just as infancy begins human life, so that virtue is reported to be the beginning of the moral life. Nay, if infancy is derived from not speaking (*non fando*), so the man full of humility of soul does not, through modesty, exceed the limits of civility in speaking; moreover, he who professes this first virtue ought, according to Cato, to restrain his tongue; for Ovid was wont to say:

> *It is the chief virtue to restrain knowledge of the word,*
> *And on the other hand it is a heavy fault to speak of what should be silent.*

The second age is Charity, which strives to unite men to God, to friends, and to enemies by a certain indissoluble bond of love. The third is Piety, which, like adolescence, is the procuress of the merit of virtuous actions. The fourth is Youth, namely fortitude, by which men are armed against temptations. The fifth is Honesty of life, which, emulating the virile age, guards that nothing indecorous or licentious be done or thought. The sixth is Prudence, which, like old age destroying the softness of flesh, illuminates the wisdom of the spirit. The seventh and last spiritual age is the Fear of God, which, like decrepitude, bows the man erect in pride and renders the mind prone to the contemplation of death.

[marginalia: Aetates.]

Now certain particular matters present themselves for consideration concerning infants and children. In the first place, for the generation of an infant, the matter supplied by the mother, the seed of the man, the matrix receiving all of it, the afterbirth — that is, the membrane enveloping this mass — and the natural heat forming and effecting the whole, all concur; moreover the maternal blood is necessary, to nourish and increase the infant already begotten. Likewise, in order that someone, reborn through the virtue of penitence into grace, may become a son of God, many things are necessary: first, the matrix — that is, a fitting place, namely the faith of the Church, which receives; the matter — that is, the right will which obeys; the seed of the man — namely the Word of God, and the doctrine of the Evangelical Preacher, which disposes the man and renders him at length apt; the operative heat is the grace of the divine spirit, which effects all; the afterbirth is charity, which joins all together; and finally the nourishing blood is the memory of the blood of Christ, which warms and increases all things.

Furthermore, in the generation of an infant, nature first produces the principal members — namely the heart, the brain, and the liver — and then girds itself to forming the other parts. The principal parts in moral doctrine are called the theological virtues; for the heart, on account of love, is a symbol of charity; the brain, since it is the principle of sense, designates faith; the liver, since it nourishes the whole body, intimates hope. Hence the faithful of Christ, emulating nature, ought first to form and perfect these principal virtues, and then hasten, step by step, to acquire the others that flow from the aforesaid.

Moreover, the infant in the maternal womb is not perfected and formed at once, but gradually — with the exception of Christ, whose body within a moment of time was formed, animated, and assumed by the Word. By the same reasoning, men imitating nature ought gradually to put on virtues, so that they may eventually become upright, perfect, and learned. The contrary, however, befell Christ, who was immediately overflowing with a full accumulation of all knowledge and graces; as John expounded in the first chapter: *The Word was made flesh and dwelt among us, and we saw his glory, as it were the glory of the Only-Begotten of the Father, full of grace and truth.*

Newborn infants are immediately placed in a dark room, lest the sharp air injure their sight; likewise infants — that is, those who have recently been born to faith, penitence, or religious life — ought not to be exposed to the clear air of affairs, lest they be offended by the splendour of worldly prosperity; and therefore they must be established in the dim place of humility of soul, until they have attained a stronger vision of discretion.

Again, the limbs of infants are so tender that they would easily contract a curvature, unless nurses bound them tightly with swaddling bands; thus the limbs of infants — that is, the affections of the young — are of a nature so flexible that, unless they are bound with the swaddling bands of the best discipline by a learned nurse or a perfect man, they would easily take on the curvature of depraved humours. Furthermore, infants, in order to digest their copious nourishment, have need of a prolonged sleep; hence nurses are accustomed to incline them toward sleep with a gentle lullaby. Likewise infants — that is, men who are nourished with the copious aliment of worldly prosperity — have need of a prolonged sleep of piety and contemplation; wherefore nurses — namely the Preachers of the Gospel — strive to induce their sleep by agreeable little songs of doctrine and examples.

But when infants have grown up, they are called children; and since they are still weak they are not fitted for labours, are prone to falling, and inclined to anger. Such may be called the sinful; who, after the manner of children, are ignorant, unfit for the labour of contemplation and righteous works, prone to the motions of anger, and easy to fall, since they lapse daily from one sin into another. Likewise children born of sickly parents are wont to contract similar diseases as if by inheritance. By the same reasoning, children are subjects or disciples; for if Princes or Teachers are sickly — that is, infected with various vices — their sons, like subjects and disciples, are likewise defiled, injured by evil examples; not without cause therefore did Cato sing:

> *Often the master is reproved together with his fault.*

[marginalia: Infans. / Partes praecipuae in moralibus.]

If the discourse be turned to girls, who bear this name in token of their integrity, they ought to be slender, flexible, and graceful. The girl in this place represents the soul, which ought to rejoice in temperance, being slender in humility of soul, flexible through the obedience of reason, and finally most beautiful in the dowry of honesty.

The father's love for his children.

By reason of consanguinity, parents and children next present themselves for consideration. First, a father pursues his son with immoderate love, and, removing him from the nourishment of the breast, appoints him his daily companion; then, as he grows, he corrects him with stripes; nay, he also sends him to teachers to be educated; and the more like to himself he observes him, the greater is the accumulation of love that accrues to him on his account; and according to the child's age he bestows dignities upon him and ceases not to augment his inheritance. This father is God Almighty, according to that saying of Malachi: *One Father is of you all.* The sons are all just men begotten and nurtured by him through grace. For John said: *He gave them power to become the sons of God, to those who believe in his name.* Thus this supreme Father loves such sons most lavishly, nay, having separated them from the breasts of delights, leads them to the sacred table of Grace or of the Eucharist, commends them to the care of the teachers of the divine law, educates them with the words of holy scripture, and from time to time corrects them with the stripes of calamities. For in this way that saying of Proverbs is verified: *He that spareth the rod hateth his son.* Nay, the more this Father observes the son like to himself in his conduct, the more does he look upon him with greater affection and eyes of mercy; then according to the age of perfection he distributes to him a portion of eternal glory, and in proportion to the increase of merits he enlarges the inheritance of the heavenly fatherland.

The mother's love for her children.

The mother also nourishes the son tarrying in the womb with her own blood, and after birth with milk. This mother can be set forth as the Preacher of the Gospel, who nourishes Christian men with the blood of benign affection and the milk of divine doctrine. Unless we prefer to understand by the mother Christ himself, who with his own blood, and likewise with the milk of divine grace, sustains his infants — namely pious and catholic men — with the sacred bread of the Eucharist. For this is plainly found in John: *My flesh is truly food, and my blood is truly drink.*

Furthermore, the nearer the mother approaches to childbirth, the more is she afflicted with pain on account of the infant's movement.

This mother is the conscience, which must bring forth the offspring of sin; therefore, as the time of sacramental confession approaches — through which sins are brought into the light — she is oppressed with greater pain. Nay, as a mother suffers in delivery and is gladdened afterward when the pain is relieved, so a man, when he has poured out his sins before a confessor, is greatly troubled with shame; but afterward, when he has discharged the Sacrament of Penance and his sins have been removed, he is gladdened, because conscience is the most pleasing recollection of a well-conducted life.

Finally, the mother or nurse performs certain principal duties toward infants: she suckles and nourishes them when hungry, raises them when they have fallen, preserves them when they stand, cleans them when they are soiled, and lastly teaches them to walk and to speak. This mother or nurse can be called the ever-Blessed Virgin, who nourishes her infants — that is, those who venerate her with a singular devotion — with the milk of grace, comes to the aid of those who fall into sin, preserves those who stand — that is, those who are established in divine grace — purifies the defiled, and finally instructs them toward the walk of good works and toward the utterance of the divine word.

What offspring is.

If we consider the sons, some are firstborn and others are born afterward. Now an ancient custom has prevailed, that the greater portion of the family inheritance should fall to the firstborn; unless perchance, some wrong having been committed, parents should disinherit the firstborn on account of their transgressions; for then the younger were preferred to the elder.

God is therefore said to have had from the beginning two sons — namely the people of Israel and the Gentile people. The people of Israel was called the firstborn; as is read in the Holy Scriptures: *Israel, whom I reckon as my firstborn.* Then the other son — namely the Gentile people — born last was so called, and consequently it was not to this but to that one that the greater portion of the inheritance of grace and glory pertained. But because the firstborn people opposed God clothed in human flesh, it was therefore rightly deprived of the right of the firstborn, and this heavenly and eternal inheritance was conferred upon the Gentiles. This matter was most elegantly figured in the Holy Bible by Reuben and Joseph. Wherefore, to our purpose, we shall be able

[marginalia: Patris amor in filios. / Matris amor in filios. / Ie. cap. 1. / Quid sit filiatio. / Ecclef. c. [...] / Lib. V. Parab. / Je. cap. 1.]

[catchword: poterimus]

that saying of Matthew: *The first shall be last, and the last first.* Or to pronounce another, which is read in the same Matthew: *The kingdom of God shall be given to a nation bringing forth the fruits thereof.*

If we contemplate men insofar as they rule and are ruled, the nature of masters and servants presents itself to be weighed. A master does not oppress his servants; on the contrary, he protects them against the attack of enemies, and does not allow them to remain in destitution. A judge or a prince ought to imitate the nature of a freeborn and just master when he exercises the prerogatives enumerated above toward his subjects, and by preserving equity, defends their innocence. For this shall be in conformity with the saying of the Psalmist: *The Lord loveth justice; his countenance hath beheld equity.* Unless we should prefer to interpret "the Lord" as Christ, who nourishes and protects good servants, but punishes and oppresses wicked ones more severely than demons do — this the Psalmist hinted at in these words: *The Lord raiseth the meek; he humbleth sinners even to the ground.* Conversely, a ruined master affords no assistance to his servants; on the contrary, he is a source of harm to them when he fails to render justice to those seeking it, and awaits rewards from the guilty. Such a master is imitated by the tyrant, who despoils those subject to his power of their wealth and, setting aside all law, so conducts himself that the innocent suffer punishment in place of the guilty. This therefore will not be unlike those words which Isaiah uttered: *I will give Egypt into the hands of a cruel lord.*

On the different kinds of servants.

From the other side, if servants are considered: they took their name from *servando* — that is, because a conquering general would keep prisoners of war alive, either to be sold or to be ransomed from the enemy — unless we prefer to say they were called by that name from *serviendo*, since they are assigned to many services. Servants in antiquity were of three kinds. Some were *vernaculi*, who were born under the yoke of servitude; others were *emptitii*, who, having been seized, were sold; others were *conductitii*, who of their own accord and in hope of gain placed themselves in service with someone. Likewise, in the realm of moral doctrine, there are various kinds of servants, ministering to various spiritual masters; and these, as we maintain, are called by that name from *servando*: since God preserves them in life, so that they may at last return to good fruit and be once redeemed from their vices. Or we shall assert that they are named from *serviendo*, because they minister either to God or to the Devil. Among these, some are called *vernaculi*, as the heathen, who are born under the yoke of servitude — that is, of sin — and in this same condition remain the little ones who, being born tainted with the stain of original sin, depart before the washing of the water of the sacred font, and are therefore never freed from such servitude. The *servi emptitii* are sinning Christians, who, washed by the water of the sacred font and made free by penance from the Devil, are brought to bondage while they are oppressed by pleasures and by servitude to vices of every kind. Lastly, the *servi conductitii* are perfect Christians, who not by compulsion, but of their own will and in hope of the gain of eternal glory, betake themselves to the voluntary service of God. These men may rightly pronounce that saying from Genesis: *We, thy servants, will gladly serve the king.* Likewise a slave-woman, according to the custom of the ancients, is assigned to vile services, is meanly nourished with food, is clothed in garments of no value, is weighed down by the constant yoke of servitude, and indeed can conceive a child destined to nothing but servitude; she is not permitted to marry at her own pleasure, is sold like a beast, is sometimes beaten with rods, and if by chance she is granted her freedom, through ingratitude she is recalled to her former servitude. This slave-woman is believed to represent a sinful soul, which the Devil, depriving of the freedom of conscience, consigns to the bondage of crimes; for she ministers to the baser offices of sinners, is refreshed with the common nourishment of wealth, is clothed in the abject garments of an evil conscience, is weighed down by the servitude of a wicked habit; and indeed, if she conceives a child of good works, that child too is destined to servitude, insofar as it lacks grace and the merit of virtues. Likewise, she is sold by the Devil to the harsh masters of the world and the flesh, and so cannot be joined to the companionship of Christ and the Saints; wherefore, when there is lacking in her that most welcome will toward Christ liberating her — the will to discharge [...] — the Devil recalls her to the servitude of the Infernal regions, where she is beaten with continual stripes.

Thus far have been examined those things which pertained to the age, sex, and constitution of man. Now it is time to speak of those things which, if rightly employed, preserve man in good health, and if otherwise, destroy his health: these are called by physicians the *non-naturals.* In moral doctrine we shall find these same things: for the life of grace requires the air of purity, the food of piety and the Eucharist, the drink of wisdom, the exercise of diligence, the repose of tranquillity of conscience, the wakefulness of meditation

[marginalia: Matth. c. 29 / Ps. / On the various kinds of servants / The sinful soul compared to a slave-woman]

[catchword: nis]

and of providence, the sleep of contemplation, and the anticipated glory of blessedness. By these things, therefore, the life of grace is guarded and preserved, lest it perish, fouled by crimes. But we ought to meditate upon each of these things in turn somewhat more carefully, and beginning with foods, we find that these are of manifold kinds. For delicate and refined foods contain few excretions and consequently produce an abundance of blood. Others are foods of thick juice, abounding in many dregs, which generate little blood. Likewise spiritual foods — namely, divine grace and the Eucharist — engender the blood of piety and mercy, and are therefore free from the excretions of vices; whereas worldly foods — that is, the goods of fortune — produce little blood of piety, and indeed many excretions of crimes. Unless we should say that delicacies, which are quickly converted into the substance of the nourisher, are suited to a weak stomach, whereas plain foods of thick juice are appropriate to a stomach of warm temperament. In this doctrine, fine foods of the best juice are virtuous men, of whom Christ declared these words in John: *I have food to eat that you know not of.* Beyond this, such foods are easily digested, and then, disposed by faith and grace, are converted into the body of the Church. But coarse foods of thick juice are the wealthy and those given to avarice, who are digested with difficulty, and who, returning to good fruit never or only late, are converted into the body of the Church. Wherefore the former foods are fitting only for a stomach that is particularly delicate — namely, for the glory of paradise; while the latter are suited only to a burning stomach — that is, to the fire of the infernal regions. In conclusion, just as moderate and wholesome food preserves strength, restores forces that have been lost, tempers the heat, increases the blood, promotes sleep, and guards good health: so moderate food of knowledge or penitence, or the food of the Eucharist, or of charity and friendship, brings many advantages to the soul. First, it restores the spent forces of grace; it tempers the heat of desires; it increases the blood of piety; it promotes the sleep of contemplation; and finally, it guards the health of the soul.

On the different kinds of drink.

Now after foods we must descend to drink, which is constituted in a triple division. One kind is simple, like water, which nourishes not at all but only conveys nourishment to the parts to be nourished; the second is wine, which is not only a vehicle of nourishment but also, mixed with other foods, in the end nourishes the body; the third is a medicated potion, which partakes of the nature neither of true drink nor of food. This triple distinction of drinks is exhibited in moral doctrine. The first is called simple drink, such as philosophy and other knowledge of this kind, by which men become simply learned but not upright and perfect. The other is the drink possessing the nature both of wine and food, such as theological knowledge, which, after the manner of a drink, distils knowledge and nourishes man with virtues. The third drink is as it were jurisprudence, which can take the place neither of food nor drink, since it can render a man neither perfect in speculation nor correct in morals; yet it is called a medicated potion, because, expunging vices and punishing the criminal, it benefits the public good as a medicine.

On the harmful effects of wine.

Furthermore, the vehicle of human nourishment in drink ought to be either wine or water. Wine taken in moderation confers infinite benefits upon the human body: for it increases warmth, recreates the spirits, excites joy and courage, strengthens virtue, mitigates anger, moistens a dry body, stimulates the appetite, aids digestion, sharpens the intellect, opens obstructions, consumes excretions, dissolves bleary-eyedness, generates eloquence, remedies kidney-stone, expels small calculi, and finally is well suited to the healing of wounds. But if a man shall have exceeded moderation in drinking wine, he will without doubt be drinking not a remedy but a poison: according to the well-known couplet:

If, as a physician, you thus flood your mouth with wine,
Instead of sweet draughts you are drinking bitter aconite.

By wine in this place we may understand the memorial of the blood of Christ, or the fervour of piety, or divine knowledge, or penitence: for all of these are so many spiritual wines, which benefit the soul in a wonderful manner; according to that saying of Proverbs: *Be drunk, most beloved, drink the wine which is mingled for you.* Accordingly, wine of this kind increases the fervour of charity, strengthens the virtue of fortitude, excites joy in the divine spirit and boldness in undertaking good works, tempers the cause of anger, moistens the dryness of impiety, stimulates the appetite for good work, illuminates the understanding, opens the obstruction of shame through confession, consumes the superfluous alms of

[marginalia: Lib. 2, cap. 6 / The life of grace and its qualities / On the difference of drinks / On the harmful effects of wine]

[catchword: moly-]

elemosyna, removes the bleary-eyedness of the eyes of the heart, perfects the eloquence of divine praise and prayer, heals the kidney-stone of contumacy, expels the small calculi of vices, and finally brings the wounds of grief, sorrow, and envy to perfect healing. Moreover, just as one must beware most carefully of a corrupt drink, whether it be wine or water, since entering the veins and infecting the blood it can produce many kinds of disease — so likewise the Christian ought to avoid the drink of heresy and also obscene speech; since a draught of this kind of corrupt doctrine not only infects the soul, but also generates many sicknesses of vice.

On contemplation and repose.

Let us now turn to the consideration of sleep and wakefulness: for moderate sleep strengthens the natural warmth, moistens the body, digests crude humours, removes intoxication, disperses sicknesses, and presages nature's victory over disease. Likewise the sleep of contemplation confirms the warmth of charity, moistens the mind with piety, disperses the crude humours of pleasures, removes the intoxication of crimes, exterminates the disease of the soul, and proclaims victory over sins. Furthermore the man weighed down by nightly repose presents outwardly an image of cold death, yet inwardly enjoys life; indeed the outer parts grow cold, while the inmost parts share in no inconsiderable warmth. The nature of this sleep is represented by those who, drawn by hope and piety, are said to sleep in the Lord: for they are called cold outwardly while they are oppressed by wretchedness and appear, as it were, wholly bereft and like the likeness of some dead man — yet inwardly, that is, as regards God, they live, and as regards conscience, they are fervent with piety and charity. With this in view the Apostle, writing to the Corinthians, was saying: *As dying, and behold we live.* Conversely, in wakefulness, a man performs his functions: he walks, sees, hears, tastes, smells, touches, speaks, and understands — which actions are made void when sleep presses upon him. The waking man represents a just man who takes thought for his own salvation: since, hindered by no sleep of crimes, he can exercise spiritual actions; wherefore he advances with the feet of love and affection, looks out with the eyes of contemplation, perceives the drink of humility with the ears of the understanding, is delighted with the taste of piety, breathes the fragrance of hope, is said to touch others by conferring benefits upon them, speaks by confession and by the praises of God, and at last understands all things through constant meditation.

Two other things among the non-naturals — namely motion and rest — are not to be passed over: since a man ought to exercise himself before a meal, so that the excretions contained in the stomach may descend and be dispersed before new food arriving there may be corrupted by mixing with the excretions. By the same reasoning, before the spiritual food of doctrine or of the Eucharist is received, the exercise of penitence ought to precede, so that the excretions of vices may be consumed; for thus the place of conscience is purged. On the other hand, rest is said to be the end of labour and of every kind of motion; since every motion by its nature tends toward rest, according to the well-worn verse:

That which lacks alternating rest is not enduring.

For in repose the forces are refreshed and weary members are restored. By rest in this place we may expound the state of contemplation, and the life of religious habit, in which the mind is drawn back from external affairs to the inward operations of conscience; so that, surrounded by peace, it may contemplate God alone as true rest — according to that golden saying of Saint Augustine: *My heart is restless, good Jesus, until it rest in Thee.* For this repose preserves the state of grace, strengthens the forces of the soul, and in a wonderful manner removes the weariness of a mind worn out amid worldly affairs.

[marginalia: On contemplation and repose / Lib. 2, cap. 6]

MORALIA DRAWN FROM HUMAN AILMENTS.

On what the moral physician is.

Having embraced the natural and non-natural things in a few words, let us now in a few words also expound those things called by physicians *preter naturam* — that is, beyond nature — insofar, that is, as they can be accommodated to the morals of men. For just as the pulse is diligently examined by physicians so that the affections of the heart may be perceived, so moral physicians — namely the prince or ruler — ought sometimes to examine the pulse of their subjects with equal diligence, in order to know the dispositions of their hearts and to draw back those who act ill from the crooked path. Or let the title of moral physician be assigned to the confessor, who ought to observe with great industry the pulse of those who confess, so that he may be able to understand the inward dispositions of the heart. Therefore at this point the principal affections afflicting the human body are to be examined, that is, insofar as they serve moral doctrine.

Beginning therefore from the diseases of the head, we shall first contemplate alopecia, which is generated when sharp humours erode the roots of the hairs. The head is the prince, and the hairs are the men subject to his authority: therefore when by evil humours — that is, by the evil examples of princes — the hairs, that is the subjects, are infected, they straightway flow into excess and become dissolute. Baldness also is produced by the falling of the hair, and can signify the deprivation of virtues brought about by the violence of sin. Indeed, just as a young man who falls into baldness can again acquire his hair, whereas an old man is freed from baldness either with difficulty or never — so likewise a young man, made bald through lost virtues, is again adorned with these same hairs of virtue by the force of penitence, which an old man achieves with difficulty; since the vices of old men appear to be incorrigible. For we have in Proverbs this saying: *A young man according to his way; even when he is old, he will not depart from it.*

Epilepsy compared to pride.

Epilepsy is the next disease of the head to be considered — a chief disease of the head, thus named by the Greeks because the upper parts are seized; otherwise, among the various names by which it is marked, it is called the sacred disease. This affection arises when, the humours occupying the ventricles of the brain, the passage of the animal spirits is intercepted; the patient then falls in convulsion, and with foam about the mouth, gnashing of teeth, and distortion of the face, is seen to tremble through his whole body. This affection is undoubtedly to be compared to the disease of pride, which in truth can be called the sacred disease, since it has triumphed over holy and perfect men. Likewise epilepsy is called as it were a harm of the upper parts — not without reason, since it has prostrated even the angels above us: for it is read in the holy pages: *The Lord hath destroyed the thrones of proud princes.* This affection of pride is therefore generated when evil humours of vainglory are borne to the ventricles of the mind — namely when a man contemplates the nobility of his birth, the strength of his body, and the abundance of his wealth, or when he flatters himself wonderfully in the name of some mediocre learning; for then every movement of right action is impeded, and the soul falls headlong from the state of grace, and thus the tremor of despair, the gnashing of anger and agitation, the foam of malediction, and the distortion of the countenance — that is, the vileness of evil habit — are introduced.

Paralysis also is an affection reckoned among the diseases of the head, and afflicts when the nerves descending from the head are deprived of sensation and motion. The cause of this sickness can flow from humours causing obstruction, or from heat that consumes, or from cold that constricts, or from a wound breaking continuity. By paralysis is to be understood sin, which without doubt removes the sense of discretion and the movement of right action; and this can arise from the humours of voluptuous pleasure obstructing the mind, or from the heat of avarice and ambition, or from the cold of fear and despair, or lastly from the wound of envy and anger.

[marginalia: On alopecia / Epilepsy compared to pride / Eccles. c. 10 / Paralysis]

Phrenitis is a disease affecting the head, since the patient seized by it falls into derangement of mind. Wherefore the diligent physician attends to him by shaving the head and opening a vein, then orders the patient to be bound and to lie in a dark room. The phrenitic is compared to the sinner, who, alienated from reason, embraces vices of every kind like a brute. Therefore the spiritual physician must at once remove the hair — that is, the occasion of crimes — and reduce the blood of sin by confession, and moreover place the criminal in a dark place, namely in solitude — that is, remove him from public affairs and spectacles, and finally restrain him with the bonds of divine precepts, so that he may as soon as possible recover the lost health of his mind. The disease opposed to phrenitis is lethargy: since phrenitis is produced from a warm cause, and lethargy from a cold one; wherefore whoever is seized by lethargy sinks into a deep sleep. It is therefore the common opinion of physicians that it is a fatal sign when phrenitis degenerates into lethargy, and conversely that there is no need for despair when the opposite occurs.

Which persons the lethargic are to be compared to.

The lethargic are compared to hypocrites and traitors, who appear outwardly to be simple men, and as it were asleep, while inwardly they abound in the worst vices. But phrenetics are compared to public sinners, whose vices are manifest to all. Wherefore if it should happen that a phrenetic becomes lethargic — that is, a public sinner becomes a hidden one — this is to be deemed the worst outcome: since the veiled vices of hypocrites do more harm, since they are believed by all to be virtues. But if the opposite should come to pass — that a man should hasten from lethargy to phrenitis, that is, that the hidden crimes of a secret sinner should be made manifest — this holds out great hope of salvation, since manifest vices not only cause less harm but can also be more easily corrected.

On the utility of sneezing.

Lastly, sneezing is a violent concussion of the brain excited by nature for the purpose of expelling superfluous moistures. This movement of the brain relieves the whole body, shakes it, produces a noise about the nostrils, and in the end brings great hope of future health: this affection is compared to contrition, which by the shaking of the brain of the mind stirs it, generates noise by confession, relieves the mind of the superfluity of vices by satisfaction, and thus promises the soul a certain hope of salvation.

The human eyes are vexed by various affections. They suffer first a solution of continuity, inflammation excited by dust, by wind, by smoke, by the splendour of a luminous body, by excessive drinking of wine, by venereal pleasure, and lastly by sharp foods. By the eye is to be understood the soul, which beholds and understands all things; or by the two eyes we can represent the intellect and the will: for these eyes of the heart fall into various sicknesses of vice; for they are wounded by envy, troubled by the dust of avarice, vexed by the smoke of pride and the wind of vainglory, sometimes they are offended by too great a brightness — when, that is, the eyes of the mind search too curiously into divine mysteries: according to that saying of Isaiah: *Mine eyes are weakened looking up on high.* Indeed the eyes of the mind are assailed by the intoxication of evil doctrine, defiled by venereal pleasure, and at last attacked by the sharpness of the food of anger. For the Psalmist was writing: *My eye is troubled by anger.* What if the eye should fall into blindness? For the man deprived of his sight always advances slowly, led by the hand or a staff, or must trust a boy to guide him. The sinner bereft of sight is compared to such a person, since he strives to search into the affairs of others, and thereafter is not his own master, since, trusting the Devil and the World, he obeys them.

Deafness of the ears, if it shall have arisen in youth, is rendered incurable. Likewise the deafness of contumacy, when it happens to young people and has become of long standing, without doubt requires not the aid of nature or medical help, but a miracle.

On the fetid mouth.

The mouth is most commonly full of foul odour, which flows from many causes: namely either from corruption of the gums, from ulcers of the palate, from parts of the chest badly affected, from putrid humours of the stomach, and lastly from the whole body. The moral mouth is speech, and the foul odour of the mouth is represented by obscene words, which usually depend on various causes: first from the gums of the mind corrupted by heresy; then from the ulcers of malediction; thirdly from the parts of the chest vexed by envy; fourthly from the putrid humour of the voluptuous stomach; and lastly from the whole body, when a man is infamous and violates the reputation of another. From the mouth we must come to the throat, which often suffers from angina. But when in this affection a swelling appears in the neck, physicians conceive hope of recovery; if otherwise, they assert that there is cause for despair. The throat of the sinner is often occupied by this disease —

[marginalia: Phrenetics compared to the soul / On the utility of sneezing / The eye and its affections / On the fetid mouth / What the throat of the sinner is like]

What the swelling signifies.

and this sickness is called fatal when a crime lurks hidden in the conscience: as happens to criminals who do not disclose their sins through confession. But the spiritual physician — namely the confessor — holds out great hope to the sinner when he observes the crime made manifest. For we have in Proverbs: *He who shall have confessed his sins shall obtain mercy.*

If attention is directed toward the sicknesses of the lung, this organ sometimes suffers an ulcer excited by sharp humours flowing down from the head to the chest, and is thereby rendered unfit to receive air. The same thing happens when sharp humours of wealth precipitate toward the lung of our affection; for such a blemish is contracted, so that thereafter the air of grace and piety cannot be received. In other respects, the breath is harmed in various ways: sometimes by a tumour obstructing the passages of the lung, sometimes by inflammation, and lastly by corruption of the parts, whence the inspired air is afterwards infected. The breath can signify speech issuing from the mouth, which is sometimes vexed by the tumour of pride, sometimes by the inflammation of avarice: for it is read in John: *He that is of the earth, of the earth he speaketh.* And lastly, because of parts corrupted by too great luxury, infected speech without doubt infects the hearers. For the Apostle, writing to the Corinthians, was saying: *Evil communications corrupt good manners.*

On the affections of the stomach.

When the stomach labours under ill health, it is afflicted by crudity, or vomiting, or hiccup, or eructation, or flux. Human speech is represented by the stomach, and it falls into various moral affections. First it is tormented by the crudity of insolence; then it is occupied by the vomiting of boastfulness, the hiccup of envy, the eructation of malediction, and the flux of dishonest pleasure. Unless we should prefer to interpret vomiting as sacramental confession, which cleanses the stomach of conscience, aids the digestion of morals, and at last frees men from the sickness of sin. Sometimes, when the orifice of the stomach is vitiated, a sudden failing of the forces arises, which physicians call syncope; and then the motion and sensation of the patient are intercepted. Syncope in this place is a symbol of sin, by the seizure of which, when a man is overtaken, the life of grace is intercepted and the movement of good works is restrained.

The belly is sometimes distended by too great repletion, and this affection is removed by evacuation; sometimes it labours under inanition, and is then cured by repletion. By the belly the mind is to be understood, which, after the manner of the belly, contains the heart of understanding, the liver of affection, and the gall-bladder of anger. Since therefore this is most frequently filled up with vices and wealth, it must be evacuated by confession, by the reckoning of vices, and by almsgiving, by the reckoning of wealth; but when it falls into an inanition of virtues and sciences, it must then be filled by the teachings of faith and knowledge.

On the moral affections of the kidneys.

The kidneys also suffer from kidney-stone, when viscous and tenacious matter is glutinized into small stones by immoderate heat. To the kidneys are referred the voluntary affections of men, which abound in the viscous and glutinous humours of wealth and delights: whence the immoderate heat of concupiscence generates the small stone of contumacy, and binds together worldly affections by evil habit.

On the moral fluxes.

Physicians declare that the intestines are subject to not a few diseases. For they are distended, and when their unity is broken, pain is generated; sometimes they are so dried up that the excretions cannot be expelled; sometimes they are afflicted by unnatural tumour, and moreover by flux of the bowels and by colic. The intestines are the affections of the human mind, which are extended by envy, and so dried up by avarice that no right action can emerge from them; sometimes they are stimulated by the tumour of pride, dissolved by intemperate desire into a flux of lust, and finally seized by the colic of anger and cruelty. For we have in Proverbs this assertion: *But the bowels of the wicked are cruel.* In other respects the intestines are vexed by three chief fluxes of the bowels. The first is a simple flux called diarrhoea; the second is lientery, when foods are evacuated undigested; the third is called dysentery, when blood is brought out together with abrasion of the intestines. By these three species of flux we must expound three moral fluxes — namely in speaking, hearing, and acting. The flux of words represents simple diarrhoea, since certain young men are dissolute in words and yet shrink from dishonest habit and from the blood of fatal crime. The flux of hearing emulates lientery; since some are so negligent in hearing that they retain not even a little of the Word of God. Lastly, the flux of action represents dysentery, because it is produced with the blood of fatal

[marginalia: What the swelling signifies / On the affections of the lung / Stomach affections / On the moral affections of the kidneys / On the moral fluxes]

[catchword: thalis]

crime and with the abrasion of moral virtues. The intestines at last are accustomed to labour to the point of desperation, to the despair of physicians, with worm-infestation: since various species of worms are generated in the intestines. By worms are to be understood crimes, which most frequently gnaw the intestines of conscience;

Crimes compared to worms.

and various differences among these are observed: since the worms of avarice arise from wealth, the worms of lust from pleasures, the worms of pride from dignities, the worms of envy from another's prosperity, and the worms of intolerance from calamities. Indeed, just as the worms of the intestines are expelled by drugs, lest the patient's death should result from them; so likewise the worms of sins must be expelled by the expiation of confession, so that the threatening peril of eternal death may be avoided.

On the disease of the foot.

The chief disease of the feet is gout, which attacks those who delight in the daily luxuries of feasting and exercise the body in no other act but venery. But it is to be noted that eunuchs, boys, and women are said to be not at all vexed by this species of sickness. Gout exhibits to us sloth and torpor of body, which is wont to occupy those who delight greatly in fetters and resort frequently to Venus. But boys signify simple men, eunuchs chaste men, and women pious and merciful men: and therefore these are not seized by the aforesaid species of disease.

We have now arrived at the skin, which is said to be subject to many diseases. For it is afflicted by solution of continuity, wrinkling, pustules, ring-worm, and scab. Likewise the skin of human habit suffers various sicknesses of vice: first a solution of continuity excited by anger and discord; then the wrinkling of envy; pustules of pride; ring-worm of avarice; and lastly scab of lust. Unless we should prefer to declare by pustules excited on the surface of the skin a venial crime, which does not penetrate to the inward parts of the heart but is observed only on the surface of habit.

On the vices of the skin.

To these must be added leprosy, which is placed by physicians not only among the contagious affections of the skin but also among the hereditary ones. The leper signifies the sinner who can be infected by the habit of other criminals; for the Poet was saying:

> *One diseased sheep corrupts the whole fold.*

Though the Psalmist expressed this better when saying: *With the holy thou wilt be holy, and with the perverse thou wilt be perverted.* Moreover man falls easily into leprosy when older parents have once been seized by the same disease: so men sinning after the evil examples of their ancestors become like them. Likewise in the skin, tumours are sometimes produced beyond the natural condition, which arise either because the noxious humours are so thin that they can easily flow to the skin, or because the passages of the patient are so wide that through them any humour, even a thick one, can penetrate to the outermost skin. This tumour can be a symbol of fatal crime, which can proceed either from the softness of delicate sense, or from a conscience too wide — that is, too prone to sinning — or from the thin humour of inconstancy.

On tumours beyond the natural condition.

Another species of tumour called hernia arises in the skin of the abdomen when the peritoneum, or membrane containing the intestines, is too greatly extended or ruptured by shouting or by straining. This tumour represents to us discord, which rends the membrane of charity while the clamour of insults and the strife of controversy are rife among men: for all these things are wont to dissolve charity and friendship.

The discourse thus far has been about particular affections; now it is necessary to descend to the universal affections vexing the whole body of man, which for the most part arise from blood corrupted in the veins. The blood in the veins is vitiated either by putrefaction or by admixture of an alien humour: so the blood of affection of the human heart is corrupted either by the putrefaction of sin or by the wicked and depraved habit of others. Moreover, since it commonly happens that fevers arise when the blood is foul, we have judged that something must be said about them. Fever is a warmth beyond the natural condition, disseminated from the heart through all the parts of the human body; and since in the human body three parts are found — namely spirit, humour, and solid part — in which a feverish heat can be kindled, hence three

On the different kinds of fever.

differences of fevers are constituted by physicians. The first fever is called ephemeral, which occupies the spirits; the second is putrid, vexing the humours; and the third is hectic, affecting the solid parts. The moral fever is referred to the concupiscence of the mind, the fervour of the affections, and the intemperance of desires;

On the threefold concupiscence.

and this is said to be threefold. The first is called concupiscence of dignities, and it is pride; the second is concupiscence of pleasures, and it is called lust; the third is concupiscence of wealth, and it is called avarice. Pride emulates the ephemeral fever, since it regards only the spirits and vain things such as vainglory. Lust represents the putrid fever, since it proceeds from vitiated humours and from the defilement of the flesh. Avarice at last represents the hectic fever, since it desires solid things — namely gold and silver — with every wish. For the miser, no treasury is sufficient; nevertheless he, stripped of every comfort of human life, becomes poorer than any beggar: this was most elegantly expressed by Ausonius in that epigram in which he introduces Croesus, once the richest of kings, and Diogenes, the most beggarly, conversing among the shades in these words:

[marginalia: Crimes compared to worms / On the disease of the foot / On the vices of the skin / On tumours beyond the natural condition / On the different kinds of fever / On the threefold concupiscence]

Diogenes the Cynic saw thy image, O Croesus, richest of kings,
among the shades below:
He stopped, and suddenly shaken by a loud laugh from afar,
said: what good is thy wealth to thee now?
O king of kings, O most wealthy, now that thou art
even as I alone, art thou not poorer than I also?
For whatever I had I take with me; thou, Croesus,
bearest nothing with thee out of all those great riches.

Some compare a venial crime to the ephemeral fever, since it is nothing other than an intemperance of the spirits of the human mind;

Venial crime compared to the ephemeral fever.

and for this reason, like the aforesaid fever, it easily comes and goes. Indeed, just as the ephemeral fever sometimes degenerates into the putrid fever and sometimes into the hectic, so by the same reasoning a venial crime, if it be not as soon as possible overcome by penitence, is converted into either the putrid or the hectic fever — namely into some fatal crime; according to that saying of Gregory: *A sin which is not washed away by penitence, speedily by its own weight rushes into another.*

In the conclusion of this section we have judged that something must be said about poison. Poison is that which kills a man without a preceding disease, and is drawn from three families — namely of animals, vegetables, and minerals. Likewise, in moral doctrine, a poison is found which venemates the soul with temptations and kills it by wicked consent: and this poison is constituted in a triple division.

On how many kinds of poisons there are.

The first poison is the bite of venomous creatures — namely of demons and wicked men, that is flatterers and heretics, by whose words the soul is poisoned; according to that saying of the Psalmist: *The venom of asps is under their lips.* The second species of poison is drawn from vegetables; and these vegetables, in moral doctrine, represent delights and pleasures, by which the soul is oppressed unto death. The third poison is drawn from minerals — namely from wealth — since these, badly employed, poison and destroy the soul. Moreover when poison is administered, because it is unpleasant it is wont to be mixed with a sweet liquid. Likewise the poison of sin, because it is by nature horrible to the soul, is for this reason mixed by the Devil with the sweetness of some delight, so that by this means he may deceive the will. Wherefore it will be safe to abstain from sweet things — that is, from the pleasures of the world — lest by chance it should come to pass that the poison of sin lies hidden in them. Lastly, a man infected with poison can by habit infect others: so likewise those who are poisoned by crimes and imbued with evil morals can infect others with the same poison while they employ obscene words and evil examples.

SYMBOLS.

On symbols drawn from the human parts.

We find that all the different kinds of symbols, of which discourse is at present made, are drawn either from the figure of human parts, or from the complete likeness of a man of whatever age and of either sex. For by reason of the first kind, one may behold, in Paradin, the figure of a human head armed with a helmet adorned with the likeness of a raven, with the title: UNEXPECTED AID. And this symbol he assigns to Marcus Valerius Corvinus, who often signified that unexpected help flowed from the Omnipotent God as a perennial source of assistance. In the same author, one observes an image of a human head with a pierced ear,

[marginalia: In Symbol. / Venial crime compared to the ephemeral fever / On how many kinds of poisons there are]

[catchword: perfo-]

with the title: FREE SERVITUDE — by which we are taught that the Christian, free from the servitude of the law and established in grace, ought to offer his ear to the highest God, so that it may be made capable of his precepts and obedient to divine commands. In the same place is seen the image of a hand with a dagger, which strives to strike the forehead of a human head, with the inscription: EVEN AT THE ALTAR. The author intimates to us that wicked men are punished by the eternal Judge wheresoever they may be; and indeed he relates that this happened to Galeazzo, son of Francesco Sforza, who was slain before the altar by Andrea Lampugnano. Furthermore, Gabriel Simeoni exhibits the skull of a man figured between a sceptre and a mattock, with this title: DEATH MAKES SCEPTRES EQUAL TO MATTOCKS. In order to signify that death removes high and low without distinction, as many beggars as rich men. Wherefore Horace was singing to the purpose: *Death with equal foot strikes the poor man's hut and the towers of kings.* Although another has adorned a not dissimilar symbol with this title: DEATH SPARES NO DIGNITY. We recall having seen elsewhere a delineation of the index finger of the hand pointing to the forehead of a human head, with this inscription: THE FOREHEAD REVEALS THE MAN. Since this symbol demonstrates that the human forehead is an indicator of human character. But when the thumb and index finger brought together are painted near the lowest part of the ear, it is a symbol of memory: because that part of the ear plucked by the ancients attested to memory. In other respects, in Porta, the ear touched by the hand is a symbol of the letter A; as to touch the beard signifies B; the head C; the teeth D; the forehead F; the liver E; the throat G; the shoulders H; the flanks I; the tongue L; the hand M; the nose N; the eyes O; the palate P; five fingers Q; the kidneys R; the eyebrows S; the temples T; and lastly to touch the belly denotes V.

On the image of the hand.

If we continue in reviewing the symbols drawn from the remaining series of parts, we shall find in Claudius Paradin an image of a human tongue, to the base of which a serpent's tongue adheres, with this title: WHITHER DOST THOU TEND? For he wished to signify that words are not to be uttered incautiously; although the explanation of this symbol is to be seen in the section on proverbs, when discourse is had of proverbs drawn from the tongue. In the same author we can observe an arm armed with an unsheathed sword and adorned with lilies, with this Greek inscription: ἁπλανῶς — that is, without deceit; and he adds that this was the symbol of the Duke of Montmorency, who used it in signifying true fidelity. In other respects, the image of human arms in the Zodiac, from Giorgio Veneto, shows the symbol of the Gemini. Sadeler also paints two hands joined together, with two inscriptions, of which the upper reads thus: FELICITY OF TIMES; and the lower is: CONCORD OF THINGS; and he assigns this symbol to Philip II, King of Spain and the Indies. Likewise Paradin delineated two hands joined in a chain with the title: IT IS NEITHER RIGHT NOR CAN I BEAR IT. In order to signify that not all captives are to be judged guilty, but only those who are tainted with vices; since although Peter the Apostle was kept in custody bound with a double chain by order of Herod, nonetheless, the chains falling away, he escaped by the help of an angel. Finally in an old diagram of Clovis, two hands are figured palm upward to heaven, which are supported by two others, with the title: MOST SECURE. This seems to have been derived from the victorious hands of Moses, which struck the troops of the enemy while raised in prayer as if in supplication.

On arms and hands.

If we descend to the other parts: among the Pythagorean symbols there is found one of this import: EAT NOT THE HEART — by which we are taught that the intellect and soul are not to be immersed in earthly and voluptuous things: for the heart denotes the rational part. But Costalius declared the opposite side of this symbol when he delineated a man devouring his own heart, to show a man tormented by worldly cares. Elsewhere Pythagoras was saying: SACRIFICE AND WORSHIP WITH BARE FEET. By this symbol he intimated to all that the sensual part of a man who is contemplating ought to be freed from crimes. The same was wont to say: MOVE THE RIGHT FOOT TO BE SHOD; THE LEFT INTO THE BASIN. Many expound this to mean that upright and heroic actions, as right-handed, are to be admitted, but wicked ones, as left-handed, are to be set aside.

Next to be described are symbols representing the complete likeness of a man, of which some partake more of the nature of an emblem than of a symbol; nonetheless, since some authors circulate these under the name of symbols,

[marginalia: In lib. de symbolis heron. / In lib. de symb. / Brachia / Manus]

[catchword: quo-]

and since some authors circulate these under the name of symbols, we shall for that reason first enumerate here those bearing the likeness of a youth, so as thereafter to pass gradually on to the others. Bocchius paints a young man who strives to pass the rope of an anchor through the eye of a needle, with the title: THAT A RICH MISER CAN NEVER BE BLESSED. The argument seems to have been drawn from the golden saying of the Gospel, where it is read that it is easier for a camel to pass through the eye of a needle than for a rich man to enter the kingdom of Heaven: this saying, however, is to be understood of the avaricious rich. The same author exhibits an image of a young man binding an old man under a grotto; the inscription is thus: TRUTH MUST BE SEEN AS ONE IN ALL THINGS. These two likenesses of youth and old man represent Aristaeus and Proteus, who both signify that truth, with opinions set aside, is to be drunk in: for opinions are represented by the various animals stabled in the grotto. The same author depicted a young man offering his own head severed from the neck to a likeness of Fortune with his hands, who appears about to apply, with her hand, a neck distinguished by three heads — of a lion, a serpent, and another beast — to the kneeling youth, in order to denote a man who believes himself to Fortune, for he lacks his own head — that is, his intellect — and seems to put on the nature of a brute; and this symbol is inscribed thus: HE BECOMES A BEAST, HE IS BLINDED, WHO SETS HIMSELF TO TRUST IN FORTUNE. Likewise Matthias, Archduke of Austria, gave expression to the likeness of a young man — namely Perseus freeing Andromeda — with the title: VICTORY LOVES CARE. For just as Perseus rescued the beautiful maiden Andromeda from a monstrous beast, so he himself was about to free Hungary, a most beautiful region, from the yoke of the Turks. Likewise Bocchius depicted a young man transfixed on a stake and suffocated by smoke, with this title: THE AMBITIOUS MAN IS TO BE DRIVEN OUT FROM THE COMMONWEALTH. The argument of this symbol is derived from history: for Alexander the Caesar once ordered a certain young man burning with ambition to be killed by smoke. We recall having seen on the first page of a certain book a figure of a young man gazing upon Heaven, and the title was thus: BLESSED IS THE MAN WHOSE HOPE IS IN THE LORD, AND WHO HATH NOT REGARDED VANITIES AND LYING FOLLIES.

After we have arrived at the likenesses of men, discourse will be had first of those which are depicted with inanimate things. Costalius at one time depicted a man in solitude playing a cithara, by which likeness is represented Aspendius the citharist, who did not even wish to be heard by friends but played only for himself. By this symbol therefore are represented those friends who measure friendship by utility: and therefore they are called not true and faithful friends but unfaithful, flattering, and common. According to that verse:

The common crowd proves friendship by utility.

Again the same author delineated a man playing a cithara before a vessel full of beans, and the inscription of the symbol is this: THE DORIAN MUSE. For he wished to intimate to us that there are sometimes certain judges who regard only gifts, and judge according to them: for by beans are denoted votes. He who plays the cithara is the Dorian Muse — namely, to judge insofar as gifts (*δῶρα*) are present: for he alludes to the word *δῶρον*, which signifies a gift; wherefore he adds another inscription in these words: AGAINST BRIBED JUDGES (*IN IUDICES ΔΩΡΟΔΟΤΟΥΣ*). The same Costalius expounds the image of a man testing vessels by sound with the title: THE SPEECH OF A MAN PROVES, AND NOT HIS GARMENT. For he wished to warn that a man is to be proved by his speech and not by his dress; wherefore Diogenes was wont to say: *Speak, so that I may see thee*. The same author depicts a man lighting torches at the water of a certain spring, and the inscription of the symbol is: THOSE WHO TRUST TOO MUCH IN THEMSELVES. The author alludes to the Dodonian spring, in which extinguished torches were kindled and kindled ones extinguished: since this spring seems to be a symbol of divine justice, which extinguishes and depresses those who trust too much in themselves, but exalts and kindles those who are extinguished — that is, the excessively humble. In Gabriel Simeoni is seen the figure of a man stirring fire with a sword, whose sparks fly into the eye of the likeness; the title is: FIRE IS NOT TO BE STIRRED WITH A SWORD. The argument is drawn from a Pythagorean saying, and the symbol is levelled against those who are contentious, who are frequently harmed by those they provoke. Sigismondo Malatesta, Prince of Rimini, had in his symbol the likeness of Mucius with his right hand extended into the fire, and the inscription was: THESE THINGS ARE HEAVIER. Since he was prepared not only, in the manner of Mucius, to commit his hand to the flames, but his whole

[marginalia: On symbols representing a complete human likeness]

body in defence of his subjects. In Sadeler one observes the figure of a man holding scales in his right hand and a cornucopia [...] with the inscription: **BONAE FIDEI**. He assigns this device to Charles IX, the Valois King of the Most Christian French. Likewise in Gabriel Symeon there is depicted a figure of a man carrying scales, one of which is broken by excessive weight, with the motto: *THE LIMIT OF A BALANCE IS NOT TO BE OVERSTEPPED.* The author wished to imply that unjust men observe no measure, and therefore often meet with a harmful and unexpected end — just as one pan of the balance, pressed down by too great a weight, snaps. Costalus too designed a man holding scales, with the inscription: *NOTHING IS BETTER THAN VIRTUE, NOTHING MORE EXCELLENT.* The author alludes to Critolaos weighing money, honours, and virtues; and by this device he shows that virtue is to be preferred to riches and ambition. Though this seems to some to savour of no emblem at all. The same author adds another device which, according to some, has nothing of the emblem about it: he depicts a man striking a rock with his fist, with the motto: *AN EXAMPLE OF FOLLY.* For he attempts to show that one ought not to strive against the obstinate. But Gabriel Symeon draws a man carving letters in marble with the motto: *HE WRITES IN MARBLE WHO HAS BEEN WRONGED.* It signifies that every person who has suffered injury keeps it in memory; for there are those who so trust in their own authority and wealth that they readily heap insults upon persons of lesser standing, and nevertheless deceive themselves in thinking the affront will be consigned to oblivion, since injury is written in marble.

Sambucus devised the figure of a man sitting on the ground, holding an open book in his hand, with a sword, a sickle, and a cornucopia placed above his head, and added the motto: *COUNSEL.* To signify that all things must be accomplished by counsel. Gabriel Symeon depicted a man standing upon a globe of the earth with a sword in his right hand and a book in his left. The title is: *CAESAR FROM EITHER.* For he wished to signify that Julius Caesar was so armed with letters and armed in the arts of letters that he came to attain dominion over the whole world. Bocchius drew a tightrope-walker holding from his hands an elongated pole, with the inscription: *TO KEEP THE MEAN IS ALWAYS THE PART OF PRUDENCE.* By this device we are exhorted that virtue consists in the middle.

Gabriel Symeon depicts a man with a globe of the earth in his right hand and a document in his left, and adds this title: *EITHER CAESAR OR NOTHING.* This was the device, or rather the declaration, of Caesar Borgia, Duke of Valentinois, without any accompanying figure — one that Gabriel Symeon afterwards appropriated as the title of a described figure, to declare to the reader that he would either die or accomplish some famous deed. For the armed man in this figure, holding in one hand the form of the globe of the earth, represents in some fashion the monarchy of Julius Caesar, while the document in the other hand, covered over with multiplied characters, represents nothing. This device aptly suited the reckless Borgia: for he accomplished nothing at all, but still young, was slain and buried in the Kingdom of Navarre with an epitaph of this kind:

> *Borgia was Caesar by the seat and name of Rome;*
> *He said "Either nothing or Caesar," and accomplished both.*

We recall having read in this vein a quatrain of this tenor:

> *"Either nothing or Caesar," says Borgia — why not,*
> *Since he could be both nothing and Caesar at once?*
> *You conquered all, you hoped for all, O Caesar,*
> *All things fail you; you begin to be nothing.*

Philip II, King of Spain, expressed in a painting the globe of the earth resting upon the shoulders of Atlas, with the motto: *THAT ATLAS MAY REST.* This was after Charles V the Emperor, his father, had surrendered to him the administration of his kingdoms. Sadeler too figures a man holding a sword in his right hand and a palm in his left, with the inscription: *THIS IS THE SURE REST OF LABOURS.* And he assigns this device to Charles de Bourbon, King of Navarre. Likewise he draws a man erecting columns with his right hand and grasping a lance with his left, and adorns this device with the verse: *ONE HAND ALONE, ADMIRED, RAISES THE FALLEN COLUMNS.* He assigns this device to Charles IX, the twenty-sixth Valois King of France. Then [...] he shows an image of a man in the guise of the figure of Death, as a suppliant, who seems to be assailed by a dart,

[catchword: and]

[marginalia: Peg. 27 / Peg. 45 / Symb. 12 / Symb. 57]

The Figure of Death. Lapathum.

and the title is: *THE WICKED MAN IS BENT BY NO SUBMISSION.* For the author thus explains the nature of the wicked and the cruel, who are moved by no entreaties, and therefore likens them to Death, which spares no one.

Now must be explained those devices in which figures of human beings are drawn together with other living creatures. And so Perino, Cardinal Gonzaga, depicted Hercules striking the Hydra with his club, with the motto: *YOU YIELD NOT TO EVILS.* For with equanimity of spirit he was to overcome the monsters of envy; and Costalus shows the figure of a man striking a horse that, oppressed by the weight of its burden, lies upon the ground, with the inscription: *NOTHING BEYOND YOUR STRENGTH.* For it implies that in all undertakings one's powers must be examined. A man also attempting to strike with a staff a serpent entering a cave, and then escaping, was a device of Sambucus, to demonstrate that the appropriate remedies must be applied to a disease in good time. Likewise the figure of a shepherd shearing his sheep is found in Costalus with the motto: *MODERATION TOWARD SUBJECTS.* For he wished to signify that the benevolence of a prince toward his subjects is to be approved. Likewise in the same author is observed the image of a man snatching something from a dead man — I know not what — with the inscription: *MODERATION IN TAXATION.* The argument of this seems taken from the proverbs, where one reads of misers that they even extort money from the dead — just as princes are too burdensome in their taxes. But Gabriel Symeon depicts a man treading upon lapathum — the plant which the Latins call *rumex* — with the inscription: *VIRTUE GROWS STRONGER FROM A WOUND.* The author signifies that a man endowed with virtue is sometimes vexed by the envious, yet the virtue and genius of the man of diligence manifests itself more and more day by day — just as lapathum, the more it is trodden, the more it spreads.

In Costalus one beholds the figure of a man addressing a pig, to signify the pleasure that every man, even the savage and base, pursues. In the same place is observed a man restraining a wolf by its ears, to denote those who rashly undertake some work from which they cannot afterwards disengage themselves except with the greatest difficulty. A man afterwards holding in his hand an egg from which a chick bursts forth was a device of Sambucus to express a sure hope. Likewise a man restraining a serpent in the act of shedding its skin was a device of Sambucus, to show that timely remedies are beneficial: for a serpent in the act of laying aside its slough is said, once caught, to be free of poison. Albert, Archduke of Austria, depicted a serpent and a bull at the feet of Jason bearing the golden fleece, with the motto: *BY ASSIDUITY.* For by this device was demonstrated the hope of some heroic endeavour, in emulation of Jason who sailed with the Argonauts to Colchis to recover the golden fleece.

Various other devices of this kind are found among the authors: for Sambucus devised the figure of an armed man fortified with a thunderbolt, and being painted by another man — for by this is denoted Apelles painting Alexander to appear as the son of Jove — when afterwards Apelles was rebuked by Lysippus, who had drawn the same Alexander armed only with a spear. The author therefore by this device shows us a flatterer. Costalus depicted a man adorned in a toga, with a green branch in his right hand and a document clasped in his left, to indicate those who despise men skilled in the law. In the same author is seen the figure of a man digging the earth, to show that there is nothing we do not attain by constant labour. The same author depicts a one-eyed man sitting in a tribunal, to show a judge deciding dishonestly, since he looks only to one side and not to both. The figure of a man breaking nuts with his teeth and cutting bread with a sword was a device attributed to Sambucus, to show that an evil habit can be removed only with the greatest difficulty — for hard nuts should be broken with iron rather than teeth, and soft bread comminuted with teeth rather than iron. In the same author, a man casting a piece of oak into a river was a device signifying that what is fitting should be rejected: for oak or robust wood petrifies in water, whereas other woods rot there. Finally, a man gazing at a mirror without tinfoil backing — from which no image of the observer can be returned — was a device employed by Sambucus to express that friendship is base and false, in which there is no mutual good will or benevolence.

Devices are not wanting in which figures of old men and women [...] are portrayed.

[marginalia: Apelles Alexand. / Judex mono-oculus / Speculi sine braetea qualitas]

Some depict an old man winged and armed with a scythe, with an hourglass, and add this title: *VIRTUE ALONE BLUNTS THIS EDGE.* For men who shine with the eminent splendour of virtues are said to enjoy a perennial life. We have also in Bocchius the figure of an old man holding out a mirror to a youth, with the inscription: *BEHOLD: THE LIVING COUNTENANCE IS BROUGHT FORTH BRILLIANTLY IN A MIRROR. THUS SHALT THOU BE WISE, AND SHALT BE ABLE TO DO ALL THINGS, AS LONG AS THOU THYSELF SO WILLEST.* The argument of this device is drawn from Socrates, who taught young men to behold themselves in a mirror, so that they might match the beauty of their soul to the comeliness of their body; or if not, repair the deformity of the body by the comeliness of the soul. In the same author one may behold the figure of an old man sitting in a chair holding a cup in his right hand, offered to him by a handsome young man, with the motto: *I DRINK THIS TO YOU, HANDSOME CRITIAS.* The author wished to denote Theramenes, one of the thirty tyrants of Athens, of whom Cicero makes mention in the *Tusculan Questions*: by this device therefore is to be grasped that by contempt of death, the heart is freed from fear. Concerning the figure of women, we recall having seen on the first page of a book the figure of a Virgin resembling a sibyl, adorned with this couplet:

> *Let not the oracles disturb thee, blown away on the swift winds;*
> *For now the fates are set forth upon a more convenient leaf.*

For the author alludes to the books of our age and to the prophecies of the sibyl, which were once written upon the leaves of trees. Eleanor of Toledo, wife of Cosimo, Grand Duke of Tuscany, depicted Lucretia, wife of Collatinus, who, ravished by Tarquin, laid violent hands upon herself rather than survive the dishonour; the title is: *REMEMBER TO PRESERVE YOUR HONOUR.* For men are commended for their many virtues, and women for the repute of their chastity. Sadeler likewise paints the figure of three virgins — namely the Graces — with the inscription: *SHE POSSESSES THESE AND SURPASSES THEM.* He assigns this device to Isabella, daughter of Emanuel, King of Portugal, and wife of Charles V.

Now we must hasten to those devices in which several figures of human beings are observed. Costalus draws a man on horseback surrounded by a crowd of soldiers, with an executioner going before him striking someone with an axe, to demonstrate the severity to be employed in war. For he alludes to Lamachus the commander, who for a slight cause punished soldiers with the ultimate penalty. This same picture is observed in the *Pegma* at the sixtieth emblem, where the author shows that God sees and provides for all things. But to tell the truth, many learned men assert that this has nothing of the emblem about it — just as the following device, in which a man is painted sitting and addressing a young man playing the *sambuca* — by which figure is represented Antigenidas exhorting his pupils to despise the words of an uneducated multitude. Nor does it appear to savour at all of a device when Costalus depicts armed men pouring molten gold into the mouth of a dead old man; for he wished to represent by this picture the Persians stopping the mouth of Croesus, King of the Lydians, with gold: for Croesus in this place held that death enriches and makes men happy [...]

To signify sloth and idleness many devices present themselves: for Bocchius drew a half-naked man sitting with his left foot overturning a sandglass placed upon the ground, beside whom stands a woman exceedingly lean and naked; the inscription is: *AGAINST THE SLUGGISH, THE SLOTHFUL, AND THE IDLE.* By this device therefore he signified that hunger is the companion of the slothful man. In the same author is drawn the figure of Cupid wounding a sleeping man with an arrow, to show that Love is industrious even in idleness. Therefore Ovid wisely warned young men to occupy themselves with business; for while they are idle they cannot extricate themselves from Cupid; and thus he sang:

> *For Venus loves leisure; he who seeks an end to love,*
> *Let him busy himself with work.*

Men also playing at ball are depicted in the device which Sambucus devised to signify the waste of time.

Devices pertaining to judges and magistrates must not be omitted. For in Bocchius is seen a man sitting in a tribunal addressing another, and with his right hand stopping his other ear, with the inscription: *THE IMAGE OF A JUST JUDGE.* The argument of this device is drawn from history. For they report that Alexander

[catchword: the Great]

[marginalia: Lib. 1. Tus. / Symb. 26 / Symbola ad Judices spectantia]

Simulated Friendship. Generosity. Pythagorean Device.

the Great sitting as Judge in the tribunal offered one ear to the plaintiff and closed the other with his finger; and when asked why he did so he replied that one ear was sufficient for the plaintiff, the other being reserved for the defendant. From which it is to be gathered that a just judge ought to pronounce sentence only after hearing both parties. Likewise Costalus draws men sitting in the garb of judges, in whose midst is seen the figure of a boy crowned with vine-tendrils; for he wished to intimate that drunken judges cannot pronounce a just sentence, according to the common verse:

No mind takes counsel well, steeped deep in wine.

Similarly the same author shows a picture of a man sitting in a tribunal, with a beautiful maiden standing by him — for this figure represents Appius and Virginia — to warn that judges who are in love cannot judge rightly. Likewise the same author figures many men, with figures of wolves at their feet: by this figure are represented the Neuri, a people who were once believed to be transformed into wolves; thus the author shows that Praetors, judges, and magistrates in their rule and governance ought not to be rapacious after the manner of wolves, nor take delight in gifts. Therefore men bringing gifts being admitted through one door, and other men bringing nothing being excluded through another door, are observed in a certain device of Sambucus, to display the peculiar avarice of our age, according to that saying of Ovid:

And if you bring nothing, you will go out from Homer's door.

Finally, the picture of a man showing to a woman his hand pressing a sponge and pouring out water is referred to the device of Sambucus, whereby he would show that the treasury ought not to pass into the snare of avarice.

Next come devices referring to several figures of human beings which relate to friendship, to peace, to wealth, and to mutual aid. For Costalus depicts two crowned men joined in mutual embrace, with two stars hanging over their heads, which represent Castor and Pollux; and thus a device of brotherly friendship is demonstrated. In the same author are seen figures of two men exchanging arms with one another, with the inscription: *PEACE REDEEMED BY GOLD.* Here it is to be noted that the arms seen in this figure are of gold on one side and of iron on the other; for these images represent Diomedes and Glaucus — and thus the author teaches that peace must sometimes be recovered by money. The same author depicts two men offering one another their fists clenched together, while concealing their left hands under their cloaks. Moreover he depicts two other men who offer each other bread with their right hands, while concealing stones in their left, to show counterfeit friendship — for there are those who present themselves as friends in words, but in thought lay snares. Therefore in Gabriel Symeon there are two figures of men, one of whom wears a mask, and the other touches the brow of the mask with a little rod, with the motto: *NO WRONG IS DONE TO A FEIGNED FRIEND.* In order to signify that enmities from flatterers are to be set aside: for a masked man is said to be the emblem of a dissembling soul, and therefore the mask is struck with a rod, so that the feigned countenance may at last be removed. Moreover, a man digging the earth and another handling coins in a chest was a device proposed by Sambucus to manifest generosity. For just as the earth when excavated is not diminished, so likewise money which we distribute is not lost. For Ovid sang:

The wealth you have given away you alone shall always keep.

Gabriel Symeon exhibits the picture of a man raising a beggar lying on the ground, with the motto: *HE GIVES TWICE WHO GIVES IN GOOD TIME.* For thus is shown that an immortal benefit is conferred when someone comes quickly to the aid of a needy person under the compulsion of necessity and without hope of reward; for Ausonius sang:

And what good you do, do quickly — what is done quickly
Will be welcome; for a tardy kindness makes even a grateful man ungrateful.

Germane to the matter seems that Pythagorean device: *HELP THE MAN WHO IS LIFTING A BURDEN, BUT NOT THE ONE WHO IS SETTING IT DOWN.* Although this afterwards signifies that honourable actions are to be approved, and that those who act rightly are to be encouraged. For by the man, reason and mind are understood; by the burden, the senses and affections of the body are designated. Therefore they are said to lift the burden who raise their speech from earthly to higher things. But the device in which men are seen carrying wealth and goods out of a certain town, and another naked man is seen looking back,

[catchword: Sambucus]

[marginalia: Amicitia / Benignitas / Symbolum pythagorici]

Sambucus devised this to intimate to us that private matters must be consigned to oblivion, while public affairs must be tended to.

Sadeler depicts a ship laden with various figures of human beings in the midst of the waves, with the inscription: *EMERGING FROM THE WAVES.* And he adds that this was the device of Innocent IX, the Bolognese Supreme Pontiff. Wherefore, if this figure represents the little bark of the Apostles and of Peter, the title of the device seems fitting: for of that bark it is sung:

She is battered but never sunk, that bark.

Gabriel Symeon depicts a man, as though a castaway, clothed in the garb of Mercury, holding out a caduceus to another man standing on the shore, with the motto: *THIS WAS MY COURSE.* For thus is demonstrated that the best of princes, enrolling someone in the number of his household, binds him to himself by so great a benefit as the obligation a rescuer of a shipwrecked man incurs for himself. Moreover, two men fighting while toga-clad men look on, with a figure of a boy drawing lots from two vessels, was a device of Sambucus to show that the bold are aided by fortune. Just as a farmer casting aside his mattock, a soldier his sword, and a merchant his money are seen in the same author in a device which shows that no man is content with his own lot. Likewise a man whetting iron on a whetstone, and two other men gazing at a corpse stretched upon the ground, belong to a device of Sambucus by which he discloses the folly of the wise. For just as a whetstone does not cut, but works so that iron may cut, so the senses do not perceive wisdom, but are the cause of a man's perceiving it. Bocchius depicts an old man clothed in a lion's skin, holding a club in his right hand, with a bow and arrows, but with slender little chains depending from his tongue, the other extremity of which is fastened to the ears of a countless multitude of men following him, with the inscription: *BY CARE AND LABOUR SHALT THOU PERFECT ELOQUENCE.* By this figure is designated the eloquent Hercules — for he is old because youth for the most part lacks eloquence. The little chains display the connection between the ears and the tongue. The arrows finally indicate the sharpness of the arguments which an orator employs to draw the people to himself. Finally, two men lifting their hands toward hooks which a divine hand is seen sending down from Heaven belong to the device of Sambucus, whereby he strives to signify that God draws no man unwilling and compels no man.

EMBLEMS.

Since emblems appear to have the greatest affinity with devices, we have therefore decided to grant them space in this history at this point. Now, since in these are observed figures of the parts of the human body, as well as of boys, youths, men, old men, and women, we shall set forth all these things separately and with concise brevity. An example of the parts of the body is given by Alciatus when in the sixteenth emblem he depicts an open hand, on the palm of which is shown the picture of an eye, to which he adds the image of pennyroyal: so that everyone may draw two precepts from this — the first is that sobriety is to be embraced, the second that light credulity is to be avoided: for pennyroyal resists drunkenness, and an eye-fitted hand offers certain knowledge of things.

Of the figures of boys, we have in Reusner the picture of a boy sleeping upon a human skull, with the motto: *LIVE MINDFUL OF DEATH.* And he adds a hexastich which ends with these verses:

Die pious, thou shalt die pious, and live blessed;
After death a holy life is the way of new life.

Florentius also depicts boys contending over nuts and pebbles, with the inscription: *ALWAYS BOYS*, and adds a quatrain of this tenor:

Boys brawl if anyone takes away their stone or nut,
And always quarrel over trifles.
We too are boys who, while life survives,
Battle upon the ground for muddy wealth.

Seneca also drove home that we human beings are not, as the common saying goes, twice boys, but always boys. For just as boys are oppressed by their greed for nuts and pebbles, and contend fiercely among themselves for these things that are of no value — the reason arising from the fact that they bear a weak mind — so too men sometimes undertake great wars for gold and silver, which are likewise base things, since they instantly flow away and are quickly dissipated. In Costalus is seen a naked boy with an unsheathed sword, as if about to strike, with the inscription: *SCARCELY DOES WISDOM COME RASHLY BEFORE THE BEARD.* To denote the peril which men incur when from youth they are charged with public affairs — all of which is declared by a quatrain:

Foolish boy, dare you handle the uncertain axe,
Or do you dare to dip the weapon with a soft hand?
How ill do the enrolled councillors handle the secrets of the senate,
Who have not yet shed their first boyhood.

If the transition is made from boys to the figures of youths, we shall find in Alciatus the figure of a young man lifting his left hand which is winged, while his right is weighed down by a heavy stone; the inscription is: *POVERTY HINDERS THE HIGHEST TALENTS FROM ADVANCING.* The verses are:

The right holds a stone, the other hand sustains wings;
As a feather lifts me, so a heavy burden drags me down.
I could have soared through the lofty heights by my genius,
Did not envious poverty press me down.

From this emblem we perceive that there are sometimes young men of such keen genius that they would make serious progress in a short time in the knowledge of the disciplines, were they not checked by extreme poverty of means; not undeservedly therefore Juvenal sang:

Not easily do those come forth whose virtues
Narrow circumstances at home obstruct.

What Poverty Hinders.

One may also behold in Florentius a winged youth falling from the sky, with the inscription: *IT IS DANGEROUS TO ASPIRE TOO HIGH.* By this figure is represented Icarus equipped with wings, who, flying too high, was cast headlong downward. For that matter is not to be inquired into which it is not given to know, nor permitted to investigate, nor is it reverently to be scrutinized: for it is more holy and reverential to believe and marvel that God governs his kingdom not without witnesses, than to pry into it. Therefore Horace pertinently sang:

The wise God shrouds in murky night
The outcome of time;
And laughs when a mortal is afraid
Beyond what is ordained.

In Alciatus is depicted the figure of a winged youth falling from the sky with the inscription: *AGAINST ASTROLOGERS.* By this figure is represented Icarus equipped with waxen wings, striving for the heights, who, his wax melted, fell to the ground. Therefore in the last couplet of his hexastich Alciatus warns:

Let the astrologer beware of predicting anything rash,
For he will fall headlong while flying above the stars.

Florentius also depicted a youth falling from the top of a tree to the ground, with the title: *YOU WILL GO MOST SAFELY IN THE MIDDLE WAY.* This emblem appears to correspond to the device of Bocchius cited above, in which a tightrope-walker was depicted with the inscription: *TO KEEP THE MEAN IS ALWAYS THE PART OF PRUDENCE.* By this emblem we are taught to proceed step by step through the halls of Fortune, lest while we strive to reach the summit of prosperity we fall together with the branches. Reusner depicted a comely young man, Narcissus, gazing at his own image in the clearest water of a spring, with the title: *KNOW THYSELF.* And Florentius drew a youth sitting, with the figure of virtue placed at his right hand and the figure of pleasure on his left, the inscription being: *THE SLIPPERINESS OF YOUTH.* The figure of this emblem represents Hercules, who, allured by the blandishments of pleasures and solicited by the exhortation of virtue, at last by the power of virtue

[catchword: cleared]

[marginalia: Lib. X. Embl. / Paupertas quid prestet / Embl. 103]

cleared for himself a path to the heights. Thus are young men admonished who stand at life's crossroads and dwell in great danger, lest, deceived by the blandishments of pleasures and led away from the straight path of virtue into shallows and rocks, they be borne away — for those who do not stumble at such an age may then be hoped to run thenceforth an unimpeded course and to attain the bright goal. The figure also of a youth giving arms to another youth is seen in Alciatus, which figure represents Hector and Ajax. The inscription is in Greek: *A GIFT FROM AN ENEMY IS NO GIFT.* For from Sophocles, Ajax reports that after he received a sword from his most bitter enemy Hector as a gift, he gained nothing from the Greeks but harm; and therefore the inscription fits the emblem well, which in Latin reads: *GIFTS OF ENEMIES ARE NOT GIFTS.* For any gift whatsoever, even of no value, received from friends is good and to be cherished; but from enemies and adversaries even the most precious must be despised as pernicious — for they are to be called not merely *ἄδωρα* (no gifts at all) but *κακόδωρα* (wretched gifts). Finally, Florentius draws youths putting their hand to the figure of fate without eagerness, with the motto: *NOTHING FOR THE SLOTHFUL BY PRAYERS.* For it has been celebrated as a proverb among the Lacedaemonians that fortune is to be invoked with the hand applied, and elsewhere we recall having cited in this sense that oxen must be goaded and the help of Jupiter implored — otherwise the invocation is vain: for divine assistance is not procured by vows and supplications, but by acting, by watching, and by taking right counsel that all things succeed prosperously; and so much for emblems in which figures of youths are observed.

Now those must be weighed in which figures of adult men are depicted. We recall having seen the picture of a man gathering apples, with the inscription: *MAN IS LIKE AN APPLE,* and it is adorned with a similar quatrain:

As unripe apples are plucked from the boughs before their time,
Or lie on the ground fallen rotten;
So by a headlong fate your bodies are snatched away unripe,
Or fall when spent with years.

Likewise in the authors one may behold various figures of men occupied with many different activities. Therefore Alciatus depicted a man clothed in a goat's skin and catching a *sargus* fish in a net, with the title: *AGAINST LOVERS OF PROSTITUTES.* The argument is drawn from the nature of the *sargus* fish, which is caught, being deceived, by a disguised fisherman; and therefore this emblem is produced against those who, deceived by a blind and base love, fall into the obscene snare of a woman in disguise, believing to be beautiful what merely appears beautiful — nor do they recall the common assertion that one ought first to know, then to love. Not undeservedly therefore Ovid sang pertinently:

Consider well what you love, look carefully about you,
And remove your neck from the yoke that will bring you to grief.

The same Costalus wished to signify as much when he depicted a man whose neck is encircled by a *dipsas* serpent: for he wished to denote the man who is held captive by mercenary love — for the *dipsas* was declared to be the emblem of a prostitute in the *History of Serpents* — the inscription is: *AGAINST THOSE OVERLY AVID TO GAZE UPON GIRLS,* which expression signifies men who are too eager spectators of maidens. Now that we have encountered fishing, we shall not pass over in silence the man depicted in Camerarius who observes a pike fish devouring its own young, with the inscription: *IT SPARES NOT ITS OWN OFFSPRING.* We chose not to omit this since the author in a couplet likens a man to this creature in these words:

As the pike rages upon its own kind to fill its belly,
So men themselves destroy one another.

Alciatus also draws a man catching eels, with the title: *AGAINST THE RICH WHO ARE A PUBLIC EVIL.* The author intimates to us that just as eels are not caught unless the water is troubled and muddy, so there are some men who trouble everything in order to augment their own affairs further — the argument of the emblem seems taken from the fable of Aesop about a fisherman who troubled the water so that the fleeing fish might fall unwarily into his nets; when asked about this troubling of the water the fisherman replied that unless the water were troubled it would be necessary for him to perish of hunger. Wherefore, by the common proverb, those are said to catch eels who stir up tumults for the sake of private gain.

[marginalia: Sagi piscis / Dipsas / Luci piscis natura / Adagium de anguilla]

The Proverb of the Eel. Plato's Figure. The Prerogative of the Wise Man.

This is elegantly set forth with a passage found in a certain author:

> *You act like him who catches eels:*
> *When the pools are quiet, you catch nothing;*
> *But when you stir all the mud,*
> *The catch is great; so too*
> *From the city's troubles you profit the most.*

Now that mention has been made of eels, we have in Alciatus the figure of a man holding an eel fast with a fig leaf, with this inscription: *AGAINST THE ELUSIVE.* For it signifies that human faith, slipping into deceit, must be held fast — just as a slippery eel is easily restrained by the rough leaf of a fig. The argument is drawn from the common proverb: *WITH A FIG LEAF, THE EEL,* which was spoken against those who are so slippery that they can in no way be caught.

Now that talk is of human figures with animals, it will not be beside the reason to [...] in Alciatus with the inscription: *HE WHO CONTEMPLATES HIGH THINGS FALLS.* For thus is signified that he who pursues others is often crushed by an unexpected burden. The author intimates to us that the mind must not be so applied to things far distant that it neglects also to consider what is near — as we explained in the history of serpents. Likewise in the same author is seen the figure of a man going out of his house who at the very threshold encounters a weasel, with the inscription: *BUSINESS MUST BE UNDERTAKEN UNDER GOOD AUSPICES.* For superstitious antiquity believed it ominous and sinister that there should have appeared at first glance a weasel, a mule in a bad temper, or a hare; for it held that great weight lay in the auspicious and favourable beginnings of undertaking affairs, and therefore it said that affairs which had obtained an unlucky beginning could hardly have a good outcome. Pertinent hereto is that verse of Sophocles, as rendered by Plutarch:

> *For whomever has begun a matter with right reasoning,*
> *Let him confidently expect a good outcome.*

Costalus depicts a venerable man in a chariot drawn by a four-horse team, adorned with this title: *HONOUR OWED TO THE LEARNED MAN.* For by this figure, according to some, Plato is represented. Florentius also depicted a man in a toga binding Fortune laid low on the ground, marked with this title: *THE WISE MAN IS ABOVE FORTUNE.* For thus he teaches that a wise man is governed by Fortune not at all — for the head of the wise man is free, and freedom, in the opinion of Cicero in the *Paradoxes,* is the power of living as you wish. Whoever therefore lives as he wishes follows what is right, and obeys the laws not out of fear but because he judges it to be supremely wholesome and useful. To the wise man alone it falls to act under no compulsion and no unwillingness. Finally, Alciatus exhibits the picture of a Sarmatian man who has nothing but skins with which his whole body is covered, the inscription being: *I CARRY ALL MY POSSESSIONS WITH ME.* The argument appears drawn from Justin the historian, who in describing the region of the Scythians reports that some of them have no home, but live wandering through the wastes with their wives and children, pasturing herds; from which it is to be gathered that the man who possesses nothing is safe from robbers, according to the common verse:

> *The empty-handed traveller will sing before the robber.*

There remain other figures of men which are delineated by the authors to portray sinners and their crimes: wherefore Reusner places before the eyes the figure of a man set in a seat above a well, with a weight hanging over his head and five swords striking him from all sides. The title is: *THE MIRROR OF A SINNING MAN.* Similar to this was that emblem of Florentius in which is seen a sword on a thread hanging over the head of a crowned man sitting, with this title: *THE MOST WRETCHED LIFE OF TYRANTS.* Nor far in sense from this is that of Reusner, in which there is the picture of a man whose liver an eagle devours — for it represents Tityus — with the inscription: *O LIFE, LONG TO A WRETCH.* Therefore in the final couplet he sang:

> *Thus Tityus always lives, ever unconsumed,*
> *That he may perish, and yet all of his liver perishes not.*

[catchword: But]

[marginalia: Embl. 3 / Sapientis praerogativa / Embl. 6 / Alib. 1. embl.]

But, so that the wickedness of criminals may be the better expressed, Alciatus depicted a man hurling a stone which a dog afterwards bites, with the title: *ONE SINS, ANOTHER IS PUNISHED.* For there are for the most part those who, when they cannot harm with their teeth, in order to avenge a received injury, set upon servants or even friends of their adversaries — a similar thing is customarily done by boys who, goaded by anger, break and burn the rods with which they have been beaten by their parents.

If the discourse is turned to particular crimes, Avarice first presents itself; to express which there is depicted a man emulating Tantalus, immersed in water up to his mouth, with fruit-bearing branches hanging over him as far as his brow, and yet he can neither pluck the fruit nor drink the water; the title will be: *THE RICH MISER.* All this may be declared by these verses:

Tantalus drinks not amidst the waters, plucks not the apples within reach —
Unhappy Tantalus, whom his own desires afflict.
Such will be the face of the rich miser,
Who holds all things and digests famine with a dry mouth.

The same thing Alciatus wished to express when he drew a man with a lyre thrown into the sea by sailors, whom a dolphin afterwards lifts on his back and carries to port; the emblem is inscribed: *AGAINST THE AVARICIOUS.* For thus he attempts to demonstrate that a man most hungry for wealth and most greedy for gain is more savage than any sea or land beast; the argument appears drawn from a Greek epigram composed in the first book of the *Anthology*, which is rendered in Latin thus:

Once upon a time robbers from a ship cast headlong
A lyre-player into the expanse of the deep sea.
Straightway a dolphin appeared in the midst of the waves,
Charmed by the sweet-sounding lyre.
And bore the seated rider all the way to Corinth,
And restored him unharmed amid the waves.
Hence it is clear that better creatures are bred in the untamed sea
Than the savage men whom the land produces.

This matter — or rather this fable — Herodotus treats, which Ovid afterwards recounted in the second book of the *Fasti*, concerning Arion the lyre-player, who, having acquired great wealth by the excellence of his art and wishing to return to his native Corinth, fell among pirates who, led by greed for his money, resolved to kill him; when Arion perceived this, having obtained leave from them, he played upon his strings, then cast himself from the prow into the deep, and a dolphin afterwards received him upon its back and carried him all the way to Corinth.

After avarice the crime of gluttony follows, which Alciatus strives to express by the picture of a pot-bellied man with a long neck, holding a Larus in his left and an Onocrotalus in his right; the title of the emblem is: *GLUTTONY.* For thus he thinks to demonstrate men who serve their voracity, who sit stuffed to satiety and snore, exhaling their drunkenness. For the Larus is a bird of the most voracious appetite, seeking its food from sea and lake; wherefore not undeservedly did someone compare a hungry parasite to a famished Larus. Likewise the pelican is filled with an insatiable gullet, which a certain author noted, and of a certain glutton who was forever distending his belly he sang thus. [...]

To set forth luxurious delicacy, Costalus depicted a man clad in the finest garments and walking along. By this figure is represented the Sybarite, who cannot endure that anyone should touch a fold of his garment — otherwise disputes do not fail: for such was the nature and softness of those peoples, who, however many times they went out from their houses into public, took so great care in the arrangement of their garments that no fold of them should be moved.

To proclaim Detraction, Alciatus expressed a man fanning away flies with a fan, and holding a cicada in the other hand, and inscribed the emblem: *AGAINST DETRACTORS.* For thus he attempts to represent a man who drives away impudent detractors: and moreover Alciatus composed this emblem because, as some say, he himself felt that he had been carped at by certain schoolmasters.

To express Sloth there is depicted in Alciatus a man standing with a torch lit in his left hand

[marginalia: Comparatio citharae ad homines / Lari avis natura / Epit.]

Sloth. What Sloth Is.

holding a lit torch and gazing at the stars, with the inscription: *SLOTH.* For in this figure, under the pretext of contemplation, idleness is displayed, which extinguishes the light of the virtues and ministers nourishment to the vices. Therefore elsewhere the same author drew a man twisting ropes which a she-ass was afterwards eating, to demonstrate the sloth and idleness of a wife who consumes all the labours of her husband. Wherefore, to avoid sloth, Alciatus exhibited the picture of a man sitting in a choenix, with the title: *SLOTH IS TO BE CAST ASIDE;* for by this reasoning he exhorts men to labour. The argument is drawn from the Pythagorean proverb which enjoined that one must not sit upon the choenix — that is, one must not trust in one's daily bread — which is explained by this quatrain:

Idle and useless bird, begone; for to fix a seat upon the choenix
The sacred teachings of the wise old man forbid.
Rise therefore, and accustom your hands to hard labour,
That tomorrow's hour may give you your measured portions of food.

Finally, to display churlishness, Florentius employs that figure which we also mentioned among the devices, where a man was depicted stirring fire — the inscription however is different: for in this place is read: *WE MUST YIELD TO THE CHURLISH.* And the couplet declares all this manner:

Yield to the churlish; for the more you stir the fire,
The more the stirred cinder exalts its glow.

For we have in the proverbs that a fire must not be stirred with a sword, whereby men are warned that the anger of princes and great lords must not be inflamed by reproaches; for a flame, the more it is moved, the more it grows in power, and conversely if it is left at rest it is quenched and extinguished.

Now follow emblems adorned with figures in which a man is seen with various instruments and other inanimate objects. In Florentius is depicted a man grafting a tree, with this title: *ART AIDS NATURE.* To signify that just as a tree for the most part without grafting produces insipid fruits, so a man, unless he cultivates nature with learning, moves as a rough mass upon this theatre of the world. In Camerarius is seen a man not grafting but cutting the bark of a tree, from whose wound balsam flows, with the inscription: *HEAL WOUNDS WITH WOUNDS.* Then in a couplet the man is compared to a trunk, by which comparison the author detests the hardness and cruelty of men in these words:

Come then, heal your wounds with a wound of my own;
Why, O man, are you harder than wood to a man?

Now that mention has been made of trees, one may observe in Florentius a man attempting to uproot an aged oak with both hands; the inscription is: *FROM A TENDER AGE MUST WE GROW ACCUSTOMED.* The argument appears drawn from Ovid in the first book of *The Remedy of Love,* where he sings thus:

The tree that gives broad shade to those who walk beneath it
Was once, when it was planted, a small twig;
Then it could have been pulled up with the hand from the surface of the earth —
Now grown into immensity by its own strength it stands.

The Correction of Children.

By this emblem the author strives to admonish that one must apply oneself to the correction of children while they are still in their earliest age, because at that time the wax is to be worked while it is soft, and the curved twig is to be bent while still tender into the form which we desire it to have permanently. The picture of a man shod in woollen shoes holding a thunderbolt in his hand is seen in Costalus; the title is: *DIVINE VENGEANCE.* The argument is drawn from the pagans, whose gods were said to have feet shod in wool, since they would advance to vengeance with a slow pace and without sound; and this is most elegantly explained by this quatrain:

Jupiter, who brandishes thunderbolts from the upper air,
Is said to have feet interwoven with wool:
The anger of God is slow, and barely apprehended in due course —
Yet on stumbling steps it follows unpunished crimes.

What the Gods Are Said to Have.

In Alciatus is seen the figure of a man with many fibres and pressing his lips and digits shut; the inscription is: *SILENCE.* For he wished to warn a man to be

[catchword: silent]

[marginalia: Censura / Libero corrigi quando / Dii dicuntur habere pedes]

that a man who is silent cannot be known whether he is wise or foolish. The subject of the emblem is drawn from the first book of the *Anthologia* of Greek epigrams, where the following distich is read:

πᾶς τις ἀσαιδεύτος φρονέμωτατος ἐστὶ σιωπῶν,
τὸν λόγον ἐγκρύπτων ὡς παθος εἰς σιγρότατον.

That is:

While the unlearned man is silent, he may be held for wise,
for by keeping silence he conceals the weakness of his mind as beneath a veil.

Costali at times painted a man fishing for something in a well, with the inscription: **VERITAS IN PUTEUM DEMERSA** — Truth Cast into a Well. He alluded thereby to the doctrine of Democritus, who, incessantly investigating truth, in the end maintained that it lay hidden in a well; in order to persuade men that truth is concealed in the innermost recesses of nature. Alciatus, for his part, depicted a man supporting himself in the water upon his own shield, with the title: **AUXILIUM NUNQUAM DEFICIENS** — Aid Never Failing. For the shield had served a man both in war and in the water: it will therefore be the type and symbol of a true and faithful friend always ready to render assistance. Alciatus drew the subject of this emblem from a certain Greek epigram, in which the soldier Myrtilus (Myrtilos) celebrates the praises of his shield in these words:

εἰ ἐνὶ κινδύνοις ἔφυγον δύο μυρτίλος ὅπλῳ
τὸν μὲν ἐριφστεύσας, τὸν δ᾽ ἐπισσινηξάμενος.
ἐργεστὴς or ἔδυσε νεώς τρόπειν ἀσπίδα δ᾽ ἔχον
κεκρυμμένῳ ὕδει, καὶ πολέμῳ.

These verses are rendered into Latin thus:

E fusi geminum clypeo discrimen in una
Myrtilus, et pugnans fortiter, atque natans
Arripui clypeum depressum flumine puppis,
Fluviibus oppressa, bello gerit qua virtus.

Alciatus depicts a man of beggarly appearance holding in his right hand a bowl and in his left a bundle of ears of grain, with the inscription: **IN SIMULACRUM SPEI** — For the Image of Hope. By this emblem he indicates a good outcome. A bowl is placed in this image because Gyraldus wrote that he had seen a painting of Hope on a gold coin of the Emperor Hadrian, where she was represented as a woman holding a bowl, adorned with the title: **SPES P.R.** But Costali depicted a man counting tokens on a table, to denote those who live by hope — namely courtiers, who often reckon up the happiness they have hoped for, and are nonetheless frustrated in their hope, since hope is said to be the dream of waking men. Alciatus applied to this purpose the image of a man kept in golden fetters, with the title: **IN AULICOS** — Against Courtiers, which he declares by the following verses:

Vana palatinos, quos educat Aula, clientes
Dicitur auratis nectere compedibus.

In this way he wished to represent courtiers, or, as some will have it, a husband of a rich wife, taking the argument from the apophthegm of Diogenes, who was accustomed to say that the philosopher Aristippus, the courtier, was held back by golden fetters so that he could not go out, because, captivated by the more splendid life of princes, he was unable to lead the life of a philosopher. For this reason Seneca in this sense recorded that it is vain and absurd to cherish one's own fetters as though they were of gold. Costali painted a man measuring a squared stone with a Lesbian rule, with the title: **BONUS IUDEX** — The Good Judge. For equity is signified by this rule, since the Ancients preferred this Lesbian rule to others. At Florentius one sees the picture of a man sitting and fanning coals with a bellows, with the inscription: **IN ALCHYMISTAS** — Against the Alchemists. The verses are these:

Dum certis incerta sequor, res prodiga, omnis
Vertitur in fumos, et miseros cineres.

Alchemists are called wretched, because they promise gold to those from whom they ask gold; then in the alchemical art they coin certain names — the Green Lion, the Fleeing Stag, the Flying Eagle, the Dancing Fool, the Dragon devouring its own tail, the Swollen Toad, and similar trifles — lest they be understood by others. Indeed, when they have spent their lives amid vain experiments, having consumed all their goods — that is, turning them to smoke and ash — old, ragged, hungry, always reeking of sulphur, and on account of their constant handling of mercury, they carry away nothing but an incurable palsy.

[marginalia: Democritus on truth / Alciatus Emblem 44 / Costali on Hope / Alciatus on Courtiers / Seneca on golden fetters / Alciatus on Alchemists / Emblem 48]

At Camerarius one sees the image of an old man contemplating a heap of hay, with the title: **SIC OMNIS CARO** — Thus Is All Flesh. This is afterwards explained by the following distich:

Quisquis es hinc seni, qui spectas fori manipulum
Respice te, foenum es, pone supercilium.

The icon of a man gazing at the Sun is found at Florentius, with the inscription: **IN DEO LAETANDUM** — Let Us Rejoice in God. For the author endeavours to persuade us that, just as the Sun, being not in the least removed from the sky, illumines the globe of the earth with its own splendour, so the soul of man, though enclosed in the body, is able to contemplate God. At Costali one sees the image of a man displaying a tight ring removed from his finger, with the title: **LIBERTAS** — Liberty. Since a tight ring signifies the deprivation of liberty. At the same author is depicted a man painting a human figure on a panel, by which image the painter Protogenes is represented, who almost never laid down his brushes; for this reason the author, from the contrary sense, warns that one should sometimes rest, as the Poet sang:

Intermissa minus sarcinæ pondus habet.

Finally, Reusner painted Mercury in the centre of a circle, with the title: **MULTA MULTUM LEGENDA** — Many Things to Be Read Much; and six hundred emblems of this kind may be seen in him. Now attention must be turned to those emblems in which the figure of old men is observed.

Indeed Florentius has a picture of an old man casting away a cup, and a boy drinking water with cupped hands from a river, with the inscription: **SAPIENS SUPERVACUA BONA NEGLIGIT** — The Wise Man Neglects Superfluous Goods. By this image Diogenes is represented, who, one day observing boys drinking water with their hands from a river to quench their thirst, immediately cast away indignantly the wooden cup which he carried about with him as superfluous; as if wishing to signify that, with superfluous wealth excluded, quiet and tranquillity would dwell with us. The figure of an old man is seen at Costali, who appears to be learning something as it were from a schoolmaster, with the inscription: **OMNIUM RERUM SATIETAS, PRAETERQUAM DISCIPLINAE** — Of All Things There Is Satiety, Except of Learning. This picture represents that most excellent orator, the supreme senator, and most eminent censor Cato, who, when pursuing his sixty-second year, was not ashamed to learn the Greek letters, since, as a young man, he had been unable to acquire them, being entangled in affairs; whence it is to be concluded that the study of learning must never be interrupted. Nor does Costali propose another emblem foreign to this sense, in which appears the icon of an old man lying by the margin of a spring at the foot of a mountain, with the title: **DII LABORIBUS OMNIA VENDUNT** — The Gods Sell All Things for Toil. This picture depicts Hesiod, the most ancient of poets, who, after spending much time at Helicon, suddenly became a poet; whence we gather that in the acquisition of the sciences one must labour long, in accordance with that common saying:

Virtutem posuere Dii sudore parandam.
The Gods have appointed that virtue must be won by sweat.

Finally, at Florentius is figured an old man sitting bare-headed and bald in a meadow, with a tortoise falling from an eagle's talons upon his bald head, with the title: **FUTURA LATENT** — The Future Is Hidden. For the investigators of natural things write that an eagle is of such ingenuity that it drops a seized tortoise onto some stone so that, when the shell is broken, it may feast on the flesh; and for this reason, taking the baldness of the poet Aeschylus for a stone, the eagle dropped its tortoise and killed the hapless man. The unforeseen fate of Aeschylus therefore admonishes us of the weakness and fragility of human life.

The emblems adorned with the image of women are not to be passed over. For Florentius displays the icon of a woman — namely Diana, armed with bow and arrows, and pursuing a stag — with the inscription: **LABOR AMORIS DOMITOR** — Toil the Tamer of Love. The Poets once feigned that Cupid had bound all the Gods and Goddesses in chains of love, except Diana; because Diana, constantly bent on the chase, could in no way be ensnared; whence they wished to signify that foul pleasure, which in disgraceful ways pollutes body and soul, nurtured by idleness and softness, is tamed by toil and the rigour of life. For this purpose is sung accordingly:

Otia si tollas, perit vesana libido,
nam labor a sumptu, dragivita domat.

Junius too depicts a comely woman — namely Venus — sitting on a chair with her foot caught in a fetter, to signify the modesty and guardianship of the house that befits wives.

[marginalia: Camerarius on all flesh / Florentius IN DEO LAETANDUM / Costali on Liberty / Reusner MULTA MULTUM LEGENDA / Florentius on Diogenes / Costali on Cato the orator / Hesiod / Death of the poet Aeschylus / Florentius on Diana and Love / Junius on Venus]

For this reason we remember to have seen the icon of Venus standing upon a tortoise, with the title: **UXOR CUSTOS AEDIUM** — The Wife, Guardian of the Home. To the foregoing Alciatus adds the icon of three girls casting lots, enquiring which of them fate was about to favour, with the title: **SEMPER PRAESTO ESSE INFORTUNIA** — Misfortunes Are Always at Hand. For she who saw, from the cast lot, that death was threatening her, disregarded it with laughter; and yet, a tile having suddenly fallen upon her head, she ended her life. Hence the truth of that proverb is evident, namely that misfortunes befall even those who do not seek them, while good things can scarcely come even to those who do seek them. Furthermore Camerarius displays the icon of a woman with a peacock, and many other things of this kind are proposed by the authors, which must be read and pondered in the authors themselves.

Finally, if we consider the semi-human figures, or rather the half-beasts, expressed in the emblems: first one may observe at Alciatus the figure of a man down to the navel, whose lower parts have the form of a serpent; this icon appears to be raising its right hand toward Heaven, with the title: **SAPIENTIA HUMANA STULTITIA EST APUD DEUM** — Human Wisdom Is Foolishness before God. This emblem is directed against those who, though filled with a heavenly spirit and a rational soul, nonetheless always occupy themselves in earthly matters, and, neglecting the better part of their condition, degenerating into the nature of a beast and never meditating on things above, creep upon the ground. On this figure the fourth book of the *Anthologia* is to be read. At the same Alciatus is depicted a man down to the navel, after which the lower portion is a squared stone, with the title: **TERMINUS**. We remember, however, to have seen this picture elsewhere adorned with another inscription, namely: **NULLI CEDO** — I Yield to None. By this icon the God Terminus is represented, who was unwilling to yield even to Jupiter himself: for in this way the last day, or the boundary of death, is signified, beyond which it is not permitted to proceed; besides which, Terminus shows stability and immobility. Florentius, for his part, painted a human skeleton crowned with a royal diadem, holding a sceptre in the right hand, with this title on the left: **VIVITUR INGENIO** — One Lives by Genius. For by this he reveals that all things are empty, except the fame which a man acquires while living, since even after death he continues to live forever on the lips of men. Ovid therefore sang accordingly:

Fit vivax scriptis, expers que sepulcri
Notitiam serò posteritatis habet.

For this purpose lastly Costali displays a human statue upon a column, in whose face the sun appears to send its rays, with the inscription: **IN ADVOCATOS** — Against Advocates. For the understanding of this, it must be known that the statue of Memnon in Ethiopia was fashioned with such art that, when the golden rays of the Sun touched it, it uttered something like a voice. By this picture therefore the author describes mercenary advocates, who do not speak unless the gleam of gold has illumined their eyes; and not without good reason was therefore sung:

Ius consultas promittit, et accipit aurum.
The legal adviser makes promises and receives gold.

Now we must proceed to those emblems in which several human icons are observed together. For Reusner paints Deucalion and Pyrrha restoring the human race from stones, with the inscription: **MILLE HOMINUM SPECIES** — A Thousand Kinds of Men. Although elsewhere the same author drew Adam and Eve beside the tree of the forbidden apple, with the title: **VITA MORS** — Life and Death; since man lives in free will so as to embrace whichever part he may choose. Alciatus therefore depicted a toga-clad man sitting in a chair, to whose right Pallas and to whose left Venus is attached, while he appears to be addressing Venus. For by this the author shows that a man devoted to the virtues often, abandoning his studies, pursues ruinous luxury. And in order to make manifest men of this kind imbued with vices, Costali depicted several eating in a tub, with the title: **IN SCAPHIONE EDITO** — From the Eating in the Tub. For this was the symbol of Pythagoras for indicating wicked men, whose conviviality was in a tub. Vices are therefore to be avoided, to which end Alciatus exhorts us, by a picture of a man offering a pig's snout to several men, with the title: **IN DIES MELIORA** — Better Things from Day to Day. To signify that one must advance from day to day toward the better, since the pig in feeding does not go backward but always goes forward; and so that no particle of time be allowed to flow away without some progress being made and some virtue acquired. Not unlike this was the device of Charles V, with the motto **ULTERIUS** — Further. And therefore with good right we can sing:

Nulla

[marginalia: Alciatus SEMPER PRAESTO ESSE INFORTUNIA / Alciatus SAPIENTIA HUMANA STULTITIA EST APUD DEUM / Emblem 157 NULLI CEDO / Florentius VIVITUR INGENIO / Emblem 429 / Costali IN ADVOCATOS / Reusner MILLE HOMINUM SPECIES / Alciatus IN DIES MELIORA / Emblem 45 / Symbol of Pythagoras / Device of Charles V ULTERIUS]

Nulla dies abeat, quin linea ducta supersit.
Let no day pass without a line being drawn.

Someone painted a burning heart sent down by a hand from Heaven between two men joining right hands with one another, evidently to make manifest that religion, which is strengthened by friendship and concord. Otherwise Alciatus depicted a man and a woman seated beneath a fruit-bearing tree, joining right hands with one another, with an icon of a dog; the title is: **IN FIDEM UXORIAM** — On Conjugal Fidelity. For there are two things, namely fidelity and love, which most especially belong to married couples: the dog is said to be the symbol of fidelity, and the fruit-bearing tree the symbol of love, which is said to have been sacred to Venus of old; for it recalls the tree of the golden apples of the Hesperides, dedicated to Venus, by whose aid Hippomenes surpassed Atalanta.

There follow those emblems in which icons of men established in royal dignity are observed. For Alciatus, before the image of a King, represents a living man bound to a dead one, to manifest the condition of daughters who by their parents are given in marriage to old or sickly men; for this reason the emblem is inscribed: **NUPTA CONTAGIOSO** — Wedded to One Afflicted. Here a girl complains of an inhuman father who had given her in marriage to a man tainted with the French disease. The same thing appears to be shown by Costali when he painted a father throwing his son into a rapid torrent; by which image are understood not only daughters wedded to old and sickly men, but also sons and daughters of both sexes who while still under age are dedicated to God in religious servitude. For this act appears very similar to that which was once very common to Mezentius, King of the Tyrrhenians, the contemner of gods and men, who, moved by a certain unheard-of ferocity, ordered living bodies to be coupled to dead ones, so that, slowly consumed by the stench, they might perish. At the same Alciatus is painted a man crowned with a royal crown, holding a sceptre in his right hand and a spleen in his left, while at his feet the figure of a dropsical man is seen, with the title: **OPULENTIA TYRANNI, PAUPERTAS SUBDITORUM** — The Wealth of the Tyrant, the Poverty of His Subjects. The argument seems drawn from the nature of the spleen, since physicians have observed that when the spleen swells the other members become lean; for this reason the treasury is rightly compared to the spleen, for as it grows the leanness and want of the other members — that is, the subjects — arises. It is therefore not to be wondered at if certain Greeks called tyrants *demoboroi* (δημοβόροι), as it were devourers of the people; and hence it is said to be more royal to give than to take away, and Ptolemy son of Lagus pronounced it more fitting for a King to enrich others than to be rich himself.

Not dissimilar in sense is the following emblem at Alciatus, where is painted a crowned man holding in his left hand a sceptre and in his right a sponge full of water, before several men who gaze at those hanging on a gibbet; the inscription is: **QUOD NON CAPIT CHRISTUS, RAPIT FISCUS** — What Christ Does Not Take, the Treasury Seizes. The sponge in this place signifies those who, blinded, by right or wrong enrich themselves with public revenues, and in the end are condemned to the final punishment by order of the Prince, and their ill-gotten goods are added to the Treasury. Likewise at the same author is depicted a man without sight holding a sceptre in the midst of a company of men without hands, with the title: **IN SENATUM BONI PRINCIPIS** — On the Senate of a Good Prince. The ring of men in this picture is without hands, to indicate true judges, who ought not to accept gifts. The blindness of the Prince suggests that he ought to approve deeds by the ears alone, without affection. The argument of the emblem is drawn from the history of the Thebans, who fashioned statues of magistrates without hands and statues of princes with closed eyes, to proclaim that the nature of justice ought to be incorrupt, yielding neither to price, nor prayers, nor any affection. One may also see at Florentius a crowned man in a company of women holding a distaff and spindle, with the title: **MISERA SERVITUS SERVIRE VOLUPTATI** — Wretched Is the Slavery of Being Enslaved to Pleasure. By this image Sardanapalus is represented, who is set forth in a tetrastich in this manner:

Dum digito carpis fila, columque,
Faningos inter Sardanapale greges;
Servus es infamis, quid enim servilius illo,
Quem premit impuris sœda libido suis.

In the *Picta Poesis* is seen the icon of a man sitting on a throne surrounded by four servants, of whom the first brings flowers, the second fruits, the third ripe grapes, and the fourth garments; at the doors of the house a beggar stands, with the inscription: **DIVITIBUS TEMPUS OMNE COMMODUM** — For the Rich Every Season Is Favourable. All this is explained by these verses:

Magnifica

[marginalia: Alciatus IN FIDEM UXORIAM / Alciatus NUPTA CONTAGIOSO / Mezentius King of the Tyrrhenians / Alciatus OPULENTIA TYRANNI / Nature of the spleen / Ptolemy son of Lagus / Alciatus QUOD NON CAPIT CHRISTUS / Alciatus IN SENATUM BONI PRINCIPIS / Thebans and statues of magistrates / Florentius MISERA SERVITUS SERVIRE VOLUPTATI / Sardanapalus / Picta Poesis DIVITIBUS TEMPUS OMNE COMMODUM]

Magnifica sedes alitur dives in aula;
Circumstat varia quattuor hunc famulans;
Cuius habet cereis flores, fractus gerit alter urnis,
Meatis, corna divite suppeditans;
Porrigit in calathum maturas tertius uvas,
Multiplicet vestem denique quartus habet.
Affuit ad fores mendicus homuncio panem
In lacera, et nisu supplice veste rogans.
Scilicet id fonum, quod agentibus otia sumit,
Commoda tempora sunt omnia divitibus;
Ut contra quorum, quid a mendicantibus, omni
Tempore, deficiunt omnia pauperibus.

Since mention was made a little earlier of crowns, it will not be foreign to reason to display the picture of Alciatus, in which two men crown a central figure with garlands woven of olive, while many others bearing olive branches accompany him. By this emblem Alciatus teaches that the best citizen must be heaped with the highest honours by his fatherland; for by the depicted image is represented Thrasybulus the Athenian citizen, who freed his fatherland from the cruelty of tyranny, and afterwards by a public pledge enacted a law for the abolition of past injuries. For this reason he merited the civic crown with the applause of the whole city; this law appears conformable to the evangelical doctrine of the remission of injuries.

Costali also paints a man with a thunderbolt in his right hand and an eagle, on a royal throne, where the icon of a woman armed with a sickle is visible: these two images show Jupiter and Themis, so that we may understand that just things are to be sought from God alone; since Themis, with her sickle, is said to cut short the impious desires of men. For the immortal God is not inclined toward the desires and perverse wishes of men; indeed it is a sin to think that the most excellent divinity wishes to satisfy the thirst of wicked desire and criminal craving. Similar to this was the emblem of Florentius, in which appears a crowned man sitting on a throne holding a sceptre, where also a balance with scales is seen, with the title: **IVSTE FIVNT QVAE A DEO** — What Comes from God Is Done Justly. By this image Themis is shown, explained by the following distich:

Cur Themis adse vix Themis eia? quod iusta putanda,
Quae divina Dei mens vatatumque velit.

For the Ancients added the image of Themis to that of Jupiter, to make it known that whatever is decreed by God is justly done. Although some believed that there are no gods, or at least doubted whether justice is exercised among them; since in this world they observed the impious sometimes to be honoured and the just to be oppressed. Hence Claudian in his poem on the court sang:

Saepe mihi dubiam traxit sententia mentem,
Curarene Superi terras, an nullus inesset
Rector, et incerto fluerent mortalia casu.
Nam cum dispositi quasi faedera mundi
Praescriptique maris fines, antiquique meatus,
Et lucis, noctisque vices, tunc omnia rebar
A Consilio firmata Dei.

Yet the same poet a little later added:

Sed cum res hominum tanta caligine volui
Aspicerem, laetosque diu florere nocentes,
Vexarique pios, cursus labefacta cadebat
Sursum Religio.

Afterwards the Poet, as if returning to a sounder mind and offering a resolution to the difficulty, sang again:

Absolvitque Deos, iam non ad culmina rerum
Iniustos crevissse querar, tolluntur in altum,
Ut lapsu graviore ruant.

Since avenging necessity everywhere and always accompanies God as the avenger of those who have departed from the sacred law,

[catchword: Neque]

[marginalia: Alciatus on Thrasybulus / Emblem 134 / Costali on Jupiter and Themis / Justice is to be sought from God alone / Florentius IVSTE FIVNT QVAE A DEO / Themis added to Jupiter / Claudian on Providence / Claudian on the suffering of the just]

Nor are men-at-arms excluded from the emblems; since Alciatus drew an armed man conversing with an unarmed man holding books, a picture in which Diomedes and Ulysses are shown: of whom the one is said to be the symbol of strength, the other of intelligence. For thereby we gather that in the conduct of affairs both bodily vigour and prudence of mind must be employed; on which matter Alciatus sings thus:

Viribus hic praestat, hic pollet acumine mentis,
Nec tamen alterius non eget alter ope.
Cum duo conveniunt? Hi veniunt, victoria certa est:
Sola mens hominem, dextra ve destituit.

Likewise Alciatus depicted two men-at-arms joining right hands, with the title: **CONCORDIA** — Concord. The argument seems drawn from Cornelius Tacitus, who recorded that right hands extended back and forth between armies were the sign of concord; for which reason it is not undeservedly sung:

Omnia id habent concordia signum,
Ut quos jungit amor, jungat, et ipsa manus.

Finally Alciatus displays the picture of men armed and thrusting a trumpeter into prison, who had sounded the battle-call, with the title: **PAREM DELINQUENTIS, ET SUASORIS CULPAM ESSE** — That the Guilt of the Wrongdoer and of the Instigator Is Equal. The argument is drawn from an Aesopian fable, where mention is made of a trumpeter captured in war, who, since he had killed no one, pronounced himself innocent; and yet it was adjudged that he deserved death more than the others, for, although he had no part in the fighting, he had nonetheless incited others to do battle; since, in the opinion of the jurists, those who act and those who give their assent — that is, wrongdoers and inciters — are to be visited with equal punishment. This emblem is especially directed against those who with words and counsel press princes to wage war.

There remain yet some emblems in which several men practising various activities are observed: for Alciatus paints men assisting at a sacrifice prepared on an altar, where a Serpent devours little birds singing in a tree, with the title: **EX ARDUIS NOMEN PERPETUUM** — From Arduous Things, Everlasting Fame. By this picture are represented the Greeks sacrificing; and the sign of a serpent eating the little birds is said to indicate the ten years during which the Greeks besieged Troy. After we have fallen upon sacrifices, the picture of Costali must not be omitted, in which men are seen offering squills to Jupiter above an altar; by this image the author wished to signify the Phaselites, a people who consecrated firstfruits of no value — namely worthless squills — to the Gods. This moreover may apply to those who care only to be rich for themselves. Again at Alciatus are observed icons of men with drums, one of which is being beaten while the other is silent, with the title: **VEL POST MORTEM FORMIDOLOSI** — Formidable Even after Death. For investigators of natural things write that when a drum made from the skin of a wolf is beaten, another drum made of sheepskin falls silent — as was recorded in the *Historia of Four-footed Animals*. By this emblem therefore the author wished to suggest that there are some who, by the sweetness of their manners and the splendour of their virtues, leave their memory to posterity after death; and in turn there are others whose memory, on account of the ferocity of their manners, is not extinguished in posterity. They say indeed that among the Turks there was a certain most valiant general called Hunyadi, whose name even after death is said to have been so terrible that nurses, to restrain the crying of children, pretended that Hunyadi was coming. Again Alciatus depicts men gathering the fruit of the Lotus tree, with the inscription: **IN OBLIVIONEM PATRIAE** — On Forgetting One's Fatherland. By this picture the companions of Ulysses are represented, who, having landed on the island of the Lotus-eaters and enticed by the sweetness of this fruit, could by no entreaties be induced to return to Ithaca, as is read in Homer. The emblem concerns those who, dwelling in some pleasant land, erase their fatherland from memory; or rather it regards those who, having attained the heights of dignities, become forgetful both of themselves and of their own people. Furthermore Alciatus depicts a blind man carrying a man who can see but whose legs are broken, with the title: **MUTUUM AUXILIUM** — Mutual Aid. The argument seems drawn from the first book of Greek epigrams, where there is a tetrastich rendered into Latin thus:

Caecis

[marginalia: Alciatus on Diomedes and Ulysses / Emblem 41 / Cornelius Tacitus on right hands / Alciatus CONCORDIA / Aesopian fable on the trumpeter / Alciatus EX ARDUIS NOMEN PERPETUUM / Costali on the Phaselites / Alciatus VEL POST MORTEM FORMIDOLOSI / Historia Quadrupedum / Hunyadi the Turkish general / Alciatus IN OBLIVIONEM PATRIAE / Homer / Alciatus MUTUUM AUXILIUM / Emblem 160 / Book 1 of Greek epigrams]

Caecus claudum humeris gestat, pro munere tanto
Ille oculos claudi mutua dona refert.
Imperfecti ambo coeunt, sed corpus in unum,
Quodque deest socio, praestat uterque suo.

The argument was entirely the same as that hexastich of Antiphilus, which is rendered into Latin thus:

Ambo mendici caecus, claudusque fuere,
Alterum alterius sustulit arte malum.
Tollens humeris claudum, qui luce carebat,
Claudi oculis dubitam tentas inire viam.
Coniunxere simul, quod sors utrique negarat,
Natura ambobus sic satis una fuit.

Hence it is to be concluded that, for the relief of the want of human life, man has need of man; for just as not every soil bears all things, so likewise no one person abounds in everything. For this reason the common proverbs are current: One man is no man; One hand scratches the other; Many hands make a burden lighter; and others of this kind which have been recited in the section on Adages. Likewise Costali displays the picture of two men, of whom one tries in vain to pull out a horse's tail seized whole, while the other, pulling out the hairs one by one, at last draws out the entire tail; the inscription is: **EXEMPLUM SAPIENTIS, ET STULTI** — The Example of the Wise Man and the Fool. Hence it is to be concluded that all things are accomplished by length of time; for which reason Ovid rightly sang:

Tempore Poenorum compescitur ira leonum.
With time the wrath of Punic lions is tamed.

Likewise the author depicts a weeping man and a laughing man, with the inscription: **IN VITAM HUMANAM** — On Human Life. By these images Democritus and Heraclitus are meant; since the latter, whenever he went out of doors, was accustomed to greet human follies with lamentation, because everything appeared to him to be deplorable. On the other hand Democritus, moved by the same cause, laughed, because he regarded human actions as ludicrous. Indeed, if they were to come to life today, they would find still ampler material for lamentation or laughter, since all things grow worse from day to day; hence Horace seized the occasion to sing:

Damnosa quid non imminuit dies?
Aetas parentum peior avis tulit
Nos nequiores, mox daturos
Progeniem vitiosiorem.

Finally Alciatus displays two human icons, adding to the vestments of one the figure of cicadas, and to the shoes of the other the picture of a crescent moon, with the title: **NOBILES, ET GENEROSI** — The Noble and the Well-Born. Since Aristotle placed a distinction between nobility and generosity: for that is called noble which proceeds from a good family, while that which does not degenerate from its own nature is called well-born. Indeed elsewhere the same Philosopher declared it more glorious for someone to be called well-born than noble; since the noble man shines only with the virtue and glory of his ancestors, while the well-born man is commended both by his own virtues and by those of his ancestors. Thus all the well-born are noble, although the converse of this proposition need not be admitted, since not all nobles are always well-born; for some nobles, through lowness of spirit, degenerate from the virtue of their ancestors. Among the Athenians, therefore, the cicada was the symbol of nobility, and for this reason they fastened them in their hair, to make it known to all that they were noble and native-born; for which reason the Athenians were surnamed *tettigophoroi* (τεττιγοφόροι), that is, cicada-bearers. This practice seems to have arisen from the fact that, among all living creatures, cicadas are especially called native, since they are born, live, and die in the same region where they come forth. For this reason we can with good right call men who are boastful and vainglorious *tettigon anamesos* (τεττίγων ἀνάμεσος) — that is, in the midst of cicadas. Moreover, since the Romans appeared to surpass other peoples in nobility, they are said to have worn the figure of the moon on their shoes, either to signify the condition of the Roman Empire, which grew rapidly and in course of time, like the Moon, waned; or, in the opinion of others, to stamp upon proud men the mark of the instability of human affairs, of which the Moon is said to be the symbol, since it returns from darkness to light, and again into darkness.

[catchword: tatem]

[marginalia: Antiphilus hexastich on mutual aid / Costali EXEMPLUM SAPIENTIS ET STULTI / Ovid on time / Democritus and Heraclitus / Horace on the decline of the ages / Aristotle on nobility and generosity / Lib. 2 de arte dicendi / Cicada as symbol of nobility / Why cicada was the symbol of nobility]

that she returns from darkness to light, and again into darkness. Juvenal remembers this insignia of the figure of the Moon so marked, when he speaks of Fabius in this manner:

Felix, et sapiens, et nobilius, et generosus,
Appositam nigrae lunam subtexit alutae.

Indeed the Arcadians used this kind of shoe marked with the picture of the Moon, to suggest to all their own antiquity, since they believed that the entire race of mortals, once destroyed by the flood, had taken its origin again from the Arcadians; for this reason, by the figure of the Moon, they indicated that they were more ancient than others. Let us add to these, as a crowning piece, the most beautiful emblem of Florentius regarding vainglory, in which two wayfarers proceeding along an opposing path are painted in the rays of the Sun: and so the shadow appears to follow the one and to precede the other; with the inscription: **IN AMBITIOSOS** — Against the Ambitious. And so, if we rightly contemplate these icons, one of them appears to follow its own shadow and the other to flee from it; for which reason the hexastich of the author ends with this distich, in which ambition is compared to lowness of spirit:

Gloria sic hailes amplectitur, at sibi quisquis
Poscit se nimia hanc ambitione, fugit.

We may therefore introduce Glory speaking thus:

Et sequitur fugio, qui fugit, ipsa sequor.
I follow the one who flees, I flee the one who follows.

COINS

From ancient records we read, and have also observed on some coins, that Antiquity impressed upon money images of parts of the human body at times, and sometimes the image of the whole man. For this reason, in the first section of this chapter we shall speak of icons of parts, and thereafter of the image of the whole man on coins. When therefore the human head is observed stamped on many coins, it must be taken for granted that this was done to manifest the excellence of the person depicted, whether in respect of learning or of dominion; since the figure of the head of Virgil, or of other Poets, denotes excellence, while that of the Caesars and other Princes denotes the pre-eminence of their power.

On a bronze coin the head of Julius Caesar, struck with the civic crown, is said to signify clemency. On other coins one sees the head of a man crowned with laurel, whose occiput a quiver touches and whose brow a star touches; perhaps Apollo the Preserver is thereby designated. Likewise a human head covered with the hide of a goat, with a thunderbolt at the throat and a bow at the occiput, is seen, while afterwards on the reverse of the coin there appears the icon of Pegasus and an arrow; which images, in the opinion of Valerianus, indicated the swiftest speed. Erizzo shows a coin of Antoninus with a female head and breast crowned with towers, and asserts that by this means the city of the Laodiceans is indicated. Otherwise the aforesaid figure of the head together with the image of the head of a man and a caduceus at the occiput denotes Mercury, while by the other is designated the city that ordered the coin to be struck in honour of the Prince. Furthermore Erizzo shows a man's head adorned with the horns of a ram, by which image Jupiter Ammon, once the tutelary god of the colony of Cosa — commonly called Orbetello — is signified.

At the same Erizzo there is a coin of Antoninus Elagabalus, on which a beautiful male head distinguished by a crown, with the addition of a laurel branch, is struck; since by a similar icon they believed the Sun to be signified. Otherwise, to indicate the same, on a silver coin of Mark Antony there appears a male head crowned with rays in the middle of a square temple; although on other coins one may see the head of a beardless man with flowing hair and a serpent hanging from each ear; perhaps to signify the rising Sun. Valerianus elsewhere noted that in certain coins a human head is crowned with rays, with a winged and outstretched right hand, so that the Orient might be designated.

Sometimes coins represent a human head attached to military insignia, which is observed especially on a bronze coin of Claudius Caesar; whence, according to [Erizzo], the victory is made manifest which the Romans won over the Barbarians. Otherwise Pierius Valerianus, to make victory plain, observed on certain coins a winged female head with hair bound in a knot. For a female head with desire on a silver coin of Julius Caesar is said to represent Venus. Sometimes on coins a helmeted female head is seen, which many have asserted to signify Rome: either because the Romans had overcome all things by arms, or because they had their origin from Mars, or because they called Rome the head of the world, or because, in the opinion of Valerianus, they foresaw what Christ was about to say to Peter — namely that he should obtain the title of head — when he was about to found the seat of the Church at Rome; for this reason he called him Peter, as it were a rock, while gazing at the immovable stone of the Capitol. On other coins one may see female heads singly on each side, with hair gathered in a simple knot, by which, in the opinion of Valerianus, Antiquity designated liberty. Moreover on other coins two heads proceeding from a single neck appear, while the reverse side of the coin bears the figure of a ship: and so Aeneas Vicus was of the opinion that this coin was struck so that eternal honours might be decreed to Saturn, who had taught the Italians agriculture and reason. Otherwise, in the opinion of others, by the double head, the Lawgiver, and the picture of the ship, the advantage of the river is denoted. Finally two heads are seen on the one side of a coin of the Tenedians, while the opposite side represents the figure of an axe; for in this way they indicated severity: since when the King of Tenedos had pronounced capital punishment for adultery and had struck down his own son, caught in adultery along with his companion in adultery, with the axe, a proverb was thereafter made about severity — the Tenedian axe.

Furthermore on most coins of the Ancients two joined hands are seen, which without doubt indicated fidelity, as the inscription appears to suggest; for on some is read: **FIDES ROMANORUM**, on others: **FIDES EXERCITUUM**. Although this figure of joined hands is drawn to other significations also. On other coins the type of an open hand was sometimes seen, which was the standard that the army of the Roman Empire displayed, to show the benefit of concord. But on the coins of the Emperor Philip an extended arm with an open hand appears, and by this image Gabriel Simeon judges liberty to be indicated. This is better explained by a coin of T. Claudius Caesar, on which a right hand holding a cap and a left hand extended are seen, with the inscription: **LIBERTAS AUGUSTA**. And although the cap by itself suggested the symbol of liberty, the open hand augments the signification, in distinction from the closed hand, which among the Ancients indicated impediment. Otherwise on a coin of Gratian a hand is extended to a woman kneeling, with the inscription: **REPARATIO REIPUBLICAE**.

Hitherto we have discussed the figures of parts on coins; now we shall proceed to the complete images of man stamped on money. First, if discourse is to be held on the icon of boys, Aeneas Vicus displays a coin of Commodus, on which four boys are seen to represent the four seasons of the year; although others have reported that three of these boys are nude and the fourth clothed; and they add that the first of the nude ones, bearing in his hands a basket full of flowers, indicates Spring; the second, holding a sickle in his right hand, indicates the harvest of Summer; the third carries on his left a basket laden with fruits, to show Autumn; and the fourth, finally, clad with a staff over his shoulders from which a dead bird hangs, carries it, perhaps to indicate Winter. On certain coins is seen a young man crowned with a tripod, grasping arrows in his right hand and a lyre in his left, with an enormous serpent lying at his feet; there too is seen a laurel with a crow, beneath which nine girls sit, where a spring of perennial water wells up. Erizzo is of the opinion that by these images Apollo and the Muses on Mount Parnassus by the Castalian spring are represented. Although the image of Apollo on other coins is figured differently. For sometimes is seen a young man standing holding a lyre in his left hand, where a nude man is tied to a tree, from whose branches a pipe hangs; for in this way they showed that Marsyas had been vanquished by Apollo. Erizzo shows a young man carrying a Ram, and supposes him to be Mercury. But on a coin of Hadrian he is figured differently, where the icon of a young man grasps a caduceus with one hand and the Emperor with the other, with the inscription: **FELICITAS AUGUSTI**. But on a bronze coin of Vitellius the icon of a man with a staff and serpent, and an owl at his feet, signifies Aesculapius.

[marginalia: Juvenal on the Moon and nobility / Florentius IN AMBITIOSOS / Symbol of nobility / NUMISMATA / Human head on coins / Coins of Julius Caesar / Valerianus on swift speed / Lib. 3 Hieroglyphics / Erizzo on Antoninus / Mercury on coins / Jupiter Ammon at Orbetello / Antoninus Elagabalus on the Sun / Silver coin of Mark Antony / Valerianus on the Orient / Coins of Claudius / Female head and victory / Venus on coin of Julius Caesar / Rome figured as a helmeted woman / Lib. 3 / Valerianus on liberty / Two heads on coins / Aeneas Vicus on Saturn / Coin of the Tenedians / Severe Tenedian axe / Joined hands / FIDES ROMANORUM / FIDES EXERCITUUM / Lib. de epit. antiq. / Open hand / LIBERTAS AUGUSTA / REPARATIO REIPUBLICAE / Commodus and the four seasons / Apollo with the Muses / Marsyas and Apollo / Mercury with Ram / Aesculapius on coins]

noctua at his feet, signifies Aesculapius. Likewise a man standing and leaning on a staff, entwined by a serpent, denotes Aesculapius, where there is seen the icon of a woman handling a serpent, who denoted Hygeia, or the Goddess of Health. These images, in the opinion of Erizzo, were struck to denote that the true health of the whole world lay in that Prince whose image was to be seen on the other side of the coin.

After we have encountered the icons of men, one may observe on coins of Domitian the icon of a venerable man who appears to extend his right hand to three women kneeling outside a temple: for in this way the arrogance of Domitian is shown, who in the opinion of Erizzo wished to be adored as a god. Here it must be noted in passing that before the dictatorship of C. Julius Caesar, none but the effigies of the Gods were impressed on coins, and especially of those whom Antiquity honoured with a particular reverence. On a silver coin of Aulus Postumius there is the engraving of a man extending his right hand toward a bull before an altar: by this means the Ancients showed a priest of Diana performing a sacrifice. When moreover three men clothed in priestly vestment, at whose feet many animals lie, are seen before an altar, they indicate, in the opinion of Erizzo, that the Emperor had performed the sacred rites. Otherwise a man dressed in the vestments of a priest and leading a sow into a temple denotes a Consul who, after a victory, renders due thanks to Diana; as each person may observe on a bronze coin of Marcellus.

Nor are there lacking on coins icons of men furnished with arms, which yield various significations: for in the opinion of Erizzo an armed man on a coin, with his right hand resting on a shield and his left on a javelin fixed in the ground, signifies Mars the God; and when on other coins a man armed with shield and javelin appears as if marching, the same author makes it Mars the Champion (*propugnator*). Otherwise one may see on a silver coin of Caracalla a man armed with helmet, corselet, greaves, shield, and spear, showing Mars the Victor; since the same image appears on a bronze coin of Mamea and on a silver coin of Hadrian. Differently, on a bronze coin of Vitellius appears an armed man with helmet, corselet, and greaves, holding a club in the left and a winged Victory in the right, who shows Mars the Victor, according to some; although on a bronze coin of Antoninus Pius the same icon may be seen with a dagger and trophy.

Moreover when the images on coins show a man helmeted, with armed legs, holding a sceptre in the right and a spear in the left, and his right foot pressing upon a tortoise, in the opinion of Choul this manifests Honour, who admits that he saw such an image on a bronze coin of Vitellius. For a man holding a spear in his right and a globe in his left shows the Emperor as Lord of the World. When moreover the same image has at its feet a naked captive with hands bound, we must understand, in the opinion of Erizzo, that a tyrant has been routed by the Emperor. And when the same armed man, holding a spear in his right and a sceptre in his left, presses with his left foot upon a man laid prostrate on the ground, and on either side there are men with vases from which waters flow, then Erizzo signifies that the Emperor had occupied Armenia, Mesopotamia, and Parthia as enemies, since by the vases pouring out water the rivers Araxes and Euphrates are to be understood. Otherwise the same image pressing upon a man laid on the ground with an urn, Erizzo notes to be an Emperor subduing Germany. Indeed the same author, pondering in coins a man armed who holds a pike in his left and appears to crown with his right a man laden with arms and spoils, where two captives are seen at his feet, says it is thence to be concluded that a victory over Germany had been gained. Likewise a man standing, holding a spear in his left and extending his right to a woman kneeling, who appears to hold an orb in her hands, indicates that Italy had been restored by the Emperor; since Erizzo designates by the icon of the man the Emperor and by the icon of the woman Italy. Furthermore a man leaning on a spear, with the icon of a woman holding in her right hand the rudder of a ship and in her left a cornucopia, where there is also the icon of another woman crowning a man in her right, denotes, in the opinion of Erizzo, the Fortune and Victory of the Emperor.

When moreover an armed man presses a spear with his left and addresses from a platform several armed men — as may be seen on a bronze coin of the Emperor Commodus — then, as Choul wrote, Fidelity is signified. Differently, on certain coins sometimes appear armed men, like so many soldiers standing with attentive ears, with the inscription: **ADLOCUTIO** — The Address. For what was to be done [...]

[catchword: Statucul-]

[marginalia: Aesculapius on coins / Hygeia the Goddess of Health / Domitian's arrogance / Coins before Julius Caesar's dictatorship / Silver coin of Aulus Postumius / Priest of Diana / Erizzo on imperial sacrifice / Coin of Marcellus / Mars on coins / Silver coin of Caracalla / Bronze coin of Vitellius / Bronze coin of Antoninus Pius / Honour on coin of Vitellius / Emperor as Lord of the World / Erizzo on Armenia and Mesopotamia / Erizzo on Germany / Victoria and Fortuna of the Emperor / ADLOCUTIO on coins of Commodus / Choul on Fidelity]

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[catchword: Statucul-]

[marginalia: Domitian's arrogance / Coins before Julius Caesar / Silver coin of Aulus Postumius / Priest of Diana / Erizzo on imperial sacrifice / Coin of Marcellus / Mars on coins / Silver coin of Caracalla / Bronze coin of Vitellius / Bronze coin of Antoninus Pius / Honour on coin of Vitellius / Emperor as Lord of the World / Erizzo on Armenia and Mesopotamia / Erizzo on Germany / Fortune and Victory of the Emperor / ADLOCUTIO on coins / Choul on Fidelity]

listening is a certain sign of the work which a man is about to undertake. But a figure of a man seated upon spoils, shields, and arms, with the hand placed beneath the knee, signifies, according to Erizus, that the king of Dacia has been conquered by the Emperor. For this reason the image of a man shooting an arrow appears on a coin of Darius, king of the Persians.

Now we shall proceed to figures elevated above horses: for through an armed man seated on a horse, furnished with a spear and whip, Erizus designates Mars among the Erizians. Neptune, however, is thus figured on a silver Tarentine coin, as Chioulus wished. There was engraved a naked helmeted man on horseback, with a cloak hanging from his shoulders and agitated by the winds, likewise with a javelin in his right hand and two in his left. Otherwise, a man clinging to a horse, with a javelin in his left hand and with the figure of a star hanging over his head, plainly represents Castor the god. Erizus, however, by this same figure, indicates the province of the Parthians. But when we see a man on a winged horse hurling a dart at a beast with the head of a lion and composed of a dragon, we shall be able to understand Perseus fighting the Chimera, as Erizus indicated — though others have said that the youth seated on a winged horse is Bellerophon; yet this coincides with Perseus, since the name Bellerophon denotes a man who is honourable and prudent. Otherwise, a man riding on horseback and striking a lion with a spear signifies, in Erizus's opinion, one who fought with wild beasts in a public spectacle. But two men on horseback extending their right arms, as may be observed on a silver coin of Philip, signify virtue, in the view of Chioulus. And when on coins there appears an armed man on horseback preceded by an armed man on foot and followed by several armed men, then Erizus understands this as the Emperor's military expedition. Likewise, a mounted man running and furnished with a club indicates the Emperor hastening to war. But if a horseman strikes with a spear another man prostrate on the ground, then, as Erizus thinks, it must be proclaimed that the Emperor has subdued the Sarmatians and the Goths. And when a man on foot bearing trophies precedes the horseman, and another bearing military standards follows, then Erizus declares a victory over the Parthians has been won. And if it happens that on coins a man on foot carrying military standards in his left hand precedes a horseman, then we must understand that the enemy has been scattered, a province occupied, and the Emperor is returning. Lastly, the bronze coins of Trajan with the figures of two provinces are rare, and especially those in which his equestrian figure is visible.

Human figures without garments are sometimes to be seen on coins. For a silver coin of L. Lentulus and C. Marcellus exhibits the figure of a naked man holding a thunderbolt in his right hand and an eagle in his left, with an altar and a star, to denote a religious act performed for Jupiter after the temple of Capitoline Jupiter had been struck by lightning. A half-naked man placed in a prominent seat extending his right hand toward an eagle, with the chariot of the Sun and of the Moon, was struck on a bronze coin of Alexander, to signify Jupiter Olympius. For victorious Jupiter is represented by the figure of a half-naked man seated on a throne with a spear in his left hand and a winged Victory in his right, a figure which we may observe on a bronze coin of Domitian. Otherwise on a bronze coin of Nero a half-naked man is likewise seated on a throne with a thunderbolt in his right hand and a spear in his left, to indicate Jupiter the Guardian. Although, in the view of others, on a silver coin of Vespasian, Jupiter the Guardian is represented by the figure of a naked man holding a spear in his left hand and a burning altar in his right. But Chioulus, on a silver coin of Gordian, contemplates a naked man with a spear in his right hand and a thunderbolt in his left, and asserts that in this way Jupiter the Avenger is signified. While Erizus, observing a naked man hurling a thunderbolt with his right hand and holding a bird in his left, maintains that Jupiter the Thunderer is thereby denoted.

[marginalia: The Emperor's military expedition / Figures on coins without garments / Simulacrum of Jupiter the Guardian]

[catchword: Icones]

with a thunderbolt in his right hand and a spear in his left, at whose feet a little man appears; and by this device they intimate Jupiter the Saviour, for through the small man sculpted on this coin they understand the Emperor saved by Jupiter. But when on a silver coin of Alexander Severus we observe a naked man with a cloak hanging from his shoulders, hurling a thunderbolt with his right hand and holding an eagle in his left, we must understand Jupiter the Defender; yet if sometimes on the same coin we see a naked man holding a spear in his right hand and a thunderbolt in his left, we must apprehend Jupiter the Steadfast. Chioulus, however, in order to signify Jupiter the Steadfast, observes on a silver coin of Diocletian a naked man with a cloak hanging from his left shoulder, holding in his right hand an orb surmounted by Victory, and an eagle.

Thus far of Jupiter; now let discourse turn to Neptune. For Chioulus observes on a silver coin of Augustus and of Vespasian a naked man armed with a trident and pressing an orb with his left foot — a figure which was struck after thanks had been rendered to the god Neptune upon the return from a naval war. Likewise a naked man with a cloak hanging from his shoulders and blown by the winds, in a boat drawn by two horses, struck on a silver coin of M. Agrippa, signifies Neptune. Also on a silver coin of Pompey there is observed a tower on a ship, the summit of which is occupied by a naked man armed with a trident, by which figure a peaceful Neptune is represented. Otherwise on the same coin, a man naked to the loins and ending in two fish-tails, grasping a ship's rudder with both hands, displays an angry Neptune. Lastly on a silver coin of Demetrius a naked man with a trident is seen as if about to strike, and by this figure Neptune is expressed; on the opposite side of the coin is seen the prow of a ship with a winged Victory holding a crown in her right hand and a palm in her left, to designate a naval victory.

Now we must hasten to other figures by which other divinities of the Ancients are signified. For Erizus sometimes observes on coins two naked men standing, one of whom grasps a club, the other a caduceus with wings at his feet: by the latter Mercury, and by the former Hercules is to be understood — two figures struck on coins to make manifest the wisdom and fortitude of the Emperor. Otherwise, a single naked man furnished with a club and a lion's skin on coins denotes Hercules, which image Erizus believes was placed on coins to indicate the Emperor's virtue. But when the same naked man raises his club with his right hand, about to strike a dragon clinging to a fruit-bearing tree, while his left arm is covered with a lion's skin, he indicates, in Erizus's opinion, Hercules who carried off the golden apples from the gardens of the Hesperides.

If we continue meditating upon coins on which naked figures of men are to be seen, we shall come upon a gold coin of Aurelian which exhibits a naked man crowned with rays, with a cloak hanging from his shoulders, holding an orb in his right hand with a captive at his feet — a figure by which, in the opinion of many, the rising Sun was signified. Also on a bronze coin of Constantine there is seen a naked man with his private parts covered by a cloth, with a cornucopia in his left hand and a patera in his right, held toward a lighted altar; and by this figure they understood the Genius of the Roman People. But a half-naked man holding an orb in his left hand and three heads in his right intimated Eternity; for through the three-headed figure, past, present, and future time was noted; and by this figure they prayed for Eternity upon the Emperor. Otherwise a half-naked helmeted man with a spear in his right hand and a cornucopia in his left is observed on a bronze coin of M. Aurelius, which image, in Chioulus's view, represented Honour. Lastly, on a coin of M. Hetennius there is engraved a naked man carrying an old man on his left shoulder, by which figure Chioulus signifies Filial Piety. Likewise on a silver coin of Julius Caesar a naked man carrying an old man is observed, while in his left hand he holds a woman armed with helmet and spear — a figure which, as Chioulus maintained, signifies Aeneas carrying Anchises and Pallas.

Coins for the most part exhibit figures of men in chariots; and so Erizus writes that if it sometimes happens that on coins there is seen a man in a chariot drawn by four elephants, with a golden branch in his right hand and a sceptre adorned with an eagle in his left, then we must understand the Emperor triumphing after the conquest of some province. Otherwise, in the opinion of the same author, a man holding a branch in his right hand and something in his left, where the figure of a camel and an ostrich appears, signifies that Arabia has been subjugated by the Emperor.

[marginalia: Jupiter the Defender / Jupiter the Steadfast / Neptune's simulacrum / Naval victory, how it was depicted / Hercules's simulacrum, how he is depicted / The rising Sun, how it was indicated / Piety's simulacrum / Arabia subjugated icon, similar to a camel]

— though others prefer to hold that a man in a triumphal chariot drawn by four horses always signifies the Emperor who, after conquering some nation, celebrates a triumph. But when the same man seated in a chariot drawn by a four-horse team bears military standards in his left hand, Erizus thus demonstrates a victory gained over the Armenians and the Parthians. Otherwise, if we see a man furnished with a whip in a chariot, Erizus calls this man Mars.

Figures of men seated sometimes appear on coins, and so Erizus calls a man seated upon a Bull on coins Jupiter. Also a seated human figure, with hand outstretched and thumb lowered, is portrayed on a coin of M. Cato the Propraetor; and a seated man holding an orb in his right hand and being crowned by a winged woman: Erizus intimates that this is the Emperor who, by reason of the victory gained over the Britons, earned a crown. Indeed, as the same Erizus holds, whenever on coins there appears the figure of Victory crowning a man, this signifies that a singular honour was decreed for the Emperor whose image appears on the other side of the coin. Sometimes a man seated on a prominent throne crowned by Victory, together with the figure of a woman offering ears of grain, is exhibited on some coin; hence Erizus infers that the Emperor is indicated who by his own munificence freed the people from scarcity. Hence on coins of T. Vespasian Caesar there is seen a man holding in his right hand the figure of a woman furnished with a libellus and a cornucopia, where also the figure of a ship with a basket and ears of grain appears, to show the Emperor who by supreme industry procured the grain supply; for the figure of a woman, in Valerianus's view, designates the grain supply on account of the ears of grain.

On Tarentine coins a man seated upon a dolphin is observed; from this they conjecture that Tarentum was founded by Hercules, though on other coins, by this same figure, as Pausanias held, they understand Phalantus the Lacedaemonian; indeed some by this same figure show Telemachus, son of Ulysses. When coins exhibit the figure of a standing man extending his hand to a kneeling woman, then the authors understand the Restorer of the Republic; and we are the more induced to believe this, since on a coin we have observed the figure of the Emperor raising up a kneeling person, with these letters: *RESTITUTORI GALLIAE*. But if the standing man has many arms at his back, and a sad woman sits there with a palm tree, then these coins, in Chioulus's opinion, were struck after the capture of Judaea. Although this figure is observed engraved in various ways on various coins. Lastly, if a standing man gazes at a bird, he is expounded by Erizus as the Emperor taking an augury.

Let us now come to the various gestures of hands observed on coins. For on a coin of Alexander Augustus there is a human figure leaning on a spear in the left hand, extending the right with fingers lowered and thumb hanging, with these letters, *RESTITVTOR*. On a coin inscribed *TRAIANVS HADRIANVS* the figure of the Emperor is seen clasping the right hand of a certain seated god. The lower portion of the coin is inscribed with these letters: *ADVENTVS AVG*. But if on coins there appears the figure of a man joining his right hand to another's right hand, with an armed woman present, then Erizus declares by this figure that the Emperor is handing power to another, with Rome's assent. Otherwise, a kneeling man joining his right hand to the right hand of the Emperor signifies, according to some, the province of Phrygia giving thanks to the Emperor. Otherwise, two men joining right hands signify, according to Erizus, the concord of two Princes. But if of these two men one is clad in a toga and the other in a pallium — figures seen on a coin of C. Egnatius, while the opposite side of the coin shows a winged Cupid — then these figures express that Concord which ought to exist between letters and the arts; for Gabriel Simeon by the figure of the togated man understands peace, and by the figure of the man in the pallium, war. Though others, to designate Concord and Fidelity, add the figure of a column, a simulacrum commonly seen on a certain coin of Hadrian. A human figure extending an open right hand and placing an offering on an altar with the left may be seen on a coin of Antoninus. The same figure appears on a gold coin of L. Aelius Caesar, with the inscription *PIETAS*. And on a coin of Gordian Pius there is a human figure raising hands spread out on either side toward Heaven, with the inscription *PIETAS AVGVST*. Lastly on a coin of Julia Pia [...] gestures are expressed.

[marginalia: The Emperor securing the grain supply, how he was painted / Restorer of the Republic, depicted / Phrygia giving thanks to the Emperor / In the book on illustrious ancient epitaphs]

with her left hand leaning on a spear, and the inscription is *VENVS GENETRIX*. Since the Romans, and especially the Julian family, asserted that they derived their lineage from Venus, and this coin is said to have been struck to celebrate the happiness of a birth.

Since the varieties of coins are almost infinite, the rarer ones are now to be catalogued; and so it is to be noted that the gold and silver coins of Otho are rare, though his bronze coins do not appear to be antique. Likewise the silver coins of Augustus are rare, and especially those which on the reverse bear the civic crown; indeed rare are those which represent an equestrian statue of Augustus. The bronze coins of Vespasian are rare, and especially those which exhibit the image of Judaea captured. The bronze coins of Tiberius are rare only in those whose reverse has the engraved effigy of a temple. Equally rare are the bronze coins with the effigy of Augustus whose reverse is marked with a rostral crown. The bronze coins of Caligula are indeed rare, but especially those whose reverse is adorned with the image of the goddess Piety. The bronze coins of Claudius — those are rare whose reverse is filled with a double cornucopia. Of the bronze coins of Nero, those are rare whose reverse exhibits a beaked ship, and exceedingly rare are those which have the engraved effigy of Poppaea his wife. The bronze coins of Galba that are rare are those which exhibit the statue of Victory. The silver coins of Severus are rare in which two heads appear, and exceedingly rare in which there is the figure of a temple.

The coins of Commodus are rare in which there is the Mother of the Gods, exceedingly rare in which the four seasons and four boys are to be seen. Several coins of Antoninus are found, but exceedingly rare are those which show the figure of Pallas together with Aeneas carrying Anchises. The coins of Hadrian are rare in which several figures appear. Rare also are the coins of L. Verus which have several figures, as well as those which represent the Emperor's statue crowned by Rome. The coins of M. Aurelius which are filled with several figures are rare, rarer still those which display the simulacrum of the Temple of Diana of Ephesus. The coins of Domitian representing the equestrian statue of the Emperor are exceedingly rare. Likewise the coins of Nerva with the effigy of reborn Rome are not to be found.

The coins of Caracalla are rare in which the simulacrum of Hercules is seen, exceedingly rare are those bearing the image of Hercules slaying the Hydra. The coins of Geta with three equestrian figures are rare; likewise the coins of Alexander in which his own effigy appears together with the image of his mother Mamaea. Equally the coins of the younger Gordian with many figures on a bridge are rare; still rarer are those with the simulacra of Hercules and Mercury. The coins of Philip with his own effigy and that of his son are exceedingly rare; just as the coins of Marcia with the images of Philip her husband and her son are rare. Lastly the coins of Vitellius, being exceedingly rare, are highly prized.

Finally, as regards personal effigies, rare coins are those of Caligula, Nero, Claudius, Germanicus, Drusus, Galba, Titus, Nerva, Paulina, Lucilla, Crispina, Severus, Geta, Caracalla, Julia Pia, Julia Mamaea, Maximus, Maximinus, Papienus, Balbinus, the younger Philip, the younger Decius, Trebonianus, Volusianus, the elder Valerianus, and Gallienus — and let what has been said about coins representing the human figure suffice.

SIMULACRA

Since the images to be catalogued here must refer either to the figure of some part of the human body or to the complete figure of a man, we have decided first to commit to writing certain matters pertaining to the parts, so that we may thereafter briefly run through the divine and profane simulacra of the Pagans. Thus, in the opinion of Giovanni Battista della Porta, a painting of a head bowed down denotes dejection of spirit, just as a head thrown back denotes arrogance; but when a head is portrayed as inclined to one side, it signifies languor. A human head furnished with serpentine hair, resembling the head of Medusa, was formerly figured on the stones of tombs: either, as Jacobonius wrote, to strike terror into those who violated graves; or, according to others, so that from it men might perceive that one ought not to become puffed up with the vain conceit of knowledge and wealth, seeing that Medusa paid grievous penalties on account of the beauty of her golden hair, as was explained in the Rubric of the Metamorphoses.

[marginalia: Venus Genetrix / Rare coins / Exceedingly rare coins / Coins of Geta, with three figures / In the book on famous antiquities, characters]

Also from Jacobonius: the Ancients carved on the stones of tombs two human heads, one male and one female; and this was done, the author writes, either for the protection of the sepulchre, or to indicate the Lares which Antiquity believed to be the guardians of tombs. A head with five faces represented Manasseh, who reigned among the Hebrews: for after he had removed Isaiah the prophet, he wished to be depicted with a double face, to indicate that he could see far more than the Prophet, who was called *the Seer* among men. Lastly the human skull painted at the feet of the image of the crucified Christ is said, from Nauclerus, to have been placed there because Adam is reported to have been buried in the very place where the Cross of Our Lord was set for the expiation of the human race.

The Ancients sometimes painted the figure of a heart on the stone of a tomb: either to indicate that from the mouth of the deceased nothing had been set forth with pretence, but only what had proceeded from the heart and sincerity of mind; or to make manifest to all that the kinsmen and relatives had mourned from the heart; or to signify that the buried man had sustained the life of those dear to him, which life is said to have its proper seat in the heart; or lastly to make apparent to all that the hearts of the living had been afflicted by grief at the death of the buried man. So Lulius Jacobonius expounded it. Otherwise the figure of a heart, among the Alchemists, just as the name of the heart, signifies gold, as is read in the Lexicon of Paracelsus; though Johannes Garlandius endeavours to show that many things signified by the heart in the alchemical art represent fire.

Sometimes the figure of a finger was observed on a tomb; for between Megalopolis and Messenia, in the region called Maonia, a stone finger was placed atop a tomb. Pausanias testifies that this was done for no other reason than because Orestes, maddened by the Furies, bit off one of his own fingers; and therefore they wished to preserve the deed in a monument by such a simulacrum.

Now we must come to complete figures of men, by the varied representation of which almost infinite things are signified. The Egyptians, as Cartarius reports, expressed the Creator of all things thus: they painted a man of azure colour, with a circle adorned with stars in his right hand and a sceptre decorated with a feather in his left, with an egg from which a child was hatching in his mouth. For the feather shows difficulty, the sceptre royal majesty, from the motion of the circle the life of the world is derived; by the egg the world is to be understood, and by the child Vulcan — the symbol of that heat which imparts life to all things. Again in the view of the same Cartarius, to express God the author of all things, they drew a boy seated in the branches of a lotus-tree, with the leaves and fruits of this tree being round, to signify the fiery dominion of God, since the action of the mind is completed in a circular motion. Before the Coming of Christ, truth was mystically intimated to the Pagans in the God of the Trinity; for the god of the Sabines, called Sanctus Fidius and half-father, they painted with a triple face and carried him into the city, attesting him triple in name yet one in very reality, and they so esteemed this triple simulacrum that it obtained supreme authority in oaths, under whose threefold appearance was understood the one God in a single power. Although others report that on a most ancient marble among the Romans, the simulacrum of Fidius was seen with a beardless face but of mature age, bearing this title: *HONOR*; this image extended its hand to Truth with a maiden's face, while in the middle stood a boy representing Love; for by these three figures Faith was described, since it rests upon truth, faith, and love.

The various simulacra of the Pagans, called divine by them, were once represented in various human figures; and yet, since they depart entirely from the path of truth, we may sing thus:

> *Jupiter, Bacchus born of the thigh, Saturn, Apollo,*
> *Mercury, Pallas, Juno, Diana, Ceres,*
> *Neptune, Pluto, Janus, Mars, Cupid —*
> *these are the divinities to be enumerated among the gods.*

It will be permitted to weigh their simulacra for a little while, so that we may contemplate the various human figures which Antiquity employed to signify them. First, to represent the form of Saturn, they painted an old man with uncovered head, holding a sickle in his right hand, and something wrapped in swaddling-clothes in his left; yet the image of four young children appears at his feet.

[marginalia: The figure of a heart in ancient tombs / How the cross is at the feet of Christ / Plin. Nat. Hist. lib. 7 cap. 16 / Cap. 49 / cap. 15 / The true image of the Creator / The Trinity intimated to the Pagans among the Ancients / Saturn's simulacrum, what it is]

The old man was depicted because he had been the first of all the gods; with uncovered head, because in the earliest age truth was manifest to all; the sickle denotes that all things are cut down and abolished by time; then the old man about to devour what is wrapped in swaddling-clothes signifies that all things are consumed with the passage of time; lastly, by the four boys the four elements are denoted.

Other simulacra of Saturn

Others represented Saturn by painting a half-naked old man with a serpent in the form of a circle in his right hand, his head covered with a green cloth — a figure which was seen moving at a slow pace; by the serpent they understood the year, by the green fleece the Spring, by the hoary hair the snows and frosts of winter, and by the slow gait the sluggish revolution of the sphere of Saturn. Others, in the view of Cartarius, painted Saturn with a serpent on his head, with the head of a boar in his right hand and the head of a lion in his left; for the figure of three heads signified past, present, and future time.

Turning to Jupiter: he was designated by the figure of a man naked in his upper part and clothed in his lower part, holding a sceptre in his left hand and an eagle in his right. For, as Cartarius says, the naked upper part of the simulacrum indicated that Jupiter manifests himself to the higher intelligences, while the clothed lower part denoted that the god cannot at all be seen by men living on earth.

Simulacra of Jupiter

Otherwise, a man seated on a tribunal holding a thunderbolt in his right hand and a spear in his left represented Jupiter the Guardian; although Cartarius exhibited this simulacrum painted in another manner, namely showing a man seated upon two bulls; while a naked standing man furnished with a spear and a thunderbolt shows Jupiter the Steadfast; and indeed holding a thunderbolt in both hands designates Jupiter the Avenger of crimes. And so the Poet, looking to this, at times sang:

> *As often as men sin, let Jupiter hurl his thunderbolts;*
> *soon from such usage his armament will be exhausted.*

Otherwise, by the simulacrum of a naked man with a thunderbolt in his right hand and a goatskin in his left, Jupiter punishing according to merits is shown, because in that skin all human actions were said to be inscribed.

But when by the simulacrum of Jupiter the birth of Pallas is signified, then Cartarius paints a standing man splitting open the head of a half-naked man seated on a flowery hill with an axe, with an eagle, from whose wound an armed virgin emerges;

Minerva

for by the standing man he understood Vulcan, by the seated man Jupiter, and by the virgin leaping forth from the wound of the head, Minerva. Sometimes the painting of a man holding golden scales in his hand and inclining them now this way and now that signified Jupiter, who, in the view of Cartarius, bestows good or evil upon whoever he pleases. Otherwise, a man on the right and a woman on the left, both extending their hands to a boy occupying the middle, from the same Cartarius, expresses Jupiter Fidius; for the man shows honour, the woman truth, and the boy faith preserved — of whose simulacrum we made mention a little above.

Jupiter among the Eleans, how he was painted

Moreover it is to be noted that Jupiter was designated by various nations in various ways. Cartarius, among the Eleans, to represent Jupiter, exhibits a man wrought from gold and ivory, placed on a royal throne, garlanded with olive branches, with a Victory in his right hand and a sceptre in his left, whose summit an eagle occupies; the robe of the simulacrum is of gold, interwoven with various figures of animals and flowers. Otherwise among the Leontinians, to represent Jupiter, a man was painted with an eagle in his left hand and a javelin in his right. Indeed Cartarius shows Jupiter among the Arcadians by a painting of a naked boy, with a patera in his left hand and a thyrsus in his right, whose summit an eagle occupies, crowned with vine-leaves. In Crete there was formerly seen a human simulacrum without ears, and it was said to be that of Jupiter; by which they signified that he who was to give laws to the rest should never listen privately, but ought to consult all publicly. Furthermore Cartarius, among the Lacedaemonians, shows the figure of a man with four ears for Jupiter;

Jupiter with four ears

for by this reasoning they intimated the prudence of a Prince, who ought to hear patiently whatever the peoples say of him. Although others represented this simulacrum marked with three eyes, to reveal the nature of any Prince, which ought to be such that he sees all things. But it is more correct and better to assert, in the view of Cartarius, that this simulacrum of Jupiter was figured with three eyes so that to all men the three kingdoms of Heaven, Earth, and Sea might be made known.

Jupiter with three eyes

Lastly among others, the painting of a man with a bird in his right hand and a thunderbolt in his left, crowned with various flowers, likewise shows Jupiter.

[marginalia: Cartarius / Simulacra of Jupiter / Minerva's origin, what it was like / Jupiter the Guardian / Jupiter punishing according to merits / Jupiter among the Eleans, how he was painted / Jupiter with four ears / Jupiter with three eyes]

There is no lack of simulacra referring to Apollo. For Antiquity sometimes painted a man of handsome face, with golden hair, adorned with a purple and gold-embroidered cloak, with a shield in his right hand and a torch in his left; and in this manner represented Apollo. Otherwise among the Achaeans, for Apollo there was painted a naked man, shod however, pressing the skull of an ox with one foot. Indeed among the Lacedaemonians, for Apollo a human simulacrum furnished with four hands and as many ears was displayed, by which figure wisdom was signified, of which Apollo is said to be the symbol — wisdom which no one can obtain for himself except through hearing many things and many works. Likewise among others Apollo was depicted helmeted and thirty cubits high, with bow and spear; though Cartarius considers that these attributes more properly belong to the prerogatives of Mars.

Apollo, or the Sun

Yet the figure of a man holding a bow and about to strike a lizard with an arrow represents Apollo — that is, the Sun — since, as Cartarius held, the Sun by its rays drying up the earth does not permit such small creatures to be generated from putrefaction. Just as likewise the effigy of a man pressing a mouse with his foot signifies Apollo, namely the Sun; for the Sun, resisting the putrefaction of the earth with its rays, prevents the generation of mice. When moreover a man was painted with one side of his head shaved and the right side long-haired, then the simulacrum of the Sun was to be understood, for by the hair the part of the year having longer days was denoted, and by the shaved part of the head, in Cartarius's view, the shorter and wintry days were manifested.

The Sun

Although Valerianus expresses Osiris — namely the Sun — by the painting of a man with an erect member and a basket atop his head; for by the figure of the erect member he indicates that generation is accomplished by the Sun, and the shape of the basket indicates the benefit of nurture. Otherwise, from Cartarius, a naked man furnished with a double horn and about to strike someone with an arrow signifies Jupiter or rather the Sun diffusing its rays upon the earth. Finally a naked man on a square stone with the head of a lion and a bull's horn in either hand indicates the Sun, whom the Persians venerated under the name of Mithras.

Phoebe is the Moon

After the Ancients recorded that Apollo, son of Jupiter and Latona, was born at the same birth as Diana or the Moon, and therefore called her Phoebe — that is, the sister of Phoebus — it is right that after the iconism of Phoebus, namely the Sun, we descend to ponder the iconism of Phoebe. For Cartarius, together with the Ancients, designates the Moon receiving her light from the Sun by the figure of a naked man with the head of a hawk, since the hawk was said to be the symbol of the Sun. Otherwise the same author represents the same Moon by the effigy of a naked man with the head of a Ram, because this Moon, joined with the Sun in the sign of Aries, exerts a greater moisture. But, in the view of the interpreter of Hesiod, by the simulacrum of a three-headed man Phoebe is shown, who in Heaven is called the Moon, on earth Diana, and in the lower regions Proserpina.

Why Phoebe has three heads

Otherwise by this image present, past, and future time is denoted, and among the Latins the threefold division of the month into Kalends, Nones, and Ides is expounded. Others by this same figure represent Geryon; others assert that this figure is the symbol of Spain, either because, as Valerianus notes, the Geriones drew their origin from Spain, or because Spain appears to be tripartite. Otherwise the figure of a three-headed man furnished with many eyes and hands is expounded as he who, in carrying out his affairs, makes use of the counsel and assistance of many men.

Iconism of Mercury

Those who desire to see the iconism of Mercury, let them have recourse to Cartarius, who exhibits a handsome head covered with a petasus, which two serpent figures encircle. Although the same author paints Mercury as a naked youth covered with a petasus furnished with two wings, whose lower parts end in a square stone; for by that square figure the Ancients intimated that Mercury was the inventor of Grammar, Music, Geometry, and Wrestling — though the common simulacrum of Mercury is represented by the figure of a youth with a caduceus and wings at his feet.

The simulacrum of Mars

An armoured man furnished with a spear and a whip, sometimes equestrian and sometimes in a chariot drawn by horses, signifies the god Mars. But it is to be noted that the painting of Fame shaking her wings precedes the simulacrum of Mars, and likewise this chariot of Mars is imagined to be drawn by four fire-breathing horses.

Let us pass from the figure of Mars to the effigy of Cupid, since he was believed to be the son of Mars and Venus. Eustathius sometimes expressed Cupid by depicting a naked boy with winged feet on a golden chariot, with a burning torch in his right hand and a bow in his left; he places the figure of naked youths on either side, and around the simulacrum innumerable figures of either sex, condition, and age are drawn; but among these peoples a white woman and a black woman are to be seen —

[marginalia: Various representations of Apollo / Apollo or the Sun / The Sun / Phoebe is the Moon / Why Phoebe has three heads / Iconism of Mercury / Simulacrum of Mars]

[catchword: Bb]

this image of Cupid bears arms against men, a torch against women, a bow against wild beasts, and wings because of birds; and he is painted naked at the bottom, so that he may enter the waters; while those women, of whom one is painted white and the other black, signify day and night. Nowadays, however, painters to express Cupid depict a naked boy deprived of sight, furnished with arrows and a bow, and call him the God of Love. But a certain poet rightly wonders why Love is called and painted blind, since he is however altogether sharp-eyed; beyond the fact that we have elsewhere declared eyes to be the guides in love — therefore he sets forth his opinion in these lines: saying that this has its origin from the fact that Cupid makes others blind:

Was he blind, who fashioned blind Love?
Blind Love is not: that fellow was a lynx —
for those eyes of his are keen and watchful,
which he prepares, aimed at every crime.
Here he employs soft enticements, here he sits in judgment,
he thinks himself worthy to be his own first judge.
He keeps watch in these things, a spy for himself and for others,
whether he tries to assail men or to strike gods.
He fixes his arrows in the eyes and breast of the careful lover,
soon the wretch, having received the wound, goes away blind.
Thus, because chance makes blind those who follow his camp,
so that the name may be repeated from experience.

There were moreover those who, in the opinion of Cartarius, painted Cupid naked and winged with a double gate, to establish him as the guardian of both gates of Heaven — one of which stands open to the soul descending into the body, and the other to the soul ascending from the body to Heaven; and the Ancients declared this to be the gate of the gods, the former the gate of men. We also remember having seen, for the figure of Cupid, a naked winged boy who, having laid down his bow, handled a lyre. Otherwise Cartarius, to signify Cupid and Anteros, represents two naked winged boys furnished with a quiver and contending with one another in such a way that each seems to want to snatch the palm branch from the other; for where a mutual love operates, there is doubtless a contest on either side as to which shall surpass the other in loving. Otherwise, from the same Cartarius, the figure of Lethean Cupid — that is, of Love banished by oblivion — is expressed by the figure of a winged naked boy armed with a quiver who endeavours to extinguish a burning torch in a stream.

Various representations of Bacchus

Now the time comes to represent Bacchus, who is portrayed by the figure of a naked boy seated on a rock, holding a bunch of grapes with both hands. Otherwise, from Cartarius, a man with a long beard, in a long robe, lying in a grotto surrounded by vines and extending a cup with his hand is painted for Bacchus. In the badge of the city of Heraclea, of which Bacchus was the tutelary god, he was painted thus: a man with a patera in his right hand and grape clusters in his left. Though others, to represent Bacchus, used the simulacrum of a naked man with a bunch of grapes in his right hand and a tiger's skin in his left. Among others, Bacchus was seen as a beardless man crowned with ivy. Lastly some among the Ancients depicted Bacchus crowned with grapes, with a ferula in his right hand and the heads of poppies in his left; for thus the shape of the poppy intimated that sleep is brought on after drinking, and by the simulacrum of the ferula they signified that drunkards deserve punishment — which sentiment is expressed in this couplet:

That thus, full of wine, he may give sleep to his body,
let him know that the next day he has earned his punishment.

Neptune, how he was formerly painted

Among these simulacra Neptune is counted, for he was painted, from Cartarius, with sea-green hair, with a trident and a trumpet, standing in a sea-shell drawn by two horses that in their hinder parts end in fishes. The Ancients assigned the trident to Neptune on account of the three seas, or to indicate the three distinctions of waters — namely of the sea, the spring, and the lake — over all of which this god was said to preside. Otherwise from the same author, the painting of a naked man with three thongs in his right hand and a cloak hanging from his shoulders likewise signifies Neptune. Others in expressing the effigy of Neptune painted a naked man pressing the prow of a ship with one foot, with a dolphin in his right hand —

[marginalia: Whether Love is blind / Other simulacra of Cupid / Lethean Cupid, who / Various representations of Bacchus / Neptune, how he was formerly painted]

and a trident in his left. But when the same simulacrum is seen in a sea-shell drawn by four sea-horses, with a beautiful woman and a boy seated upon a dolphin, then Cartarius believes that Neptune with Amphitrite and the boy Palaemon is intended; just as if there is seen a naked man crowned with a royal crown who presses a trident with his right hand and a ploughshare with his left, then the abundance of water is denoted, by which the human race is aided — not altogether unlike the benefit which the human race receives from the earth.

Neptune with Amphitrite and Palaemon

On the other hand, if a man is painted with his hair marked with marsh parsley, his body covered with green scales, and about his belly small fins like those of a dolphin, and finally degenerating in his lower parts into a fish, then, in the opinion of Cartarius, he designates Triton. Just as likewise the painting of a man with white and lengthy beard, with loose hair down to his shoulders, with shaggy and joined eyebrows, with a chest covered with green moss, and the rest of a fish, denotes Glaucus the sea-god. But when there is observed the painting of an old man with an aged woman in a chariot drawn through the sea by two horses, preceded by Tritons and accompanied by many nymphs together with a school of fish under a single guardian, then by the man we must understand Neptune, by the woman Tethys, by the nymphs the rivers discharging themselves into the sea, and by the chariot that Oceanus surrounds the earth; for the roundness of the chariot's wheels demonstrates the roundness of the earth, according to Ovid's assertion:

> *The earth, like a ball resting on no support,*
> *hangs suspended in the air spread beneath it, so heavy a weight.*

Glaucus the sea-god

Aesculapius son of Apollo was figured thus: a youth clad in a cloak, with fruit in his right hand and a staff with a serpent in his left was imagined. Otherwise a youth holding the hem of his garment in his left hand, with various fruits, bearing two cocks, as Cartarius held, shows the god Aesculapius. Others, for the simulacrum of Aesculapius, figure a bearded man with a hat on his head, covered with a cloak, holding in his right hand the figure of a girl with wings, and in his left a staff encircled with a serpent, with a hen and an owl beside his feet; for by the image of the girl they signified health, by the hen food suitable for the sick, by the owl pains more severe by night, and by the long beard an elderly physician. Some also imagined that Aesculapius was born bearded.

Other figures of Aesculapius

But others held that he was made immediately beardless, so as easily to persuade physicians that in the space of an hour the face of a disease can change, and therefore opportunity must not be let slip; since Hippocrates in the front of the *Aphorisms* warned that opportunity is precipitate.

The simulacrum of Pan

If anyone desires to understand the simulacrum of the god Pan, he should know that the city of Pan was formerly in Egypt, where the image of this god was seen with erect member, which raised a spear-shaft toward the Moon placed to the right of the simulacrum; they added the Moon to this simulacrum because they believed that all things necessary for human use were supplied by the Moon. Otherwise the common painting of this simulacrum is the image of a horned man crowned with a pine wreath, with goat's ears, a fiery face, a beard let down to the breast, covered with a spotted leopard's skin, with a crook in his left hand, and in his right a syrinx composed of seven reeds; but the lower parts bear the shape of a goat. By this device Antiquity signified the universe: not only because Pan among the Greeks denotes everything, but also because the horns of this simulacrum indicate the rays of Sun and Moon, the ruddy face the element of fire, the long beard the air, and the spotted skin the eighth sphere adorned with stars. But the feet, because of their crookedness, indicate the year; the syrinx composed of seven stops signifies the orbits of the seven planets; and finally the goat's feet manifest the earth rough with trees, shrubs, and herbs.

Simulacra of Priapus

Since Priapus is held to have the greatest affinity with the aforesaid simulacrum: for although Cartarius, to express Priapus, paints a fat and deformed boy with an erect member so ample as to seem to equal the whole body of the boy; nonetheless, among the Egyptians, there was a simulacrum in human form under the name of Priapus which with its left hand handled an erect member and with its right bore a sceptre adorned with a disc and feathers; for by this means they thought they could demonstrate the virtue of the Sun: for by the erect genitals they showed that seeds hidden in the bowels of the earth, and herbs, at length burst forth by the power of the Sun; and to this purpose Ovid sang:

[marginalia: Neptune with Amphitrite and Palaemon / Glaucus the sea-god / The figure of Aesculapius / Other figures of Aesculapius / The simulacrum of Pan / Simulacra of Priapus]

[catchword: Bb 2]

The tutelary of gardens

> *The grass that lay buried beneath the weight of grain*
> *thrusts forth its soft shoot from the warm earth.*

By the sceptre the dominion of the Sun in Heaven and on Earth is demonstrated; the disc indicates the orb, and finally the feathers make manifest its swiftness, since the Sun every day in the space of twenty-four hours encompasses the whole of Heaven. It is not therefore to be marvelled at if Antiquity placed the simulacrum of the male member in gardens and called it Priapus. Although Varro afterwards wrote that this custom had been received because gardens were referred to the protection of Venus, who was held to be the goddess of all generation. This simulacrum — namely the male member — was employed in the sacred rites of Eleusinian Ceres, wrapped in many bands; and before it was uncovered many ceremonies were performed: first they tarried long before the doors of the chapel, and many other things they transacted regarding silence and garments, which Apuleius recounts in detail; but what was most ignominious, princes, philosophers, and those who were themselves the lords of Roman affairs, drawn by a kind of levity, approached to behold this foul simulacrum when uncovered.

The image of Janus

Antiquity marked the image of Janus with two heads, to indicate the prudence proper to one who professes to know the past and foresee the future. Although others have written that Janus was formed in this figure in order that the beginning and end of the year might be signified, since Janus placed in the middle looks upon both. Others depicted Janus with four heads, either because the beginnings, ends, entrances, and exits of all things were consecrated to him, or to indicate the four seasons of the year.

Why Janus has four heads

Although others assigned a four-headed figure to Janus to signify his four daughters, who, stricken with grief at their father's death, ended their lives with a noose; since some rustics, given wine by Janus at his invention, and having become intoxicated and thinking it a poison, stoned Janus.

The god Canopus

Canopus the god, who was, they say, the helmsman of the ship of Menelaus, is thus painted by Cartarius — namely a fat man, nearly round, with a bent neck and very short legs. Although Goropius in the *Hieroglyphics*, for the god Canopus, describes a boy with veiled head and great projecting ears, with arms so figured crosswise under the garment that the right hand appears on the left side and the left hand on the right side, the remainder of the body being terminated by a quadrangular base, on which letters are hieroglyphically engraved; the right hand appears to hold the letter A with a small cord, and the left to bear a sickle. Wherefore I believe he is placed at the age at which boys are accustomed to learn the alphabet.

Various simulacra of Harpocrates

Some among the Ancients painted Harpocrates as a boy with his finger placed to his mouth, to intimate to the human mind that nothing is more necessary to human salvation than to have some guide who would impress all the rules of life upon the raw minds of boys; and since silence is indicated by this finger, by this simulacrum the wise admonished that wisdom must be learned through long taciturnity. Although Goropius elsewhere, for the god Harpocrates, painted a boy seated on a circular base, pressing his mouth with his right hand, and holding a burning torch in his left, pressing the throat of a domestic cock with his right arm, and bearing on his left shoulder a quiver full of arrows; then the summit of this simulacrum's head is adorned with an ass's ears, and the forehead decorated with the image of the Moon. Among the Egyptians this simulacrum of Harpocrates was most familiar — namely the index finger pressed to the lips, to make manifest that silence must be kept concerning the immortal gods.

The simulacrum of Angerona, what it is

Among the Romans there was seen a certain effigy with its mouth bound, under the name of Angerona; for by this they signified that something was to be passed over in silence: this simulacrum was placed in the chapel of Volupia, and so named because it was believed to drive away anguishes and anxieties of mind. Otherwise, for the simulacrum of Silence, Cartarius depicts a beardless and naked youth, with the index finger of his right hand applied to his mouth. Although others, from the same author, painted a youth without a mouth, covered with a wolf's skin, with a hat on his head, and then added to the whole simulacrum infinite eyes and ears; for by so many eyes and ears they signified that much is to be heard and seen, but wrapped in silence, since the simulacrum was fashioned without a mouth; the hat of the simulacrum also denoted the freedom of keeping silent but not of speaking; by the wolf's skin too silence was indicated, since at the sight of a wolf one's voice is taken away.

Now we have come to the simulacrum of Hercules, which for the most part is the painting of a man standing —

[marginalia: The tutelary of gardens, what it was / The image of Janus / Why Janus has four heads / The god Canopus / Various simulacra of Harpocrates / Simulacrum of Angerona, what it is]

of a trophy in the left hand and a club in the right. Although others, representing a nude man with a club, an arm's-hide in the left hand, and a branch of laurel in the right, believed they were displaying Hercules. Others, instead of Hercules, depicted a nude man with three apples in the right hand and a club in the left. Others fashioned a nude man with a club and a lion's skin in the left hand, goading two bulls with his right. But when one sees the figure of a powerful man striking with his fist a youth who is offering him a cup, this signifies Hercules, who slew the boy Cyathus when he performed the cupbearer's office improperly. Likewise, when one beholds the image of a great and powerful man holding a goblet in his hand — following Cartari — Hercules the drinker is to be understood, since he received a vessel of this kind for drinking as a gift from Apollo. And when a great man appears armed with a club and a quiver, Hercules is shown as about to fight on behalf of the Thebans against the Minyans.

Moreover, if it should happen that one views an iconographical group containing the following figures — namely, a man clad in a lion's skin, with a club in his left hand, who is compelled to drag a tripod toward himself with his right, while on the other side a beardless young man strives to snatch it away; and then there are images of women, the first of whom is equipped with a bow and quiver, the second appears to be a matron, and the third is helmeted and armoured with a spear and shield bearing a Gorgon's head — the armed woman signifies Pallas, the other equipped with a quiver and bow signifies Diana, and the matron signifies Latona. The man clad in a lion's skin, dragging the tripod, denotes Hercules carrying off the tripod from the temple of Apollo when he was unable to hear the oracle's pronouncement in his favour at his pleasure.

In a different manner, the Gauls are said once to have had a representation of an aged man, whom they recognised as Hercules by reason of the lion's skin and the club. Yet this representation seemed to have its face turned toward its shoulders, toward a great multitude of men who accompanied it, but all of their ears were connected by individual golden chains that presently, gathered as it were into a bundle, were threaded through perforations in the tongue of the statue — for by this representation they endeavoured to express the force of eloquence. Finally, by the figure of a powerful man lifting a giant from the earth and dashing him down, Hercules is to be understood, he who slew Antaeus, the son of Earth, by crushing him.

If a man is painted lame, ugly, with a dark face, for the most part nude or half-nude, wearing a blue cap, sometimes with a hammer and anvil, this signifies Vulcan, God — following Cartari. A man composed in every aspect of metal and timber, and so great that with arms extended he touches each side of the temple, represents, according to Cartari, the God Serapis as worshipped by the Alexandrians of Egypt. Likewise in the same author, a man with a dog's head, carrying a caduceus in his left hand and a branch of fresh palm in his right, denotes the God Anubis; for by his dog's head the shrewdness of Mercury is denoted, which the God Anubis represents. But if one discerns the image of a bent and pallid old man, with open mouth, striking the earth with a staff, this manifests the God Momus, according to Cartari. But when a youth is painted crowned with flowers, with a ruddy face, holding a spear in his left hand and a burning torch in his right, with a lyre as if falling from his hands, peering through the cracks of a bridal chamber door — this represents Comus, the God of festivity.

Furthermore, a nude youth with long hair about his forehead, bald at the back of the head, holding a razor in his hand and wearing winged sandals at his feet, placed upon a round stone, displays the God Cerus, whom the Latins call Occasio — Opportunity. For this reason the Poet sang:

> *Opportunity has forelocks; behind, she is bald.*

If an image of the God Genius is sought, one must have recourse to the people of Elis, who, in order to represent the God Sosipolis — or Genius — painted a boy clothed in a garment of many colours adorned with stars, extending a cornucopia in his hand. Alternatively, Cartari shows that a painting of a youth with a cord in his left hand and a patera in his right, which is poured out over a tall altar adorned with flowers, manifests the Good Genius; and conversely the figure of a dark man, terrible in aspect, clad in a wolf's skin, signifies the Evil Genius.

Among the images of the pagans, two young men clad in armour were seen with a javelin in the right hand, and they indicated the Gods who guard the inner recesses of the house. After the Penates came the Lares, who were depicted by the image of two young men clad in dog-skins, with the figure of a dog at their feet — for they were also otherwise depicted, according to the thought of Cartari: namely, as two young men clad in garments hanging from the right armpit and knotted over the left shoulder.

Let us now contemplate the images of women. First of all there presents itself a woman armed with a lance in her right hand —

[catchword: dextra,]

[marginalia: Hercules the drinker. / Hercules carrying the tripod from the temple of Apollo. / The image of the God Vulcan. / Momus the God. / Comus the God. / Cerus the God, called Occasio. / Images of the Genii. / Penates. / Lares.]

that verse:

Here the senses are strong; hence comes sacred Minerva's
Owl, which sees in the night by her triple light.

Before the small shrine of Minerva placed upon the Capitol, three statues kneeling were once to be seen, which were called by some the Nixidiae, because they were believed to be present at the labours and pains of women in childbirth. Deliberately omitting the image of Venus, which was represented by the figure of a handsome woman with doves, and the image of Juno, which was expressed by the figure of a woman with peacocks, we shall proceed to weigh the image of a venerable woman with a belt in her hand, whom the ancients called Viriplaca — the Appeaser of Husbands — because she was said to reconcile married couples who had fallen out in bitter hatred; indeed, a husband and wife, as soon as they had conceived mutual hatred, would have recourse to the statue of Viriplaca.

Furthermore, three images of nude girls embracing one another, under the names Aglaia, Euphrosyne, and Thalia, represented the statue of the Three Graces. To these they added three effigies of women, whom the ancients named the fatal Goddesses, that is, the Parcae, because they spared none among mortals; of these it is sung thus:

Clotho herself holds the distaff, another draws the thread,
A third sister breaks the threads of life.

From here we make our way gradually to the Tartarean abode, where a man of dark colour, crowned with ebony, sitting upon a tribunal, with a three-headed dog at his feet, is said to be visible — by which image Cartari represents Pluto. Alternatively, the statue of Pluto was painted with a rod or club in his hand, sometimes with a woman sitting upon another tribunal, holding a key in her right hand. The man signifies Pluto, king of the infernal regions; the woman denotes Proserpina; the key signifies the custody of souls; the three-headed dog was said to strike terror into the souls lest they depart from the underworld — or rather, it indicates the earth, which appears to devour the flesh of those buried; just as that three-headed dog was believed to devour the souls seeking exit. Otherwise, following the view of Valerianus, the figure of two human heads expressed in tombs, along with the letters D. M., manifested the Gods of the Dead, in whose protection the deceased were said to be.

Among the Infernal shades they also painted an old man of horrible aspect, with eyes like those of a stag, a long and tangled beard, wearing tattered garments, and they called him Charon; and likewise the image of a man submerged in water up to his mouth, with fruit-bearing trees about the banks, indicates Tantalus. Nor are there lacking other images to be explained, for those who wished to signify Orpheus depicted a man clad in philosophical garb, playing a lyre, amid a multitude of various animals, and also of trees, which appear to hasten toward him to hear. Although Costalus made use of an image of this kind to demonstrate the power of eloquence, which Euripides called a queen, and Ennius named "the soul-bending" [*flexanima*].

The statues of Giants were made known by the ancients through images of men of great stature, with hair spread over their shoulders, beards let down to the chest, and serpentine legs. Among these men they greatly admired Typhon, a being of enormous bulk, covered in feathers, with a great mouth breathing flames, his head touching the stars, one hand stretched toward the east and the other toward the west. And the image of a youth pressing upon the genitals of Typhon signifies the one who vanquished him without slaying him, since he had been transformed and gone off in the shape of a crocodile. Finally, if one sees figures of Nymphs, of whom some offer a helmet and others winged sandals to a young man, they point to Perseus preparing for the slaughter of Medusa.

To these I shall add, as a kind of crown or finishing piece, the Egyptian image that was fashioned in the shape of a man and a beast, and was called the Sphinx, which was placed in the vestibules of temples. For this was venerated as a sacred symbol of the combination of two virtues, namely Prudence and Fortitude: for by the image of the beast, strength was understood, and by the image of the man, prudence — these being joined together, each thing was held to be unconquerable. Clement of Alexandria also recorded in his writings that in the sacred precinct called the Pylon in the city of Diospolis, a child, an old man, a hawk, a fish, and a crocodile were to be seen, with the inscription: O YOU WHO ARE BORN AND WHO DIE, GOD HATES IMPUDENCE. For by the child they understood birth, by the old man, death, by the hawk, God, by the fish, hatred, and by the crocodile, impudence.

By the child they understood birth, by the old man, death —

[marginalia: Viriplaca — what Goddess. / The Three Fates. / Plato's view. / Charon. / Tantalus. / The image of the Giants. / The Sphinx.]

by the hawk, God; by the fish, hatred; and by the crocodile, impudence.

We shall now proceed to weigh the images of inanimate things, in which, nevertheless, human forms are discerned. For Cartari, in representing the World, uses the image of a man clad in a multicoloured garment with splayed feet, bearing a great sphere upon his head. For the sphere signifies the roundness of the World, the turned-out feet signify no change of place, and the multicoloured garment signifies the varied nature of the stars. What more? The ancients also used the human figure to express the Winds. For the image of Boreas was a man with puffed cheeks, his hair covered with snow, with serpentine tails and wings attached to his legs. The wind opposite to him, namely Notus or Auster, was shown, according to the view of Cartari, by the figure of a man with a dark face and clouded brow, with wet hair and beard — since Ovid, speaking of this wind, attributed rain to him:

The land on the opposite side
Is wet with constant clouds and from a rainy South Wind.

If they wished to describe the wind coming from the eastern quarter, they painted a dark-coloured winged man with the image of a fiery Sun above his head — thus they designated the East Wind, Eurus; since the Sun rising in a fiery colour indicates that Eurus will blow the following day. But when they depicted a gentle-faced, nude, and winged youth crowned with flowers, they understood Zephyr, the West Wind — for this wind, opening Spring and the year, was constituted by Antiquity as the husband of the Goddess Flora.

The images of the Months are not to be passed over, which, according to the view of the philosopher Eustathius, are variously figured. For although a two-faced man designates the month of January, because this month couples the end of the preceding year with the beginning of the following one, nonetheless Eustathius depicts a young man lifting his left hand and caressing dogs with his right, as though about to incite them to the hunt — since in the month of January men devote themselves to the hunting of wild beasts. To signify February, he depicts an old man clad in skins, barefoot, beside a bright hearth. To express March, a soldier clad in full armour, equipped with a spear and shield, is painted by the same author — for this alludes to the name of the month, which was called March because it was consecrated to Mars, or because soldiers, after wintering, gird themselves again for battle in this month.

April is expressed by the image of a shepherd with a she-goat and kids newly born — for this thus alludes to that month in which animals multiply on every side. But if a youth of lovely face is painted, with hair spread over his shoulders and crowned with roses in a flowery meadow, he will signify, according to the thought of Eustathius, the month of May. Otherwise a man clad in rustic garments, with bare arms and feet, garlanded with a crown of flax flowers and depicted with a scythe, will denote June, at which time flax and grains attain full ripeness. But a man almost entirely nude, wearing a hat, reaping grain in the fields, signifies July, at which time harvesters apply themselves to the gleaning of ears of grain.

Alternatively, a nude man with a cup in his right hand and covering his private parts with cloths in his left, standing before a bath-house, demonstrates August, since at this time men make use of wine and baths.

September, moreover, is declared by the figure of a man with hair scattered over his shoulders and bare feet, who presses a vine with his right hand and strips bunches of grapes with his left. But when the image of a youth with bird-snares and traps in a meadow is seen, October is understood, since at this time men delight in fowling. Indeed, a man clothed, wearing a hat, with oxen and a plough, signifies November. And when such a figure is seen with a basket full of seeds, it will indicate December.

Others, in order to express each individual Month, according to the understanding of farmers, make use indeed of human figures, adding the figure of that implement which rural workers employ in each month. Others, and perhaps more correctly, in order to represent each individual Month, painted a young man displaying with his hand that sign of the Zodiac into which the Sun is accustomed to enter in each month — as is expressed in these verses:

March, fiery Aries leads the seasons of Spring.
April bears with it the company of the fierce Bull.
Flowers —

[marginalia: The image of the World. / The image of Boreas. / The image of the Winds. / The images of the Months. / January. / February. / March. / April. / May. / June. / July. / August. / September. / October. / November. / December.]

May brings with it the stars of the Gemini with flowers,
The Sun drives fiery June into the lofty pole of Cancer,
Scorching Leo burns the month of July with its fire,
The golden Virgin draws the month of August with her,
September balances the nights with the scales of Libra,
Pugnacious Scorpius bids fierce October advance,
The Archer displays his fame in the midst of November,
The Sun, declaring the solstice of winter, in December under Capricorn,
In mid-January the moist sign of Aquarius,
Let the doubled season of February advance under the Fishes.

Ripa in his *Iconologia*, whenever he represents the individual months, always uses the figures of young men — and not without reason, since time is distributed into hours, days, months, and years; for rightly the hours should be constituted in childhood, days in adolescence, months in youth, years in manhood, and time itself is finally to be placed in old age. The division of time proceeds thus:

The year completes its course in twelve months,
A single month encompasses four weeks,
A week is distinguished over seven days,
And each day consists of twenty-four hours;
Yet the year, not counted by complete parts,
Is fulfilled by three hundred and sixty-five days,
But if you add six additional hours, P
A complete day arises in every fourth year,
From which the bissextile year is thus born.

Since, therefore, this division attains to genuine truth, we ought not to be held in any admiration if the most learned Ripa, in depicting the months, employed so many elegant young men.

Moreover, if we should at any time happen upon the image of a nude old man lying prostrate upon the ground, with flowing hair and a long beard, with horns and a large urn adhering to him, from which water gushes copiously, we shall declare it to be the image of some river. For this reason, when Cartari represents the Tiber, he paints an old man crowned with foliage and fruits, lying upon the ground, with a reed in his hand — thus demonstrating the fertile fields irrigated by the Tiber, since the farmers of those regions do not use dung, but cast every kind of it into the river. Likewise the figure of a nude, horned old man lying on the ground, his arm clinging to an urn pouring out water, designates the river Po — for with horns the oblique banks of rivers are signified, or, as others would have it, to denote the murmuring of the waters, which is wont to be compared to the lowing of oxen.

Finally, an old man sitting upon a Crocodile or a Hippopotamus, his arms clinging to an urn emitting water, about whose image sixteen small boys are seen wandering, denotes the Nile — and by the effigies of the sixteen small boys, they signify that the increase of the river ought not to exceed sixteen cubits.

These things concerning rivers being understood, we shall hasten to the examination of other and various images. For Cartari, in painting a man with a yoke and shackles, signifies marriage. The figure of a man riding upon an Elephant demonstrates eternity — for this reason Antiquity used to paint the Emperor in a chariot drawn by Elephants, to intimate to all that he had been enrolled in the number of the Gods. But when they depicted two small boys playing together in a bed, they believed they were expressing the happiness of the age. The painting of a youth adorned with an elegant garment, with a patera in his right hand and an ear of grain together with a poppy in his left, signified, in the view of Cartari, a good outcome — just as the figure of a blind and winged youth standing upon a wheel with his feet made firm denoted favour.

Likewise a small boy clad in purple, crowned with a laurel wreath, led by Cupid to the Goddess Virtue, hints at the image of Honour. Rest, moreover, was designated by the image of a man who placed one foot upon the other — for this reason an image of this kind is carved upon tombstones to signify repose; although some hold that by such an image idleness is sometimes shown, and sometimes meditation. Finally, when the image of a woman appears to be joining the right hands of two men, it is to be judged the image of Piety.

[marginalia: The Rivers Tiber and Po. / Feet. / The Nile. / Marriage. / Eternity. / Happiness of the age. / Favour. / Honour. / Piety.]

Finally, for the image of Furor, Cartari depicts a horrible-looking man with a bloodied face, seated upon helmets, shields, and swords, with his hands bound behind his back. The same author, in order to signify Terror — which the ancients called the companion of Minerva, since it is always present in any war — depicted, according to the thought of the ancients, a threatening boy with a face that changes at will, marked with several hands. Although others held that for Terror a boy with a lion's head should be painted; still others fashioned a boy with a feminine face and aspect, but of horrible appearance.

To these, as a crown and finishing piece, the image of Fortune is to be added. For it was the icon of a woman with blindfolded eyes, nude, winged, having half a beard, and standing with feet upon a globe, with a golden horn in her left hand and a sceptre in her right. All that is contained in this image is set out in these most elegant verses:

You see Fortune as a woman — a woman appears to you,
Because she flows slippery after the manner of a woman.
Say, is she a Goddess? A Goddess known in her way throughout the world —
Why does she stand upon a globe? She is equally unstable.
The painter drew her caught without eyes; she sees not
Either those upon whom she breathes, or those who call to her.
Why does one part show an empty, the other a full beard?
What underlies each sex in her foot?
Why naked? Because whatever she possesses — of boys and old men —
She bestows unconsidered, even to the skin.
And why winged? Whoever is borne along by her favour
Mounts from a humble place to the stars.
But why have you taken away the foundation of her standing feet?
Those who bear her are not stabilised on any base.
Why does she wear a golden horn, why does her right hand hold a sceptre?
Her resources cry wealth; her empire, power.
Let your mind be free to paint anything; for when you call her Fortune,
Can she be anything but a Chimera?

Whoever desires to know more in this kind should consult the *Iconologia* of Ripa, a man of the greatest learning, where he will behold with the greatest pleasure the images of the World, of the Elements, of Rivers, of Winds, of the four seasons of the year, of the four parts of the world and its regions — and indeed of the year, of months, of days, of hours, of ages, of temperaments, of dignities, of triumphs, of the sciences, of the faculties, of all the arts, and likewise of the Muses, of virtues and vices, of all the bodily senses, of various affections of the soul, and finally of the birth of life and of its end.

CELESTIAL IMAGES.

There remain now to be weighed those icons which, among the stars, according to the view of the Astronomers, seem to represent the human figure; and since the constellations that refer to the human form appear mixed and intermingled among the other celestial images of beasts and inanimate things, they must therefore be drawn out from all those enumerated as serving our history. Here then is the order of the stars, in which the two Bears with averted tails stand opposed to each other, and between them the oblique Dragon glides; below the foot of one is the Serpent-bearer, whose feet touch the forehead of the Scorpion; at one side stands Arctophylax, and below his feet the Virgin appears with an ear of grain in her hands. At his right feet lies the Lion, and at the summer solstice Cancer, and the Gemini. The knees of Auriga touch the head of the Gemini, and his feet are joined to the horns of the Bull. The Kids are nearest to the greater Bear, which has on its right, near the Crown, the serpent in the hands of the Serpent-bearer; and also Hercules, who treads with his left foot upon the northern tip of the Dragon, and seems to extend one arm toward Libra and the other toward the Crown. And the last foot of Cepheus reaches toward the lesser Bear, who grasps the Swan with his right hand; above the wing of the Swan the Horse extends its hoof, and above the Horse Aquarius is raised up, near which Capricorn is found. Below the feet of Aquarius the great Southern Fish appears. Before Cepheus is Cassiopeia, and behind the back of Hercules Perseus extends his foot, and above the head of Perseus Cassiopeia appears to hasten. Between the Swan and the Kneeling Man Lyra is placed; and in their midst, toward the East, the Dolphin is seen; below whose tail is the Eagle — and thus much concerning the northern order of the Constellations.

According to the southern order, below the sting of the Scorpion the Altar is placed, and below its body the forepart of the Centaur appears. Indeed the feet of Sagittarius are on the other side visible below the southern circle, and near the Centaur the tail of Hydra and the Raven are situated. Near the knees of the Virgin the Urn is placed — namely near the left portion of Orion, below whose feet the River Eridanus appears to flow; where also the Hare gleams, and behind the feet of the Dog it shines; behind whose tail the Ship is set. At the foot of the Bull the hand of Orion is extended. Anticanis or Procyon is above the head of the Ram. And not far from the feet of Andromeda, Deltoton is located, and finally below the Ram and the Fishes the Whale glitters. But since Ausonius has embraced all these constellations in a few verses, it was not irksome to set them down, so that we may more easily draw out those human figures represented by the stars:

To the northern parts Arctus and Agnis are joined.
After these Arctophylax, and likewise the Crown, the Kneeling Man,
Prolepsis, the Lyre, the Bird, Cepheus, and Cassiopeia,
Auriga and Perseus, Deltoton, and the star of Andromeda,
Pegasus and the Dolphin, the Arrow, the Eagle, the Serpent-holder —
Next the Zodiac underlies these. Six signs complete its fellowship:
Aries, Taurus, Gemini, Cancer, Leo, Virgo,
Libra and Scorpius, the Archer, Capricorn, and he who holds Aquarius,
And the Fishes.
Orion, Procyon, the burning Hare, Sirius, Argo,
Hydrus, Chiron, the Censer, and the Fish; and then
After these follow Eridanus and the two Crowns together,
[...] The Wolf, the Crater, and the Crown.

Among the figures enumerated, the fourth — namely Boötes, or the Herdsman, and in Greek Arctophylax, the guardian of the Bear — appears to be human. This is reported to have been the son of Helice, who was once a girl named Callisto, daughter of Lycaon, said to have been transformed into a Bear; this constellation is formed of twenty-two stars, and among its thighs sparkles Arcturus, celebrated among the poets — since this constellation is of slow motion, it seems neither to rise nor to set; and hence of it is sung:

The slow Bear following in the steps of the numen took up her place,
And he who is said to guard her is called Arctophylax.

The fifth human constellation is called Hercules, Engonasis, the Kneeling Man, the Dancer, and by Ausonius, the One Fallen on His Knees — who grasps in his right hand a club as if about to fight, and is constituted by twenty-eight stars.

The ninth northern figure is human: it represents Cepheus, once King of the Ethiopians, husband of Cassiopeia and father of Andromeda, whom Perseus, after she had been exposed to be devoured by a sea-monster, rescued and took as his wife. It is distinguished by twelve stars, and is thus made to speak:

The sea-monster of the fearful sea gave me this star from heaven —
Behold me bright: my fate was hard.

Cassiopeia sits on the Milky Way, conspicuous with thirteen stars, who thus speaks obliquely:

Though I lie obliquely, yet so turning I see
The starry face does not damage the divine throne.

The eleventh constellation succeeds, which shows Perseus, the liberator of Andromeda, who holds a sword in his right hand and the head of the Gorgon — or Medusa — in his left; and next to him, according to the Astrologers, the star of Algol exercises dominion over six stars above twenty and three unformed ones —

[catchword: formes]

[marginalia: Series of constellations. / Arctophylax — Arcturus. / Hercules the Kneeler. / Cepheus. / Cassiopeia. / Perseus.]

and it encompasses three unformed stars, so that it seems to speak thus:

Not birth or blood, but virtue above the skies
Has raised me; this makes men, this makes Gods.

For the twelfth constellation of human form, Andromeda bound in chains is seen, which is formed of three stars above twenty.

The fourteenth northern figure is human, which some report to be Bellerophon; but, according to the view of Pausanias, it is the chaste Hippolytus, son of Theseus. However, the greater number of authors hold the view that by this celestial sign there is represented Erichthonius the Athenian, the inventor of the art of chariot-driving, whom some afterward call Erichthonius, others the Driver, others the Charioteer. For which reason he is introduced as speaking thus:

My charioteer's art avails, though the thunderbolt took my life —
Here, through these starry rays, I live.

The twentieth northern constellation they call Ophiuchus, the Serpent-holder, the Serpent-bearer, or the Serpentarius, because this image appears to hold a serpent; and by this constellation they assert Aesculapius the most celebrated physician to be represented, and they declare it to be adorned with twenty-four stars. Orion is the first southern constellation, formed of more than thirty stars; in his right shoulder a great star named Bellatrix is to be seen; a similar one shines in his left foot. Among the ancient Romans this constellation was called Jugula — for which reason a little slave-boy in Plautus, marvelling at the immobility of the sky, said that neither Jugula, nor Vesperugo (that is, Hesperus), nor the Pleiades set. They report, therefore, that Orion was once a prince in Boeotia, instructed by Atlas in astronomy; and therefore, by reason of his excellence in this art, they declared that he merited a celestial dwelling after his death. For this reason Orion is said to sing in this manner:

The burning earth thought to destroy me with its flames,
But rendering me eternal it bore me up to the gods above.

The Gemini now follow, by which the third sign of the Zodiac is figured. A double human form is depicted, because when the Sun enters this sign all the growths of the earth are quickened and increased. The ancients proclaim that Castor and Pollux were brought forth in a single birth and placed among the stars. Of these it is thus sung:

Brother, a brother joined to me is believed to be one,
And yet one — each of us encloses two.
One love, one mind together; two preserve the worse things —
He who doubts this does not love his brother.

If we contemplate the other signs of the Zodiac, we shall find two more that refer to the human form. For the sixth place in the Zodiac is occupied by Virgo, who is reported to have been once the daughter of Icarius and sister of Penelope; she, overcome by so great a sorrow at the slaying of her father by drunken rustics, hanged herself — and was therefore transformed by the Gods into this celestial sign. The Astrologers report, therefore, that just as the Virgin is a barren woman, so likewise when the Sun wanders through this sign, the earth attains sterility, producing no fruit thereafter. Of this sign it is thus sung:

I am called Erigone, Fortune, Ceres, or the daughter of Phoebus;
These names give light to darkness.

Finally, in the eleventh place of the Zodiac, Aquarius is set, bearing a human form, because they assert him to have been Ganymede, who, ravished by Jupiter, was placed among the stars; but the name Aquarius was claimed by him because he appears to pour out an urn full of water. This is expounded in this couplet:

They are mistaken who call me a Cecropian boy — ravished
To the ethereal poles, behold the cup of Jupiter.

The Astrologers, however, assigned to this sign the name Aquarius from its effect — since the Sun illuminating this sign is wont to produce an abundance of rain. Nor have there been lacking authors who, in fashioning human images, endeavoured to represent the faces of each individual sign of the Zodiac. For Giovanni Angelo, in his *Astrolabium Planum*, in representing the head of a man in the figure of the Man, designated the first sign of the Zodiac; and in the figure of a man with an unsheathed sword in his right hand, he indicated the first face of Aries — just as a man standing and clad in a toga signifies the second face of the same sign; and so forth in displaying the others —

[marginalia: Andromeda. / Auriga. / Ophiuchus — Aesculapius. / Orion. / Gemini. / Castor and Pollux. / Virgo. / Aquarius. / The faces of the Zodiac signs.]

The faces of the Zodiac signs.

Cancer is figured, according to the thought of Giorgio da Venezia, by a depicted human breast; yet Giovanni Angelo, in his *Astrolabium Planum*, signified the first degree of Cancer by the figure of a man and a woman with joined hands, and so thereafter, in expressing the other degrees of this sign, makes use of a human image. The same author demonstrates the first face of Leo by the image of a man riding a lion, and reveals the first degree of Virgo by the effigy of a rustic sowing grain. He further paints a toga-clad man seated, looking at many open books, in order to denote the first face of Libra. Likewise, representing two men fighting, he showed the first face of Scorpio; and by the image of a man standing with a sword in his left hand, he understood the first part of Sagittarius. Indeed, the painting of a man clad in a cloak, caught in the act of walking, with a purse in his left hand, taught the first face of Capricorn. And when he painted a man with a bird in each hand, he revealed the first part of Aquarius; finally, by the effigy of a man burdened with a bifurcated staff, he showed the first face of Pisces — although, according to the view of Giorgio da Venezia, this last sign of the Zodiac is represented by the figure of human feet.

STATUES.

There were various reasons why the ancients erected statues. First, as an everlasting monument to him whom they considered deserving of singular honour — indeed, according to the view of Valerianus, those that were once seen to be greater than others testified to the memory of those Heroes whom all pursued in their lifetime with the title of immoderate honour. Then other statues were once carved so that, by reason of their number, by reason of their location, and by reason of the various gestures of their hands and fingers, they might indicate something to those who beheld them. We have judged, therefore, that we should speak of these first.

And so the Greeks, not only to heap honours upon Demetrius of Phalerum, erected three hundred and sixty statues of him, but also to signify the year which at that time, as Pliny witnesses, did not exceed the aforesaid number of days. Otherwise, to signify the same year, according to Valerianus, a single statue was carved with the right hand extended, in which the middle, ring, and little fingers were bent toward the palm, with the remaining fingers extended, and with the left so arranged that the nail of the thumb was pressed by the index finger and the middle finger was curved toward the palm. This statue represented Janus, the God of the year, but by the various gestures of its fingers three hundred and sixty-five days of the year were made manifest — for the fingers of the right hand of the statue indicated three hundred, and the fingers of the left, sixty-five.

By reason of location, the ancients erected many statues representing a beautiful woman — namely Venus — in certain grottoes, by which they made known a singular human modesty in the performance of the act of Venus, since other animals couple openly, whereas men are accustomed to devote themselves to the procreation of children secretly and for the most part by night. For this reason Pausanias mentions a certain small shrine consecrated to Black Venus among the Machiates.

Before we descend to those statues which were said to signify many things by the various gestures of their hands and fingers, we have decreed to publish a few things concerning the Head and eyes. For Manasses, King of the Jews, as is read in the Holy Scriptures, having slain Isaiah the Prophet, caused a statue adorned with five heads to be erected for himself — for by this means he professed to intimate to all that he had seen more than the Prophets, who were called "seers" by all. Likewise the statue of Janus was carved with a double head, to demonstrate past and future time. Furthermore, Pausanias records that there was an altar in the open air bearing a statue of Jupiter distinguished with three eyes, to which Priam is said to have fled at the capture of Troy, and which was afterward transferred by Sthenelus, son of Capaneus, to Argos. This statue, therefore, carved with triple illumination, showed forth the triple providence of Jupiter, by which he was said to govern things celestial, terrestrial, and infernal. Sometimes the ancients carved statues of Princes with averted eyes, to signify that Justice ought to be alien from gifts, since Princes should spurn the offerings of their subjects.

[marginalia: Statue of Janus without hands. / Statues without eyes. / Statue of M. Aurelius. / Statue of T. Livy. / Statue of Sardanapalus. / Statues without hands. / The twenty statues of the handmaids. / Statues without eyes. / The gesture of the fingers.]

STATUES

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If the gestures of the hands of the statues are to be weighed: the bronze equestrian statue of Marcus Aurelius before the Lateran palace extends his right hand with the palm slightly turned upward, fingers parted, the thumb pointing downward — a gesture which in statues was customary to indicate those who make peace. Likewise the statue of Titus Livy of Padua is seen above the doorway of his native city's Praetorium with the finger of his right hand brought to his lips — by which gesture it is perhaps signified that this author, in the breadth of his writing, encompassed so much that he seems to impose silence upon other writers. Also at Tarsus there was once seen a statue of Sardanapalus with its hands so carved as to seem to clap together — a gesture which was said to be a sign of rejoicing.

Now something must be said about statues made without hands. For among the ancients the statue of Janus was indeed two-headed but lacked hands and feet — for by this carving they indicated that the power of God does not consist in feet and hands, since God, the maker of all things, can, by his nod alone, strike terror throughout the whole world. Moreover at Athens, statues of Mercury were seen without hands — for which reason Mercury was called Cyllenius, since the Greeks nickname men without hands *kylloi* — since by this means they wished to signify that speech possesses power without gesture.

But since in Aristotle a twofold speech is considered — namely of first and second intention — undoubtedly the speech signified by this statue of Mercury is to be referred to the first intention, as though it were speech conceived in the mind alone; since speech of the second intention afterward requires instruments — namely voice and hands — in order to be able to persuade an audience of anything. Furthermore, Mycerinus, King of the Egyptians, erected twenty statues of handmaids with truncated hands around the corpse of his daughter, to demonstrate the punishment which his wife inflicted upon the living handmaids, because they had been the ministers and had cooperated in so abominable an adultery, that the father might abuse his daughter's embrace. Moreover at Thebes all the statues of judges were carved without hands, because they perhaps indicated that gifts were not to be accepted from judges. Indeed, beside these statues another without eyes was seen representing a Prince, to demonstrate that a Prince must be troubled by no passion of the soul, since he ought to have regard for equity alone.

If we contemplate the various gestures of the fingers that are observed in the hands of statues, they were nearly innumerable; nonetheless we shall at present note only the more important. Valerianus mentions a certain statue in barbaric ornament, frozen in a dancing gesture, with fingers above the head as if rattling something silvery — by which effeminate and depraved softness was denoted. Furthermore, in certain statues the right hand was observed holding the *fasces*, with the left so arranged that the little finger, bent as it were into a circle, touched the middle of the palm — by which gesture, *unity* was noted; for by this means they wished to demonstrate that he whose statue it was had held the dignity of the consulship only once. And when in a statue the little and ring fingers of the left hand were bent, as was just set down, this signified twice; and if such a gesture of the fingers was in the right hand, it showed two hundred. Then if the little finger, ring finger, and middle finger of the left hand were bent together, they indicated the number three; but such a gesture in the right hand showed three hundred. Again with the middle and ring fingers bent to the palm, the rest extended, in the left hand they showed four, and in the right, four hundred. But the middle finger alone of the left hand bent, the rest extended, denoted five, and in the right, five hundred. The ring finger of the left hand alone curved, the rest extended, showed six, and in the right, six hundred. The little finger of the left hand bent so as to touch the lowest bulge of the palm showed seven, and in the right, seven hundred. If the ring and little fingers of the left hand were bent to the rearmost —

[marginalia: The number signified by the gesture of the fingers.]

part of the palm, they disclosed eight, and in the right, eight hundred. If the little finger, ring finger, and middle finger were bent so as to curve to the extreme part of the palm and to cover it, they disclosed nine; but in the right hand, nine hundred.

When the index finger was curved so that the tip of its nail fixed upon the first joint of the thumb, it indicated ten, and according to the right hand, one thousand. And when the index of the left was arranged as we have described, and the little finger bent in such a way as to signify unity, it showed eleven; yet in the right, ten above a hundred are denoted. Then, the index finger arranged as said, and the little and ring fingers bent so as to signify two, they designate twelve — a gesture which in the right hand denotes twenty above a hundred. Again, with the index arranged as described, and the little, ring, and middle fingers bent to denote the number three, they show thirteen — by which gesture, observed in the right hand, thirty above a hundred is understood. Again, with the index so fashioned as above, but with the ring and middle fingers curved to denote four, fourteen is shown — and in the right, forty above a hundred. Once more with the index so arranged, if the middle finger is bent for the number five, fifteen is shown, and in the right, fifty above a hundred. And thus continuing, with the index fashioned in the same manner and the ring finger bent to signify six, sixteen is shown; in the right hand, however, sixty above a hundred are marked. Likewise with the index fashioned as above and the ring finger curved for the notation of seven, ten and seven are signified, and in the right, seventy above a hundred.

But if the index finger of the left hand was curved so that its nail touched the root of the thumb, it showed ninety, and in the left, nine thousand. Indeed, with the nail of the index curved to the lowest joint of the thumb, the middle finger bent, and the ring and little fingers extended, ninety-five were understood; to which number, if the index of the right hand was added pressing upon the first joint of its thumb, a thousand was signified — and with both hands so arranged, one thousand and ninety-five resulted, which number among the ancients was said to be the symbol of silence, and they inferred this from the fact that, unless a boy spoke within the space of thirty years — which years consist of one thousand and ninety-five days — from this they presaged that he would never speak again.

When the thumb fixed the tip of its nail upon the last joint of the index (speaking of the left hand), it signified twenty; yet the same gesture in the right hand denoted two thousand. But if the thumb and index joined their nails in a gentle contact, in the left hand they disclosed thirty, and in the right, three thousand.

There follow: with the thumb and index joined by gentle contact, and the ring and little fingers of the left hand bent, thirty-two are noted. But with the joint of the thumb placed above the middle portion of the index so that a cross is formed, in the left hand forty is shown, and in the right four thousand. Again, with the thumb of the left hand bent to the open palm in the manner of the Greek letter T, in the left fifty and in the right five thousand are noted. Once more, with the thumb inclined and the index placed above its middle portion, in the left hand sixty, and in the right six thousand, are made manifest. Again, with the thumb of the left hand extended so as to adhere to the middle of the index, seventy, but in the right seven thousand, become plain. Finally, with the thumb thrust between the index and middle finger so that the index is bent around it, in the left eighty, and in the right eight thousand, are noted.

Thus far of the hand; now something must be said also about the feet of statues. For in many statues of the ancients the left foot was observed to be extended. By this gesture they wished to indicate an aggressive advance — since such a gesture appeared more apt for marching.

Since something has been said of statues signifying by the gesture of hand and foot, something must also be said about those carved with arms, standards, shields, and also with other images of living creatures. But let one stand for all — that called the *Hermansul*, which Goropius described among the Saxons. This represented an armed man holding in his right hand a military standard with the effigy of a rose, and in his left a balance, with unarmoured chest, a lion carved upon his shield; beside this was a Bear; the statue stood in a flowery field, and the standard was formed of many bundles of staves bound to a shaft. Goropius asserted that by this statue it was indicated that no peace is such that arms should not always be at the ready; by the unarmoured chest, an undaunted spirit was to be understood among citizens —

[marginalia: Other gestures of the hands. / Numbers to be indicated. / The number that was the symbol of silence, and of what kind it was. / Various gestures of the feet of statues. / The Hermansul statue.]

to the citizens was intimated a ferocity with which they ought to be armed against enemies; a Lion carved upon a shield denoted a great and kingly spirit; a standard constituted of many ribbons bound to a spear signified that the citizens ought to be of one accord; a rose affixed to a standard urged the citizens to be ready for friendship, for the rose, consecrated to Venus, was said to invite love.

Since we have thus far spoken of those statues which, by reason of the varied carving of hands and other members, signified something to beholders, we shall now briefly treat those others — yet only the more notable — which were erected as a reward for learning and virtue. Sesostris, King of Egypt, vigorous in warlike valour, obtained a statue. Statues were erected to Aristogeiton and Harmodius by the Athenians. A statue was placed in honour of Astylus of Croton. Autolycus the pancratiast had a statue. Marcus Portius Cato, Demetrius of Phalerum, Eunomius of Locri, Verrius Flaccus the grammarian, Marcus Claudius Marcellus, Mucius Scaevola, Homer, Oppian the poet, Horatius Cocles, and Pausanias the son of Cleombrotus — accumulated with many honours by reason of their virtues — merited statues.

Indeed Phryne the courtesan, on account of her beauty, had a statue. Josephus the Jew, by reason of the books he composed concerning the Jewish captivity, obtained a statue at Rome. Cloelia, a Roman virgin, because she betook herself, armed and on horseback, to decline the force of Porsena, King of the Etruscans, gained a statue. Furthermore, that they might pluck distinguished honours for the Emperor Claudius II, for Epicurus the Athenian philosopher, for Minutius Augurinus, for Trebius, Numa, Plato, and Phocion the most excellent prince of the Athenians, they erected statues of notable workmanship. Lucullus was presented with a statue by the people of Chaeronea; Demosthenes by the Athenians. Statues were set up for Conon, general of the Athenians, and for Evagoras. Polydamas, distinguished in strength, was not without a statue. Cylon obtained a statue for himself from the Athenians. The Romans honoured the orator Octavianus with a statue. Archias of Hybla merited a statue. Claudianus the Alexandrian poet had a statue in the Forum of Trajan. In memory of the philosopher Junius Rusticus, the Emperor Marcus Antoninus ordered a statue to be carved. The Mantuans honoured Virgil with a statue. The Athenians set up a statue for Berosus. In lasting memory of Antonius Musa the physician, the city of Rome placed a statue next to that of Aesculapius. Caia, wife of Tarquin, earned a statue erected in a temple; and in this fashion we could proceed through innumerable other statues of this kind — for in ancient Rome the number of statues was so great that there seemed to be a second people of stone; but since, with the passage of time, innumerable ones have been destroyed, we shall briefly enumerate those which in our age are still to be seen at Rome.

The statue of Alexander the Great with Bucephalus — a remarkable work of Praxiteles — is to be seen before the house of Cardinal Ferreri. Likewise Alexander the Great's soldier, commonly called Pasquino, stands before the house of Cardinal Caraffa of Naples. A fine statue of Apollo is in the garden of the Grand Duke of Tuscany. One may behold a marble statue of Aesculapius before the house of Cardinal Caraffa, and another statue of the same Aesculapius differently carved in the garden of the Grand Duke of Tuscany. A marble figure of Adonis with a boar is to be seen in the house of the Bishop of Aquino. A marble statue of Augustus, as well as another of a captive King of Armenia, are to be seen on the Capitoline. Then a statue of Atreus in the new Palace of the Farnese, a most beautiful statue of an Amazon in the villa of Pope Julius III, a statue of Agrippina — daughter of Marcus Agrippa — in the Villa Borghese, and a statue of Anchyroe in the gardens of Cardinal Carpi are to be seen.

Since in antiquity statues were dedicated chiefly to the gods, it is no wonder that Romans today admire a statue of Bacchus in the garden of the Cesarini, and another of the same in the Valle, as well as a marble statue of a Bacchante — that is, of a woman who once sacrificed to Bacchus — in the Valle house; and moreover a marble Bellona in the house of the Borghese. Likewise a wonderful statue of Ceres is on the Capitoline, another of the same in the villa of Pope Julius III, and finally another in the gardens of Cardinal Ferrara. Similarly one may see a statue of Cupid in the museum of Garimberto, another of Castor and Pollux in the house of Fabio Baverio, a marble likeness of Gaius Julius Caesar on the Capitoline, the celebrated Colossus — beneath which stands conquered Dacia — in the gardens of Cardinal Cesi, a statue of a Consul in the gardens of Cardinal Ferrara, and a marble Cleopatra in the Palace called Belvedere.

[marginalia: Those who obtained statues by reason of their virtues. / Virgil: by whom he was awarded a statue. / Where the people of stone are. / Statues which are today seen in Rome. / Bacchus. Ceres. Cupid. Cleopatra.]

[catchword: cra]

Fauns.

marble images were consecrated to them; for the statue of a Faun is to be seen in the house of Cardinal Borghese, and the goddess Flora in the house of the Farnese, and Ganymede in the garden of the Grand Duke of Tuscany. But the statues of Hercules are many: for the Romans take pleasure in a bronze likeness of Hercules of outstanding craftsmanship on the Capitoline; then there is a marble Hercules with the apples in the gardens of Cardinal Carpi, another statue of the same in the gardens of Cardinal Ferrara — where there is also another statue of unknown subject — Hercules wrestling with the Lion in the garden of the Grand Duke of Tuscany, a marble Hercules in the museum of Garimberto, indeed yet another in the villa of Pope Julius III, and likewise in the new Palace of the Farnese, and finally Hercules still a boy with the serpents in the house of the Albertoni.

To what has been said let there be added the most elegant statue of Laocoön in the Pontifical garden, the figure of Leda in the Villa Borghese — where there is also the statue of Memnon's Minerva on the Capitoline, where Marcus Aurelius and Antonius Augustus in stone are likewise to be seen. Many statues of the Nile were fabricated by the Ancients, of which one is located in the Vatican garden and another in the gardens of Cardinal Cesi. A statue of Nature, or of Earth, is in the museum of Garimberto, and a certain statue of a nymph in the garden of the Carpi. The statue of a Shepherd and of Psyche adorns the villa of Pope Julius III, just as a stone Pomona adorns the Villa Borghese, and a captive King of the Parthians decorates the Farnese house, and another captive King of the Parthians fashioned from black stone adorns the Casian house.

A statue of a Region of the Chinese, seventy-five [feet tall], carved in porphyry stone but with head, arms, and feet of bronze, is admired in the villa of Pope Julius III. In the same villa is placed a statue of an unknown goddess, and likewise a statue of Hope; in the house of the Sabine Capranica a marble statue is to be seen, where there is also a marble Semele. Another statue of Sabina adorns the Farnese house; and moreover another the house of the Bishop of Aquino, and another the gardens of Cardinal Carpi, and Silenus the Villa Borghese. A Sibyl with the Sibylline books adorns the gardens of the Grand Duke of Tuscany; a Satyr teaching a boy lends grace to the Casian house. Finally, a bronze statue wrought with rare artistry on the Capitoline, an unknown statue in the villa of Margherita of Austria, and another unknown statue in the house of Girolamo di Cupis, near the church of Santa Maria dell'Anima, are to be seen.

The statue of the River Tiber is to be seen in the Vatican garden; and moreover modern sculptors have accommodated an ancient marble statue of the River Tiberis on the Capitoline to represent the river Tiber. A marble Thalia and Tyro, wife of Hercules, are placed in the Carpi garden. The goddess Vesta, carved in black marble but with hands and feet fashioned from white marble, adorns the villa of Pope Julius III; and in the same place a marble likeness of Venice gleams. Finally, the statue of Zetus and Amphion — who hurled Dirce headlong into a fountain with her hair bound to the horns of a bull — is universally admired in the Farnese Palace by reason of the size of the stone and its singular craftsmanship: this story was written down by Apollodorus in his *Origin of the Gods*. Let us add as a crowning touch to what has been said the colossal statues of the Region of the Chinese: for the inhabitants fashion such towering ones from stone, and dedicate them to their idols and erect them in the open and conspicuous, so that they may be seen by travellers from many miles away; the image of one of these is appended below.

[figure captions: Statue of a Region of the Chinese, 75 [feet].]

[marginalia: Statues of Hercules in various places. / Pomona. / Semele. / Statue of Zetus and Amphion. / Colossal statues of the Chinese region.]

COATS OF ARMS.

Since heraldic devices and coats of arms appear to have a certain affinity with images and statues — in that parts of the human body are sometimes depicted in them, and sometimes whole figures of a man drawn in various ways are for the most part printed in conformity with the surnames of families — it must here be noted that there are many lineages among the citizens of Bologna whose armorial bearings are adorned with the likeness of a human head; since in some a head of a boy is depicted, in others the head of a curly-haired youth, in others a head bound with a fillet, in others a human head between the forepaws of a Lion, and in others a female head among the branches of a tree. Indeed the most illustrious coat of arms of the Bologneti is graced by the head of a girl, in which family the most celebrated Doctors and Senators shine today. Other lineages take pleasure in the figures of two bald heads, and others in two heads shorn around the crown, as their heraldic distinction. Similarly others do not shrink from the likenesses of two heads of Ethiopians. To these let there be added the likenesses of a triple filleted head, of a triple head of an Ethiopian, and likewise of a triple head with a Turkish cap — which last coat of arms belongs to the lineage of the Turchi.

If arms be weighed carefully, we shall find a lineage of citizens which displays one hand, one which displays two, one three, and one which, by painting four, acquires its own proper coat of arms. In heraldic devices one will sometimes observe the picture of a hand together with a tree, with roses, with a standard, with a bunch of grapes, with an olive branch, or with the figure of a cross. Nonetheless in the heraldic bearing of the Albanian family a hand holding an open book is depicted — in which family Doctors both of sacred learning and of jurisprudence have flourished and still flourish today; and indeed among them shines Domenico Albani, most excellent advocate, most learned in both laws, and highly deserving of all disciplines.

And indeed there are many lineages of Bolognese citizens which bear in their coat of arms the picture of a human arm; yet a certain difference is observed in this depiction of an arm, inasmuch as one arm is figured with a palm, another with a tree, another with lilies, another with roses, another with a small sickle, and another with a sheaf of oats. At times in these armorial bearings two and three arms are to be seen depicted: but among these lineages the most noble — the family De Designis — takes pleasure in the likeness of an outstretched arm, bowed as if in consecration.

Finally, omitting those families whose armorial bearings represent the picture of legs and feet, we shall briefly turn to those in whose heraldic bearing whole figures of a man are displayed. For certain lineages take delight in the likeness of a youth, others of an old man, others of a wild man, others of a woman representing Fortune. Others add a distinguished coat of arms to their family's own by means of the figure of a man dressed in German fashion, or by the picture of a Pilgrim. There are those who adorn and fortify their proper coat of arms by depicting a man in armour — as does the family De Ferris, to which Gaspar the most celebrated physician recently added very great splendour and dignity, and now also his son Julian, Doctor of philosophical learning, long most skilled in good letters, and Provost of the Canons well instructed in sacred things at Santa Maria Maggiore, renders this family still more illustrious.

Finally, there is no lack of lineages of Bolognese citizens who paint in their heraldic bearing the likenesses of two men embracing one another, and others depict two joined hands as the symbol of Faith; and in this manner we could recount six hundred coats of arms that exhibit figures of parts of a man and the full picture of the same — but on these matters thus far.

SIGNATURES OF PARTS

Of the Human Body in Plants.

All herbs, trees, and shrubs, together with their fronds and flowers, are as so many books bestowed upon the human race by the immense bounty of the heavenly Maker, through which any diligent investigator is able to penetrate to the true knowledge of medicine. For God almighty assigned to every plant its own betrayer, so that their genuine virtues — hidden within — might be made known and revealed through outward signatures, namely through likeness of form and figure conformable to the parts of the human body; and indeed plants intimate their own powers to men through their signatures, as it were through so many tongues. Therefore professors of the botanical faculty ought not only to be diligent in recognising and exploring the various nomenclatures of herbs, but must also search out the more useful traces divinely impressed upon plants, so that they may apprehend their hidden prerogatives from outward inspection of their aspect.

And so, beginning from the head, it must be noted that Polytrichum of Apuleius, Adiantum, and Trichomanes, with certain curling convolutions, express human hair; wherefore these plants render the hair thick, curly, and beautiful. Thapsia, with its fine foliage, emulates human hair; wherefore, on the authority of Avicenna, in restoring hair it yields to no medicine for those afflicted with alopecia. Not to mention the long moss adhering to trees, and the herbs growing in marshy places, which in point of form are filamentous, and for that reason decoctions of them are recommended in cases of hair loss.

The nut, or walnut, possesses the complete signature of the head: for the herbaceous outer husk represents the pericranium; the harder shell represents the cranium; the thin membrane clothing the kernel represents the inner meninx of the brain; and finally the kernel itself represents the form of the brain in a wonderfully apt fashion. What wonder, then, if a decoction of the herbaceous rind blackens the hair, and if the salt extracted from the same heals wounds of the pericranium, and if finally the kernels — which drive out poison — benefit the brain, and applied externally likewise strengthen it? The Coconut very nearly equals a human head in its size, and its oil is usefully employed in ailments of the head. Scilla also, which is similar in form to the head, exercises its prerogatives in epilepsy and other affections of this kind. The closed capsule of the flower of the Peony exhibits the type not only of the head but of its sutures; wherefore in diseases of the brain

[marginalia: Signature of the hair. / Walnut. / Scilla. / Peony. / Betony. / Poppy, wild Antirrhinum. / Signature of the eyes. / Herb Paris. / Potentilla. / [Euphrasy.] / Nose. / Ears. / Gums. / [Pomegranate seeds.] / Signature of the teeth.]

[catchword: rebri]

SIGNATURES OF THE PARTS

of the human body, in plants

the flowers, seeds, and roots of this plant are prescribed. Betony and Stechas produce flowers and seeds resembling a round head; wherefore they are deservedly not excluded from medicines that have reference to the head. The headed poppy, quinces, gourds, and melons are fruits shaped after the form of a head, and for that reason they bring wondrous benefit to headaches — not to mention other plants of this kind, and especially wild Antirrhinum, which resembles a human skull in its flower and seed.

Caltha, Anthemis, Ox-eye, female Southernwood, Aconitum Pardalianches, Elecampane, Aster Atticus, Argemone, Anemone, and Hieracium — with which the hawk dispels dimness of sight — express with their flowers the likeness of an eye; and for that reason they are of no small assistance in affections of the eyes. Greater Houseleek, called by some Zoophthalmon and by the Romans Eye of Jupiter, displays in its leaves around the plant the likenesses of eyes, and Dioscorides uses this plant in inflammations of the eyes. The grains of Herb Paris have the signature of the pupil; from them an oil is extracted by the alchemical art, which the Chymists name the soul of the eyes, and which is most effective against affections of the eyes. Indeed the flower of Potentilla represents the pupil in the eye, and its water sublimed by chemical instruments is highly singular in troubled eyes. We shall purposely omit Euphrasy, which all Botanists have singled out as ophthalmic both by its signature and by its effects.

The nose is represented most elegantly by the leaf of water-mint; and therefore an extract of this restores a lost sense of smell. The ears are expressed by the leaves of Asarum; and therefore a conserve prepared from the flowers of this plant is beneficial to the hearing. The signature of the gums is shown by the Lesser Stonecrop adhering to walls; and the juice pressed from this herb is commended in scurvy and in other ailments of the gums.

The seeds of pomegranates represent teeth; thus they correct damaged gums and firm the teeth. Toothwort and other species of the same genus produce a root compacted by a wondrous artifice of nature, for by a series of scales they emulate teeth. The pod of Henbane has the form of a molar tooth, and the oil of this plant, or a decoction prepared from the root or seed in vinegar, provides the most excellent remedy in toothache. Finally, pine-nuts resemble the incisors, and the roots of Pseudohermodactylus resemble the canine teeth; for which reason pine leaves boiled in vinegar soothe the pains of teeth. The roots of Uvularia, Cervicaria, and Scrophularia reproduce the likeness of the tonsils; wherefore they are not without fruit for those suffering from struma.

Pulmonaria adhering to rocks and trees, and the other Pulmonaria marked with whitish spots, which appears to express the substance of the lungs, is not disapproved of in disease of the lungs. The fruit of the Anacardium is similar in shape and colour to the heart, and thus calls back the failing senses. The roots of Aconite and of Mountain Spikenard display two small hearts; the fruit of the Citron emulates the heart; the leaves of Melissa and of Wood-sorrel have the form of the heart; and therefore the pre-eminent virtues of all of these are celebrated in strengthening the heart. The Creeping Bladder-nightshade produces black seeds in its bladders, but the blackness of the seeds displays a white likeness of the human heart; wherefore many have reported that these seeds are beneficial to the heart. Indeed the women of Sicily, following nature as their guide, call this plant Concordia, because it reconciles husbands quarrelling with their wives. We shall purposely omit peaches and other fruits of this kind, which seem to represent the heart with admirable aptness.

The likenesses of hands are to be seen in the leaves of the Fig and of Ricinus, as well as in the root of Palma Christi; for that reason Mesue attributed to these plants the power of purging humours flowing to the joints. The roots of Hermodactylus represent the likeness of fingers, in which the rudiments of nails are also to be discerned, and these roots, in the opinion of Serapion, assist the hands. The grass that grows on walls, which some call Ischemon, divides its tip into five branchlets as into five fingers; and the fingers and nails derive immense benefit from this plant.

The form of the intestines is observed in Calamus aromaticus and in Cassia fistula, just as we behold the form of the navel in Cotyledon, or Venus's navel; and for that reason Dioscorides reported that this plant is efficacious for love-potions, since some call the navel the light of luxury.

We shall be able to discern the form of the spleen in Scolopendra, or Ceterach, and likewise in Hartstongue, or Phylli-

[marginalia: Signature of the eyes. / Herb Paris. / Potentilla. / Nose. / Ears. / Gums. / Signature of the teeth. / Of the lung and heart. / Bladder-nightshade. / Concordia herb, what it is. / Signature of the hand and fingers.]

[catchword: tis]

tis — which plants are of great benefit to those afflicted in the spleen. The pinnate leaflets of Liverwort represent the lobes of the liver, and have no equal as a medicine for cooling the liver. The root of the bulbous Fumitory, called Capnos phragmites, emulates the form of the liver; wherefore this plant, according to Aetius, will be of no small service to those labouring from scirrhus of the liver — we purposely omitting pears, which in some measure display the signature of the liver and are also of great assistance to that organ.

The signature of the kidneys is observed in Purslane; wherefore this herb benefits those whose kidneys are disordered in no ordinary degree. But Alkekengi, or Halicacabum, likewise Creeping Bladder-nightshade, Staphylodendron, and Bladder Senna produce bladders that emulate the human bladder; wherefore those labouring from affections of the bladder derive very ample fruit from these plants.

The figure of the uterus is observed in the root of Round-leaved Birthwort; wherefore this root helps women in childbirth in a wondrous manner. The root of Cyclamen and the Leontopetal have the form of the uterus; for which reason Theophrastus and Dioscorides drew these roots into the class of love-potions. Mace embraces the nutmeg as the matrix envelops the foetus; hence mace and nutmeg are a salutary remedy for affections of the uterus. Water-lily has the signature of the placenta, and the inner green bark of Birch, as well as Savin, reproduce the form of the matrix marked with its blood-vessels; wherefore they dissolve tartar concreted in those parts, just as medicines prepared from the water-lily expel the placenta. Let Pisans be passed over in silence, which are said likewise to have the signature of the uterus.

In Arum the whole instrument of generation is demonstrated; from Beans a perfect anatomical depiction of the pudenda and the glans is expressed; hence their flour is applied to disordered pudenda. The fruit of the Pine exhibits the form of the glans of the penis, and is of use in stimulating sexual desire. Chicory, with its upright pistil, expresses the penis; wherefore from a decoction of this, applied both internally and externally, incredible benefit is received in disorders of the pudenda. Not to mention the chick-pea and lupin, from which also the form of the membrum virile is represented.

All species of Orchis have the manifest signature of the testicles, and occupy the first place in rousing dormant sexual desire. Indeed Tragorchis — that species of Satyrium which smells of a goat — renders men more prone to sexual activity than the rest, since the goat is the most wanton of all animals. The root of the Greater Dracunculus, being bulbous like a testicle, is said to provoke sexual desire. Likewise the Leek, resembling the scrotum, is reported to excite desire. Moreover Phallus, resembling the human membrum virile, is drawn by Hadrian Junius into venereal use. Finally the berries of the vine display the signature of both sexes; hence old Priscus with good reason reported that Venus grows cold without Bacchus.

There are many plants whose roots emulate haemorrhoidal veins — such as Lesser Celandine, Dropwort, and many species of Ranunculus — all of which will bring no small benefit to those suffering from haemorrhoids. Furthermore Bloody Dock possesses the signature of other veins. To these let there be added Plantain, which expresses the figure of the sinews; just as Horsetail and Lady Fern emulate the spinal column, since a decoction from these prepared in water and wine is of great assistance to the said part. The leaves of Hypericum, since they are perforated, exhibit the signature of the skin, with its pores; wherefore they are commended for promoting sweat and removing obstruction. Geranium has the signature of the shinbone; wherefore its powder is of no small moment in fractured bones. Finally, as a crowning touch, let us add plants that reproduce the whole figure of a man, the rudiment of which is to be seen in the roots of Mandrake and Bryony — besides the fact that in shaded places a certain species of Satyrium grows which produces a flower having the likeness of a human figure; for which reason certain Botanists have called this Satyrium Anthropophorum.

USE

[marginalia: Signature of the liver and hepatic herbs. / Signature of the kidneys and bladder. / Signature of the uterus. / Signature of the pudenda. / Signature of the hand and fingers. / Signature of the skin, with pores.]

USE IN FOODS.

Many will not cease to be greatly astonished that human flesh should serve the human stomach; yet Gaspar Balbus makes mention of certain inhabitants of the kingdom of Dacia who are called Batachi in their vernacular tongue. Among these it is received as a public custom that neighbouring inhabitants are not received with a meagre entertainment when their kinsmen, worn out by old age, are to be slaughtered and devoured. Furthermore the King of that region gives over all those condemned to death to the Batachi — just as the Romans of old condemned those worthy of capital punishment to the beasts. Thus the Batachi, approaching the condemned in the presence of all the courtiers, with the head and feet cut off, devour the sliced flesh seasoned with salt and pepper, raw; for in the kingdom of Dacia a great quantity of pepper is produced. The same author again records that there is an island called by the name Carnalcubar, inhabited by wild men who live on human flesh; but it must be noted that these do not eat one another, but rather hunt men from another island to devour them; otherwise they live for the most part on fish.

In confirmation of these accounts, Peter Martyr relates that the Cannibals feed indeed on human flesh, but chiefly on the flesh of boys; wherefore when they capture boys they castrate them, and then — fattened because of the castration — they cook them in the preparation of feasts; and in the case of captive boys they observe the same procedure that we follow with cocks, swine, and rams, so that such beasts may become fatter for eating. But adult men who come into their hands they kill at once, and feast upon their entrails — still fresh — together with the extremities; the remaining members, however, salted, are kept for a time as so many hams of pork. Moreover the women they capture they do not eat, because it is obscene and sinful among them to feed on female flesh — since these women are kept, like hens, ewes, and heifers, for the procreation of offspring. Wherefore it will seem surprising to no one if Peter Martyr relates that in the kitchens of the Cannibals human flesh — prepared for the magnificence of feasts — is boiled and roasted together with the flesh of Parrots and Geese. We shall therefore set aside our great astonishment today if we learn that there has been among us a man who unknowingly ate human flesh; for this — according to Galen — is said to be pleasant to the taste and similar to pork. Let us therefore attend to Galen speaking thus: *The flesh of bears is similar to human flesh; and many hosts and cooks have been found who sell human flesh for pork: yet those who ate it perceived no difference whatsoever. Indeed I myself have heard men of credit who related that they had partaken of an exquisite broth in a public inn, made from most delicious flesh; but when they were almost satisfied, they found the front part of a finger — which was the part next to the nail; whereupon, struck with horror and of sound mind, they at once left those who were operating in the inn, lest they too should devour them; and then or shortly after, having vomited up what they had eaten, they straightway resumed their journey.*

[marginalia: Inhabitants of East India. / Who the Batachi are. / Berosus, Book I. / Cannibals. / Pliny, Book 10, on Simple Medicines.]

[catchword: VSVS]

USE IN MEDICINE.

We hold that there is no part of the human body, and no excrement of it, from which the physician cannot reap no small harvest for his patients: for if we look to the head, we learn from Sextius the philosopher that hairs first cut from the head of a boy are preserved against gout — since they are said, when bound around the joint, to restrain the onset of the flux.

The hairs of adults, applied in vinegar, heal bites of a dog; and when burned, they heal wounds of the head with oil and wine. But if they be burned in a crock, they amend scabies and itching of the eyes. If, however, the hairs be a woman's and be singed, serpents are put to flight by their smell; but more properly by that same odour are women aided who suffer from strangulation and prolapse of the uterus.

The burned human skull is employed in many affections: and so its ash is of service because, by drying up the humour and the cause of the disease, it consumes them; for burned bones lose the form of their substance and retain nothing but elemental qualities; and although it may seem abominable to administer burned human bones to the sick in any liquid, nonetheless there is no lack of authors who prescribe them. First among these Wecker gives to patients suffering from a colicky passion, or some internal abscess, the scrapings of the human skull near the sincipal suture — one drachm of this — in broth or wine. Likewise, according to Wecker, epileptic pills are compounded which include the scrapings of a human skull; moreover he recommends the powder of the human skull mixed with a combination of powders that heat and dry the head. But Crollius reckons the skull among medicines for gout; and the same author also calls the oil prepared from the bones of a man killed by a violent death the *balsam for gout*. Moreover the oil sublimed by chemical instruments from the human calvaria or skull brings particular benefit to epileptics. There is also prepared by Quercetanus an extract of the human skull, which he commends as a most precious treasure against epilepsy; and he further extracts from the skull a salt, which he calls antiepileptic — not to mention the water and the magistery of the skull, all of which are prepared among us as well. Before we leave the skull, it is necessary to make mention of a certain ointment called the *armarium*, which Paracelsus of old gave as a tried remedy to the Emperor Maximilian: with this, the iron that had wounded someone, or the wood soaked with the blood of the wounded man, was smeared, and the patient — even when absent — was healed. This ointment, therefore, besides human fat, mummy, human blood, linseed oil, turpentine, and bole, also contained vine or moss grown on a human skull exposed to the open air.

From the skull we shall proceed to the teeth: for the first tooth that falls from a boy's head is said to possess the greatest prerogative, if before it touches the ground it be enclosed in a right-hand bracelet; for women thus armed are believed to be not at all seized by pains of the uterus. Before we hasten to weigh the virtues of the other parts, we shall briefly comprehend the remaining bones in a few words. Haubert, following the opinion of Galen, reduces human bones to ash and mixes them with preserves for capitals — that is, head ailments — prescribed against gout. Crollius, however, proceeds more correctly when he mixes human bones, first burned in a glassmakers' furnace, with a certain powder which he afterwards asserts is of uncommon service to those suffering from dysentery. Surgeons of our age employ the flour of human bones on account of their sympathy in indolent ulcers, and especially in bones laid bare, so that — the caries having been removed — they may be covered with flesh more quickly. Let them take note, however, that in ulcers of the tibia the powder of the tibia, in ulcers of the chest the powder of the ribs, and so forth, ought to be applied. Euonymus prepares by the chymical art an oil from human bones, which is of the greatest service in allaying pains of the joints. To what has been said Wecker adds that a portion of a bone of the arm, carried at the tip of a goose's wing by one labouring from a quartan fever, is of no ordinary service.

The human navel is not without its virtues: for a portion of it cut from the newborn child

[marginalia: Virtue of hairs. / Human bones. / [Powder for dysentery.] / Balsam for gout. / Armarium ointment, what it is. / Virtue of the navel of man.]

[catchword: Praecisa]

— when cut off — is carried in a silver ring so that it touches the flesh; for Cardanus promises health to a patient suffering from colic pain by means of this remedy.

Human fat, before it is drawn into medical use, must first be prepared after the manner of the fat of other animals, and then kept in the apothecaries' shops; for with a certain incredible sympathy it is commended for strengthening sinews weakened by ill health. Moreover this fat enters into the precious ointment of Wecker, from the use of which those labouring from pleurisy and gout will obtain very ample benefit.

Next come the virtues of human blood to be examined. In the first place, those labouring from elephantiasis receive great assistance from it; and for that reason, when the Kings of Egypt were afflicted by this disease, their bodies were steeped in baths of human blood. Likewise Orpheus and Archelaus consider human blood to be not an unprofitable remedy in quinsy, provided the affected part be frequently rubbed with it. Epileptics are freed from a paroxysm by the virtue of human blood; and they will not suffer it any more if three drops of blood be drawn by scarification from between the patient's shoulder-blades, and exhibited to the sick person together with a raven's egg at the end of the paroxysm. Otherwise others, to free an epileptic from a paroxysm, lance the toes, and sprinkle the patient's face with the blood that flows from them. In this case Wecker moistens the lips of the patient with human blood and straightway professes that the paroxysm is dispelled. Yet others, to exterminate the epileptic disease entirely, administer human blood as a drink to the sick.

The most celebrated Fallopius distills human blood seven times by the chymical art, until all the water has evaporated; he then uses this matter in the resolution of the sinews. Euonymus extracts from human blood, eggs, and flesh the fifth nature — what the Chymists call the fifth essence. Likewise, in the opinion of Albertus Magnus, the water from human blood is sublimed by glass instruments; this water they magnify in every kind of disease, both internal and external. Alternatively Crollius reckons the water of human blood among ophthalmic medicines. Others employ this water in the compounding of a plaster for hernia, though Galen, in place of human blood, substitutes that of a pig. In our age there is prepared in the apothecaries' shops, for hernia, a cerate made from ram's skin, which includes a portion of human blood.

The oil of human blood is also fabricated in the shops of the Chymists; but Gordonius with wondrous artistry sublimes from the blood of a ruddy man in his twenty-fifth year an oil which he calls *wine*, because it drives away very many diseases and keeps men in sound health. As for the simple distillation of human blood, one should read Braunschweig in his German book on distillations. Finally Wecker makes mention of a salt prepared from human blood, which is said to allay pains. Let there be added furthermore the Elixir of Life prepared by the Chymists, which receives human blood, and is then employed in malignant fevers and in weakness of the vital powers. What more? Human blood itself cures haemorrhage of blood; if the blood flowing from the nose be dried upon heated iron, the powder so obtained is then insufflated through a tube into the nostrils.

These matters having been noted concerning the virtue of parts, we must now proceed to weigh the power of the whole. There are certain peoples — such as the Psylli and the Marsi — who can benefit others by their whole body; for by touch they free those struck by serpents, as we explained in the *History of Serpents*. Likewise, in the opinion of Cornelius Agrippa, a seventh-born male — with no female among those born between him and the first — possesses by his touch the power of healing strumas.

Physicians of our age employ the dried human body in combating various diseases, and they hold it to be the *Mummy* of the Ancients. For Mummy is an Arabic word which in Rhazes and Avicenna signifies Pissasphalt. Isaac, however, recorded in his writings that Mummy is a Persian word denoting a certain liquid found in those tombs in which the bodies of men embalmed with aromatics had been preserved for many years. This mummy is called by some Cerops — perhaps, according to Renou, because it has the consistency of wax; it was found in the tombs of the Kings and Heroes of Egypt who, having some foreknowledge of a future resurrection, embalmed the human body with myrrh, cinnamon, aloe, gum of cedar, and very many other aromatics, in order to preserve it incorrupt for as long as possible.

[marginalia: Corpse fat. / Virtue of blood in epilepsy. / Lib. 2, Antid. spec. / [Fallopius.] / In Basil. chym. / Lib. 3 de alim. / Lib. 2, Antid. spec. / True mummy, what it is. / Lib. 4, Mag.]

[catchword: poft]

But after many years, when everything had been laid waste by war and the tombs utterly overthrown, they found in certain of them a dense and fragrant liquid after the manner of honey, which the Egyptian physicians — judging it to be endowed with pre-eminent virtues — applied in many affections and proved its marvellous worth; wherefore, growing bolder, they sought this embalming of corpses in the tombs of other great men; and when these were exhausted, they at last also turned to the tombs of men of the lowest condition, in which the liquid was found to be far inferior; yet even this, when taken, they called Mummy and employed in various diseases. From all this it must be concluded that the true and legitimate Mummy of the Egyptians is not the dried flesh of those corpses which are found in the sands of the Arabian desert and sent to various regions as medicines. Wherefore, from what has been said, we shall attest that the true Mummy is in no way preserved in our apothecaries' shops. And although today some compound a balsam to preserve human corpses intact from corruption, nonetheless this balsam differs greatly from the embalming process of the Ancients.

Today, according to Porta, the corpse is eviscerated by opening the side, and with the calvaria dissected the brain is removed, and the pupils too are cast away, along with the spinal marrow and the testicles; then within the space of four hours it is suspended by the feet, whereupon it is washed with distilled vinegar and ardent water; afterwards, when dried, it is sprinkled with quicklime, alum, and salt, and kept for two days suspended over the smoke of myrtle, bay, rosemary, and cypress. Finally a preparation is made from quicklime, burned alum, salt, aloe, myrrh, aloe-wood, nard oil, and the ashes of fresh rosemary, of burned copper, and of cypress, as well as of tartar, saffron, the seeds of colocynth, the powder of antimony, musk, and amber; and with this preparation the body is rubbed for three days in an open place; and let this suffice for the modern method of embalming.

If, however, we desire to learn the liquid employed by the Ancients to embalm corpses, we must have recourse to Herodotus and Diodorus Siculus, who have written on this matter. According to these authors, then, three men fulfilled this office: the first, stretched on the ground near the flanks of the corpse, marked out the place of incision; then came the one who, opening the place with an Ethiopian stone, immediately fled on account of fear of the bystanders, who were accustomed at times to pelt such an operator with stones. Thirdly the Pollinctores — having drawn out the entrails through the opening, except for the heart and kidneys — washed the corpse with fragrant wine, and for a period of thirty days anointed the washed body with unguents of cedar and other precious simples; thereafter they sprinkled it with myrrh and cinnamon, to make it fragrant; and then the corpse thus prepared and embalmed was handed over to the kinsmen, the eyebrows and eyelashes so arranged that the man appeared as one sleeping — and this is the first method which, according to Herodotus, was observed by Antiquity in embalming corpses. The second method was employed when the bodies were not dissected at all, but the intestines were drawn out by means of a clyster of cedar oil injected into the belly, and then the body was salted for seventy days. The third method was observed for the poor, when their belly was cleansed with lavements and then the body, dried with salt, was stored for seventy days. The Jews, as Strabo witnesses, used asphalt or bitumen in the embalming of corpses; but the better embalming was that of the Egyptians, of which we spoke a little while above. Today, however, for the preservation of a corpse they employ a powder called the *myrrh powder*, which in some degree appears to rival the powers of the Egyptian embalming process. Of this powder a manifold description is to be read among authors; wherefore it is fitting to add one of them at present. They take an abundance of salt, alum fused with myrrh and aloe, wormwood, cinnamon, cloves, pepper, cumin, Pontic lovage, and reduce everything to a coarser powder with a sprinkling of a little vinegar; with this powder they fill the belly of the corpse, and encase it, sealed with wax, in a leaden iron coffin. Since therefore from what has been said the true Mummy of the Ancients, or the Egyptian embalming process, cannot be had, Crollius prepares a tincture of Mummy in the following manner. He takes the corpse of a red-haired man of twenty-four years of age, hanged, sprinkles it with the powder of myrrh and aloe, then macerates it for several days in spirit of wine, and dries the pieces suspended in the open air; and finally extracts from the spirit of wine a most ruddy tincture, which he extols as marvellous for exterminating plague and for overcoming poisons.

It remains that we examine the virtues of the excrements of man; but since the excre-

[marginalia: [...] / Where true mummy is had. / Lib. 4, Mag. / Embalming of the Emperors. / First method of embalming corpses among the Ancients. / Second method. / Third method. / Lib. 16. / In Basil. chym. / Tincture of mummy.]

[catchword: cremen-]

Among the other useful things of man, various parts are held in the schools of the physicians to be beneficial, and others useless. First we shall speak of the useful ones, namely of milk and semen. Thus human milk, among other kinds of milk, is commended in various diseases above all others on account of sympathy.

Human milk accordingly is beneficial for erosions of the stomach, is of service in complaints of the lungs, is a kind and wholesome remedy for affections of the eyes caused by a blow, and, finally, he who has been anointed with the milk of his mother and of his nurse is said to be freed for the rest of his life from defluxions of the eyes. In disorders of the ears, milk is prescribed together with a small amount of oil, and mixed with the juice of hemlock or with a little opium it brings relief to those who suffer from gout. Lastly, should anyone have fallen into a frenzy from drinking henbane, he ought not to shrink from taking up a plentiful draught of human milk.

Furthermore, some authorities assign to human semen the power of sedating pain in gout and of whitening scars.

If we direct our attention to the excretions of the human body, called by physicians the "liquids" — namely to saliva, sweat, faeces, and urine — we shall find these to be quite useful in medical practice. In the first place, the saliva of a fasting person, above all, has prerogatives in destroying a great many afflictions of the skin; for it wipes away every kind of discharge, and removes lichens, mentagram, and impetigo. In point of fact the poet used to sing, in the manner we quote: [...]

Moreover, a wound inflicted by hornets, beetles, or spiders is both soothed and healed by saliva; for, according to Avicenna, this saliva kills scorpions, and indeed destroys sea-scolopendras and other venomous creatures. And this saliva is said to produce this effect on account of a certain venomous quality which it acquires partly from the filth of the teeth and partly from corrupt humours; for certain vapours continually ascending to the mouth and throat infect the spittle with a certain noxious quality. Hence it comes about that spittle at times has a bitter flavour, at times an acid, and at times a slightly sweet one. Moreover human saliva possesses the power of digesting and concocting; hence rustics chew wheat so that it may be mixed with saliva, and in this way prepare it like a plaster and apply it to boils, digesting them most rapidly — whereas wheat macerated in water would not achieve such a quick digestion. For this excellent reason, nurses chew bread and then apply it like a plaster to bruised parts of children's bodies, because by the virtue of saliva the bruise is quickly dispersed. Lastly, the saliva of a fasting woman, and especially one who has abstained from food the previous day, is said to be efficacious against bloodshot eyes [...]

The filth of human ears is not without medical use; for when people suffer from hemicrania, from a human bite, or even from the stings of scorpions and [...], they are destined to receive incredible benefit from it. What more? Human sweat likewise holds a place among medicines: for formerly, in the wrestling schools, sweat mixed with dust and, in the baths, the scrapings were collected — not only, as Pliny says, for anointing ulcers and burns, but also, as Galen says, for dispersing unnatural swellings, and for dissolving milk curdled in the breasts. Indeed, when such filth of athletes mingled with sweat was drier, it was rendered more pliable with oil of roses. Let us therefore hear Galen speaking in this manner: *"Now the sweat of those exercising in wrestling-schools, along with the filth, is useful for tumours beyond nature that are dispersed through the skin — these have less of the property of drying out; but after the sweating of those exercising has been added, they acquire a greater power of digesting; therefore in hard phlegmons, these filths, laid aside as more efficacious, serve as a remedy. But if they appear drier, mixing with oil — not cedar oil, but cypress — is sufficient."*

Human urine is not to be passed over, since physicians have found it not unprofitable in very many complaints. In the first place, this, mixed with saltpetre and applied, corrects scurf of the head and excoriations of the body. The philosopher Sextius soaks earthworms in it, and with this medicine removes spots on the face whatever their cause. Indeed he adds that if human urine is offered for a woman in childbed to taste, it immediately expels the afterbirth. Moreover, many affirm that urine cures gout, citing the example of fullers, who they say are never troubled by that disease. Furthermore this urine cures mange and leprosy, and boiled with a little pomegranate rind and poured into the ears it cleanses pus and drives away worms, according to the mind of the philosopher Sextius.

[marginalia: Virtutes humani lactis / Sperma humanum / Medicis appellant Dinadis / Saliva ieiuni / Sordes aurium hominis / Sudor etiam humanus / Lib. 10. de simp. med. / Vrina humana virtutes]

[continued from the preceding page]

drives away worms; and the same author commends it not only in the bite of a viper but also in the bites of other lurking venomous creatures.

There are some, however, who in medical practice do not recoil from urine in general, but approve only that which boys and young girls produce. This they give to those who breathe with difficulty, and above all to those suffering from orthopnoea. Again, this boiled with honey in an earthen vessel corrects scars and removes white spots on the eyes; moreover, when prescribed with honey-water or with a decoction of chickpeas, they profess to remove jaundice.

Galen has this to say about human urine: *"But the urine of men, as much as anything, has a cleansing power; as fullers, who clean and cleanse dirty clothing, sufficiently demonstrate. When physicians also understood this virtue, they use it to scour leprous skin and to wash running ulcers — as well as those full of moisture and filth — so that in an even greater degree where a certain putrid quality is found. Indeed they also treat dandruff by pouring it repeatedly over the head."* It was worth bringing forward these words of Galen into the discussion, so that what has been said hitherto about the virtues of human urine might be confirmed. Crollius, however, uses not the urine itself but the calculus expelled by urination, from which he composes an artificial salt to treat the stone.

Lastly, human faeces themselves are also of service to human health. Although human excrement might seem, both on account of its abominable nature and on account of its stench, to be kept entirely out of medicine, nevertheless there is no lack of authors who have applied it both internally and externally. The philosopher Sextius burns this dung and sprinkles its ash upon cancerous ulcers. Wecker applies it like a plaster upon quinsy. Indeed others have prescribed this dried dung with honey or wine for those afflicted by typhic fevers. Wecker certainly commends human excrement with Attic honey as most excellent in inflammations of the uvula, but approves only that which a boy has voided after being fed for two days with lupins and the finest bread; for on the third day the excrement produced he bids to be dried for the aforesaid use.

Yet this does not seem to us an arcanum to be revealed to none, since Galen set it out openly in these words: *"Take the dung of a boy, triturated with honey and a dried fig. Now the boy whose dung was to be accepted, as well as the one who gave the medicine, was to eat lupins — namely those of the kind usually prepared — with well-baked bread in an oven, having a little salt, and without leaven. And the boy was to be given wine to drink in a moderate quantity, so that all things might be perfectly digested in the stomach. When on the first day he had been sustained by this diet, on the following day they did not take the dung, but on that day too were again fed in the same way; on the third day at last it was collected for use."*

From this, afterwards, the Chemists, learning their lesson, sublimate water from human excrement, which Cardanus extols as most excellent in buboes and in the diseases [...]. But others promise that by this water fistulae are healed, difficult ulcers cured, cancers and ringworm removed, scars whitened, leucomata of the eyes abolished. Moreover they administer it to epileptics, apply it in the stone, prescribe it in dropsy, and lastly proclaim it as a marvellous antidote against the bite of a rabid dog and of other venomous creatures. By chemical apparatus, water distilled from human faeces finally yields an oil, which Evonius records should be employed with happy success in fistulae and cancers.

Lastly there have not been wanting men who have maintained that even human words and incantations possess the greatest power in driving away diseases — which we firmly assert ought by no means to be believed, especially since Quintus Serenus, a man otherwise of distinction, speaking of averting the daily type of fever, sang in this manner:

> *Many monsters of words besides I shall weep.*
> *For superstition, vain, believes that fever*
> *May be expelled by a charm of varied measure.*

Whoever desires to know more of the medicines drawn from the human body — for these are endless — let him resort to Quercetanus, to Crollius, to Milius, to Renodeus, to the *Clavis Medica*, and to other authors of this kind, who have described in chemical writings the various preparations made from the parts of man.

[marginalia: Vrina puisionum / Sal pro lisif / Vrina humana / Lib. 2. antid. / Lib. 2. primæ / Usus urinæ humanæ / Lib. 9. de ster.]

[catchword: CECA]

Monstrum Historia. 315

So blind was Antiquity that, under the pretext of religion and the compulsion of demons, it was hurried headlong even into the unholy slaughter of human beings, while it offered human victims to Jupiter, Saturn, Bacchus, and other false divinities. For a wicked custom took root among the Phoenicians: children were sacrificed — indeed, it was not lawful for anyone to save them from death. For this reason, amid the copious tears of their fellow citizens, children were snatched up in the garb of great men and of kings, clothed in the vestment of Saturn, and sacrificed; funerals and sacrifices were moistened with blood. Wherefore when Asar was about to be immolated, his mother — namely the wife of Hannibal — lamented thus in the lines of Silius:

> *What piety is this, to sprinkle temples with gore?*
> *These are the primal causes of crimes among mortal fields —*
> *To know not the nature of God, and to pray amiss:*
> *With holy incense and with prayer avert fierce vices,*
> *Be gracious — God is akin to man; thus far I pray.*
> *Let it suffice to have seen young steers slaughtered at the altars.*

The histories also record that Aristomenes the Messenian offered three hundred men in sacrifice to the Jupiter whom he called Ithomates — among them Theopompus — with a single act of consecration. But what is more worthy of wonder: the Romans, who once ruled the entire world, fell into these very errors as well; for among them Saturn and the Latial Jupiter were propitiated with a human victim; indeed, during the sacrifice, the image of the divinity was sprinkled with human blood — until, in the consulship of Gnaeus Cornelius Lentulus and Publius Licinius Crassus, provision was made by a decree of the Senate that it should no longer be lawful for anyone henceforth to immolate a man or to offer atonement with human blood. Bacchus among the Greeks, in the annual festival, delighted in a human victim; indeed the man to be immolated — or who had been immolated — gained the greatest glory of probity and religion in the eyes of the rest. Again in Chios and in Salamis there penetrated, over many ages, the custom of sacrificing men to Dionysus. There was a temple of this Dionysus in Arcadia, where girls were flogged at the altar to the point of death. Mars did not shrink from sacrifices of this kind: for certain pagans, returning from battle, distributed their captives by centuries, and consecrated to Mars one man slaughtered from each century. Indeed Procopius wrote that among the inhabitants of the island of Thule, in the time of the Emperor Justinian, they used to offer a human victim — the first man taken in battle — and immolate him to Mars.

What more? The histories also report that even female divinities delighted in human victims. At Laodicea in Asia they immolated a virgin to Minerva, just as the Lycaean Jupiter among the Arcadians rejoiced in the sacrifice of a boy. Among the Taurians, a people of Scythia, there was a solemn custom of sacrificing strangers, and above all shipwrecked men, as so many victims to Diana — just as at Sparta they sacrificed boys beaten with rods at the altar of the Orthian Diana. Finally, in former times, human heads were dedicated to the Larvae, that is to the mother of the Manes, as an unshorn offering; until Junius Brutus the Consul, abhorring this species of sacrifice as horrific and abominable, decreed that in future the heads of poppies should be offered in place of human heads — wherefore many, led by this reasoning, have supposed that the poppy plant was held sacred to the Larvae. Lastly, the Thracians believed that Zamolxis, whom they regarded as the greatest God, could be propitiated in no other way than by a man being cut down by a thrust of spears at the altar.

Infinite nations made use of this kind of sacrifice: for, by the side of the Borysthenes, men were offered as victims, and it was customary to kindle sacrificial fires with human bones. The Celts were also permitted to cleanse the head of a captured enemy and to sheathe the skull in gold; for it was employed as a drinking-vessel at festivals. In ancient times the Portuguese carefully inspected the entrails of slaughtered men in order to draw from them prophecies, and they offered the severed right hands of captives as gifts to the gods. The Galatians and the Massagetae believed that the gods could not be consulted except at the altar, by means of a man from whose [blood or limbs...]

[marginalia: Victima humana Diis immolabatur / Marti sacrificia quale / Aduena sibi sacrificati / Capita papaueris olim immolata]

[catchword: Vel]

— they professed to divine the future either from the movement of the limbs or from the flow of blood. Likewise the Gauls of old, when afflicted by serious diseases or dangers, would immolate men to propitiate the gods, or vowed that they would immolate themselves. The Cimbri consecrated living men fastened to stakes as victims to their own gods. The Albanians, when a man had been initiated in the sacred rites, proved sound in holiness, and abundantly fattened, would burn him at the altars along with other victims. The Leucadians, to avert the wrath of the gods, would hurl a man headlong into the sea from the summit of a mountain. The Senones, on certain fixed days, after slaying a man, celebrated unspeakable sacrifices, and believed that by this means all guilt could be expiated. The Persians, in giving thanks to the gods, buried young men while still breathing in the earth. The Britons had a certain ancient custom whereby daughters-in-law and wives, naked and anointed with a certain juice of herbs, would supplicate in the temple and offer atonement to the gods with the blood of captives.

But why do we wander among the rites of antiquity? We read in the histories of the Caroline island recently discovered by the Spaniards exploring the globe that bronze statues of their divinities, hollow within, are seen there in great number; in these, at the time of sacrifice, boys were enclosed and burned as offerings to the gods when a fire was set beneath. For this reason we ought not to be astonished if we read in the sacred scriptures, Deuteronomy chapter 10: *"All the abominations which the Lord abhors they did, offering to their gods their sons and daughters, and burning them with fire."* The interpreters accordingly relate that those images were cast from Cypriot bronze and other metals.

Let us add to the foregoing, as a crowning instance, the rite of the Mexicans, who in their temple, before the images of their gods, slaughtered men and women; and furthermore, the Priests, taking up the points of reeds, would wound various parts of their bodies, and offered to the gods the blood flowing therefrom.

USE IN SPECTACLES

This heading has the greatest affinity with the preceding one; for, just as there men were slaughtered at altars in the presence of the bystanders, so likewise here men are torn apart by wild beasts before the people. For by ancient custom the Romans were accustomed to put on three kinds of spectacle. In the first, wild beasts fought with wild beasts; in the second, men with men; and in the third, men with beasts. This is confirmed by Pliny, when he says that elephants in the Circus, at the curule aedileship of Claudius Pulcher, fought against bulls with great ferocity; and of the second kind he wrote thus: in a naval engagement on the Caelian Hill, with a lake dug out, biremes, triremes, and quadriremes of the Tyrian and Egyptian fleets, with a great number of combatants, clashed together; to which spectacle so many men thronged from every side that the greater part of those who had come from abroad remained encamped along the roads with tents pitched, and often many were crushed to death by the crowds. Concerning the third kind of spectacle he reported that at the curule aedileship of Domitius Ahenobarbus, one hundred Numidian bears and the same number of Ethiopian hunters fought in the Circus with great slaughter of men. For this reason Cassiodorus, who witnessed and recorded these things, execrated this kind of contest as horrific and accursed; since men were to be found so audacious that, relying solely on the hope of deceiving the animal, they were willing to contend alone against wild beasts — who, if they did not escape the beast, could not always even find burial, since their body was consumed most savagely by the beasts.

Nor were there wanting, as the same Cassiodorus attests, certain men of mercenary spirit who had their blood for sale, who, entering the theatre armed only with a pole, would go to meet a bear or a lion that had been baited for that purpose, and by means of the flexible support of wood would vault over the beast as it lunged at them — which beast thereafter, overcome as if by some shame, would neglect to attack its conquerors further. Others, in order to engage in combat with beasts, armed themselves with a shield woven from reeds, as they had agreed with the contractors, and came forward into the spectacle of their own accord; where the beast released from its cage upon them, they immediately threw themselves flat on the ground and, covered by the wrapping of reeds, frightened it off — and the beast did not dare to attack them again. Wherefore, as Cassiodorus reports, no differently than the spine of a hedgehog curled into a ball, the feeble defence of reeds kept these men safe. Others, making use of a revolving wheel, eluded the charging beasts by the speed of movement.

[marginalia: Spectacula Romanorum / Prælia bestiarum triacrasta / Qua ratione Feras evitarent]

[catchword: ruentes]

[continued] — rushing upon them by the speed of movement. Now here are spectacles from what Cicero writes to Marcus Marius in this vein: "But what pleasure can there be for a man of culture when a feeble man is torn apart by a most powerful beast, or a splendid beast is pierced by a hunting-spear?" Following the opinion of Cicero, Seneca likewise execrated spectacles of this kind and produced the following: "Not long ago, in the school of beast-fighters, one of the Germans, when he was being prepared for the morning spectacles, withdrew to relieve his bowels — for no other privacy was granted him without a guard — and there took the entire wooden implement that was placed with a sponge for cleaning away filth, and thrust it down his own throat; and by closing off his windpipe thus expelled his spirit." And further on: "When a certain man was lately being conveyed under guard, sent to the morning spectacle, nodding his head as though overcome by sleep, he let it droop so far until he thrust it into the spokes of the wheel, and held himself in his seat long enough to break his neck with the revolution of the wheel. In the second, a naumachy spectacle, one of the Barbarians plunged his entire blade — which he had received to use against his adversaries — into his own throat." For this reason in our age the Christian Princes have forbidden the people to hold spectacles of this kind, and in their place have instituted the game of Troy and mock battles.

USE IN WAR

Princes are provoked to engage in martial contest either when they wish to make war on another, gathering a multitude of men, and enlist as soldiers those who are capable of performing excellent feats of arms — or when they choose from among these men those distinguished by military discipline and most versed in naval affairs, to entrust to some the command of the fleet, to appoint others to the prefecture, and finally to set others over the cavalry column. These afterwards distribute all the soldiers by centuries, review the army, and lead full cohorts. Moreover they choose the most secure place for their supplies; they order some to make the rounds of the night-watches, and place others to test the sentinels. In this manner, then, with the line of battle established, they first attempt battle by advancing their forces; thereafter, with the whole line, they strive to come to grips with the enemy. Indeed, when occasion offers, they augment the army and endeavour to multiply their auxiliaries, until they either rout the enemy, or cut them off, or destroy them utterly. At times they send men to reconnoitre the position of a certain city, then move camp up to the city and assault it by surrounding it with a siege; sometimes by laying ambushes they dig mines against the city, and there are those at the ready who dare to seize fortresses and gates held by garrisons. Nor have there been lacking warlike women, such as Cleopatra of Egypt, Artemisia Queen of Caria, and the Amazons, who once contended intrepidly.

Furthermore, besides the commanders of war and the ordinary soldiers, in battle there are standard-bearers, cavalry troopers, infantry, vanguard fighters, surveyors, light cavalry, trumpeters, drummers, measurers, velites, targeteers, cataphracts, spearmen, shield-bearers, *ferentarii* — that is, those fighting at a distance — archers, chiliarchs, recruits, *rorarii* who engage in a certain light preliminary skirmish, ordinary rankers, triarii who are the bravest of all and occupy the rearmost part of the army, *dimarchae* — that is, those fighting by a double method of battle — swordsmen, dagger-bearers, musket-men, javelin-men, *scorpionarii* who use the machines called scorpions, ballistarii, slingers who hurl stones with the sling, culverin-men, pyrobalists who hurl incendiary balls against adversaries. For the rest, whoever desires to know the order of the velites, the number of spearmen, the prerogatives of the military tribunes and centurions, the division of the cavalry, the number of maniples, the arrangement of the turmae, and the duties of the prefects, let him consult Justus Lipsius, who in his book *On the Roman Military* treated all these things most diligently. It has nevertheless pleased us to append, as a crowning addition to the foregoing, a use of men in war among foreign nations that is worthy of admiration.

The princes of the region of Cumana used men as a shield: for four Indians always preceding the Prince, in order that he might not be violated, interposed their own bodies against the missiles of the enemy; and whenever one of them who had been struck fell, another was immediately substituted.

[marginalia: Varia militum nomina ab officio quibus utuntur / Mulieres quæ pugnauere / Nomina militum / Principem Cumanæ]

[catchword: IN]

Lib. 10. de ferr. / Thesauri inuentio / Postignum pinguedo ster. / Li. 2. antid. / Ji. 2. primæ / Vsus urinæ humanæ / L. 9. de ster.

In various arts various parts of men are employed. For human blood, in the eleventh experiment of Artephius, as is read in the scholia of Paracelsus, holds a place; when clay figures of men and women are anointed with human blood around the head, and the hollow heads are filled with the seeds of poppies laid in shallow dishes — which statues, thereafter thrown upon the ground, are said to represent as many figures of men and women as there were poppy-seeds enclosed in the heads. These trifles are set forth not for show, but in order to signify something, in the chemical art.

Since fat is generated from blood, according to the opinion of the physicians, we shall come now to the use of human fat. They report, then, according to Wecker's testimony, that a candle prepared from human tallow, and carried to a place where a treasure is said to be hidden, reveals it by a crackling sound and is extinguished in close proximity to the treasure — which some believe to happen through a certain sympathy: since fat derives its origin from blood, and from blood flow the instrumental spirits of the soul, which in the living man is entangled by the desire for gold and silver. Moreover a dire greed has so invaded the minds of men that they abuse what nature has bestowed for the comfort of mortals; for from many of these [parts] accumulated together, lamiae compose an ointment, to which these persons add a great deal of superstition, yet it can produce by natural virtue the effect they desire. They cook the fat of young boys in a bronze vessel, adding parsley, aconite, leaves of poplar, soot, blood of bats, soporific nightshade, mandrake, tares, inverted bean, henbane, poppy, opium, and other things of this kind which are wont to induce a deep sleep. Accordingly Wecker, after the body has been rubbed with the said liniment, records that marvellous things are seen; for such malefic women report that in sleep they behold theatres, banquets, gardens, handsome young men, and other things of this kind in which they take supreme delight. Nor ought we to wonder at this, since the simples composing the ointment described are said to be causes of violent dreams. Moreover Wecker described another ointment of this kind in his *Antidotarium*.

The teeth — especially those of boys — are not excluded from this use: for, according to the opinion of the philosopher Sextius, a tooth of a seven-year-old boy enclosed in a golden armlet and worn by a woman is said to prevent conception. Although Albertus pronounces that the teeth of boys which fall out in early age ought to be gathered before they touch the ground, since these — enclosed in silver and suspended from a woman's neck — are said to cause sterility. Yet we think all these things must be counted among old wives' tales.

If attention be directed to the use of the remaining bones, we learn from Peter Martyr that among the Cannibals, in the corners of their dwellings, many human bones are found — especially those of the arms and shins — since they use these for making the tips of arrows, as those regions lack iron. The Brazilians also fashion flutes from the bones of enemies slain in war, that they may cheer the spirits of their companions on the march and rouse the minds of soldiers in battle to the destruction of their foes.

From human urine and copper a suitable solder for gold is made; moreover, goldsmiths use it for cleaning gold. Indeed a silver plate placed above a vessel full of urine contracts such a rust as imitates the colour of lapis lazuli, which painters may use in place of ultramarine. Furthermore, Chemists employ distilled human urine for dissolving certain metals. The protection of a diseased vine is ash of brushwood and oakwood, sprinkled with vinegar around the trunk; but Wecker thinks it safer and better if human urine be poured around the roots of the vine.

[marginalia: Lib. 10. de ferr. / Thesauri inuentio / Postignum pinguedo / Li. 2. antid. / Ji. 2. primæ / Vsus urinæ humanæ / L. 9. de ster.]

Monstrum Historia. [*continued*]

Lastly, human saliva enters into an ointment which, according to Wecker, restrains the excessive growth of hair. Also human saliva readily dissolves mercury, from which Pharmacists afterwards prepare an ointment against lice. Moreover they attribute to it this prerogative: that if anyone regrets a blow struck from a distance or at close quarters with the hand, and immediately spits into the palm of the hand that struck, then the pain of the one struck is relieved. Let us add what is recorded of the spring of Labraean Jupiter at Gnidos: that eels fed from men's hands, and the same has been reported of a certain spring in Mesopotamia.

OF THE MONSTER IN GENERAL — EQUIVOCAL

Since Festus called all things that exceed the measure of nature *monsters*, without doubt many things will be classed in the genus of monsters; for Nature plays in a wondrous manner in forming animal conceptuses, in fashioning the forms of plants, and in the shapes of inanimate things, continuously impressing monstrous and extraordinary conformations upon things. But lest the ambiguity of the name lead readers astray, it has seemed fit to explain the equivocation at the outset.

For *monster* is at times employed in the sense of *monstration* — that is, of showing or indication — which signification Virgil expressed in the third book of the *Aeneid* when he says: *"I relate the monsters of the gods."* Likewise the preludes of citharists, which those who are testing the tuning of the strings produce even in keeping with the proper principle of harmony, are called *monstra*. Indeed if something contrary to ordinary custom occurs in the world it is called a *monstrum*, and in this sense Horace spoke when, enumerating the abundance of rain that in the universal deluge surpassed the ridges of the mountains, he wrote:

> *It affrighted the nations, lest the age of Pyrrha*
> *Should return, with its strange monsters —*
> *Odes Bk. 2, Ode 2.*

Although others have been of the opinion that *monstra* in this passage is to be interpreted as "tidings full of dread." Hence Cicero, writing to Atticus, recorded these words: *"The aforesaid Cherippus came two hours before, bringing nothing but monsters."* Where certain interpreters take *mera monstra* as meaning the adverse health of Quintus; though *monstra* may also be referred to incredible things and to prodigious lies. For this reason Quintus Serenus called *monstra* those words which some men utter for the purpose of banishing diseases, in these verses:

> *Many monsters of words besides I shall weep.*
> *For superstition, vain, believes that fever*
> *May be expelled by a charm of varied measure.*

Furthermore, things difficult to understand — certain recondite and obscure riddles — are called *monstra*; following which meaning Seneca, in the first book of the *Thebaid*, says: *"Who will unravel such great monsters?"* Again, when the form of a man or woman so fair and remarkable is seen that nature could fashion nothing more beautiful, it is popularly called a *monstrum of beauty*; as Francisco Petrarch, on the beauty of Laura, sang in this vein:

> *O of women the lofty and rare cause of wonder:*

Just as on the contrary a man the mirror of ugliness is likewise called a *monstrum*. For we read in the *Life of Aesop* that the wife of Xanthus, struck with astonishment at the extraordinary deformity of the new slave — namely Aesop — reproaching her husband said: *"Whence do you bring me this thing?"*

[marginalia: Lib. 3. de fac. / Monstrum pro monstratione / Monstra pro mendaciis / Monstrum pro pulchritudine et deformitate / Li. 4. Epist. 76]

[catchword: IVLII]

— Indeed, a man who is surpassingly powerful in strength beyond the common measure and is, as it were, a specimen of singular courage, is likewise given the name of *monster*; for this reason the ancients designated Hercules a *monster* in this sense, since the mighty deeds of this man are celebrated as *monsters* throughout the whole world.

And a little below: [...]

Furthermore, since *monster* is said of that which exceeds the order of its kind to the great wonder of all, we shall without doubt exhibit the man conspicuous for uncommon mental dexterity as a *monster*. Accordingly, in this sense, they have deservedly called Saint Thomas Aquinas — whose intellect nothing more excellent has produced — an ingenious *monster*. On the other hand, the most impious of all men whom the earth sustains, and one stained with every kind of wickedness, is named a *monster*; and as the genuine type of this they point to Nero, the true portent and monster of the human race. Likewise Cicero, speaking of Catiline in this sense, attests that he is about to describe a *monster* of a man. Peter Crinitus likewise points out as *monsters* those men who have composed volumes against the true religion and against Christ, and who have handed down opinions that whatever the fish-soothsayers foretold of Christ could also be understood of others — opinions which were afterwards demolished with wonderful ease by Saint Augustine, Origen, and Cyprian.

But, beyond these bestial actions of the soul, there have sometimes lived men who deserved rightly to be called monsters, who imitate the bodily operations of brutes. For the distinguished physician Johannes Langius relates that in Austria there were men who would compete with dogs in barking and in the swiftness of running; indeed they were continually hunting with the dogs in the forest unharmed. What more? Vice itself is with perfect right called a *monster*: for when we assert that a *monster* is being harboured somewhere, we signify that some crime is lurking there — the metaphor perhaps taken from true monsters, which, out of shame, are reared in hidden places. Finally a monstrous man may be called one to whom all things turn out well and prosperously, according to the trochaic monostich:

A monstrous thing is man, to whom no ill ever befalls.

And when in sleep horrifying spectra and extraordinary dreams appear to some people, these dreams are with the best reason called *monstra*; and from the name of *monster* are not to be separated those dreadful apparitions which Demons present to the terrifying of men consecrated to God. Indeed the very Devil seems deserving of the appellation of *monster*, when he sometimes assumes his own shape composed of the various parts of all living creatures; for this reason Saint Jerome with the best cause called the Devil the *monster of monsters*.

Moreover, *monstra* appear to be referred to miracles, when Ovid, speaking of the transformation of the sisters of Phaethon into poplars, records that Cycnus, son of Sthenelus, was present at this miracle, in these words:

At this monster was present the offspring of Sthenelus, Cycnus.

Not unlike this miracle — or *monstrum* — will it be when a stepmother who is otherwise harsh, savage, and *monstrum-bearing* as the authors call her, shall embrace her stepson with singular piety and love. This, being observed in a certain foreign city, was remarked upon with wonder as a thing monstrous; just as it is also the case when a daughter commits treachery — for this reason Ovid called the betrayal of Scylla a *monstrum*.

Similarly, whatever is absurd will have to be called a *monstrum*, provided it surpasses the laws of nature: for the transformation of a female into a male and conversely of a male into a female seems to be referred hither; since Ausonius sings in this manner:

All wondered at the monster, while before their eyes the lamb,
Turned from the flock, becomes a tender ram.

Absurd too, and similarly monstrous, is it when a man weds a man; hence Juvenal, censuring the feigned sanctimoniousness of those who are none the less to be counted among the wicked, mentions above all those who, contrary to the order of nature, in the manner of women, have married one another — and called this monster exceedingly absurd:

Surely you would shudder and think it a greater monster
If a woman had given birth to a calf, or a cow to a lamb.
See here this man in the toga — Gracchus —

Furthermore, medicine is not without its *monstra*: for a disease which is either difficult to diagnose or peculiar to one region is called a *monster* among the other nations.

[marginalia: Monstrum pro singulati ingenii / Lib. 9. de bon. geit. / discipl. 10. / Vitium dicitur Monstrum / Diabolus Monstrum / Nouercæ uocor Monster]

[catchword: difficilis]

Monstrum Historia. 31[7]

— difficult, or peculiar to some region, is named a monster among the other nations. Let one example stand for all: the disease *Plica*, familiar to the Poles, which is nothing other than a matting of the hairs so indissoluble that the hairs appear to be joined by a tenacious glue. This affliction arises from a viscid and glutinous substance; but what this matter is, when it is generated, and why it is transmitted to these parts rather than to others, is not the place to explain here. This one fact is certain: that in Bologna, in the years lately past, there was a Polish woman suffering from this affliction, to whom many came to look as to a monster.

Again, in medicine it is permissible to call something a *monster* when a patient afflicted by a pernicious, malignant, and lethal disease is abandoned by physicians as past hope, but nevertheless, contrary to all expectation, recovers — for which reason Ovid not without reason sang:

> *The skilled care of physicians has often abandoned a patient,*
> *Yet he does not perish for the failing of his pulse.*

Monsters can also be referred to human excretions: for in men of a melancholic temperament such humours are generated, and so departing from the nature of others, that they appear to be utterly monstrous; wherefore Galen, in his book *On Melancholy*, left written that there were some melancholics who believed they had swallowed some noxious thing, since they vomited up things abominable and monstrous.

Next follow the fictitious and imaginary monsters of the Poets, which require some consideration. For they have related that Cassiopeia, the wife of Cepheus, was so elated by her brilliant beauty that she boasted herself more beautiful than the Nereids; hence they handed down that the Nymphs, indignant, obtained from Neptune that a sea-monster should ravage Ethiopia, and that the Nereids could not be appeased unless Andromeda, the daughter of Cassiopeia, were exposed to the monstrous beast. Of this kind were the monsters into which the companions of King Picus were transformed by Circe, of whom Ovid sang thus:

> *She sprinkles the noxious poison, the juice of venom,*
> *At whose contact the shapes of various wild beasts*
> *Come upon the young men, and no one retains his own form.*

Homer likewise recounts similar monsters, mentioning the Cyclops dwelling in a vast cave, feeding on human flesh, and drinking milk instead of wine, in these verses:

> *But when the Cyclops had filled his great belly*
> *Eating the flesh of men, and drinking unmixed milk:*
> *— Odyssey, Bk. 9*

That is:

> *Moreover when the Cyclops had filled his great belly*
> *Eating human flesh, and drinking pure milk in addition.*

Hence afterwards other poets imagined Cacus, the monster of Mount Aventine, breathing a fiery breath and devastating the neighbouring places, of whom Ovid thus makes mention:

> *Cacus, the terror and infamy of the Aventine wood,*
> *No slight evil to neighbours and to guests:*
> *Dire was the man's face, vast was his bodily strength,*
> *Mulciber his father — the father of this monster.*
> *— Ovid, Fasti, Bk. 1.*

Having spoken of the monsters of the Poets, we shall proceed to consider men who, not preserving the proper measure of human stature — whether in greatness or in smallness — are reckoned among monsters. These are the Giants, endowed with a huge proportion of limbs and with a correct conformation of the same, whom the Poets of old imagined to be born from the earth; for which reason Horace sang:

> *The earth grieves for its impious monsters,*
> *Her offspring hurled by lightning to bright Orcus, etc.*
> *— Odes, Bk. 3, Ode 4.*

Likewise, the Pygmies, Pumiliones, and Dwarfs, by reason of their small stature, are by some placed in the genus of monsters. Hunchbacks, the lame, macrocephali, and similar persons do not escape this equivocation — although they are not seldom born, and sometimes do not differ greatly from the nature of their parents. Just as several births approximating to the likeness of a dog, an ox, or other brutes do not seem to depart greatly from the nature of those related to them — though they do not fully reproduce the head of the aforesaid animals, but only display certain rudiments and lineaments of the aforesaid brutes, from which Physiognomists may afterwards elicit various characters of men; which doctrine is contained in the *Physiognomics* of Aristotle.

[marginalia: Plica aliis morbus / Monstrum in medicina / Excrementa monstrofa / Pumiliones inter monstrum / Li. 9. Odys. / Lib. 1. Fast. / Lib. 3. Car. Oda 4.]

[catchword: Aliquando]

[continued]

Sometimes too in inanimate things as well, certain appearances arising from hidden causes come together which incur the equivocation of *monster*: such as the spectres of men fiercely fighting one another, and the likenesses of brutes, appearing in clouds — although these ought more properly to be called portents and prodigies than monsters. Wherefore of old the Jews in the city of Jerusalem, when over the space of forty days they had seen various troops of horsemen armed with spears and clad in golden robes in the air, and had heard the clash of shields, were assiduous in begging that the monsters be converted to good: for Josephus the Hebrew handed down that these portents appeared before the destruction of Jerusalem. Virgil likewise mentioned similar monsters — or rather prodigies — when he sang:

> *Nor did the Tritonian goddess give these omens in uncertainty.*
> *— Aeneid, Bk. 2.*

The name of *monster* likewise seems to be claimed by those animals which, while being of one nature in their kind and of perfect constitution, nevertheless emerge from a female of another species: as when a woman brings forth a frog or a serpent, which the historians report once happened in Umbria; wherefore Lucan, with this in view, at one point sang:

> *The infant affrighted its own mother.*

Similarly, in the pastures of Nicippus, according to Aelian, a sheep gave birth to a lion; and from the Annals of Colmar, in the year 1276, in Zurich, a domestic wolf gave birth to two red wolves and several spotted dogs. These, however, some call not monsters but quasi-monsters, since they have only a monstrous birth, not a monstrous substance. Not unlike these are births of white offspring from black parents, and conversely of black offspring from fair parents, which view Paré appears to follow. Yet even these offspring can be called quasi-monsters, since they bring no wonder to the beholder except in comparison with their own parents.

Finally it is to be noted that, just as in individual peoples certain human monsters arise, so likewise in the universal human race there are certain monsters of nations — such as Monoculi, Cynocephali, and the like, who are said to dwell in Africa. Yet neither do such persons claim for themselves the true name of monster; for though they are born of like parents, they may indeed be called monsters by us, but are not called monsters by the inhabitants, since they cause them no wonder. What is written of men of this kind we proclaim is also to be understood of brutes: for historians recount that fish with human faces have been found, and Alexander ab Alexandro makes mention of the sea-man. Fulgosus also records a fish covered with a skin like an eel but of human appearance. Indeed Cardanus and Bellonius spread the report that a fish-woman was caught in a certain lake in Pomerania after floods and fierce storms at sea. Of these creatures there has been detailed discussion above, in the first chapter and in the section on differences.

Let us add, from the Indian history, eels with the tail of a she-goat, which, emerging from the lairs of India and during floods of rivers, make their way to the sea; although other authors have handed down that these are born in the Indian sea and spend their life there. These things, though they are rarely seen, cannot nevertheless be called true monsters, since they do not degenerate from their own kind.

Here, for the benefit of the reader, we exhibit the figure of a most deformed African animal, circular in the compass of its body like a tortoise; its back is adorned by two yellow lines intersecting each other at right angles, at each of whose extremities single eyes and single ears are affixed, so that this animal sees with four eyes and hears with as many ears. It has, however, a single mouth and a single belly, but several feet so completely encircle the globular body that it can turn itself in any direction. The tail is long and extremely shaggy at the tip. This will not differ greatly from the four-headed animal of Ramusius, which had four heads disposed in such an order that they faced the four regions of the world; and whichever one of those heads directed its gait, the remaining body immediately followed, without any turning.

[figure captions: Deformis animal Africanum — a most deformed African animal with four eyes, four ears, one mouth, multiple feet, long shaggy tail]

[marginalia: Monstra cœlestia / L. 2. Æneid. / Piscis humanæ faciæ / Lib. 3]

[catchword: ANI-]

Description of the Indian cock.

Finally, among the winged creatures, we present the image of the eared, three-toed Indian cock, which at first sight appears to us to be a monster; and yet, not in the least departing from its own kind, it occasions no admiration among the inhabitants of the Indies. The species of cock is remarkable, and inferior in beauty to no tribe of birds. The beak is most unlike that of other cocks, but answers to the beaks of parrots: for it is hooked in the upper part, and entirely red. The whole head, breast, and belly are of a pale rose colour. The head is adorned with two crests: the first is of flesh, after the manner of our domestic cocks, and is situated near the beak; the second crest consists of yellow feathers. The pupil of the eyes is black, the iris yellow, with likewise black eyelashes. The ears are large, and not unlike those of an ass — which one might judge to be artificial, and yet they are not in the least monstrous. Beneath the chin certain green feathers hang down, simulating the form of a beard.

[catchword: ride$]

[marginalia: Description of the Indian cock.]

An eared, three-toed Indian Cock [turkey].

[Full-page engraving — no further translatable text]

From the upper part of the neck and from the rump, where they are green, blue feathers adorned with white quills hang downward. The wings are of a quite varied colour: for the first feathers of them are darkly green, but arranged in such a way that they appear in some measure to produce scales, and through the middle of these there runs a white line; those that follow are intensely green, but white at the tip; the three lowest of these, however, are blue, but greenish all around. Finally the outermost flight-feathers are yellow, and the shafts of all are white; the lower part of the wings tends to a pale blue verging on green, the upper to rose-colour, and all their shafts are likewise white. The tail is double: the first is small and made up of only five feathers, and those of a reddish hue, and very short, compared with the second tail. The second tail consists of nine very long feathers, of which some are longer than others and take on different colours. The larger ones are tawny, made up of very thin, elongated, dusky plumules hanging here and there, and at the tip they present, as it were, oval spots, reddish and surrounded by blue on all sides. The feet are red, distinguished by three toes, and the claws together with the heel are white.

Those things, therefore, will be properly called monsters of which we shall speak first at present, with the intention of speaking afterward of others as well. These are living creatures possessing something of the human, very unlike their progenitors, and rarely occurring — such as three-handed men, glowing foetuses, and similar animals exhibiting an unusual structure.

SYNONYMS AND ETYMOLOGY.

MONSTRUM, according to the mind of Isidore, is so named because it warns men by showing something future: wherefore some, led by this reasoning, called a *monstrum* as it were a *monestrum*, either because, by warning, it foreannounces some mystery of divine vengeance, or because, as something singular, it is observed by individuals and pointed out with the finger in admiration — which last etymology may seem more pleasing; since the first, cited by Isidore, does not square perfectly; firstly because monsters arise in many places in many regions, from which no presage can be drawn. We can indeed attest that the supreme God is sometimes able by these to indicate future calamity to men, and yet for the most part He does not employ these monsters in the proper sense; since in the sacred pages we have nowhere read of a monster of this kind procreated by God, and yet He has wrought many other prodigies; besides which, authors affirm that such monsters are born in the solitude of Africa, where no men wander who might be warned.

Otherwise, monsters are called by some *miracula physica* — physical wonders — which occur as often as Nature does not operate according to her customary law in the formation of bodies.

Others have called a monster *Ostentum*; with this name being far more comprehensive than *monstrum*, inasmuch as an *ostentum* is that which is born contrary to the order of nature, as a three-footed or one-handed foetus; thereafter it comprehends all those prodigious things which the Greeks call *phasmata* (φάσματα). Otherwise, by some a monster is likewise called *Portentum*, because, according to the first etymology, it portends something future. By certain persons a monster is circulated under the name of *prodigium*; since a monster is as it were *porrodigium*, because it foretells and presignifies something to come afar, a signification they seem to draw from augury. Nonetheless, these names are very frequently confused, and one is used for the other by authors; wherefore Cicero wrote most aptly in the first book *On Divination* that monsters, signs, portents, and prodigies are so called because they show, exhibit, portend, and predict.

If we turn our attention to the Greeks, we shall fall equally into this confusion of names. For Aristotle sometimes called τέρατα ἁμαρτήματα τῆς φύσεως — that is, monsters as errors of nature: where Theodore Gaza rendered them *portenta*, and not perhaps without reason, since τέρας — that is, *monstrum* — is derived from τὸ εἴρω, namely a herald, as though a monster were a sign; by which the supreme God employs it to announce something.

[marginalia: Lib. Orig. / Miracula physica quae / Ostentum, portentum, prodigium / Synonyma graeca]

Greek synonyms.

Niphus, however, affirms in his Commentaries that portents are not to be reckoned in this category. For *phasma* (φάσμα), according to the opinion of the same Aristotle in the *Meteorologica*, properly belongs to celestial monsters — namely portents and prodigies; and yet this word too has been used for *monstrum* by certain authors. Otherwise, among the Greeks πέλωρ (pelor) is indeed explained as a monster; but more properly that which presents an immense and enormous bulk, as though πέλας ὄρους εἶν τῷ μεγέθει — that is, approaching in magnitude nearly to a mountain. For this reason Apollonius in the *Argonautica* sometimes used this word in naming the Giants; although afterward the same author elsewhere employed the same term to indicate a monstrous birth. Other Greeks called monsters ἀποφώλια, as though this word signified something monstrous and prodigious, and yet it generally denotes something vain and abortive; wherefore those eggs of birds are properly called ἀποφώλια which are not without barrenness; though the word also comprehends degenerate births.

Lib. X.

The word for monster in Hebrew, as it appears in Deuteronomy, is *Mopeth*, from the verb *Haphah*, meaning "it shone forth," or from the verb *Pathah*, "he persuaded," since monsters and portents call men back to a better mind — those to whom they foretell coming evils. In German it is called *Ein Wunderding*, *Ein unnatürlich*; in Spanish, *Milagro*; in French, *monstre*; in Italian, *mostro*.

DIFFERENCES.

THE DIFFERENCES of monsters are so difficult to comprehend that they seem to require a Sibyl for interpreter. Since so many authors have brought forward so many opinions in setting them out. Aristotle, in the *History of the Generation of Animals*, reduced these to three principal headings — namely to abundance and deficiency of parts, and also to the preposterous and perverted order of nature in the situation of the same. Averroes in his Commentaries on the same passage of Aristotle established four species of monstrous births, distinguishing some of them as differing in number, others in quantity, others in quality, and others in position. Isidore first considers monsters of bodily largeness and smallness, and thus comprehends Giants and Dwarfs; then, by reason of the largeness and smallness of the limbs, does not exclude foetuses born with large or small parts. Thirdly he looks at superfluity and defect of parts, so as to comprehend infants with three hands, or born without hands and other parts of this kind. Fourthly he reflects upon monsters transformed as to a part, such as a birth born with the head of a dog, or wholly transfigured into another nature, as a serpent sprung from a woman. Fifthly he contemplates the transposition of the position of parts, such as an eye in the breast, and the liver in the left hypochondrium. Sixthly he marvels at the precocious formation of parts — as an infant emerging from the womb with teeth, or beard, or the hair of a dog. Seventhly he brings into the arena the combination of several monstrous differences, which a foetus with the head of a lion and the feet of a calf may represent. Eighthly and lastly he adduces mixture of kind or sex, which difference hermaphrodites constitute.

The most illustrious Septalius reduces human monsters to a threefold genus; since the production of something outside the intention and power of nature, differing from the parents, may occur in three ways. First as to the substance of the thing made, and as to what is made, which is the greatest; then as to that in which it is made, which is far less; and thirdly as to the manner and order of making, wherein the departure is yet less and the unlikeness less. To the first genus he refers those monsters which depart from the power of nature and from resemblance to parents both according to the whole and according to the parts — both as to the manner and as to that in which it is made, and as to what is made and as to the substance of the thing made — and these monsters occupy the supreme degree, because they never come under reason of purpose; as when in the human species monsters bear the form of a brute, either in the whole or in some part; since the parts of a brute Nature would not only not produce in the manner in which they are produced, but she would not even operate in the human species in any manner with respect to the substance of the thing made.

[marginalia: Differentia ex diversis / Lib. 7. de princip. / Differentia a tempore sumptam non recenset Pereliu$ / In Lib. de morb. cauf. / Forma trifariam vitiatur]

To the second genus he draws those monsters which come into the light equipped with superfluous limbs; since nature would indeed have wished to produce those parts, but not in that thing in which they are made, nor in that manner; wherefore they differ from their parents on a double account. To the third and last genus Septalius assigns those monsters which consist of parts not rightly disposed: since nature would indeed wish them formed, but not in that manner and order; hence the error occurs neither as to what is made, nor as to that in which it is made, but only in manner.

Johannes Georgius Schenckius, in his small work on monsters, distinguishes the various differences of monsters according to the abundance and scarcity of matter, and also according to the bad quality of the same and the imagination of the parents. For to the excess of matter he reduces conjoined twins, two-headed births, four-handed, three-footed, giants, and hermaphrodites; then to deficiency of the same matter he refers dwarfs, acephalous births, one-handed, and footless ones; and finally to the depraved quality of matter and to the imagination of parents he assigns the remaining ugly and absurd conformations of men and of other brute animals.

Ulysses Aldrovandi — the man most adorned by the liberality of the Muses and the Graces — in a certain catalogue of his works, established four differences of monsters: in the first are placed monsters arising from excess and deficiency; in the second are those which proceed from the congress of animals of different species; in the third are placed those whose causes are referred to the imagination; and finally those monsters that derive from causes not sublunary constitute the fourth difference.

Benedictus Pererius appears to assign very many more differences of monsters, when he declares there to be many genera of monsters, since a monster may be produced in manifold ways — namely in sex, as if it be of uncertain sex, or have both, as is the hermaphrodite. Secondly on account of some quality, as if it have excessive thickness, or thinness, or some other notable and unusual quality. Thirdly in excess or defect of magnitude, as if the limbs were greater or lesser than is right. Fourthly in position, as if parts should be transposed contrary to natural usage. Fifthly in figure, as if a man should be in figure not erect but prone after the manner of quadrupeds, or if a man should have a face or other part not human but bestial. Sixthly in mode of life and habits. For those who feed on human flesh, such as anthropophagi, are to be reckoned among the monsters and portents of human nature. Seventhly in number, as if a man be born two-headed, or with six fingers, or be one-eyed, or one-footed. For the rest, as our opinion goes, Pererius does not seem to differ greatly from the others in assigning these differences: for the aforesaid authors advanced by way of generic headings in enumerating these differences, while he approached rather to more specific differences, to which differences of monsters taken from time cannot conveniently be reduced — such as an infant born with a beard or teeth, of which the proper place shall speak.

Alexander Massaria, a man of no vulgar erudition, holds that monsters are indeed errors of nature, but reduces all these errors — not departing from the doctrine of Galen — to affections of bad composition. For Galen, having disposed of the differences of diseases of the similar parts, recalls another genus of diseases of the instrumental parts, which is called bad constitution or depraved composition of the members. The affections of these parts are therefore either simple or compound; setting aside the compound ones, he comes to four simple affections of the organic parts: the first of which is ugly conformation, or corrupted form; the second, vitiated magnitude; the third, depraved number of parts; the fourth and last is the vitiated position of the same parts. Form is in the first place rendered worse in three ways — either through a natural defect of figure contracted in the womb: for Galen in the *Ars Medica* confesses to have observed that the stomach, the bladder, and the liver, on account of a defect of innate conformation, performed their functions badly.

Furthermore, the form of parts is corrupted by an adventitious and external defect of figure, which occurs after birth; an example of this can be a dislocation and fracture badly treated, and to this class monsters artificially prepared can be reduced. Thirdly, form is rendered ugly through the loss [...]

[marginalia: Magnitudo, quomodo, quando vitiatur / Judaicus / Subtil. / Monstrum uniforme et multiforme / Divisio amplior / Lib. 2. de Enrept.]

— of the cavities and passages which nature has destined to be notably open in any part. This happens when passages are made more open, when they grow together, when they are blocked, and when they are compressed by a neighbouring part, and finally when they fall in, contract, and are obstructed by thick and viscid humours. Thirdly and lastly, figure is vitiated by the smoothness and roughness of parts, which by their nature ought to be either smooth or rough, and yet take on an opposite nature; and to this class would belong those monsters which on the skin possess certain roughnesses and smoothnesses contrary to nature. Likewise the magnitude of parts can, either before or after birth, contract the defect of increase and diminution; likewise number is oppressed by defect and abundance, whether natural or not natural — namely when a person comes into the light with six fingers, or with only four; and after birth this occurs as when a pterygion growing in the eye darkens vision, or when parts are mutilated or wholly torn away — and this can apply to an artificial monster. Finally, the situation of parts contracts a blemish, as when the spleen occupies the right hypochondrium, and after birth when the descending intestines constitute a hernia. Such then was the opinion of the most illustrious Massaria, which, as our judgment holds, does not depart far from the truth.

Others divided a monster, with respect to its subject, into one of man, one of brute, and one of plant. Others drew this division from the material principle, by reason of the varied constitution and deformity of the members of the body that are vitiated while monsters are generated. Others consider the foetus degenerating in an animal according to its whole self, as is read in Josephus the Hebrew concerning a cow giving birth to a lamb; or degenerating only as to the parts, either because they are useless on account of defect of motion, or because they fail on account of magnitude and smallness, or on account of position, or on account of figure — as was set out a little before according to the mind of Galen. Lastly, by reason of time, some distinguish monsters, since some are produced in the mother's womb and others outside the womb; wherefore Cardanus adduces the example of a certain infant exposed in the forests, who together with milk acquired not only bestial habits but also the face, the nails, and a tail, a monster that was apprehended in Meissen. We have also in the sacred pages the example of King Nebuchadnezzar, who for seven years dwelling in the forests, with his hair and nails growing, and eating grass, closely imitated a wild beast — but this must be believed to have happened above the power of nature.

Fortunius Licetus — equipped with the manifold furniture of erudition, who today professes Philosophy in the eminent seat of the University of Bologna — in his history of monsters undertakes a more scientific division, distributing the monster, by reason of the essential form of monsters — namely the vitiated composition of the parts of the body — into the uniform and the multiform. The uniform he calls that which has parts representing the members of one species of living being; and the multiform he calls that which is made up of parts simulating the members of living beings of different species. Thereafter he divides the uniform monster into the mutilated — such as a foetus without hands — and into the excessive — such as a two-headed infant — and into the monster of ambiguous nature, as would be a foetus possessed of a double head and lacking feet. To these he adds the disfigured monster, such as a birth with transposed members; and likewise the formless monster, such as a round child; and finally the enormous, which genus of monster is represented by a half-petrified foetus.

All the aforesaid distinctions and differences are learned and erudite, but since it is our concern at present to comprehend and explain the genera of monsters far more broadly, we shall amplify the aforesaid divisions; and, with respect to the subject of man, brute, plant, and inanimate thing, we shall distribute the monster into four supreme genera. By reason of the inanimate thing, a monster is considered in two ways: either insofar as it is generated in the air — and thus comprehends extraordinary meteors, of which the last chapter of this work shall treat — or it is produced on land, and is of two kinds, namely natural and artificial. The natural is some simulacrum delineated or carved by nature in stones. For Eusebius the Jesuit recounts that there is found in the isle of Mona a stone in the form of a human thigh, endowed with the innate virtue that, however far it has been carried away, it returns of itself the following night. From the same author, on the north interior side of the manger of the Lord, there is visible a stone representing a venerable old man with a long beard, which form nature in her playfulness has expressed in blackening lines with such art that it appears to have been painted by industry.

[marginalia: Figura vase iura sculpta / Monstra artificialia in rebus inanimatis / Monstra artificialia in plantis / Monstra artificialia in brutis / Monstrum artificiale in genere humano est duplex.]

There are those who attribute the matter to a miracle, and think that the image of Saint Jerome is expressed therein. The same author relates that in the place where Saint Stephen was overwhelmed with stones, his image is found impressed in the rock. Indeed from the same source, in a certain stone of the Cedron or Valley of Josaphat, there are seen expressed the marks of the hands and feet of Christ the Lord, who, bound and violently dragged, fell upon that rock.

He recounts likewise that the stone which was once the bed of the Prophet Elijah bears the likeness of that same man. Let us acknowledge these things to be beyond the power of nature, and refer other matters of this kind to the mind of Olaus Magnus, who has reported that in the region of the Ostrogoths stones exist by a certain river, some of which represent human hands, others feet, others arms, and others a head: wherefore the inhabitants, accustomed to such spectacles, are not detained by any admiration. What more? In certain torrents of our own region, stones are sometimes found which have been carved by nature with such skill that they represent loaves of bread, cheeses, pears, and even animals. We remember having seen a great fragment of a vein of cinnabar found in the mines, which bore in it Agate, Crystal, Emerald, and Amethyst; it could be likened to a monstrous animal made up of parts of different species. An artificial monster is similarly observed in inanimate things, as when a sculptor through ignorance carves a monster in stone, fashioning the foot of one animal and the ears of another in his carving; and the unskilled Painter achieves the same, who often paints in a monstrous fashion animals whose likeness and lineaments he does not know, to the admiration of all.

If we contemplate animate things, and first plants, in these likewise a natural and artificial monster is produced. The natural occurs when a monstrous plant is generated by nature; and the artificial monster is when we reduce a growing fruit of some plant to the form of some vessel, and train cucumbers growing under the constraint of bonds to the form of snakes.

If we consider brute animals, natural and artificial monsters befall these as well. Natural ones are for the most part of mixed breed, which arise from the congress of brute animals of different species; whence this enigma is read concerning the mule:

> *Of form unlike to father and to mother both,*
> *A hybrid offspring, fit for neither kind,*
> *From others I am born; from me is no one born.*

And others of this kind — such as the Indian Dogs given as a gift by Alexander the Great, King of Epirus, which were said to be begotten of Dogs and Tigers; and likewise the Thoes (θῶες), according to the mind of the poet Oppianus, which were animals proceeding from the Panther and the Wolf, or according to the opinion of Pollux, from the Fox and the Wolf, since these animals imitated the voice of the fox. Moreover Aristotle in the *History of Animals* admitted these adulterous procreations in birds as well and in fishes. On this subject the same philosopher in the same *History* produced these words: *For Africa is always said to bring forth something new, since the diverse genera of animals come together on account of the scarcity of water in that land, when many animals converge upon the few watering-places there;* whence, according to the mind of Aristotle, the generations of animals of mixed breed are not disproved. We therefore can only reject those adulterous foetuses which some affirm to proceed from animals differing in nature, temperament, and size.

Artificial monsters are also prepared in brute animals — as if the front feet of a newly born dog are cut off, for when the wound is quickly healed the animal is compelled to proceed on its hind legs. These monsters occur either immediately after birth or in the course of time; for we know of a certain mountebank who so furiously cut off the front feet of a certain cynocephalous ape: the beast nevertheless, once healed, recovered, and always walked erect on its hind legs.

If we turn our attention to man, we shall encounter natural and artificial monsters here too, and these artificially prepared ones differ according to time — since some monsters are made immediately from the womb, as we observe in those who inhabit Phasis, who have a very pointed head, for their head, still tender and soft immediately after birth, is shaped to a point by the hand of the midwife: since that people used to consider a pointed head to befit a most noble nation, and no other nation appears to be endowed with such a head. Thereafter, in the course of time, among men even adults, monsters arise on account of mutilated or wholly truncated parts; for often soldiers returning from war with mutilated [limbs] are observed.

[marginalia: Monstra artificialia in brutis. / Monstrum artificiale in genere humano est duplex.]

If the monster be a natural one emerging from the human womb, it must be noted that it will differ from effusions and from moles, which likewise proceed from the human womb. For the Mole, according to the opinion of Aristotle, is flesh conceived in the womb of a woman, and Galen agrees with Aristotle in many places: but both these most illustrious men drew this opinion from Hippocrates, who in the book *On the Diseases of Women* and in the book *On Sterility* calls the mole an improper and vitiated conception, and confirms it to be flesh. From this, Aetius and Paulus Aegineta thereafter took occasion to say that the mole is an inform mass of flesh subsisting in the coats of the uterus, which comes to light after the manner of a conception. It is called a *mola* because, like a millstone, it moves with difficulty; and it is numbered among diseases by physicians. But it is called inform, not because it is wholly wanting in shape: for the mole has a varied form, for the most part round; hence Levinus Lemnius, a distinguished physician, relates that he once knew a certain woman gestating it in the womb, who after a space of nine months delivered an inform, round mass with two handles attached to either side. It is therefore called an inform mole, because it is alien from the human figure. Nonetheless, in the museum of the most illustrious Senate of Bologna, we have found the image of a mole bearing the rudiments of the human form — recorded under the name *Mola anthropomorphos* — which it has not seemed amiss to give here for the benefit of the reader; this may perhaps not be unlike the delivery of a certain woman of Augsburg, who in the year thirty-one above fifteen hundred gave birth to a human head enveloped in many membranes.

[figure captions: Mola anthropomorphos.]

Now, here it is to be noted according to some that of moles, some are entirely without sensation, others have sensation and move for some hours, others are entirely inform, others take on some form — such as that mole adorned with handles recorded by Levinus Lemnius, which came out of the womb with palpitation. These last moles are to be reduced rather to monsters than to moles; if anyone seeks their cause, let him consult Hippocrates, who in the book *On the Diseases of Women* taught that copious menses receiving a morbid seed are to be referred to the causes of diseases. Not to mention Averroes in the Commentary on Aristotle, who taught that the principal cause of moles is that nature does not accord between the seeds, in respect of quality and quantity.

After effusions, moles, and abortions, the foetus emerging from the womb at the appointed time and unlike its progenitors will be a natural monster, which will be either simple or two-bodied, and each according to various discrepancy in the internal and external parts will be [...]

[marginalia: Mola quid. / 4. de Gen. An. / L. 4. de part. anim. cap. 5. 14. / Aet. lib. 13. / Mole different. / L. 4. de gen. an. cap. 1.]

— various: for it will differ in one, or in two, or in a greater number of parts, as occurs in monsters of rare and unusual species, of which the section on presages shall treat. Or the parts conformed to the parents will be more numerous or fewer, or disfigured, or placed outside their proper seat, or with respect to figure bent, so that the foetus is compelled to walk after the manner of a quadruped. Or the foetus in sex will be like both parents, as the hermaphrodite, or will differ from its parents according to the whole — as when an animal of a different kind is brought to light, which occurs in the case of a woman giving birth to a dog or a serpent. Finally, the birth at its origin will be like its parents but in the course of time, when it does not attain the due stature of a man, it will be a Dwarf; and if it exceeds the customary stature, it will be a Giant. Moreover, the species of such monsters are rarely found simple, and for the most part compound, as will be observed in the proper place.

DEFINITION.

TO EXAMINE the internal nature and definition of a monster, one must consult Aristotle in several places. For in the *History of the Generation of Animals* he holds a monster to be an impediment to something contrary to its nature, in those things which do not always, but for the most part, act in the same manner. The same Aristotle in the *Physical Auscultation* has these words: *The same sin is committed in those things which are accomplished by arts: for a grammarian has not written correctly, and a physician has not rightly stretched out his hand. Wherefore it is clear that the same things can occur in those things that nature accomplishes; and if some things occur in the arts in which what is rightly done serves some purpose: in those things in which error is committed, the art proceeds to do it for the sake of something, but does not achieve it; and similarly in natural things there will be errors — those will be errors of that which was for some purpose.* And in the first compound bodies, those things which consisted partly of the parts of a man and partly of those of an ox, if they could not arrive at any fixed end, came to be made by some corrupt principle, just as now corrupted seed. Hence he decreed that a monster is a defect of nature, not attaining its destined end, on account of some impediment — just as also occurs in artificial things — namely when the artisan cannot attain the end already conceived in his mind. Since therefore, according to the mind of the Philosopher, nature in producing monsters departs in some measure from its proper kind, it is not to be asserted that men with ears inhabiting the northern Ocean, and others of this kind of whom we have spoken in the first chapter, are to be placed among monsters — since in their birth they do not depart from their proper kind. Thus, since the definition, according to Aristotle, is constituted of the proximate genus of the thing to be defined and the essential differences, and monsters constitute their nature by admirable deformity, not without reason did the most illustrious Licetus in his work on monsters assert that a monster is a sublunary living being, with an enormous constitution of members striking horror with admiration in those who look upon it, born very rarely, and generated secondarily by the institution of nature on account of an impediment in the principles of its formation. For when nature is unable to produce a most perfect work, she produces an imperfect one; therefore it must be held that monsters proceed from the secondary institution of nature, on account of some impediment. But this genus of monster embraces not only the human species but that of brutes and plants as well; moreover by this definition only proper monsters are comprehended — while certain things considered monstrous by common people are excluded. Likewise, brutes born of a woman are not called true monsters, since they bring no admiration, except in comparison to the progenitors, upon those who look upon them; though their origin was monstrous.

But we at present, following the division of monsters set out above, can follow the opinion of Donatus, who called every monster everything contrary to nature; and thus we shall be able to dilate the definition so broadly that it comprehends very many more things, asserting that a monster is whatever sublunary thing is not fashioned according to the customary norm of nature, and

[marginalia: Monstra naturalia quae / Quae vera monstra non sunt / Definitio aucta et adaequata.]

— which on that account affects those who behold it with great admiration. For if, according to the mind of Aristotle, a monster is a sin of nature, unable to attain its end on account of some corrupted principle, then it must without doubt be concluded that monsters can occur in every genus of natural things, except in the elements — since it is plain to all that nature sometimes deviates from her own end; but this error of nature in inanimate things is more obscure and less known, because it is less observed; in animals and plants, however, it is more manifest, but thereafter more frequent in living things, for two reasons: firstly, because the seed of animals is softer and more moist than the seed of plants, and is therefore said to be more subject to any alteration and corruption, and more apt to receive any affections; secondly, because the generation of animals is much more difficult than the procreation of plants, and needs many more things, the lack of which makes it necessary that a monstrous animal be produced.

NATURE.

THAT AT PRESENT the habits of monsters be investigated, we consider this not alien from our purpose: inasmuch as this is inquired not in monsters of brutes, but in human monsters alone, and all the more because a monstrous man cannot have moderate habits; and especially since Aristotle, speaking on physiognomy in his letter to Alexander, wrote that livid or smooth whiteness pertains to a deceitful man, and if a monstrous form be added to these aforesaid features, he then declares the man diminished both in nature and in mind. He therefore proclaimed that a man of this kind, or one mutilated in any part, is to be shunned as a tenacious enemy. Thus monstrous, deformed, and mutilated men, according to the doctrine of Aristotle, abound in rashness, utter everything without judgment, and finally are wont to wanton intempestively with their words. Nor without reason, since the common proverb teaches that he who limps in his feet also limps in his soul; and today we say that men marked by God with ugly stigmas are to be saluted from a distance. Since Hunchbacks, Strumous persons, and those filled with other bodily defects easily deceive their fellows, give false words, commit impostures, and in sum act upon the minds of others by tricks, deceits, and cunning arts — for it is established that a vicious body is the most certain image of a vicious nature. Homer confirmed all this in his Thersites, than whom no one more ugly or more seditious could be found; of whom this Greek distich sounds thus in Latin:

> *Lame in foot, and lame in soul alike,*
> *For all thy outer members are*
> *The mirror of thy inward mind.*

But as for what is to be said at present of the habits of monsters of another kind, there is not sufficient material; only this is to be committed to memory — that monsters will be imbued with those habits which can depend upon the governance of their parts.

DERIVED TERMS.

THERE ARE certain adjectival names derived from *monstrum* — such as *monstrosus* and *monstrosissimus*, which signify anything contrary to nature; likewise *monstriferous* and *monstrificus*, which names indicate something bearing reference to a monster. Although sometimes by transference *monstrosus homo* is used for a vicious man, and *fabula monstrosa* for a foul story.

Equally among the Greeks, τερατώδης (teratodes), τερατόμορφος (teratomorfos), and τεράτιος (teratics) mean monstrous; hence τερατεία (terateia) is used for a monstrous narrative. Otherwise, τερατοφόρος (teratoforos) refers to that which is monstrous-bearing, and τερατωπός (teratopas) is one monstrous and portentous in appearance, while τερατοσκόπος (teratoscopos) is

[marginalia: Mira cum / Lib. 7. 2. in nat. aus. / In cap. ad prob. HN. / Monstra in quantum discrepant. / Pitiofum corpus.]

— he who, gazing upon portents, interprets something, or who from the face of monsters foretells the future. Otherwise, τερατολόγος (teratologs) is he who holds discourse about monsters, or who narrates prodigious things, or who uses monstrous words; hence derives τερατολογία (teratologia), which signifies a monstrous and prodigious narrative, although this word can also be drawn to apply to the history of monsters, in which a complete account of monsters is had.

Furthermore, τερατουργός (teratourgos) is called the man who brings forth monstrous and never-before-seen things, such as a juggler; hence τερατουργία (teratourgia) is called the effecting of a prodigious work; whence also τερθρεύς (terthreüs), as it were τεράτευς — namely a juggler and impostor — is derived. Finally, pertaining to our subject is τερατότοκος (teratotokos), a name of feminine gender; for so is she called who brings forth monsters; whence thereafter τερατοτοκία (teratotokia) — namely monstrous birth — derives.

EPITHETS.

SINCE A MONSTER, on account of the novelty and uncommonness of its form, invades the human mind with heavy admiration, they rightly called it *admirable*. Then they called it *inform*, *ugly*, *deformed*, and *enormous*, because it was badly shaped by nature; hence, by reason of its deformity, because it strikes horror in those who look upon it, they named it *horrific*, *horrible*, *horrendous*, and *terrifying*. But in this sense Homer called it σπελωΐρον δεινόν — that is, a monster terrible and formidable; likewise in the *Odyssey*, αἰνόν — horrific and horrible. But Theocritus in the *Idylls* calls a monster ἀμέλικτον, because it cannot be won over, since it is harsh and rigid — though there the word monster is taken in a sense different from our signification; as also in Oppianus in the *Halieutica*, who designated a monster as πολύδιστον — contentious and disputed. This indeed is established and certain: that a monster, on account of the enormous magnitude or multitude of some member, is called *membered*, following the verse of Mantuanus:

We have seen huge spectres and heavily-membered monsters.

But if such deformity pertains to the head, it can be called *capitated* — following another verse:

The monster that bore from its own blood a great-headed monster —

the reason for which verse shall be given in the proper place. Thus if authors should at any time call a monster *large*, *immense*, and *vast*, they then look to gigantic stature; but when they call monsters *deadly*, *fatal*, and *threatening*, they contemplate monsters in the manner of portents and prodigies, insofar as they can foreannounce something — following the assertion of Valerius Flaccus:

Meanwhile he terrifies the city with auguries and threatening monsters.

But when among the poets a monster is read as *raging*, *fierce*, *infamous*, *grim*, *savage*, *furious*, *dire*, *pestiferous*, and *impious*, it must be known that discourse is then held of a monster taken in a different sense from that of which we speak at present. It would be better, according to our signification, to use the word which Hesychius employs — namely ὑπερφυής (hyperfueis) — which word signifies something exceeding the measure of nature, or something admirable, and both are observed in a monster; as was explained in the definition cited above.

[marginalia: Li. Iliad. / Monstrorum nomenclatura / Cur emet. / Teratologia monstruorum.]

SIMULACRA.

Some maintain that those monstrous simulacra of the pagans were fashioned to represent what they called Semones or Semihomines — that is to say, demi-humans — since in former times they called the human being *Hemo*, and these figures therefore seem monstrous because they were made up partly of human members and partly of the limbs of beasts. Yet this ought by no means to be asserted without qualification, for Antiquity called these lesser gods demi-humans not only because they busied themselves with lighter operations, but also because they partook of the nature of man and of the nature of the greater gods.

This much, indeed, is certain and established: that Fortune was depicted by the pagans as monstrous — that is, with a double face, the front one cheerful and the rear one gloomy. Accordingly the poet Gunther, in the first book of his *Deeds of Frederick*, named Fortune a two-formed monster in these verses:

> *Fortune — who has so often striven to mock thee in vain —*
> *I now prepare to reveal, with the warning sign of her two-formed self*
> *and her ambiguous faces.*

The excellent painter Apelles likewise used to portray Fortune seated in this manner, and when asked why, he replied: because she does not stand still.

Since we have now spoken of two-headed simulacra, it will not be beside the point to recall the monstrous image adorned with two heads depicted by Ripa to signify Prudence: for the man most outstanding in the virtue of prudence does not allow the memory of past things to be effaced by oblivion, and strives to foresee the future. Indeed, from the same author, Theology is set forth under a two-headed simulacrum, of which one face — the youthful one — gazes at heaven, while the other — the aged one — looks upon the earth. These faces, as Saint Augustine reports to Volusianus, intimate to us that Theology consists in the unceasing meditation upon and love of God and of neighbour. And because one head of a two-headed man cannot be raised without the other being depressed, from this we may conjecture that the intellect of the theologian ought not to be borne up to things so sublime as to forget the condition of humanity, which can readily fall into error.

In the same author, the image of a two-headed woman with eagle's talons and a scorpion's tail proclaims Fraud: for by this is shown that deceit is to be contrived by many and various means.

In the *Promptuarium Numismatum*, a monstrous head is noted assigned to Melusine, mother of Geoffrey, who lived in France during the reign of Philip, son of Robert; and they report that this took its origin from the fact that the lower parts of this infernal woman were monstrous. Though others judge that this monstrous head was devised rather to adorn the woman's heraldic device. Ripa likewise depicted a monstrous simulacrum of a man with the face of a lion to represent Terror, since it is proper to the lion at first sight to fill beholders with heavy dread. In like manner a monstrous man with an ass's head is to be seen in Ripa, by which simulacrum Ignorance is manifested: for just as the ass perpetually gazes at the ground, so the unlearned and unskilled man never lifts his eyes toward the sun of virtue. The same author, in laying bare Gluttony, employs the image of a monstrous woman: for she is big-bellied and furnished with a neck so long that it rivals the neck of a crane; since great size of belly pertains to that vice, and men given over to gluttony desire to have a crane's neck, in order to enjoy the pleasure of food for a longer time.

There is also to be seen in Ripa a monstrous youth contemplating the heavens, from whose head serpents rise as if sharply pointed and hang amid his hair: for by this the divine inspiration is expressed, since the hairs, which are symbols of thoughts, mingled among the serpents indicate that one who sins, setting honesty aside and spending time among crimes, can overflow with no thoughts but abominable ones. Hence Saint Gregory, in his *Commentaries on the First Book of Kings*, wrote: *He who lacks honesty cannot escape shameful thoughts*.

If monstrous simulacra are to be wondered at and beheld for the multitude and form of their ears, one must turn to Ripa, who paints a four-handed youth furnished with four ears to signify human wisdom; for the Lacedaemonians once held that

[catchword: not]

not only contemplation but also use and practical application are necessary to a wise man; and therefore in this place practice is set forth by the figure of many hands, and the counsels of others by the figure of many ears. There is likewise to be seen a monstrous man adorned with hare's ears, whom Ripa employs in the figuring of Theft: for the thief emulates the timid hare, being led on by the slightest cause and always suspecting that his theft will be discovered at any moment. The same author, for Arrogance, paints a woman with ass's ears, since the ass is held to be a dull and ignorant animal: because he who is full of arrogance, though unfit even for small tasks, never ceases to covet public offices; wherefore Saint Thomas with excellent arguments was accustomed to assert that he is arrogant who attributes to himself what he does not possess.

Furthermore, Ripa in another place depicted an equally ass-eared youth with a mattock and a broom in his hand, to signify the rude and ignoble common people, who do not distinguish good from evil and continually change their opinion. Different from this is another simulacrum of a woman furnished with many ears, by which he signified Curiosity; for the curious person needs many ears, that he may be able to seize upon countless novelties. Wherefore Saint Bernard, describing a curious monk, said: *if you see a monk wandering about with his head erect and his ears held high, you recognize him as curious.*

Moreover, many human images with wings clinging to the head are to be seen in Ripa, when he employs them in expressing Invention, in describing Poetic Frenzy, and in the picture of Knowledge.

Monstrous simulacra with respect to the tongue are not to be passed over. For Ripa paints a monstrous woman with tongues hanging from every part of her body to express Falsehood; for these various tongues demonstrate the inconstancy of the liar, who in speaking departs from the truth and sets forth in each matter only the appearance of truth. Likewise a woman is painted with a tongue in her breast, to signify Persuasion, since the tongue is the instrument of persuasion, and among the Egyptians was said to be a hieroglyph of words.

If we consider the monstrous hands of simulacra, the image of a woman with open palms — in each of which the figure of an eye is visible — makes manifest Activity: for in the mind of the ancients the hand was a hieroglyph of action, while the eye declared the quality of that action, which ought always to be manifest. A four-handed and two-headed man is also to be seen in Ripa, who makes obligation plain to all: for the man who is bound and constrained takes on a double person, since he must satisfy both himself and another.

If we proceed to examine the monstrous lower parts of simulacra, we shall come upon the painting of a woman from the waist up whose legs curve above her head to form a circle: for by this Eternity — which has neither beginning nor end — is demonstrated by Ripa. Otherwise in the same author there is to be seen elsewhere a human simulacrum whose thighs terminate in serpentine tails to express Deceit: for he who plays the impostor draws a man into fraud by the lure of an apparent probity, since this simulacrum has its upper parts human while thereafter it ends in serpents. In like manner, in designating Hypocrisy, a thin woman is painted with wolf's feet: since those who dissemble display outwardly the gentleness of a lamb, yet afterward have a mind imbued with the customs of the rapacious wolf. Finally, to represent the World, Ripa employed the figure of a horned man with goat's feet, of which monstrous simulacrum words will be spoken in the chapter on Hieroglyphics.

Since we have fallen into the topic of the goat, it will not be foreign to our subject to call to mind the monstrous Chimaera, which Hesiod described as a three-formed monster in these words:

> *In front a lion, behind a dragon, and in the middle a she-goat.*

And moreover Ovid in the *Metamorphoses*, describing this monster, sang thus:

> *The Chimaera, which bore on its middle parts a she-goat,*
> *had the breast and face of a lion, and the tail of a serpent.*

Thereafter painters, relying upon these fictions of the poets, drew the monstrous simulacrum of the Chimaera as made up of the parts of a lion, a goat, and a dragon. We however give here an image taken from a certain statue inscribed with Etruscan letters, which was perhaps carved in this manner to represent the Chimaera.

[marginalia: Fortune called two-formed. / The icon of Prudence. / The icon of Fraud. / The icon of Ignorance. / The second section. / The icon of Curiosity. / The icon of Activity. / Obligation, its icon. / Eternity, its icon. / Deceit, its icon. / Hypocrisy, its icon. / The world, its icon.]

Image of a certain monstrous Chimaera.

[Full-page engraving — no further translatable text]

Otherwise, according to historical truth, the Chimaera is reported to have been a fire-breathing mountain of Lycia, upon whose summit lions roamed, the middle part of the mountain was pastured by she-goats, and at last about the roots of the mountain serpents nested. Hence arose an occasion for the fable that the Chimaera was a monster whose front part was leonine, its middle part caprine, and its rear part serpentine; and because Bellerophon, son of Glaucus, with the greatest diligence rendered this mountain habitable, the ancients therefore committed to memory that this vast and savage monster was slain by Bellerophon.

Moreover there exists a certain tablet of Bembo, whose title is: *A Type of a most ancient bronze tablet inscribed with hieroglyphics — that is to say, with the sacred letters of the Egyptians* — on which, for public benefit, monstrous animals are depicted in clear view, which appear to be not only monstrous but also, in our opinion, fabulous: since in it are to be seen many images of animals made up partly of the lineaments of birds and partly of the lineaments of quadrupeds. It pleased us to set these forth for contemplation in this place, lest anything be lacking to our history of monsters. In the first place, this tablet appears to represent four species of Harpies. For the Harpies were believed by the ancients to be certain rapacious goddesses, the name being derived from the Greek verb *ἁρπάζω* (to seize). But Hesiod left it written in the *Theogony* that the Harpies were winged demons —

[figure caption: First image of a Harpy.]

[marginalia: The Bembo tablet. / The Harpies, their origin.]

— winged demons who would carry off men by force: and accordingly if anyone had been snatched from the sight of men, he was said to have been torn to pieces by the Harpies. Others held them to be daughters of Thaumas and Electra. Others believed them to be daughters of the Earth and of Pontus; on which account Servius called them Birds of the Sea — not undeservedly, since many of the ancients named the Harpies daughters of Neptune — because they made the Ocean the father of nearly all prodigies.

Virgil however speaks of them in this manner:

> *No monster more terrible than these, no pestilence more savage*
> *ever broke forth from the waves by the wrath of the gods —*
> *faces of virgins, most foul the discharge of their bellies,*
> *hands with hooked talons, and faces forever pale with hunger.*

However we may judge the matter, we consider these monstrous inventions of the poets to be mere fictions. Now let us approach the first image on the tablet, which represents a bird otherwise entirely birdlike, save for its face, which is human, the head adorned with curling tresses, the feet black, and certain squirrel-like features covering parts of the wings; wherefore at first sight one must conjecture that this image was a Siren, or rather a Harpy of the Egyptians.

Now let us pass to the second image, which likewise represents a fabulous Harpy; it has indeed a human face, while all the rest appears to belong to a bird.

The third represents the face of a woman with a vessel at her feet, from which a plant springs that appears to represent a Palm.

[figure caption: Second image of a Harpy.]

[marginalia: The image of a Harpy, of what kind.]

[catchword: Harpy]

[figure caption: Third image of a Harpy.]

To the images already described from the Bembo tablet must be added a fourth image of a Harpy with a human face, the remaining parts belonging to a bird, which we may name, together with the others, *ornithantrhopon* — that is, bird-human. There are some who call the Harpy placed in the second position *quadrialata* — four-winged; whence we conjecture that this monstrous animal is entirely fabulous, since animals made up of four wings and resting on two feet are not found in nature: for they would be contrary to the teaching of Aristotle, since this prerogative of four wings belongs only to bloodless creatures, and yet the Harpies were classed among blooded animals.

[catchword: Harpy]

[figure caption: Third image of a Harpy.]

To the preceding images is added the crab-formed Harpy; and this animal, were it to be found in nature, would draw all things into admiration of itself: for it emulates three kinds of creatures at once. First, it bears the head of a woman with a curling fringe upon the brow. Next, it has two claws and eight legs — four on each side — after the manner of crabs; its body oblong, its shell reticulate, with two lines running through the middle of it, between which smaller lines are drawn resembling the steps of a ladder, and its tail rivalling that of a scorpion — as may be seen in the figure reproduced below.

[figure caption: Crab-formed Harpy.]

[figure caption: Crab-formed Harpy.]

Among the monstrous simulacra of Egypt there are reckoned animals having the body of a lion, wings, and the face of an eagle, which are called Griffins: since they are extremely hostile to horses, it is no wonder if some call them Hippogriffs. Mandeville, however, in his *Itinerary* appears to describe these beasts as natural animals, reporting that cups are fashioned from their claws and bows made from the ribs of their feathers; but let the credibility remain with the author. We shall at present set forth from the Bembo tablet three images of them differing among themselves, and in our opinion fabulous. The first image has the head of an eagle, enormous wings, and the remaining members of a lion, bearing something in its right foot after the manner of a dart, and treading upon the serpent of Aesculapius with its hind feet: because the Egyptians were accustomed to signify Apollo by this simulacrum; hence the ancient poets painted the chariot of Apollo as drawn by Griffins, and named Phoebus *gryphinus*; for this reason on the coins of Gallienus the image of a Griffin is to be seen with the inscription: *APOLLINI CONS. AVG.*

[figure caption: First image of a Griffin.]

[marginalia: Hippogriffs. / Animals.]

[figure caption: First image of a Griffin.]

There follows another image of a certain monstrous animal depicted on the Bembo tablet, which in some manner emulates the figure of a Hippogriff: it has a human face with a certain appendage of hair adorning the chin, and a lock above the brow; thereafter the simulacrum is made up of the wings of birds and the remaining members of some quadruped — as may be seen in the figure below.

[figure caption: Second image of a Griffin.]

An animal not unlike the aforesaid Griffin is to be found represented in the same tablet, whence it appears to be composed of a twofold nature, since it partly represents the image of a bird and partly that of a quadruped. It has indeed the beak of a bird, but the head — lacking ears and eyes — is adorned with the images of a star and a moon. It is distinguished by the tail of a quadruped, with the neck black as far as the breast, as the present figure shows.

[figure caption: Third image of a Griffin.]

Finally, from the same tablet we have a monstrous image which it pleased us to designate *Ornithantrhopon* — that is, bird-human — since it represents a bird by its head and a man by its remaining members. It has moreover wings attached to its back and the figure of a moon above its head; wherefore the reader will be able to contemplate all of this in the figure that follows.

[catchword: Ornithantrhopon]

Ornithanthropos

Moreover, the tablet of Bembo presents us with a monstrous figure, in which the head of a quadruped completes a human body. This effigy is seen kneeling; and since it imitates the head of a wolf, it has pleased us to name it Lycanthropos.

Lycanthropos

[catchword: postre-]

[Full-page engraving — no further translatable text]

Finally, in this tablet of Torquato Bembo, other monstrous images are to be observed, which it pleased us to add to this history, lest anything be lacking that the reader might desire. There is to be seen there a certain bird which presents the figure of a goose, and near the head, about the beginning of the neck, it has two oblong curling features; near the beginning of the belly is visible a sac or crop after the manner of the pelican (*Onocrotali*), with the figure of a half-moon above the head — as the image shows.

[figure caption: Goose-formed Bird.]

Moreover the same tablet exhibits the image of a certain bird whose wings are so ample as to exceed the magnitude of the whole body, one of them hanging down toward the feet; its breast white, spotted with blackish points; its beak exceedingly small — and this is remarkable, because it does not answer to the proportion of the wings; moreover no figure of eyes is to be observed in the head of the bird, and it is seen to rest upon a certain circle with its feet — as may be perceived in the picture before us.

[catchword: Ornithantrhopos]

Avis Toros

At the end we present for viewing an image of the two-headed Ram, such as is observed in the Bembine tablet. This monstrous animal has in the middle, between its two heads, two appendages — perhaps of wool — that resemble a tongue of flame, and the tail of the animal is exceedingly short. Such are those prodigious figures which are seen carved and depicted in the tablet of Torquato Bembo, a cast of which Aeneas Vicus of Parma published for the benefit of the public from the collection of that same Bembo, in the year of the Lord one thousand five hundred and fifty-nine, and dedicated to the Emperor Caesar Ferdinand I, Perpetual Augustus, King of Germany, Pannonia, Bohemia, Dalmatia, Croatia, and Illyria, and most excellent Prince.

[marginalia: Avis Toros]

The Two-Headed Ram.

HIEROGLYPHICS.

Tacitus once committed to record that the ancient Egyptians expressed the intentions of the mind by means of figures of animals; but it would have been more fitting had he said that they expressed the purposes of the soul by means of monstrous figures, since in the Bembine tablet — of which we made mention in the preceding section — only the monstrous likenesses of living creatures are to be seen.

Beyond this, we observe in Valerianus (to begin from the head) the figure of a two-headed creature lacking arms and feet; and this he established as the hieroglyphic of the firmness and constancy of wise counsellors, for what is done with mature deliberation is wont to acquire stability; yet the figure was depicted without hands and feet, in order to express divine virtue, which has no need of such instruments to accomplish its work.

Next, among the Ancients there was seen a three-headed figure, and this tricephalous image consisted of the head of a lion, a dog, and a wolf. For by the lion's head was indicated the present time, since its condition burns midway between past and future; by the wolf's head, as an animal of short memory, the past time was designated; and finally by the likeness of the dog's head, future time was understood, because this animal, fawning upon man, instils hope, which always appears to pertain to time yet to come.

Another three-headed figure may be observed in Valerianus, by which he asserts that Spain, divided into three parts, is signified — although the commentator on Hesiod maintained this to be the hieroglyphic of the Moon, whose dominion over Heaven, Earth, and the subterranean regions Antiquity believed to be exercised. And this we may the more readily establish, since Pierius elsewhere assigned this monstrous tricephalous figure — composed however of human, canine, and equine faces — to Diana, who among the Ancients was said to be the same as the Moon. To confirm this, let us add that the Egyptians attributed the same power to the three-headed god Anubis which the Greeks ascribed to Hecate, or Diana, or the Moon [...]

[marginalia: Lib. 35. Hierog. / Hieroglyphica / Tricipitia / Lib. 32. Hierog. / Lib. 5. Hierog. / Mensis divisio / Lib. 4. Hierog.]

— unless we choose with others to understand by this three-headed figure the tripartite division of the month into Calends, Nones, and Ides. To the foregoing let there be added the seven-headed figure, which Valerianus called the hieroglyphic of the man of wide knowledge; for astrologers depicted a similar image in the fifteenth degree of Gemini, thence predicting that those born under that degree in the breath of life would be men of vast learning.

Thus far concerning the multiplicity of heads; let us now proceed to the heads of brute beasts set, as if by a brush, upon human trunks. In Pierius, a man with a dog's head is depicted and employed as the hieroglyphic of Shamelessness; wherefore Helen, in Homer, accused herself of being like a dog, because she had furnished so abominable an occasion for so many evils. Indeed in Pollux, he who is filled with the marks of shamelessness is said to have the eye of a dog.

Again, a man with a hawk's head is figured in Valerianus as the hieroglyphic of God, because the Egyptians equated the hawk with the Sun on account of its prolific fecundity; since those who investigate natural things have recorded that in this species of animal there is to be found a *triorchis* — that is, a hawk furnished with three testicles.

To these let there be added the figure of a man with an ass's head, which Pierius called *aselliceps*. By this hieroglyphic the Egyptian priests signified an ignorant man, one unacquainted with places, since the nature of asses is such that they are not accustomed to travel very far afield; and yet horses and mules complete longer journeys, while asses wander only through that province in which they were born — unless we also say that asses are so stupid that the saying has passed into a proverb concerning an ignorant man: "The ass at the lyre." Finally Pierius exhibits the figure of a man with ass's ears who is sleeping, as the hieroglyphic of servitude; but this seems ridiculous, since he supports his opinion with the nonsense of interpreters of dreams, who are accustomed to predict servitude for those who dream they have asses' ears.

Monstrous figures remarkable for their multiplicity of arms are not excluded from hieroglyphics, since Pierius exhibits the human image depicted with many arms and hands as the hieroglyphic of Spring, Winter, and the Sun. Indeed many have understood the time of spring by the hundred-handed Briareus, because of the abundance of grass, flowers, and foliage with which this season of the year abounds. Then others have signified Winter by the hundred-handed Gyges, on account of the many things gathered into this season for various uses. Finally Homer called the Sun hundred-handed, on account of the infinite offices he performs day by day in the sublunary world.

There is added another figure of a man with four hands and four ears, by means of which the Lacedaemonians, indicating Apollo, seemed to instil into all the hieroglyphic of Wisdom, of which Apollo was a symbol, since he is not truly called wise who does not possess the knowledge and practice of many things.

Finally Valerianus depicted the monstrous image of a human face with a gaping mouth, protruding tongue, crooked nose, twisted lips, and glowering eyes, in order to express the hieroglyphic of an Adversary and a Contradicting party; since this kind of monstrous figure is fashioned by astrologers in the tenth degree of Scorpio.

We must now proceed to weigh those monstrous images which represent the upper parts as human and the lower as bestial. Pierius, designing a Lioness with a maiden's face, considers that by this device he aptly describes whorish manners, relying on the assertions of a certain Michael of Byzantium, who handed down that certain prostitutes from Megara were called Sphinxes; for beasts of this kind, with a human head, are wont to display a certain gentleness, but with the rest of their leonine body they flaunt rapacity and dominion — which qualities and characteristics the harlot exercises towards her lovers; wherefore prostitutes of old were known by the most shameful name of *megaricae* and *sphinges*, and to this adage the foul manners of the Megarians, condemned by all, gave occasion.

Furthermore from Valerianus we have a virginal figure down to the loins, and thence terminating in fish-tails and the feet of a hen; by this monstrous image he strives to depict the Sirens and at the same time the ruin of things: for men are said to be ensnared by the alluring blandishments of Sirens when, mired in the filth of pleasures, they putrefy most foully.

Again from the same Pierius there is a picture of a man down to the loins, and thence assuming the form of a goat — which monster is published as the hieroglyphic of hidden divinity. By this monstrous image the Sileni, of the race of the Satyrs, are represented; but the Sileni, in the mind of Alcibiades the Platonist, were a kind of image so contrived as to be easily closed and opened: when closed they displayed the ridiculous and monstrous figure of a flute-player, but when opened they bore some venerable divinity within them.

Again Pierius strives to expound, by the picture of a man terminating in equine form, the hieroglyphic of the fleeting and headlong nature of human life, since the end of human life consists in a swift race.

[marginalia: Lib. 21. Hierog. / Triorchis quis / Lib. 33. Hierog. / Lib. 55. Hierog. / Meretrix Megarica qua / Divinitatis occultae Hierog. / Lib. 4. Hierog. / Lib. 1. Hierog.]

[catchword: Prxtermiffo]

Passing over the goat-footed monster, which has elsewhere been depicted as a hieroglyphic of the universal mechanism of the World, we shall descend to the hieroglyphics derived from monstrous beasts. Pierius once depicted a two-headed Crane as the hieroglyphic of fertility, for the reason that when a two-headed Crane had once appeared, there was that year a most abundant harvest in Egypt; though by this two-headed monster some may also have indicated spring and winter: since, when the Crane arrives, the time of spring gladdens men, and when the Crane departs, winter comes upon them. In the same place Pierius depicts a winged horse, intended rather to signify Fame than swiftness; for since this monster is said to have been born from the slaying of Medusa, it signifies that virtue, once terror is routed, generates fame — the head of Medusa being the hieroglyphic of terror, while Fame, as soon as she is born, flies at once through the mouths of men. Finally, as a crowning addition, let us append the marvellous monster depicted by Valerianus — namely a serpent with the wings and head of a hawk — by which hieroglyphic the Egyptians strove to represent Divinity.

MIRACLES.

It is beyond doubt that those monsters which came into the light in order to presage something are to be referred to the working of miracles; nonetheless at this point I have resolved to set down the more evident miracles of monsters, reserving for the section on Presages those that are less overt. In the first place, it is read in the History of Portuguese India that in the Japanese region many pagans had already received the Christian faith, when it came to pass that all the children of a certain Neophyte perished. Therefore, when his wife's delivery was again imminent, a certain pagan kinsman of this woman persuaded her husband with smooth words supplied by the Devil that, seizing upon the occasion of his children's deaths, he should separate himself from the Christian commonwealth. Moved by his kinsman's words, he forthwith drew a dagger and stabbed a certain cross, to make plain to all by this act that he was abandoning the Christian rite. But shortly after, his wife, tormented by the pains of labour, brought forth an infant without a chin and with its chest so wide open that all the viscera of the boy were visible; wherefore all the kinsmen, struck with terror at this monstrous birth, returned together with the husband to the worship of the Christian faith.

A not dissimilar miracle occurred in the region of Friuli in the year of the Lord one thousand six hundred and twenty-five, where a certain noblewoman, eager for offspring, mocked a beggar-woman who was carrying two little girls and begging for food from door to door, because when asked about her children the beggar-woman affirmed that she had borne them in lawful wedlock, her husband being then ill in the hospital. The beggar-woman therefore, taking this ill, prayed that such a mark might be imprinted upon the noble woman's offspring by Almighty God that the violation of her own good name would be recognized by all. And it came to pass that the noble woman brought forth a seven-headed infant in her delivery, and the middle head among the others was furnished with but one eye and with goat's ears.

There also occurred at Epidaurus in the year one thousand six hundred and twenty that a pregnant woman stole two hens belonging to a neighbour who was absent; whereupon that neighbour, returning home and suspecting a similar theft, visited the pregnant woman and in mild words asked for the hens that had not been found. But the pregnant woman swore upon oath that she was innocent of such a crime; nay, she called down upon herself from God on high that she would bring forth two Devils if she had been guilty of this kind of theft. And so indeed it came to pass, for at the time of the monstrous birth the Devils came into the light tearing apart the mother's entrails, and perished together with the mother.

Furthermore, from Polydore Vergil in his *History of England*, during the reign of Henry the Second and while Thomas of Canterbury was legate of the Roman pontiff in those regions, it

[marginalia: Lib. 4. Hierog. / Fata quaedam / Puellas sine naso oritur / Infans septiceps / Parte.]

[catchword: contigit]

came to pass that infants born monstrous — marked, that is, with a tail — were nursed by a force surpassing nature. For when Thomas of Canterbury, a just man, came to Strood, a village situated on the river Medway flowing past Rochester, the inhabitants of the place did not hesitate to cut off the tail of his horse, in order to heap some ignominy upon Thomas and to humour their own king, who was accustomed to pronounce that he could not enjoy the peace of a single priest in his own kingdom, and that he lacked loyal friends to free him from this affliction. But afterward this mark of infamy was extinguished together with those men who had sinned.

Thus far concerning miracles wrought in those births beyond the power of nature — births that came monstrous into the light at God's command. It remains to speak of those infants who, born monstrous, shortly after obtained by an order above nature a comely form of body. But let this miracle stand for all: that which Caesarius of Heisterbach narrates as having befallen Godfrey in the house of probation — instructor of novices — who, while he once governed a certain parish, baptised in the holy font a monstrous boy, disfigured in a wonderful manner by a mass of flesh grown to his side; but after he had, invoking the name of the most holy Trinity, washed the monstrous infant three times with the sacred water, the monstrous flesh vanished by a power above nature; whereupon the parents and bystanders, praising the virtue of the Sacrament of Baptism, celebrated with immense glory the infinite power of the supreme Creator.

PROBLEMS.

Monsters are not lacking from those propositions that carry an attached question. For at the very outset the curious inquirer wishes to know why monsters are produced by Nature. Aristotle assigns the cause of this in the *Physics*, saying that Nature always strives to produce what is better and more perfect, but, on account of the disposition of the matter, or the faulty conformation of the womb, or the influence of the stars, not attaining the intended end of its work, it produces only what it can. From this the second problem follows: whether Nature, in producing monsters, has any end in view. The philosophers answer in the affirmative: for if Nature looked to no end, a birth would without doubt always be formless; but since it is not always formless, therefore, in the mind of Aristotle, when Nature errs in generation it afterwards attains its end in the nearest species, producing a female instead of a male, a biped instead of a man, or, when hindered, a quadruped. Hence it is to be gathered that an erring nature very rarely, and never, generates fish or trees. Although Athenaeus, on the authority of Hecataeus, relates that a vine-trunk bore a dog — a birth that many, however, proclaim to be fictitious.

And if anyone should object, saying that erring Nature ought rather to produce birds — which are bipeds — than any other kind of quadruped, Cardano answers that Nature, aiming at some species, necessarily strives also to form some species of that genus; and therefore, when it cannot attain some proper end, it looks to the nearest one, and endeavours to fashion something in another genus, the matter not resisting. For this reason, from matter consisting of diverse parts, it produces a multiform monster; but from matter altogether useless a shapeless monster will result.

Again, the curious ask why monstrous beings live in the womb yet easily perish when brought to light. Cardano answers that those things that are generated are preserved by the same causes upon which they depend, and that what has grown innate is also easy to live with, since the congenital shares in the life of those with whom it was generated. But since it is harder to live than to co-exist, hence it comes about that monsters live in the womb, but then easily perish in the vital air when born; because, once born, they are removed from their proper nature, and are thus rendered feebler and more sickly, and they die. A further answer may be brought forward, namely that monsters, when they begin to be generated, differ little from the generation of perfect beings; but because in the process of time, while they are being completed, they depart greatly from the nature of their generators — for this reason, the more monsters grow, the greater is the weakness they acquire, the more [...]

[marginalia: Lib. 8. de mirab. / Problema secundum / Lib. 2. Dipnos. / Monstrum multiforme quale / Vivere et convivere quid / Car. Subtil. de gen.]

— they depart from their natural origin. Those monsters, however, that survive depart less from the natural state. Hence there arises another problem: why miscarriages of monsters are rare, if monsters, as has just been explained, are even in the womb growing daily in debility. Cardano answers excellently that, just as miscarriages in general are for the most part rare, so monsters are more rare still; hence it follows that the miscarriage of monsters is exceedingly rare.

Finally, it is commonly inquired why Egyptian women more frequently than others bring forth monsters. Cardano's answer is that this comes about because Egyptian women are accustomed to produce several infants in a single delivery; and therefore, either through weakness or through the jostling of the foetuses, the births easily degenerate from their proper nature.

Then it is asked why small quadrupeds for the most part bring forth monsters, while this rarely befalls man and large animals. Aristotle resolves this problem, asserting that the chief cause is this: that small animals conceive several foetuses at one and the same time, whereas larger ones conceive and give birth to only one. But monsters are wont to arise where very many seeds intermingle and coalesce with each other, as very frequently happens in the case of small animals conceiving several foetuses.

Moreover, the question is raised as to in which kind of living creature the greatest number of monsters is produced. Many answer that this belongs to aquatic creatures — not only because many have thought that the forms of all living creatures dwelling in air and on land are also observed in the waters, but also because we consider this to be proper to aquatic creatures on account of the softness of their matter and the superfluous moisture by which generation and the constitution of a living creature can easily be vitiated, impeded, and deformed. Yet these aquatic monsters are less known to us, since all the species of such animals are easily ignored, their habitation being remote from our senses.

It pleased us, however, to set before the reader's eyes at this point some images of aquatic monsters, in order to establish the opinion of those who day by day declare that new monsters are found in the waters. Hence we conclude that the Ancients with just cause named the monstrous Harpies daughters of Neptune, since they made the Ocean the parent of all prodigies and portents.

The first figure shall be that of a monstrous Carp, which they say was caught in a lake of Austria called the *Diclis* in the territory of Count Julius of Hardegg, near the city of Retz, in the month of October in the year of the Lord one thousand five hundred and forty-five. The Carp was monstrous because it bore not the appearance of other Carps — of which we have treated in the *History of Fishes* — but a human one. It was caught in a net alone, and on account of its rarity, and especially because it was unknown to the elders of the region, it was preserved for a long time and carried about everywhere as a kind of marvel.

In the second place we give the figure of a monstrous Sea-Swine, which Gesner called the *hyaena cetacea* from its resemblance to the swine or hyena among quadrupeds. This creature, as Olaus Magnus relates, was captured in the year of the Lord one thousand five hundred and thirty-eight near the island of Thule in the north, with a head certainly like that of a swine but with the rest of the body scaled, with a figure resembling the crescent Moon on its back, and with three eyes in the middle of each flank. The animal was of incredible monstrous size, equalling a length of seventy-two feet and a height of fourteen. The distance between the eyes was seven feet, and it had a liver so vast that it filled five barrels.

In the third place there are added the Nile monsters, in confirmation of what has been said up to this point, the images of which were to be placed at page 26 of this book, where we mentioned them: for being plainly of human appearance down to the loins, with a face composed to gravity, smooth hair somewhat covered with grey, a bony stomach, with distinct and jointed arms, the monster thereafter — though resembling a man — ended in a fish. The other was of womanly countenance, with flowing hair and swelling breasts, as the image depicts. Furthermore, to confirm the opinion of those who hold that there are more monsters in the waters than on the land, we shall append the image of a marine monster reported by Paré, with the head, mane, and breast of a horse and the rest of the body fish-shaped. Gesner reports that this was caught in the Ocean Sea, brought to Rome, and presented to the Supreme Pontiff.

[marginalia: Car. Subtil. de gen. / Monstrum aquatilia minus nota / Cyprini varietas / Duo monstra maris / Car. Subt.]

A monstrous Carp.

[Full-page engraving — no further translatable text]

A monstrous Sea Hog.

[Full-page engraving — no further translatable text]

The Monsters of the Nile, from Paré.

[Full-page engraving — no further translatable text]

Therefore let those fare well who in the fables of the Ancients with great freedom fashioned sea-horses representing in part the form of a horse and in part of a fish, so that just as Doves, Peacocks, and Eagles were supposed to draw the chariots of their own Divinities — namely Venus, Juno, and Jove — so likewise in the waters they wished Neptune to be drawn by hippopotami of this kind. And therefore, in accordance with the painters' wish, they had devised for the great admiration of spectators that equine form which seemed rather to belong to some kind of Hippocampus than to a Hippopotamus. For the tail of a Dolphin was never observed in a Hippopotamus; nor did the Romans ever see any river-horse other than that of which we spoke in the *History of Digitigrade Quadrupeds*. Wherefore many have asserted that the ambition of the Romans gave occasion to the figure of this horse: for, wishing to make manifest to all their dominion over land and sea, they caused two animals of each element — namely the horse and the Dolphin — to be painted together and joined. Hence many, admiring such a figure and believing it to be but one animal, called the similar monster the sea-horse.

We need not now be seized with any wonder if the image we have proposed attains to some degree of truth.

We shall further confirm the aforesaid opinion if we add the image of a more terrifying aquatic monster, which Gesner mentions, and which he reports was received from a painter who had seen it alive at Antwerp. The head of the monster seems to present something furious, for it is furnished with a double horn and marked with very prominent ears. The arms, however, were not unlike human ones; the rest of the body represented the form of a fish. It was caught in the Illyrian Sea when it had approached the shore to seize a boy lingering there. Since the fishermen who observed it wounded it with stones, the monster, fleeing, struck by a mortal wound, returned shortly afterward to the shore from which it had departed and expired. Thus the lineaments of this monster are proposed for viewing in the image.

Another monster, far more marvellous than the preceding, we add at the suggestion of Rondelet, who received its image from a German physician named Gisbertus, and he himself had received it from Amsterdam with letters affirming that in the year of the Lord one thousand five hundred and thirty-one such a marine monster had been seen in Poland, resembling in some fashion the rudiments of an episcopal habit, and had been brought before the King of Poland. Indeed it seemed by certain signs to indicate that it desired to return to the sea; whereupon it was at length led back to the sea and cast itself therein. Wherefore Rondelet said he omitted many things that would have to be told of this monster, because he considers it to be fictitious; and he adds that he exhibits the image of it such as he received, and whether it is true or not he dares neither wholly to affirm nor wholly to deny.

In confirmation of this assertion Belon adds these words: Nor should this be passed over either — what is written in the Danish annals concerning the fish-bishop, whom Cornelius of Amsterdam wrote to Gilbert the Physician at Rome to have been caught near Poland in the year one thousand five hundred and thirty-one, and presented to the King of Poland, whose bodily size, face, and attire were altogether such as we see in the figure of a bishop vested in his mitre and the rest of his ornaments. Thus far Belon.

Since, therefore, there are very many miracles of Nature sporting at will on land, so also in the sea, on account of their rarity and variety of form, there are observed the almost incredible monsters of the same Artificer. For who does not marvel at Tritons, Sirens, Nereids, and very many other monsters of this kind, which many of old thought to be fictitious, and yet it is written above that such things were sometimes seen. We may therefore fittingly sing this distich:

> *What monsters the Aether does not rear, nor the rough land conceal,*
> *The salt pools hide in their crypts — however many they be.*

[marginalia: Origo equi Neptuni antiquorum / Monstrum hoc ubi captum / Monstrum hoc ubi captum / Bellonii opinio]

A monstrous Sea Horse.

[Full-page engraving — no further translatable text]

A sea monster of demonic form.

[Full-page engraving — no further translatable text]

A Sea Monster reproducing the rudiments of a Bishop's habit.

[Full-page engraving — no further translatable text]

Furthermore it is asked whether a monstrous man who is as it were two-bodied is furnished with one soul or two. Aristotle answers that this is to be gathered from the heart: for one heart in such a monster represents only one animal, whereas two hearts represent two animals. The difficulty now is: by what means it is to be ascertained whether in a similar living monster there is contained only one heart or two. Niphus committed to his Commentaries on Aristotle that among theologians in France there was once a great disputation concerning a monster of this kind — namely whether it ought to be washed with the water of the sacred font as one or as several — and they finally resolved that the distinction was to be grasped from a difference in sensations. Indeed Albertus recalls a certain monster resembling a double man, in which they determined that two men were present, because when one was provoked to anger the other laughed, and when one wept the other displayed cheerfulness; and the monster lived its life until the twentieth year; nay, when one perished the other survived so long, until, affected by the stench of the deceased, it too departed this life.

Physicians, however, in resolving this question, dissent greatly from the opinion of Aristotle: for they look not to the heart, as Aristotle does, but to the brain alone, in which reside the seat of reason and the dignity of the human form; and although the vital heat springs from the heart, nevertheless reasoning and discourse are conducted in the head alone. Beyond this, to further strengthen the physicians' position, the formative faculty, which delineates all things, in conception first concerns itself with the brain, since anatomists by dissection have observed the head in the embryo to be larger than its other parts; indeed they find all the individual members proportionally smaller the farther they are distant from the region of the head, until the birth has attained the type of perfect formation.

It is likewise asked why monsters are procreated small in size, as are dwarfs among the human race. The answer is that this arises from two causes, namely from place and from nourishment: for the narrowness of the place or receptacle causes the foetus to be unable to expand itself, and then the scarcity of nourishment prevents the foetus from being able to attain its perfect stature.

They also investigate why in the nature of things a woman is called a monster. Aristotle in the *Physics* satisfies this question when he asserts that everything produced by accident is called a monster, but since a woman seems in some measure to be produced by accident, she will therefore with perfect right be placed among monsters: the minor proposition of this argument is known to all, because Nature always intends to produce what is more perfect, and will thus without doubt always be directed toward generating a male; and yet it sometimes produces a female, on account of the disposition of the matter.

Finally many inquire whether monsters that come to light, according to the etymology of the word, always presage or foretell something. Many authors were of this opinion, that from the birth of monsters something is always to be presaged; and therefore Melanchthon seems to confirm this opinion by the birth of a monster before the war which Caesar undertook against the Romans. Indeed Sorbinus agrees with the aforesaid author, when in his *Teratology* he confirms it throughout with examples of various Monsters.

Men ought not to be too easy and prone to presagings from monsters: for St. Augustine condemns this in a wonderful manner, saying: let the interpreters of monsters and portents see how often they are deceived by them, and entangle the minds of men in harmful vanity — although by saying much they sometimes hit upon some truth. It was not therefore wrongly spoken by Cardano when he asserted that monstrous births denote evil, just as crude urine in disease shows that Nature is intent on something else and is straying from the right path. Indeed Paré, weighing all this, finally wrote that because parents mingle together without measure, without law, in wanton or unspeakable intercourse, or at a time when by the command of God and the Church they ought to abstain, monstrous, horrible, and aberrant births therefore frequently arise; and thus recourse to presagition is not to be had. Yet it is truly the case that some extraordinary monsters occurring from time to time can presage something. For Martin Weinrich has left in writing that in a certain village of France an infant was once born with the point of a sword projecting visibly from its belly, which was afterwards extracted as suppuration gradually formed, and it foretokened civil war, since no physical cause thereof could be assigned. The reader may view the image of this monster in its proper

[marginalia: Medici opinio de monstris geminis / Sedes rationis / Lib. 2. Phys. / Mulier cur monstrum dicatur / Lib. 3. Prayn. nat. / Civit. Dei / Var. rerum cap. ult. / Jul. Anat. / In lib. de]

— namely in the section on Presages. When, therefore, monsters do not depart greatly from the natural state, they do not seem to presage anything; since among the Egyptians such presagiation would be exceedingly frequent, where monsters of this kind are born more frequently than in other regions.

Just as in human nature it sometimes comes to pass that monsters — namely two-headed men — are born, so by a like reason this occurs in the Church, in which there are found monstrous men who, armed with various intentions and dispositions, are named two-headed yet uniform in the single body of the Church. As when there are many who simulate unity of purpose, yet are justly called double and two-headed, inasmuch as they serve many intentions and dispositions and are divided, as it were, into many heads.

Furthermore, if certain monsters come to light whose upper parts represent a double man and whose lower parts represent a simple man, then the lower parts — which are simple — ought to support and sustain the upper parts, which are double. A similar monster is sometimes seen in the Church: for since we who are Christians are many persons, yet in the Church we are sustained as one body upon the same feet — that is, the same foundations of faith — therefore if it should happen that one is struck down by the wound of a deadly sin, the rest ought to sustain such a one, dead through his crimes, with a great fervour of charity: since the Apostle has written to the Galatians: *You who are spiritual, instruct those in a spirit of gentleness, and let each bear the burdens of the other.*

From monstrous animals also, learned men have not hesitated to compose symbolic devices. From Sylvester Petrasancta we have the image of a monstrous woman who seems to resemble the Siren of the Ancients, with the motto **CONTEMNT TUTA PROCELLAS** — "She Scorns the Storms in Safety" — and this device he assigns to Hieronymo Colonna, Duke of Paliano and Commander of the troops of Ferdinand, wishing thereby to persuade all that he always acted with a tranquil mind both in prosperous and in adverse circumstances, which the Siren appears to accomplish while she rests always, as in her own dwelling, in a calm and undisturbed sea.

In the same author another marvellous monster is to be seen: namely a horse's head adorned with a human face and a beard flowing down upon the breast, with the feet of a crane and the tail of a cock, to which are added these letters **FAB.** — and this device is ascribed to Fabius Maximus the Dictator, who by this monstrous image expressed the virtues of a perfect General: for by the horse's head, command and authority in war; by the human face, beard, and breast, prudence; by the feet of the crane, hesitation and vigilance; and finally by the cock's tail, victory is signified.

Since we have happened upon the monstrous horse, the image of a winged horse with its hind legs trampling upon a lion is not to be passed over, which is depicted in the same aforesaid author, with the motto **PERENNITAS LAUDIS** — "The Perpetuity of Praise" — and the author records this to have been the device of Henry I, King of Portugal, who by this means showed that he would subdue all the nations of Africa, however barbarous. Moreover if a winged horse is figured in this device, in another device in the same book a winged Tortoise is also depicted, with the motto **AMOR ADDIDIT** — "Love Added Wings" — the author declares this to have been the device of Felix, Prince of Salerno, by which he used to express the Royal love, fidelity, and readiness for immediate service, without any mixture of rashness or improvident haste.

[marginalia: Cap. 6. Gal. / Lib. 6. Symb. heroicor. / Equus alatus leonem conculcans / Testudo alata]

[catchword: EMBLEMATA]

EMBLEMS.

We cannot but marvel that monstrous images also serve the arguments of emblems. For Alciatus depicted a woman with lion's feet and covered with the feathers of birds, with the motto **SUBMOVENDA IGNORANTIA** — "Ignorance Is to Be Driven Away." By this monstrous picture the Sphinx of the Ancients is represented, which was depicted with a maiden's face and was said to infest the Theban region by leading men to their ruin as it set them an enigma to solve; those who could not explain it, it cast down from a high rock. The enigma was this: what animal walks on four feet, two feet, and three feet. All this Ausonius expressed in these verses:

Who as biped, quadruped, and triped alone
Terrified Aonia — bird, lion, maiden threefold —
The Sphinx, bird by her wings, beast by her feet, maiden by her brow.

Wherefore Lactantius with just cause recorded in his commentary on the first book of the *Thebaid* that the Sphinx was a monster like the Harpies. Diodorus classed the Sphinx among the species of apes. Albertus Magnus and Solinus called the Sphinx an ape. Sabellicus, however, believes the Sphinx to have been a pernicious man surnamed Sphinx who killed many by his poisons. But leaving these aside, what pertains to our subject is only that the Sphinx is painted in triple form — namely with the face of a girl, the feathers of birds, and the feet of a lion — to indicate Ignorance, which, seated like a Sphinx on the high mountain of human life, oppresses an infinite multitude of men with its savagery for no other reason than that men do not know themselves — that is, they are ignorant that they are men. For the triple form of this monster is reduced to three principal and effective causes of ignorance. For the maiden's face displays pleasure, which sometimes so blinds men as easily to transform them from a human into a brutish nature; the feathers covering the monster signify levity and inconstancy of mind; and the lion's feet declare pride and arrogance, which turns false opinion about things into not-knowing, and then the man believes himself to know what he does not know. There will therefore be three causes of ignorance: the first is bodily pleasure, by which a man ensnared holds all true learning in complete abhorrence; the second is levity of talent, or rashness, which does not see what is fitting; the third is arrogance of mind — on which subject Plutarch has handed down in various places that of old, upon the doors of the temple of Apollo at Delphi, these words were inscribed in golden letters: *γνῶθι σεαυτόν* — that is, **KNOW THYSELF.** Of this Ausonius sang thus:

Though it is hard to know oneself — γνῶθι σεαυτόν —
As quickly as we read it, so quickly we neglect it.

With these points thus noted and explained, the verses of Alciatus will now be better understood, which read as follows:

What is that monster the Sphinx? Why do you have a maiden's white face,
The wings of birds, and the legs of a lion?
This form Ignorance of things assumed —
For its cause and origin is threefold, to be sure.
There are some whom a light talent ruins, some whom soft pleasure,
Some whom proud hearts make fools.
But those whose desire is to know what the Delphic letter can do —
They cut the dire throat of the headlong monster.
For the same man is biped, triped, and quadruped alike,
And the first laurel of the wise is to know the man.

The same Alciatus depicted another monster — namely a bull with human face and breast on a standard adorned with the letters **S. P. Q. R.**, with the motto **NON VULGANDA CONSILIA** — "Counsels Are Not to Be Divulged." The author alludes to the Minotaur, which the Ancients [...]

[marginalia: Aenigma Sphingis / Ignorantia est monstrum triforme / Ignorantiae causae / El. 12.]

they feigned had been begotten of Pasiphaë and the Bull, because in its upper part it resembled a man and in its lower part a bull. The poets tell us that this monster was shut up in the labyrinth of Crete; for so Ovid sang:

Daedalus enclosed the creature conceived of the mother's seed —
Half-bull and man, half-man and bull.

The Romans, according to Festus, depicted this image of the Minotaur on their military standards, so that all might understand that the counsels of princes ought to be kept no less secret — and especially those concerning military expeditions — than the Minotaur was once hidden in the labyrinth. For this reason Dio related that when Tiberius Caesar was asked why he did not communicate his plans to those in whom he could trust, he is said to have replied: the counsel of a prince ought to be known to none, or to very few. Marcellinus likewise brought this matter forward, observing that among the Persians of old no one was party to the counsels of the king save the chief nobles, who were taciturn and faithful, and in whose company the sanctity of silence was revered. The poems of Alciato on this subject run as follows:

What the blind monster lurking in murky darkness
Daedalus shut in Cnossian caverns,
The Roman phalanx carries painted into battle —
Proud standards bearing the semibovine image.
Thus do they warn that the secret counsels of commanders ought to lie hidden,
And that a stratagem known to the forum does harm.

Emblem 5

In like manner Alciato depicts a certain monster whose upper parts resemble a man and whose lower parts imitate a serpent, with the device **HUMAN WISDOM IS FOOLISHNESS BEFORE GOD**. The verses are of this tenor:

What shall I call it? By what name shall I address this two-formed monster,
Which is neither altogether man nor altogether dragon?
But if a man has feet of a serpent and a serpent has the head of a man,
Then a man-footed creature can be called a serpent-headed man.
Man trains the serpent; the serpent instructs man:
And the end of man is the beginning of the beast.
Thus once did learned Cecrops reign at Athens,
And so the mother Earth brought forth the Giants.
This form is cunning, but devoid of religion —
A sign of one who cares only for earthly things.

This fictitious monster, which bears neither the form of a man in full nor the form of a beast entirely, but is constituted of a double nature, can signify those who, endowed with a rational soul, savour only earthly things; wherefore, creeping upon the ground, they degenerate into a brutish nature; for this monster resolves neither into man nor into the beginning of the wild beast — since Epicurean men do not meditate upon that end for which God has granted reason to mankind. These persons are accordingly called cunning and devoid of religion, seeing that, caring only for worldly things, they are not worthy of the name of men.

Emblem 18

Lastly, Alciato delineated a monstrous head — namely a bicephalous one — with the device **THE PRUDENT**. With a similar image did Antiquity once represent Janus as two-formed, or two-headed, either because this man reduced the savage way of life of men to a civilized one, or because he was believed to be the father of both the Greek and the Latin race, or because they wished by the image of the two heads to signify the Sun, which they held to be the same as Janus, designating him as the doorkeeper of the celestial court — since the Sun at its rising is said to open the gate of Heaven, and at its setting to close the same. Many therefore have drawn the head of Janus as a monster signifying the sagacity and prudence of the prince; since it befits the prudent man to know the past and to foresee the future well in advance. For this reason the Romans, moved by such reasoning, worshipped Antevorta and Postvorta as companions of the divinity. To this end points that Greek proverb, *prosō kai opisō* — that is, forward and backward. This signifies that all things must be weighed diligently, and that past, present, and future must be compared one with another. The verses of Alciato run thus:

Two-faced, who knowest both past and future things,
Who seest as much behind thee as before —
Wherefore do they fashion thee with four eyes and two faces?
Thy form teaches that a man of foresight had such a face.

[catchword: PRAE]

[marginalia: Conſilij celandi ratio / Alciati Embl. 5 / Embl. 18 / Iani caput / Anteuorta et Poſtuorta / Adagium graecum]

Indeed men skilled in the prophetic art presage various things to come from the birth of monsters: for if, in the time of Valentinian, two monsters appeared, extreme in their size — one of them in Syria exceeding the tallest stature of any man, and the other in Egypt comprised within an incredibly short measure of human nature — they undoubtedly portended (as Sorbinus attests) the calamities that were to come upon the world. For by this antithesis was it foreshown that there would not be wanting a man, born of lowly station and abject condition, who would conspire against the life and person of the great Emperor Valentinian. For this man, still a youth, was raised to the dignity of the Empire and suborned by the crafty arts of his mother Justina, and at length being secretly seduced, he began to favour the impiety of the Arians. Moreover there were many who, from the birth of monsters, judged that war would follow; in accordance with the iambic verse:

A strange birth appears more frequently in a time of war.

Men therefore who are bound by grave sins draw down the hatred of God upon themselves, but afterwards, accusing themselves, they obtain pardon; but when those who thoroughly abhor Christian institutions never humbly beg for forgiveness, they provoke God so greatly that he repeatedly kindles war against them — which is customarily foretold first by monsters. Certain iambic verses explain this thus:

Every monster presages the wrath of God.
Where monsters are, there is wrath of God not far off.

This being so, authors relate that before the wars of Brutus and Cassius such a monster appeared.

I. A horned and winged monster, after the likeness of a demon, whose figure we here give

They report that this was born of a certain woman; yet Appian tells the story differently — namely, that when Brutus and Cassius with their forces were hastening from Abydos into Europe, in the forty-first year before the birth of Christ, the aforesaid monster, or portent, appeared to Brutus in the silence of the night: its body, breasts, and horns resembled a he-goat, its maw was like that of a dog, its wings were like those of bats, its tail was like a cow's, and its feet like those of birds of prey. Now Brutus sat alone in his tent, greatly troubled concerning the issue of the war, when he sensed that someone was entering his presence; and turning toward the noise he saw the outlined image of the monster standing before him. Moved by the terrifying sight, he asked who it was and what it wanted of him; whereupon the phantom, murmuring, said: "I am thy evil Genius, Brutus; at Philippi thou shalt see me" — and departed. Brutus then inquired of the servants who were about the tents whether they had seen anyone entering or leaving; they denied it; whereupon, filled with amazement, he gave himself to rest. On the morrow, after daybreak, Brutus related this spectral vision to Cassius, who, dismissing it as idle, pressed on with the march into Europe; and thereafter they subjugated by continuous victorious arms all the territory lying between the Aenous and Mount Haemus. Meanwhile Norbanus, beset by the enemy forces of the Phoenicians, withdrew from his post, and a notable disaster would have been sustained, had not Antony been at hand. Furthermore, if we run through the series of years, many authors — and above all Sorbinus — affirm it as established that no monster has been born without a presage.

II. An infant born with a double face, four eyes, two teeth, a beard, and two very short ears

This infant was born in the year of the Lord three hundred and eight, at Daphne, that pleasant and magnificent suburb of Antioch, in the time of the Emperor Constantius, and, according to the opinion of Marcellinus, foretold that the commonwealth would be turned to a deformed condition. For all the histories unanimously testify how defiled with obscene morals was the age that succeeded this birth. At that time indeed nearly innumerable evils assailed the Church of Christ on every side, with the insults of wicked men raging everywhere,

[marginalia: Homo magnuſ parvuſque / Monſtri deſcriptio / Appianus / Monstri praefagia ex monstro deſcripto / Prafagia ex monstris / Series annorum]

A winged and horned monster in the likeness of a demon.

[Full-page engraving — no further translatable text]

An infant with two mouths, four eyes, and born with a beard.

[Full-page engraving — no further translatable text]

in a wondrous manner; for the Emperor Constantius, ensnared by the fraudulent impostures of Arianism, fell away from true piety. To these may be added the monsters which appeared in the time of Maurice — that is, in the year five hundred and seventy-eight — among which a certain woman in Thrace gave birth to a beautiful infant without arms, which from the navel downward ended in a fish. Furthermore, a dog with the head of a lion, and a four-footed foetus, brought admiration to the peoples of that age; whence certain prophets held that by these monsters the portentous and unhappy coming of Mahomet was foreshown, who — whilst Maurice was emperor — with bold

III. A human and canine birth

[figure captions: Infant without arms, fish-tailed, with a dog of leonine head, and a four-footed foetus — born in the time of Maurice]

enticement — with bold

[catchword: lecebra]

[marginalia: Infans ſine brachiis / Canis capite leonino / Monſtrum praefagium Mahometis]

enticement and most vain inventions, striving to deceive the souls of men, began to hold dominion over land and sea; wherefore they relate that those monsters were partly terrestrial and partly aquatic. Moreover a human foetus with the head of a dog in the year of the Lord nine hundred and fourteen cast its shadow in the greatest terror; for, according to Sorbinus, it foretold the morals of the Christians of that age, who, constantly quarrelling, tore one another with mutual bites — since the remnants of the impious heresies of the Anthropomorphites and Manicheans had penetrated that generation.

IV. A two-bodied monster partaking of the canine nature, being composed of a man and a dog

This monster was born in Epirus, namely in Albania, in the year of the Lord twelve hundred and thirty-three, as may be seen in the image here given; and at that time the wretched city of Albanian Mount was vexed with canine bites and clandestine treacheries. For those men — as Sorbinus relates — showed in many things perfection and piety, but afterwards from behind were by no means strangers to sacrilege and blasphemy, and finally aped the ways of biting dogs. Although, near the end of the reign of Lothair, a foetus likewise human and canine was delivered by a certain woman — their bodies joined along the back, as the figure shows — and the death of the Emperor followed.

A three-headed monster also was born among the Samnites, namely in Abruzzo, in the year of the Lord twelve hundred and fifty-five, and was shortly afterwards extinguished. From this were foretold three rivals for the Roman Empire. Again, in the year of the Lord twelve hundred and ninety-three, when the last Andronicus was reigning, a two-headed, four-handed boy was born at Byzantium — which, as Sorbinus notes, foreshowed nothing other than the sudden ruin and destruction of the Byzantine Empire. For the people, who had once relied upon the true foundation of faith, began through various and fallacious opinions, with great loss to Christian piety, to wander astray; as the Greek histories everywhere testify.

Likewise a four-handed, four-footed boy was born around the year of the Lord thirteen hundred and eighty-nine, and he showed forth the wicked and polluted morals of many Christians of that age, of which the schism of Benedict XIII — who had previously been called Peter of Luna — furnished all too manifest a testimony; for this affair, a very bad example, unsettled Christian morals and brought great harm to the Church. Likewise a boy was born with hare's ears in the year of the Lord fourteen hundred and ninety-five, at which time the Emperor Frederick engaged with the Turks, and Cracow was laid low by a raging conflagration. Sorbinus therefore committed to writing that the Most High God, by these monsters as by so many warnings, was striving to draw men back from the impending evils, inasmuch as He foresaw that within a few days they were to degenerate into so many cowards.

V. Furthermore, in the year of the Lord fourteen hundred and ninety-six

A monster was discovered in the river Tiber, with a scaly human body and the head of an ass; its right hand was human, and its left imitated the figure of an elephant's foot. The right foot likewise expressed the talons of an eagle, and the left a bovine hoof. The belly was feminine, adorned with breasts. About the hinder parts it had a similar bearded head, and another besides, in the likeness of a dragon. From this Sorbinus seized the occasion for a presage, and wrote that the various members composing this monster had denounced the various heresies which constituted the calamity of that time. The head of this monster was that of an ass, which showed the coldness and sloth in which Luther and his followers abounded; for charity being everywhere grown cold, various seeds of war — springing at least from his followers — brought ruin upon Germany and many kingdoms.

VI. Moreover, if we range over the vast field of past ages, we shall observe yet more horrible monsters.

For in the year of the Lord fifteen hundred and twelve there was born at Ravenna a monster with a horn on its head, the foot of a bird of prey, a knee furnished with an eye, wings in the place of arms, and equipped with both sexes — the rest being human, as may be seen in the figure below. Now this monster came to light at the time when Pope Julius II was stirring up all Italy and a great part of the Christian world against Louis XII, King of France —

[catchword: conci-]

[marginalia: Puer capite canino / Monſtrum bicorpor caninam participans naturam / Sorbinus / Puer quadrimanus quadrupes / Monſtrum in Tyberi / Praefagia ex hoc monſtro / Monſtrum Rauennae]

A monster with an ass's head.

[Full-page engraving — no further translatable text]

A horned and winged monster with the talons of a bird of prey.

[Full-page engraving — no further translatable text]

— whereupon afterwards, on the day of the Lord's Resurrection, near Ravenna, a very great battle was joined. Others, however, from the appearance of this monster, predicted that that time would not be lacking in various and abominable vices of men: for by the horn of the monster they set forth pride; by the wings, levity and inconstancy of mind; by the absence of arms, the absence of any righteous works; by the foot of a bird of prey, plundering, usury, and avarice; by the eye-bearing knee, the sole propensity of men toward worldly things; and by both sexes combined, every species of most vile lust.

VI. Another horned and winged monster.

[figure captions: Another horned and winged monster]

[marginalia: Praefagia ex hoc monſtro]

VI. We exhibit another monster not very unlike the foregoing — horned and winged.

This one had a head with the face of a Satyr, disfigured by a horn and ears; in place of arms it had wings like those of a bird; two feet, of which the right resembled a human foot, with an eye in the knee, and the left was scaly and ended in a fish's tail. On the breast of this monster three letters were plainly visible, namely X, Y, and V; but the V was observed above a figure in the shape of a crescent moon, as though of a young man. Learned men, turning their minds to presages from this, discerned in these three letters the means of averting the divine scourge. For X designates the cross of Christ, and Y the letter of Pythagoras signifies virtue; therefore, if men, for the purpose of warding off the divine wrath, flee to the Cross of Christ and to the virtues, they will without doubt — penetrating by means of virtues to the sphere of the Moon — arrive even at the empyrean seats.

VII. The Monkish Calf of Sorbinus.

[figure captions: The Monkish Calf]

[marginalia: Expositio litterarum]

VII. We must next marvel at a horrifying monster which they relate was born in a certain village of Germany in the year of the Lord fifteen hundred and twenty-three.

Although others, as Jacob Rueff and Ambroise Paré, have held that it was born in a village of Saxony called Schöner: be that as it may, this monster, brought to light from a woman, resembled a calf in nearly every part, except at the crown of the head, where a round fleshy protuberance was observed, which skilfully represented the crown of a priest's head shaved in a circle; and moreover a certain fleshy substance hung from the neck down along the back, shaped so elegantly as to represent a monkish cowl. Not without reason, therefore, did Sorbinus, meditating upon this monster, name it the Monkish Calf, and reports that it presaged the necessary infamy of the execrable Luther. But what is still more worthy of admiration is that this monster had lacerated legs, which perhaps indicated the punishment wherewith the spotted infamy of the criminal Luther was on all sides to be afflicted. Wherefore Sorbinus does not cease to meditate upon the infinite clemency of God toward the human race, and upon His equitable justice; inasmuch as by the birth of this ignominious and terrible monster He foreshowed the defection of the shameful Luther and his dishonourable followers from the true faith.

VIII. Another still more formidable monster was born in Belgium of parents of no mean rank, in the year of the Lord fifteen hundred and forty-three; or, according to the opinion of Jacob Rueff and Cardano, it was born at Cracow.

This one was furnished with a tail; instead of a nose it carried a proboscis; it had round eyes and winged asinine ears; with two other eyes above the navel; the fingers of its feet and hands were like four talons of a hawk, of which three were joined together by a membrane after the manner of a goose. To its elbows and knees were attached the heads of dogs in the place of breasts; moreover two heads — of dogs or apes — protruded from it, and it lived for three hours only. Sorbinus therefore, contemplating this monster with its great multitude of dogs and apes, seems to shudder, and declared that by them were signified so many dog-like men who were at that time tearing apart the body of the Church with their teeth; therefore a severe vengeance of God was to be expected, which would punish the canine morals of men, inasmuch as in that age a great part of Germany was overflowing with mad and wandering tumults.

To the matter of presage can also belong those monsters which do not depart very far from the natural order — such as the one born at Paris in the year of the Lord fifteen hundred and seventy, in the month of July, which represented two twins joined at the buttocks and likewise by a single navel, and consequently with heads, arms, and feet opposed to one another. This monster was born of parents of the lowest station — namely of Peter the German, a porter, and Matthea Perneille his mother — and was afterwards shown openly to the nobility and to the common people; whereupon various men put forward various predictions. Some, from the union of these twins, proclaimed that peace was to be made, which the peacemakers were then negotiating. Others, however, from the interpretation of this monster, showed that the hope of peace was excluded; since one of these twins could walk, and the other could not sit. Wherefore certain verses were composed against the interpreters of peace, to whom the king had entrusted the business of concord, after this manner:

> *Who doubts that a peace drawn out so long a time*
> *Will soon fall with the greater crash?*
> *This the peacemakers portend with their ill-omened sign:*
> *One limps on his feet, but the other sits badly.*

That monsters of this kind were observed of old, in the time of Augustine, Jerome, and Paul the Deacon, is not to be called in doubt. For the blessed Augustine committed to writing that in his time an infant with double upper members was born in the Orient. And Paul the Deacon records a monster born after the death of Theodosius, which was furnished with two heads, a double breast, and consequently four hands; in which a double consciousness was observed: for while one head was asleep, the other was awake — indeed, while awake, they often quarrelled among themselves. Lastly, Jerome was the authority that a monster of nearly the same kind was observed at Lydda; wherefore two monstrous heads foreshowed nothing other than confusion of empires and of all affairs; for at that time schisms arose in ecclesiastical matters, and the wicked heresies of the Donatists and Pelagians burst forth from the depths of hell, and innumerable other calamities began to afflict the human race — all of which

[marginalia: Praefagium Lutheri / Vitulus monacbus / Sorbinus / Praefagium ex monſtro in Belgio / Monſtrum in Belgio / Praefagium Gemellorum / Lib. 16 de ciuit. Dei cap. 8 / Lib. x. de Imp. Theodoſi / Praefagia ex deſcriptis monſtris]

IX. An infant equipped with a proboscis and the heads of animals.

[figure captions: Infant with a proboscis and the heads of animals]

would have been exceedingly vexatious. At the same time the Goths, Vandals, and Huns, devastating the regions on every side, levelled them utterly with the ground, and the Roman Empire was at that point so weakened that no hope remained of recovering its former authority.

[catchword: IX His]

IX. A winged tetracheiron monster with a human eared head.

[figure captions: Winged monster with four hands and a human head furnished with ears]

With these matters noted in passing, returning to the series of years we come to the seventy-seventh above fifteen hundred, in which, near the banks of the Danube, on the twelfth day of the month of February, near Buda in Hungary, to the great alarm of the inhabitants, a winged tetracheir monster was seen — that is, one furnished with four hands — with a human face provided with asinine ears; so that its upper parts, being smooth, resembled a man, and its lower parts, being very shaggy, resembled an ox. Not without reason therefore, singing along with Ovid, shall we be able to call this monster:

> *Half-bull and woman, half-man and cow.*

[catchword: Semiu-]

[marginalia: Monſtrum alatum tetrachiron]

Half-bull and woman, half-man and cow.

And with its four hands it was hurling stones of no small size, by which it killed several of the neighbouring inhabitants. Whereupon the people, seized with terror, gathered together a multitude of armed men and — at a given signal — attacked the back of the hostile monster, and at length, at great cost to the armed force, laid the immense monster low; to which afterwards, when it had been brought into the public square, many peoples flocked together with great admiration to gaze upon it. Meanwhile the histories make plain how many and how great the calamities and continual afflictions were that vexed that region.

X. A three-headed monster with the heads of a Fox, a Dragon, and an Eagle.

[figure captions: Three-headed monster with the heads of a Fox, a Dragon, and an Eagle]

[catchword: X. Verum]

But if that monster was immense and execrable, no less savage and terrifying was the one that prowled about in Egypt near the banks of the Nile, furnished with three heads — namely those of an Eagle, a Dragon, and a Fox — with a scaly body like that of a serpent; from one side it extended a human arm with a hand, and from the other an eagle's foot. It further had human breasts, a leonine tail, and four feet altogether different from one another, namely one leonine, two human, and a fourth like a goose's, provided with three toes. This monster was of an amphibious nature, and it devoured men and all other living creatures. We set before the reader for all to behold its image, found in the public Museum.

Furthermore, among prodigies without any doubt is to be numbered that infant who, in the year of the Lord one thousand six hundred and twenty-one, was born of strangers in the city of Aquae Augustae of Aquitaine, which the common people call Bayonne. In his limbs he was well formed, but many eyes disfigured his entire body, so that he imitated the fabled Argus of the poets. And if the whole head of Argus was covered with eyes, so that Ovid wrote:

Argus had his head encircled with a hundred lights,

the eyes of this monster illuminated not only the head but all the other parts of the body as well. Indeed this monstrous infant was to be reckoned among prodigies, since before he expired — for he lived fifteen days — he spoke aloud. Admiration is further increased by the fact that in that same city celestial monsters appeared, while horsemen were seen walking through the air.

Moreover, in Ostrowitz, in the year of the Lord one thousand six hundred and twenty-four, in a notable fortress distant ten miles from Sebenico in Dalmatia, in the month of April a monstrous boy was born with three horns, with three eyes likewise, a single nostril, ass's ears, and inverted feet. Wherefore, when the birth of this monster was made known, the Diviners of the region immediately assembled, that they might foretell from this monstrous birth what portent was to come. And so these interpreters of monsters, having carefully examined all the parts of the infant, attested by the triple horn to the triple power of the Turks in Asia, Africa, and Europe; by the triple eye they foretold the triple vigilance which the Emperor of the Turks exercises while he takes care that the men subject to his authority are continually engaged in the threefold service of soldiery, agriculture, and the raising of children. But by the ass's ears they proclaimed the Turks to be outstanding warriors; for the living ass, by its frequent braying, rivals the trumpet of war, and the skin of the dead animal is employed in the making of drums. Finally, by the inverted feet of the monster they divined that danger of diminution in the dominion of the Turks was at hand.

From Bodemann, through letters received from Byzantium, we learned that a monstrous and horrible offspring had issued from the wife of a Turkish dynast, to the great terror of the attendant women who had come to assist at the birth. The head was that of an ass. The feet and hands imitated the talons of birds of prey. From this various diviners foretold various things; but the greater number announced that divine wrath against the infidels was presaged by these monsters: for the evil Demon, by God's permission, transforms within the womb of a pregnant woman the parts of the conceived offspring into a horrible form, by adding horns, a tail, and the talons of birds of prey; applying active natural forces to passive ones and removing every impediment that might obstruct the intended work. For thus we understand that monsters sometimes so foul are born as to represent the likeness of a Cacodemon. For Cornelius Gemma testifies that a terrifying monster was born from a woman in a city of Brabant, which skilfully reproduced the figure of a Cacodemon. In the formation of such monsters many have recourse to supernatural causes: though others refer them to the imagination of the parents; for if a woman lies with a man wearing a demon's mask, or if a sorceress is accustomed to admitting an incubus Demon, then a demon-shaped monster can be begotten. For the Demon, having assumed a body, conveys the prolific seed of some man into the womb of a woman: wherefore the woman, by the power of the seed, conceives a human being, and by the force of the image imprinted on the imagination, thereafter brings forth an Anthropodemon. But of these matters words will be spoken below in the chapter on causes.

[catchword: XII Mon-]

[marginalia: Description of the monster. / Lib. Μειά. / The pictured monster. / A monster among portents. / Divine signs in the sky. / Born with three horns, three eyes. / Prediction from the monster. / Bodemanno.]

A monster with an ass's head, and feet and hands furnished with the talons of birds.

[Full-page engraving — no further translatable text]

MONSTER FROM THE REGION OF BAETICA IN SPAIN.

Also remarkable was that monster whose image was sent from the region of Baetica in Spain: we exhibit it here, found in the public Museum, for the reader to behold, and we are persuaded that the birth of this monster gave the Spanish or Baetic soothsayers great occasion for speculation. Likewise in the eighty-first year above fifteen hundred, at the court of the Most Serene Prince and Most Eminent Cardinal de' Medici, a dog was observed with monstrous members and a serpentine head. Whether monsters always presage something must be considered in the chapter of Problems, since many have been accustomed to foretell something from the birth of any monster whatsoever — though often [...]

[figure captions: XIII. Monster from the region of Baetica in Spain.]

[marginalia: Lib. gen. dier. cap. 25 / In oper. de reb. &c.]

wrongly to foretell; for if an infant is born with teeth, they predict a shortage of grain. If a boy is born with many feet, they take it to presage the approach of enemies. If two twins are joined together, they foretell civil war. Yet that this last is not always true of intestine discords we can attest by the example of the boy born with a sword in his belly, brought forth from the womb of his mother into the light, as is shown in the image XIII. Marcus Frytschius accordingly records in his *Meteorologica* that before the German war (which Charles V the Emperor waged against the Duke of Saxony and the Federates) there was born in a certain village of the Franks an infant in whose belly the point of a knife was visibly protruding, who

BOY BORN WITH A KNIFE IN HIS BELLY.

[figure captions: XIII. Boy born with a knife in the abdomen.]

[catchword: afterwards]

[marginalia: Presages foretold from births. / Lib. gen. dier. cap. 25 / In oper. de reb. &c.]

afterwards, when suppuration had gradually been brought about, was at last extracted. This monstrous boy came forth into the light in the year of the Lord fifteen hundred and forty-six. Thereupon all foretold civil war and predicted mutual slaughter among citizens, who — then fighting among themselves — are said to have concealed iron, as it were, in their own vitals. Yet, to speak the truth, this seems to pertain to the excessive boldness and superstition of men. We can indeed attest that monsters are warnings of God, by which we are incited to amendment of crimes, so that, when sins have at last been blotted out, we may return to good ways; and this meaning is, among others, more consonant with truth. In former times, as Alexander ab Alexandro records, if unusual and monstrous births occurred, they were ordered to be cast into the sea or a river; and he reveals a little further on that among the Athenians, if monsters were born that required expiation, sacred rites were performed for the Agyes, that is, the threshold gods, at the crossroads of the ways; for which reason Apollo Agyieus was worshipped with special honour, so that if all should go well and favourably, they might grant prosperous outcomes, confirm and ratify their promises; but if any evil threatened, they might avert it by barring access. Celio Calcagnini likewise records — and he himself adds — that at Rome, by the command of the haruspices, a man born with three or four hands, or with two heads, was customarily cast into the sea for the purpose of expiation, or carried away into the wilderness. He then adds, from Julius Obsequens, that a boy born with four feet, hands, eyes, and ears, from a slave-woman, was burned by the order of the haruspices, and his ashes cast into the sea.

CAUSES.

A FOURFOLD CAUSE (speaking of universals) authors are wont to assign for the generation of monsters; the first they call supernatural, when the supreme God — in punishment of some crime committed — disfigures man, as is read in the sacred scriptures concerning Nebuchadnezzar. The second cause lies below nature, when the evil Demon makes sport of the human senses, as happens to certain men transformed into beasts by sorcery. The third cause is reduced to natural causes, when some defect corrupts the natural principles destined for generation and formation: for which reason the Divine Thomas, in his *Commentaries on the Analytics of Aristotle*, attributed the procreation of monsters to the corruption of some principle.

But it must be noted, if we are to speak the truth, that monsters lack determinate causes, since they are not effects intended by nature, but are procreated only by accident: wherefore the causes of these are rather imaginary than legitimate, and are to be placed in the enumeration not without qualification. It must therefore be said that both intrinsic and extrinsic causes concur in the generation of a monster; and among the extrinsic causes are placed the Nature of the Region and the constitution of the air, since more frequent generations of monsters occur in Africa and in Egypt than in other regions.

To the intrinsic causes are reduced the formative power, the seminal matter, the receptacle of the foetus, and the membrane enveloping or dividing the foetus. For the formative faculty, when by no means fitted to forming an animal, begets a monster. Matter, by reason of excess, defect, and mixture, ministers to monsters. Excess of matter is observed in monsters having several parts beyond the order of nature; defect of the same matter appears in foetuses without hands or feet. Mixture of matter can produce the same effect: for Aristotle sometimes wrote that in Africa monsters frequently occur, while animals of diverse species resort to rivers on account of a scarcity of water; there they come together, and out of the mingling of various seeds monsters emerge.

By reason of the narrowness of the receptacle of the foetus, monsters are born, when an abundance of matter destined for the procreation of two foetuses is there confounded; hence arises a foetus furnished with more parts than is proper. The defect also of the membrane in eggs which are redundant with two yolks is a cause of the generation of a monster, since the matter is confounded, and monstrous chicks are wont to spring from these. And so authors, meditating upon this diligently, in

[catchword: propounding]

[marginalia: Supernatural cause. / Lib. gen. dier. cap. 25 / In oper. de reb. / Triple cause. / Intrinsic cause. / Cause among the extraterritorial. / Lib. 2. de Gen. An. c. / What the membrane enclosing the foetus is said to be.]

propounding the causes of monsters, differ among themselves in their opinions; since some among them refer the causes of monsters to the depraved temperament of the parents, others to disordered imaginations, others to divine wrath, others to constellations and the preceding conjunctions of the heavenly bodies, others to nature transferring the force of many parts into a single member, others to the power of the evil Demon, and others lastly reduce these causes to intercourse with an animal of a different species.

We therefore, contemplating monsters in the present work as operations of Nature, must draw their origin from the four supreme kinds of causes, which are constituted by the material, final, efficient, and formal cause. Monsters are said to have a material cause, since whatever is produced by nature, whether through itself or by accident, proceeds beyond doubt from some pre-existing subject. They have a final cause, since nature works nothing in vain, but all things are directed toward some end. They have an efficient cause, since everything produced is produced by some producer. And finally they have a formal cause, since all the works of nature attain a form.

Therefore, being about to set forth in the present work these particular causes of monsters, we shall first examine the material cause, since this was the first of all, according to the ancient etymology, to have claimed the name of cause for itself: for some wished to say that *causa* is derived from *chaos*, with the aspiration removed, because that confused matter of the first elements assumed the forms of all things. Besides which, all philosophers and physicians seem to assign all the causes of monsters to the seminal material: wherefore Democritus condemned too frequent intercourse of men, since he was of the opinion that from this abundance of seed monsters often emerge. Empedocles reported that monstrous births are generated on account of abundance and deficiency of seed, or of its agitation.

Aristotle likewise places the primary cause of monsters in matter, while nature, in constructing the parts, departs from the right path on account of excess or deficiency of matter, or on account of the transference of the same to some part and place where it was not needed; in which event two parts are rendered defective, while one suffers deficiency and the other excess. Moreover, if two similar parts are generated and one is superfluous, then that happens on account of the seminal matter existing in the womb, which, either through motion or because of wind, is divided; whence the matter destined for the generation of fingers is separated and carried elsewhere; and where it comes to rest, there a superfluous part is procreated. And although such matter reaches the head, it is not nevertheless transformed into the substance of the head, but into fingers, because the matter retains within itself the power of that member from which it previously departed. For this reason, in the dissection of human corpses, multiple kidneys are often observed, as well as duplicate emulgent veins, seminal and genital vessels; and that happens on account of untimely venery, which is practised by men more frequently than by brutes.

Galen, adhering to the opinion of Empedocles, teaches that monsters are born if the seed is copious or scanty, if it is torn asunder, if it is introduced with immoderate motion; or because it has acquired an addition, or diminution, or because it has contracted transposition or inflammation. He further adds, according to the opinion of certain physicians, a depraved conformation of the uterus.

Johannes Grammaticus, in his commentaries on the *Soul*, subscribes to the opinion of Aristotle. Cardanus reduces the causes of monsters to the ease and disposition of matter: for which reason he acknowledges that more frequent monsters are observed in meaner and more imperfect animals than in more perfect ones; hence he grants that fewer monsters are produced from human and elephant nature. Therefore since the poet Guntherus had observed that meaner and more imperfect animals are often born monstrous, he assigned the cause of monsters to the excessively moist matter of natural things, which, since it does not possess the power of perfect creation, gives birth to monstrous offspring. And so he sings:

> *From this there spring here and there, suddenly among men and among cattle,*
> *Monstrous births.*

But rejecting these as poetic trifles, we shall approach the opinion of Albertus Magnus, who places the cause of monsters in matter, and in the manner of creation of what is conceived. He further adds that monsters arise from some error of the operation

[catchword: of nature]

[marginalia: Lib. 2. Phys. / Polon. / Whether there are cells in the womb. / In here de contr. / Monster furnished with many lips. / Four causes. / Material cause of monsters. / Causa defect. / Causa superf. / Defect of matter. / Causa superflu-itatis.]

of nature, according to abundance or deficiency, or the position or figure of members. The same author elsewhere refers monsters to four causes, namely to diminution of matter, to its superfluity, to a depraved proportion of qualities in respect of matter, and lastly to the malice of the containing vessel. He further adds that monsters are made in three ways by diminution, either according to the diminution of members in size and not in number, then according to diminution in both size and number, and thirdly according to number and not according to size. He further adds that monsters which arise from diminution of matter according to quantity of size, or according to number, or according to diminution, come about either from diminution of matter, or from weakness of the formative power, which cannot form more than a part of the matter, and rejects another part; and thus the opposite must be said of the superfluity of matter.

Ambroise Paré, speaking of the material cause of monsters, wrote that this is the opinion of the philosophers who have treated of monsters: that if any animal naturally giving birth to one offspring at a time, such as man, has produced more seminal matter in coitus than is necessary for the generation of one animal, it is impossible that one animal should be begotten from all of it. Therefore from thence twins or multiple foetuses are born. From this cause come Hermaphrodites, or Androgyni, and multiple foetuses. Hence Martinus Cromerus mentions to the point the noblewoman Margaret, wife of Count Virboslav, who in a single delivery brought forth thirty-six foetuses; and Giovanni Francesco Pico della Mirandola makes mention of the Italian woman Dorothea, who in a double delivery bore twenty children. But concerning these things one must read the first chapter of this book, in the chapter on births. Nor in this multiple offspring need we have recourse to the multiplicity of cells in the matrix; since this is contrary to truth: for anatomical inspection observes no cells in the womb. It remains therefore that this be referred to the copious material cause.

Celsus Mancinus of Ravenna, a learned man, mentions this cause, when he attributes the origin of monsters to diminished and copious matter; for by reason of the first foetus, it acquires either an excessively small stature, or the defect of some part: by reason of the second, it acquires either an excessively great stature of the whole or of a part, or a superfluous finger on the hands, and so in succession; moreover, with the aid of the formative power, the infant sometimes comes forth into the light with teeth and beard. To this cause Albertus Magnus refers that girl who had breasts like those of an adult woman, and who — according to the report of her mother — had her monthly courses. Likewise Albertus mentions to the point that he observed a deformed monster which was redundant with eleven mouths and twenty-four imperfect lips. Hence many derive the cause of twins from this; namely when the seminal matter is distributed into two equal parts. But if it happens that the matter is separated into various portions, then superfluous members are generated, not complete offspring.

The Regents of Paris, who committed to writing the physical questions concerning the doctrine of Aristotle after the mind of Scotus, at the close of the second book of the *Physics*, speaking of the material cause of monsters, and following the opinion of Albertus, transmitted that monsters arise from a fourfold cause. First, on account of diminution of matter; and this in three ways: either because the formative power cannot form more than a small portion of the matter, and rejects another portion of matter from which the offspring was to be procreated — and thus animals are often generated without arms or complete feet — or from diminution of matter, and in this way the parts that are far from the heart, such as hands and feet, are lacking, or the members are rendered so soft that they cannot sustain the body; or from both together, and in this way defect often occurs in the whole body, or in the more important parts, as happened to a certain girl who was born without eyes and without a nose. Secondly, it arises from superfluity of matter, and this in three ways: either the defect is in number alone, as when a man is born with six fingers or three feet; or in size alone, as when in some animal there is some member exceeding the other members disproportionately; or when the members of one animal exceed those of others in number and in size together.

The forms of the generation of monsters from material cause are manifold, and the first is the mixing and confusion of seeds, of which Ambroise Paré speaking asserted that monsters are born from the confusion of seeds of diverse species. For this reason Ludovicus Mercatus, a distinguished physician, pronounced that matter, for the attaining of likeness, becomes unsuited from the likeness and inequality of its substance. And this form is the second

[marginalia: Lib. 2. Phys. / Partus ovella. / Lib. 3. de Affeit. mulier. cap. 7 / loco cit. / Operations of pregnant women unfitting. / morb. mulier. cap. 7. / Monster furnished with many lips. / Cause of defect. / Cause of superfluity.]

mode of the procreation of monsters from a defect of matter, according to the mind of Wierus: for he reported that the seeds which are mingled together in the womb, unless they are joined by a certain mutual affinity, produce either nothing or a monster.

Likewise the Regents of Paris write to the point at the close of the second book of the *Physics* that monsters also arise from diverse seeds, which share partly one nature and partly another; as when bipartite animals are born — as the mule from horse and ass, and when an animal springs from wolf and dog: this they say occurs when the seeds of diverse species of animals agree in their qualities, and that it occurs rarely when they differ in qualities; just as the monsters of Empedocles were rarely or never seen, which represented the upper part of a man and the lower part of a horse. But these authors err regarding the monsters of Empedocles, since monsters of this kind were said to represent not the figure of horse and man, but of man and ox; as Rhodiginus recounts to the point in the text of Aristotle, that there was at Sybaris a shepherd by name Crathis, who — given over excessively to lascivious sport — was enamoured of the most beautiful of all the she-goats, and frequently consorted with her as a lover; in the meantime the leading billy-goat and master of the flock, perceiving this and aroused by a certain jealousy, and having caught the shepherd sleeping, rushed upon him with great violence and dashed against the temples of the sleeper. Wherefore a notable monument was erected to the shepherd; for from his name the name was assigned to a river, and from that shameful intercourse they report that an infant was born who in his legs resembled the mother and in his face the father. Nor is this to be wondered at, since we have from the first part of the History of Peru that in certain places of that region certain large monkeys roam, with whom some of the inhabitants — under the instigation of Demons — have intercourse as with women; hence they say there arise monsters with a human head and genitals, but with the hands and feet of a monkey, the rest of the body hairy, who do not speak but howling in some manner imitate the Demons.

The second form of the origin of monsters by reason of vitiated matter, according to the opinion of Ludovicus Mercatus, depends on the effusion of seed through the womb of the woman; and he explains this with an elegant and clear example of molten lead, which if it has been poured unequally, also forms unequal shapes; wherefore, on account of this defect, deformed and unequal parts of foetuses result from the seed, when in men we manifestly observe the head to be thicker and the other parts altogether deformed; and this form pertains to the seventh defect of matter according to Wierus, where this author contemplates matter that is not continuous but separated by motion; which sometimes is wont to occur on account of obliquity of position. For Ambroise Paré was looking to this when he wrote that monsters are produced by the faulty position of the mother throughout the whole period of gestation; for indeed those who sit idle at home, who sit with crossed legs, who in a crouching and prone posture upon their knees embroider cloth with the needle, or sew, who take on other burdens, who bind their belly too tightly with girdles, bandages, or garments, bring forth foetuses that are twisted, bent backward, hunchbacked, distorted in feet and other parts.

Wierus subscribes to this opinion in these words: that the position of the pregnant woman must be considered, since something in tender and soft material can thereby be perverted. This is afterwards confirmed by Levinus Lemnius, when he demonstrates it by the example of Belgian women, and especially of those who dwell near the sea, who — being too mobile and restless in intercourse — bring deformed and defective foetuses into the light. To this must be referred the narrowness of the womb; whence Paré acknowledged that monsters sometimes take their origin from the narrowness of the place; since fruits hanging from trees, before they have acquired their proper size, if they are received into narrow vessels, are hindered in their due growth: for since — according to the opinion of the philosophers — place is the form of that which is placed, it is necessary that those things which are confined within excessively narrow places be deprived of the freedom of their motion; in consequence of which they become diminished, maimed, and mutilated. From this opinion Wierus did not depart, who compared the figure of the womb — in the growth of the foetus without the small vessels becoming dilated — to small vessels receiving tender fruit, which receive no other form than that of the vessels.

The third form of the origin of monsters depending on defect of matter [...]

[marginalia: Lib. 2. Phys. / Partus ovella. / Lib. 3. de Affeit. mulier. cap. 7 / loco cit. / Operations of pregnant women unfitting. / morb. mulier. cap. 7. / Foetuses differ from parents. / Monster species not multiplied.]

Mercatus proposes, which consists in the thickness, hardness, fluidity, or corruption of the seed and of the menstrual blood: wherefore those that are generated therefrom differ widely from the nature of the parents in this manner. Wierus publishes this as the fifth defect of matter, when he acknowledges that the genital power is so buried in a thicker sperm that it cannot conveniently serve for the formation of the foetus. This moreover is wont to occur in the dry constitution of the testicles: just as, on the other hand, aqueous seed incurs this defect, which is proclaimed by Wierus as the sixth defect of matter: this seed is rejected, since — being more liquid — it cannot coalesce into nerves, veins, arteries, and so on into the other more solid parts.

After discourse has been held of departure from the nature of the parents, here it must be observed in passing that monsters depart from the parental nature in three ways. First, when the matter of the seed is adequate, yet is not altogether overcome — for then those things are produced which it can be made to resemble, and that is the universal and the generic, since something similar in species and in the individual cannot result. There is produced therefore an animal, when a man cannot be produced; for nature tends toward what is best, and subsists in what it can: and thus only a sentient being is generated, in which it subsists, through the defect of matter: for since that seed has the potential for sentience, it attains at least that, but does not become rational, nor is such a soul introduced, because of the unfitness of the matter and of its fabrication. Secondly, through this defect those born differ from their parents, when the faculty of the seed is more impeded, so that not even an animal can be generated, but only something formless intermediate between living things and non-living, such as the genus of moles which women sometimes bring forth, of which we have treated above in the chapter on Differences. Finally through this defect the matter is rendered so unfit that the faculty of the agent can in no way transform it; whence that is afterwards said to come forth which the philosophers call altogether beyond nature — as when stones are generated in the wombs of women, or the like.

The fourth form of the origin of monsters by reason of matter is brought forward by Ambroise Paré, depending on the defect of hereditary matter; and by this reasoning from hunchbacks come hunchbacks, and from those with goitres come those with goitres. Wierus established this opinion when he said that certain deformities in monsters are to be observed on account of heredity: since it has been ascertained that from dwarfs come dwarfs; though it is not necessary that this always happen, nor in all cases, for though monsters do not multiply their species, they do [...]

The fifth form derives its origin from something befalling the pregnant woman from without, whether it be a fall from a height, or a bruise, or a wound, or something else of this kind, that can be harmful to the woman carrying the child in the womb; Wierus makes this clear when he has discourse of the injuries to the pregnant woman: moreover he confirms his opinion with the authority of Hippocrates, who in the book on generation pronounced that a mutilated or crushed child in the womb comes about from a blow or fall, or some other violent affection, upon the pregnant mother; and he affirmed that in whatever part the mother received the bruise or wound, in that part also the foetus is mutilated.

The sixth and final form of the birth of monsters, by reason of matter, depends on the imagination, which possesses the power of obstructing the seed so that it cannot be assimilated to the parents; and Ludovicus Mercatus also carefully examines this mode, when he says that there remains another impediment, by which the seed cannot operate freely, nor can it assimilate the child to the parents — namely, a vehement and varying imagination, not only at the moment of conception, but one which is conceived throughout the whole time of formation; since this formation of the seed dominates in the same way as the lower powers obey the higher. Wherefore that image, seized rather by the vehement imagination than the image of the father impressed upon the matter, is ratified by the assent of Saint Thomas, who asserts that the imagination is a certain power in a bodily organ, whereby the bodily spirit — in which the formative power is made firm, that works upon the seed — is changed toward the imagined species: hence sometimes some alteration takes place in the offspring, because of the imagination of the parent in coitus. Hence it is evident that the spirit moved by the imaginative power in the aforesaid manner exercises its powers more effectively, and delineates the image of formation, than the formative power itself, which proceeds from the nature of the members of the parent.

So great therefore is the power of the plastic spirit,

[catchword: so that admirable]

[marginalia: Foetuses differ from parents. / Quest. 4. phys. 9. / Lib. 2. de anim. nat. / Lib. 3. de Affeit. mulier. cap. 7 / Congreffus extra-ius. / In quaest. ad Genef. / Praestig. / Lib. ler. / Dissimilitude of the foetus to its parents.]

so that admirable forms are produced: hence so many stigmata, birthmarks, and imprints of fruits, red wine, and flesh impressed at birth repeatedly result. For if a cherry, or a strawberry, or wine is thrown or poured upon the face or bosom of a woman carrying a child in the womb, and the pregnant woman has taken it ill in her mind, then the mark of the thing will be seen impressed upon the foetus. Likewise, according to the testimony of Levinus Lemnius, the same will happen if a cat, or a mouse, or a weasel, suddenly leaps upon a pregnant woman; for forthwith a mark will be impressed upon the foetus; unless perchance the woman immediately wipes away with her hand the member touched by the animal, and applies that same hand to the posterior part of her body. To the point Cornelius Gemma narrates a case that happened at Louvain to a pregnant woman near her time of delivery, whom her husband assailed with hostile mien, drawing his sword: although she found safety in flight, nevertheless that part of the infant's skull toward which the edge of the sword was threatening contracted so great and such a solution of continuity that after the birth so great a quantity of blood poured forth from it that it could be suppressed by no remedy; and thus the infant presently expired. Hence let those draw the inference who deny that no impression is made upon a more advanced foetus — that this is the most absurd position.

When therefore there have been women who brought forth some animal, as a dog or a half-dog, and who asserted that they had lain with dogs — as happened in Etruria at the time of Pius III, Supreme Pontiff, to a certain woman who, having given birth to a dog, proclaimed that she had mixed with a dog: concerning this matter, as Volaterrano reports, she was brought before the Supreme Pontiff for the sake of expiation — or as happened to another woman at Avignon, who, giving birth to a dog, declared that a dog had served her; and accordingly by command of Francis, King of France, she was burned together with the dog — it must be said that these monsters could by no means have proceeded from the seed of the dog; since this is contrary to the teaching of Aristotle, who in the *History of the Generation of Animals* denies that a sheep or dog can be generated from a man, since the seeds differ in quality, and these animals do not agree in the time of gestation in the uterus; wherefore it will have to be asserted that such animals, or monsters, are sometimes produced not from the seed of the brute, but from the seed of man, when such a form is communicated to the foetus by the frequent thought and fantasy of the woman; for even if the dog has served the woman, nonetheless from that seed nothing is generated; but when human seed is conceived, a monster is produced by the power of imagination and thought, because that woman — on account of that shameful intercourse — always thinks that she will give birth to a dog. For this cause Saint Jerome narrates that he freed a woman laboring under suspicion of adultery when she had given birth to an offspring not resembling the father; since a picture not unlike the infant had been hung in the woman's dwelling.

Wierus adds, in confirmation of the assertions, a case from the year fifteen hundred and seventy-five, at which time a certain man among the Geldrians, inflamed with anger, addressed his wife who was carrying a child in the womb in this manner: "Thou bearest in thy womb an infernal Demon, whom I shall run through with a sword." Not long afterwards the woman gave birth to a son excellently formed in his lower part, but the upper part was covered over with red and black blemishes, with eyes placed in the forehead, with a hideous mouth, long ears like those of a hunting dog, and two horns on the crown of the head.

The demon-shaped image can also be inscribed upon the mind of a woman by hearing or reading what is reported of the nature and ugliness of the Demon. Schenkius likewise mentions one who, at the time of the Bacchanalia, having put on the mask of a Demon, lay with his wife and declared that he wished to beget a demon; the woman conceived and gave birth to a foetus in the form in which Demons are painted. Hence we gather that the imagination of the mother sometimes impresses an acquired image upon the infant, making it in no respect similar to the father. Wherefore a certain woman who, having prostituted herself outside the lawful marriage bed to another man, and fearing the unexpected arrival of her husband, brought forth a foetus that resembled not the adulterer with whom she had secretly lain, but entirely resembled the absent husband. Concerning this there is an amusing epigram in Thomas More, which, since it pertains to this matter, we shall not find it burdensome to transcribe.

The four sons whom his wife Sabina previously bore,
Behold — greatly unlike one another —
Him thou dost not reckon as thine own.
But the boy whom Epixa has recently borne,
The one most like thee of all,
Thou dost embrace as thine;
The four adulterous ones
Thou dost call, expel, and disown,
And proud authorities gravely tell
Whatever mothers imagine strongly
While labour is given to children,
That secretly and with certain
And indelible marks,
And by an inexplicable mode,
It is gathered into the very seed,
With the spirits received deep within,
As bodies congeal,
Formed by the mind of the mother,
Nature reproduces the image
Which, though many thousands of miles away,
While the wife was bearing four sons,
Thou wast very much like thee,
Secure, she bears children unlike thee.
But this one alone of all
Reproduces thy image;
What was the mother thinking, as she conceived him,
Anxious and most concerned about thee,
She was thinking of thee entirely,
While fearfully anxious,
Lest, in the manner of Sabine custom,
As the wolf suddenly comes into the story,
Thou shouldst come upon them in the interval.

So great therefore is the power of the imagination of pregnant women that they easily impress upon the conceived foetus what they have conceived in their mind. And this experience taught, when the Emperor Charles V came from Spain to Belgium furnished with a most well-equipped fleet: for attended by a large retinue of nobles he travelled through those regions, and the Belgian women then carrying children in the womb, from the sight of the Spaniards, gave birth to infants with eyebrows and hair black and curly. And this happened not only to common women, but also to matrons of probity and of unsullied chastity. What more? Recently a certain scoundrel carried about from town to town for show an infant of an unusually large head; therefore because a certain pregnant woman had gazed upon the image of this infant, she gave birth to a boy of enormous size of head. For this reason Soranus, the author of medicine, recounts to the point that Dionysius the tyrant — since he himself was deformed and did not wish to beget such sons — placed before his wife at intercourse the most beautiful images of boys.

[catchword: Ed-]

[marginalia: The force of imagination. / Lib. 1. de con. nat. / Beautiful images in the bridal chamber, what they achieve. / Congreffus extra-ius. / In quaest. ad Genef. / Praestig. / Lib. ler.]

So therefore books of philosophers are full of the doctrine that imagination possesses great power in conception; in which matter they prescribe that elegant and beautiful images be kept about the bed: just as the most beautiful image of Andromeda, concerning which Ambroise Paré, speaking, wrote that Persina, Queen of Ethiopia, even from an Ethiopian husband, bore a white daughter, since she continually gazed upon the image of Andromeda placed in her chamber. And let them not look upon images of Ethiopians — which is what that matron mentioned by Hippocrates did, who from a white husband conceived a black son. Avicenna confirms this further, who placed this power of imagination also in brutes, when he narrates that a hen looking upon the sight of a kite and fearing it hatched from eggs chicks with the head of a kite. This opinion may be strengthened to some degree by the same [evidence].

An egg [...]

[marginalia: What the intercourse of men brings inconvenient to women. / Beautiful images in the bridal chamber, what they achieve.]

[Figure of a cock depicted with the image of a serpent.]

Description of the monstrous cock.

In this place we set the figure of a hen's egg, which was given to us as a gift by Peter Wettendell, a Batavian German of philosophical and medical training, found at Pisa on the twelfth day of February in the year one thousand five hundred and ninety-four, on whose shell the image of a serpent was visible. That learned man judged that the hen had laid this monstrous egg through the power of imagination — either because she had been frightened by a serpent, or because she had greedily devoured one, or had desired to devour one. Nor ought this to seem remarkable, since various monstrous things are repeatedly observed in eggs, and hatchlings emerge from them, as was the case with that monstrous cock with a somewhat serpentine tail, whose figure the following page presents.

This creature was seen alive some years ago in the court of His Most Serene Highness Francis de' Medici, Grand Duke of Tuscany, of so horrifying an aspect that it struck terror into those who looked upon it. Its head was topped not with a fleshy comb, nor did it have fleshy wattles; rather both were composed of feathers imitating the crests with which soldiers are accustomed to adorn their helmets. On its forehead it had two feathers — or rather, two quills — standing erect in the manner of horns; likewise two others on either side of the beak near the nostrils, and yet another at the nape. The colour of the whole body was dark brownish, and the roots of the feathers were white. Near the uropygium, whence the tail proceeds, it had a rounded, whitish tubercle. The tail was fleshy, bluish, naked of feathers, oblique, in the manner of a serpent — with a tuft, however, at its extremity. The legs were clad as if in boots.

Likewise from a hen's egg — or, as others assert, from a cock's egg (if cocks are indeed capable of laying such eggs, a matter treated in the *History of Serpents*) — near Lucerne, a noble town of the Swiss, in a certain estate called Emmen, a monster of the form of a man's genital member was hatched, furnished with one testicle and a head fitted with a dog-like, crested form. This occurred, according to the reckoning of Lycosthenes, in the year of our Lord one thousand four hundred and

[catchword: eighty-eighth]

[marginalia: Monítrorum Historia 382 / Descriptio galli monstrifici]

A monstrous Cock.

[Full-page engraving — no further translatable text]

2. Monster in the form of a man's genital member.

The most learned Licetus, in his *History of Monsters*, reports — and states that he himself reared at home a hen furnished with five toes — that this hen, after many empty layings, produced one chick without a yolk, in the albumen of which a serpent was found, like a worm, into which he very reasonably suspected the yolk of the egg had been transformed. Moreover, he cites as witness the most distinguished man from Acquapendente, who likewise found a worm of considerable size inside the yolk of an egg while he was eating it — a thing we readily credit, since a worm somewhat resembling the form of a fish was shown to us the previous year, found inside a soft-boiled egg. What more? Ambroise Paré relates that a monster was found in the very middle and innermost part of an egg, having indeed a human face, but with its head bristling all around with serpents, and from its chin three serpents likewise sprouted in the manner of a beard. This occurred at Autun, in the house of Bancheron the advocate, when a maidservant was breaking many eggs to fry them in butter; the albumen of this monstrous egg was devoured by a cat, bringing the creature its death. Many who referred the narrated marvels to divine causes drew from this the presage of the heresies that were spreading through that region.

Not much unlike this was that goose's egg found in France, from which, when broken, a human head was observed — a head which, in place of hair and beard, had goose necks with bills and eyes, as the appended figure shows. These monstrous eggs call to mind the fabled head of Medusa, as well as Leda, who was said to have laid two goose-eggs, from one of which they feigned that Castor and Pollux emerged, and from the other Helen and Clytemnestra.

[marginalia: Monster in the soft-boiled egg / Monstrous eggs.]

A human effigy in an egg, with serpents sprouting from the skull and chin.

[Full-page engraving — no further translatable text]

These monsters may be referred in part to the power of imagination, and in part to the voracity of the animals; for it is well known that geese feel affection toward human beings, of which we spoke in the *Ornithology*; and moreover it is clearly established that hens are of such a nature that they devour every sort of filth, including seed and menstrual blood, and do not abstain from eating living serpents. Furthermore, hens also yield to serpents, a thing the most excellent Licetus attests from the observation of a maidservant who saw more than once a hen constrained by an asp: for this hen, when dawn broke, going out of the house and hastening to the root of an old oak, called her serpent-mate with clucking; and her eggs hatched not chicks, but small serpents. Likewise, Licetus, in reckoning the proximate and remote material causes, declares the remote to be common and the same, namely that which is shared by all creatures beneath the heavens. The proximate material cause of monsters he calls the living body beneath the heavens; for monsters occur not only in human nature, but also in brutes and in plants.

If the discussion turn to the efficient cause, we may cite many authors who have referred this cause to an evil proportion of qualities. Accordingly, Albertus, in enumerating the four causes of monsters, mentions this evil proportion of qualities; and he adds furthermore that in his own time an androgyne was born so artfully formed in respect of both sexes that it could not be determined in which sex it was the stronger — and he supposes this to have taken its origin from the fact that the hot qualities, which generate the male offspring, and the cold qualities, which generate the female, were so conjoined together that, with a vigorous formative power intervening, a hermaphrodite readily resulted. The Regents of Paris, following this view in a special question appended to the second book of the *Physics*, reported that monsters come to be because of an unequal proportion of qualities; and they wrote that this derives in part from the agent, in part from the patient, or in part from both. This opinion was afterwards not rejected by the most eminent Cardinal Toledo, nor by the College of Coimbra in their Commentaries on the second book of the *Physics*. Indeed Cornelius Gemma confirms it further, when he says that those reason rightly who place the universal cause of monsters in a disturbed proportion — where by "disturbed proportion" the evil proportion of the four qualities is doubtless to be understood.

The efficient cause of monsters is also called Natural Agent, or the formative power of that same form; for this power, when it is vigorous, divides many things that ought not to be separated: hence some infants are born with six fingers on the hands or feet. At other times this power will be so feeble that it fails to separate things that should be separated; whence some foetuses are brought into the light with all their fingers joined together — and indeed we saw the previous year a destitute stranger begging at Bologna who had the fingers of his right hand joined by a continuous nail. Likewise, Ludovicus Mercatus, observing this, wrote that the formative faculty and the natural power of the Agent are sometimes unable to regulate the material of foetuses as would be needful; hence afterwards, according to the greater or lesser impediment of the agent, various monsters result. For this reason it is not to be doubted that monsters are generated on account of the Agent; for no one will deny that in the Agent there may be a feebleness of the natural heat, which will be unable to outline nature and shape it according to necessity. For so Averroes testified in his Commentaries on Aristotle. Furthermore, Albertus Magnus called the efficient cause the formative power, when he asserted that monsters flow from the weakness of the formative virtue, which, being feeble, since it cannot form the whole matter, traces out only a portion of it and abandons the rest.

Others, in place of the efficient cause of monsters, have celebrated the celestial influences — opposing those who persuade themselves that so noble a body as the Heaven accomplishes nothing in these lower regions, but produces only light, and through light, heat: whereas Aristotle in the *Meteorologica* affirmed that all these lower things are governed by the power of the Heavens, and elsewhere that man is engendered by man and by the Sun. Hence it is that many effects are produced in these lower regions by the various motions of the heavens and the aspects of the stars, and the heavens act not only by light and motion, but also by occult virtues — which virtues are afterwards called influences. This was the view of Saint Thomas, of Albertus Magnus, of the Conciliator, of Paul of Venice,

[marginalia: Arist. de gen. anim. lib. 4 cap. 3 / Efficient cause of monsters / Lib. 3 de gen. et inter. cap. 7 / Lib. de gen. anim. l. 4 c. 4 / Influence of celestial virtue / L. 3 Caeli]

of the Grammarians, and of many others, besides certain recent writers who deny it without any reason. And so Albertus Magnus at one point disclosed that there are certain regions in the Heaven to which, when the luminaries arrive, they render in some manner the matter present in the womb ineffectual and impede it, so that no human form can result therefrom. Manilius, not departing from this opinion, expresses his meaning in these verses:

It oft intermingles the bodies of beasts
With the members of men; and the birth will not be of the seed's proper kind.
For what have we in common with the wild beast?
Or does the portent's guilt punish an adulterous partner?
The stars renew forms, and the heavens interpose their aspects.

Wherefore monsters are produced at the times when certain fixed constellations exert their influence upon the sublunary world; for in the age of Albertus it came to pass in a certain village that a cow brought forth a calf with a human head; and the Pagans, marvelling at this prodigy, led the herdsman to judgment — as though he were guilty of so great a crime — to be burnt together with the cow. But Albertus came to the poor man's aid, attesting that this kind of monster had been engendered not by any human crime, but by the efficacy of a certain celestial configuration, and so delivered the herdsman from extreme punishment. Elsewhere, moreover, Albertus disclosed this truth further, when he reported that at a certain time a constellation dominated the generation of swine, and it then came to pass that an infant was born with a swine's head. Hence it may perhaps happen that human foetuses are sometimes born with a face elongated after the manner of a dog or of some other animal. From this we may also draw the cause for which, in certain stones, certain figures resembling a human face or that of some other creature are observed to be traced by nature — as Albertus set down in his *On Minerals*, since all of this proceeds from a celestial influence.

Septalius, in his *Commentaries on the Problems of Aristotle*, establishes the efficient cause of monsters as twofold, namely primary and instrumental. He said that the principal cause pertains to the formative faculty residing in the seed, while the other pertains to the primary qualities, with imagination thereafter cooperating. To these he adds the supreme cause, namely God Almighty, or the force of an evil Demon, and from these he does not exclude the evil proportion of qualities, of which mention was made a little earlier. Those, therefore, who look only to the supreme cause, philosophising more in accordance with God than with the pagan philosophers, teach that to the supreme Artificer nothing whatsoever is fortuitous: for the divine mind, working with a certain end and with instruments as its means, always proceeds by a straight path, and nature, ever subject to change and alteration, always obeys Him.

This Nature, therefore, although in the series of the lower world it may seem to deviate from its accustomed law, must nonetheless be observed to be carried along by the impulse of the divine spirit. Hence, resting on this ground, those who allow monstrous births — with God's permission — to precede or to announce divine chastisements proclaim it, as we explained in the chapter on Prognostications. On this matter Dinotus left written in his *Adversaria* that in the year when Coriolanus was driven into exile, the City was greatly terrified by many prodigies, when monstrous and barely credible births of human beings and cattle came into the light; and soon a dire pestilence attacked not only men but also cattle with the greatest destruction.

Nor does Ambroise Paré depart far from this opinion when he writes that some monsters exist in which something divine appears to be present, and these do not take their origin from the general cause of monsters already described — and thus they cannot be referred to any particular cause of monsters, since they flow from the work of the supreme Divinity.

Nor must we exclude from this the power of Demons, which the most distinguished Licetus placed in the thirteenth cause of monsters: for in the procreation of monsters Demons are able to convey various prolific seeds of animals into the womb and to commingle them basely with one another, as well as to join together at the same time the various causes necessary for such generation — namely by applying natural active things to natural passive things — and by preventing anything they can that may impede action and passion.

To the aforesaid efficient cause certain writers refer the instrumental cause, which Albertus Magnus called the malice of the container — this was afterwards explained by the Regents of Paris in their questions on the second book of the *Physics*

[marginalia: La. Phys. traft. 3 c. 3 / Efficient causes of monsters in the view of Septalius / Causes of monsters of divine origin]

in these words: the container is a certain membrane enveloping the foetus, which is called the afterbirth; hence when this is ruptured, foetuses are born with two heads and only one body, or twins joined at the back.

Finally, this efficient cause of monsters is diligently and elegantly expounded by the most distinguished Licetus in his work *On Monsters*, with an abundance of speculation, when he distributes it into remote and proximate, and subdivides the remote yet further — namely into that which is first of all, being the supreme Artificer of all things, who concurs with natural agents in producing all effects; and the second remote cause he calls the Heaven, which with its perpetual motion and light governs the things below. Then he calls the proximate and instrumental efficient cause the heat of the maternal womb, while the secondary proximate cause he designates as the uterus. Furthermore he distributes the primary efficient cause of monsters yet again into the principle that acts — which by the Philosophers is called the adequate one, and is that portion of the seed from which fecundity proceeds — and moreover distributes this into the principle by which the adequate agent acts, which is the force and soul of the seed communicated to it by the parents, insofar as it is the constitutive faculty of the fabric of the living body, not absolutely, but impeded from perfectly attaining the intended end. Hence we draw the conclusion that the proper efficient cause of monsters is the formative virtue of the parts of the living body.

If we now turn to the final cause, we shall not find it in the doctrine of Aristotle: for since monsters are pure privations, they are neither intended nor understood by Nature; and for this reason monsters lack a final cause. Saint Augustine, however, speaking theologically, endeavours to assign this final cause of monsters, when he says: *For God is the creator of all things, who knows where and when it is fitting or was fitting that any thing should be created, knowing the beauty of the whole, of which the parts are woven together by the likeness or diversity of some.* But one who cannot observe the whole is offended by something as if by the deformity of a part, not knowing at once to what it pertains, and how it is to be referred. From these words of Saint Augustine we may therefore gather that the final cause of monsters is the beauty and comeliness of the universe. From this opinion Ambroise Paré departs but little, when, pondering this, he said that monsters have many causes, but the first is the glory of God — insofar, namely, as, when those things which come to pass beyond nature are restored, His immense power becomes known to all. For so we read in the Gospel of the man born blind, to whom Christ restored sight beyond the power of nature: for when the Disciples investigated the cause for which that man was born blind — whether he himself had sinned, or his parents — the Lord answered that this had not befallen him on account of crimes, but only that the glory of God might be manifested through him. Then Paré adds that monsters have sometimes been created to this end, that God might either punish the crimes of men, or foreshow the signs of an impending punishment; for when men commingle without measure, without law, in wicked and promiscuous intercourse, from this monstrous and horrifying births, and ones departing from the norm of nature, are sometimes produced. Indeed, Abulensis adds to the foregoing that sometimes such defects occur by the will of God, to avert the evils of the one who suffers such a defect — who would otherwise have become depraved, had he been constituted with a whole body. But it is to be noted that this is a particular cause, which cannot apply to all monsters.

Wierix likewise, looking to this, endeavours to show two aforesaid causes — namely the glory of God, and His wrath toward mortals — as the final cause of monsters; and he adds a third cause, which is the free will of the divine power, since it is in no way bound by the laws of nature, having at times not even spared the Heavens. But Licetus briefly despatches himself from this cause, establishing it as twofold — namely common and proper — and places the common one in the perpetuity of species; since individuals cannot endure forever, and this end is shared by every kind of living creature. Furthermore, the proper end is to be understood, but only after we have first understood that monsters are errors of Nature operating under impediment, that cannot attain its intended end; and therefore, since it cannot do what it would, it nonetheless achieves what it can, and produces an animate being similar to itself in the constitution of its parts. Given these premises, the final cause of monsters will be a portion or part of the end of perfect living creatures; since Nature cannot attain the complete end of perfect living creatures.

[catchword: Finally]

[marginalia: Efficient cause. / Final cause, what it is. / In Matth. / In lib. de monítr. c. 4 / Final cause.]

Finally, as a crowning point, from the same author we shall append the twofold formal cause of monsters, of which the first is common to all living creatures; while the proper and specific form of monsters will be nothing other than the corrupt constitution of the body, that is to say the deformed fabrication of monsters and the vitiated conformation of their parts. This view, moreover, accords with the doctrine of Aristotle, who referred monsters to the errors of nature, which opinion is most true and seems to have proceeded as if from the oracle of Apollo; whence we now observe that Wierix did not depart from the genuine truth when he taught that what is evil and vitiated does not appear properly to have a form, since it is the privation — or rather the depravation — of form. Monsters, however, do have forms, but alien ones, which are afterwards made manifest in their differences. For this reason we shall not be able to assign an end to monsters either, since, as all species in nature have their proper forms, if they do not attain them at birth they are held not to have reached their end.

With these matters so set down, it is to be noted that the causes of monsters hitherto explained are so entangled together that one cannot be understood without the others; and therefore the opinions of those who endeavour to reduce monsters to one cause alone are burdened with very great difficulties — and first among these are those who proclaim matter as the true producer of monsters. For these persons depart greatly from the doctrine of Aristotle: the Philosopher proclaimed this as a philosophical axiom — that matter is a passive principle and form an active one — and in the second book *On Generation and Corruption* he reported it to be the property of matter to suffer and of form to act; and in the third book of the *Physics* he pronounced that things suffer on account of matter and not on account of form; and finally in the ninth book of the *Metaphysics* he declared that matter is fitted for suffering and for undergoing change, but not for acting and for changing something. Furthermore, the same Philosopher in the second book of the *Physics* published that a monster is an error of nature operating for an end: therefore, unless the intended end be attained, the error is attributed not to matter but to the agent. Lastly, Aristotle in the *History of the Generation of Animals* urged upon us that a monster is a defective effect of nature in operation; and moreover, if a monstrous man be born with three orifices in the face, this will not flow from matter, but from a vigorous formative power: wherefore the effects of monsters ought not to be attributed to matter alone. It will remain, therefore, for us to affirm that the aforesaid causes are conjoined together in many ways, so that the imperfect effects of monsters may be produced.

DOUBTS.

Since the history of monsters has not, for many persons, been placed beyond the scope of doubt, we have thought it worthwhile to bring forward only the more important difficulties into the field of enquiry, that we may at least in part satisfy the readers. Therefore, as a first point to be discussed, the question is raised whether monsters have been produced by nature accidentally, or rather by themselves. Now since various and cogent arguments are assigned from both sides to establish this, we shall bring forward in the middle certain principal ones, so that from the resolution of those arguments the truth of the question may be made plain.

Those, then, who hold that monsters are generated by nature by accident, support themselves with these arguments. First, Nature — or the Agent — always strives to beget something similar to itself; but since monsters are not at all similar to the Agent or to Nature, they infer therefrom that monsters have been generated by Nature by accident. Next, nothing produced by chance is engendered in accordance with the mind of the Agent; but monsters are of this condition, therefore they are not generated in accordance with the intention of Nature. Third, the intention and desire of Nature in operating can in no way err, therefore it will be necessary that it always produce something good; but monsters are not reckoned among good things, therefore they are brought into the light outside the will of Nature. Furthermore, Nature generates individuals only to preserve and propagate the species; indeed, if it could accomplish this with a single individual, without doubt it would not procure the generation of so many individuals; but monsters are not born to propagate the species: wherefore we shall be able to assert more confidently that they are

[marginalia: Formal cause of monsters. / Causes of monsters entangled. / First doubt. / Several arguments.]

errors of Nature, and born outside its intention, as Aristotle testifies in the *Physics*.

On the other side, those who defend the opposite opinion examine the aforesaid arguments, and in regard to the first they deny that the natural Agent intends to engender something similar to itself: for a dog in intercourse, since it lacks reason, without doubt does not look toward offspring, but approaches mingling only for the sake of pleasure — indeed, with every sense of pleasure removed, it would wholly recoil from coitus; and therefore this Agent looks toward the pleasure granted in common by universal Nature, so that it may in this way thereafter produce something similar for the preservation of the species. Then, to remove the second argument, they deny that monsters are generated by accident; since they believe that monsters look toward the beauty and comeliness of the universe: and therefore, while Nature strives to preserve the world adorned with all things, it is necessary for it to intend monsters. To abolish the third argument they reckon monsters among good things, since they do not lack a soul, which is something good. Monsters, therefore, are called evil by some only in comparison to perfect things; nonetheless, even they — although depraved and imperfect — concur together with perfect things toward the preservation of the beauty of the Universe. And so the last doubt is also resolved: for while the species of living creatures are preserved, the monsters belonging to those species are preserved as well. And because the authority of Aristotle was opposed to this opinion — for he called monsters the errors of Nature — they therefore reply that Nature for the most part operates perfectly in generation, and sometimes also imperfectly, when it produces monsters: whence this second operation of Nature, in comparison to the first, is called an accidental action and an error, because it seldom achieves this — not, however, because it is outside the intention of Nature.

With these matters so established, they construct other arguments for the greater confirmation of this opinion, and the first is this: every Agent always acts for some end, therefore Nature will always operate for a determinate end; and thus in producing monsters it will act according to its intention. Nor does it hinder this that Nature brings forth rare births of monsters, and that these are outside the intention of Nature; since what happens rarely is not to be reduced to a defect and error of Nature. Moreover, if a monster were beyond the intention of Nature, without doubt Nature would not complete the work of the monster once begun, but we observe the very opposite — since it completes the monster begun in the womb and brings it into the light; therefore it must be asserted that monsters answer to the intention of Nature and of the Agent. They add that a chick is an animal generated by accident and outside the intention of Nature, but a monster is an animal, therefore a monster will be produced by Nature of itself. Finally, if Nature principally regards what belongs to one species, it will without doubt also regard the remaining things that follow upon that species; but a monstrous man — whether with a large head, or with six fingers on the hand — is referred to the same species to which a non-monstrous man belongs: therefore Nature in generation will have regard to both the monstrous and the non-monstrous man.

By these arguments, therefore, those who declare monsters to be not errors of Nature, but produced for the adornment of the Universe, support themselves — and so they favour the authority of Saint Augustine cited above, who wrote that the harmony by which all things are beautiful proceeds not only from the equality of like things, but also from the congruent and ordered gradation of unlike things: hence they afterwards elicit and proclaim the necessity of many imperfect things in the Universe without any error of Nature, in order to preserve their own opinion. Finally, as a crowning point, they add that if the proximate, remote, and most remote causes — as God and the celestial bodies — concur in the procreation of monsters, no one will be able in any way to assert that this generation is accidental, since all the aforesaid causes conjoined together never operate anything outside their intention.

Wherefore this opinion, since it does not at all reach the truth, is to be refuted by these arguments. First, things that happen rarely, and do not pertain to permanent species — such as monsters — are not to be asserted to pertain to the adornment of the world, since the beauty of the universe consists only in things that are perfect and permanent. Furthermore, a monster insofar as it is a monster indicates nothing but defect and privation, according to the opinion of the Philosopher written in the second book of the *Physics*: therefore a monster can provide no perfection, and consequently does not pertain to the perfection of the universe —

[marginalia: L. 3 Phys. / Resolutions. / Other arguments. / Resolution of the arguments / L. 2. Physic. PHP.]

Moreover, if monsters contributed to the adornment of the universe, they would be generated very frequently, since this great beauty of the World is sustained by frequent effects; but a monster occurs rarely, and on this account is excluded from this adornment of the world. Finally, monsters do not come into the light for the sake of this beauty of the Universe, since they would have been produced at the beginning of the World — which is nowhere read.

It will remain, therefore, for us to say that monsters are outside the intention of nature, and by accident — which doctrine Aristotle taught in the second book of the *Physics*, in the sixty-fourth text, where we read: *But it is of another kind; of this indeed the cause is external, of that it is internal.* Which words Simplicius, Johannes the Grammarian, and Averroes, expounding them, reported that monsters are not by chance in a simple sense, but more by chance, because the cause of a thing made by chance of this kind is external — that is, indefinite and occurring from without — while the cause of that, namely the monster, is internal, that is to say the matter, which is its internal and definite cause. But it will be better to have interpreted with Saint Thomas that word "external" not according to being, but according to intention. With these matters thus explained, the prudent reader, resting on all the arguments brought to the contrary, will dissolve them and will uphold the doctrine of Aristotle, in which we have understood monsters to be errors of Nature — and let this suffice for the present question.

The second doubt is whether monsters had their origin from the beginning of the World. For the affirmative position there is no lack of opinions from the most distinguished men, who advance not unworthy arguments. First, Benedictus Pererius establishes by many arguments that monsters existed at the beginning of the world, when he admits hybrid species of animals — such as mules and the like — even at that time. For he states clearly thus: everything that concurs to the generation of these species is natural; hence they themselves are also intended and generated by Nature: and therefore, together with these natural species of animals, they had their origin at the beginning of the World. The antecedent of this argument is confirmed, since the matter from which they arise is natural; besides which, the place, the time, and the agents — namely, male and female — are natural.

Next, what God, at the time of creation, fabricated is called the universe, since it comprehends all things desired and to be desired; but the aforesaid hybrid species could at that time be desired; and therefore they were produced by the supreme Artificer in the days of creation — and this is the more firmly established because, if animals of this kind had not been created, the Universe would not have attained its complete perfection. Moreover, it is to be believed that the supreme God did not omit things necessary for human convenience; but such hybrid species would have been of the greatest utility to man, therefore it is not to be asserted that they were not created at the beginning of the world. To the foregoing is added the authority of holy Scripture, in which it is read that there is nothing new under the Sun: wherefore the aforesaid species are to be declared not recently produced, but long ago created at the very beginning of the World.

This opinion, however, is not admitted on all sides: for the aforesaid species present something monstrous, and Aristotle in the second book *On the Generation of Animals* called similar species new births, and in the *Metaphysics* stated that a mule is something contrary to Nature. For although an ass and a mare are joined together to produce something similar in species, this does not come about, on account of the impediment supplied by the diversity of seeds. Hence it comes about that Nature does not attain its intention, but brings into the light only something contrary to Nature. By these arguments the first position is destroyed, and the resolution of the second is also intimated; and for confirmation it is to be noted that animals of this kind are monstrous, and insofar as they are such cannot pertain to the perfection of the universe, as was explained above.

Furthermore, all living creatures were created by the Almighty Artificer at the beginning of the world and were blessed by Him — which blessing has regard to fecundity: for so Lyranus, Abulensis, Pererius, and many other Doctors interpret it. Among these, Saint John Chrysostom says: *He blessed them and said: grow and multiply. For since animated creatures were animals, and He willed them to be perpetual, therefore God blessed them and said, grow and multiply. For that word preserves them in the present day unto this time, and so much time has passed that no kind of these has been diminished; for the blessing of God, and the word which He had spoken, that they should subsist and endure,*

[marginalia: Second doubt. / What the universe is called. / Ecclesiastes. / Resolution of the doubts / Homil. 4 in Genef.]

conferred upon them [the power to endure]. To this opinion assents Procopius in his commentary *On Genesis*, when he says: But those animals are by no means blessed with a spiritual blessing, as men are; rather their blessing pertains to the procreation of offspring, which is by succession of kind. But the hybrid and monstrous species of animals lack fecundity, because they are sterile; therefore that blessing did not regard them, since they had not been produced at those times. For although we understand that a mule sometimes generates, this happens most rarely, and furthermore, if something is generated, it is called not a mule but a *ginnus* by Aristotle. Moreover, even if in Syria, according to the view of Aristotle, mules, by intercourse, propagate their species: it is nonetheless to be noted, from the same Philosopher, that the species of those mules differs from the species of our own; since our mules share with those only a certain external resemblance.

Nor does it hinder to assert that by that blessing animals were gifted not only with regard to fecundity but also with regard to their preservation, given that these hybrid species have passed from the beginning of the world down to these times. For this objection presupposes what is not yet manifest to us — namely that the hybrid species can always be preserved — and it further presupposes that the preservation of these species can come about otherwise than by propagation through offspring, which afterwards contradicts philosophical doctrine; and although in sacred letters we have it that there is nothing new under the Sun, and hence that these species existed at the beginning of the world — the answer to be given is that they existed indeed in their causes, but not formally. And this decree is most manifest among the Theologians — indeed it is established by Saint Thomas in this manner: *Certain animals also, according to a new species, are sometimes born from the commingling of animals diverse in species, as when a mule is generated from an ass and a mare; and these also pre-existed causally in the works of the six days.* Hence it is to be gathered that animals born from the mixture of diverse species were not created by God as such, but only according to the other species from which they are afterwards generated and in a certain manner composed. Wherefore it is to be asserted that monsters were by no means present at the beginning of the world.

A second argument of those who placed monsters at the beginning of the World is founded chiefly in the doctrine of Plato, who in the *Symposium* records three kinds of human beings — male, female, and androgyne — who lived at the beginning of the World. The androgyne, moreover, since it participates in both sexes, is to be placed among monsters. And Empedocles seems to have followed this opinion when he records man-headed oxen and man-swine at the beginning of the world, as Aristotle reported in the *Physics*. But, to speak the truth, we reject this opinion of Plato together with learned men as ridiculous, and the more so because he does not establish this androgyne as a single individual, but describes it as furnished with two faces, four hands, and both sexes: from these words we understand that two perfect individuals were joined together; indeed we apprehend this to be a piece of nonsense, since these androgynes, so they say, aspired to the heavens and declared war on Jupiter; wherefore Jupiter, indignant, separated them into male and female. Moreover, that this is a fable we are persuaded by the words of Marsilio Ficino, who in his exposition of this passage of Plato asserts that here Aristophanes narrates these and very many other things resembling monsters and portents, beneath which, as under certain veils, divine mysteries are to be supposed to lie hidden. For it was the custom of the ancient Theologians to cover their sacred secrets with the shadows of figures, lest they be polluted by the profane.

Lastly, there have not been wanting those who, to foster the opposite opinion — namely that monsters existed at the beginning of the World — brought into the field Adam the Hebrew Androgyne, because they believed that Adam was created male and female together, and then divided into man and woman. But we gather that this opinion is to be rejected from the words of William Ham *On Genesis*, when he interprets those words: *Male and female he created them.* Now a third sex of human beings — or a certain neuter kind — whether what I say be true or false I hold uncertain; certainly it is well established that androgynes, as the portents of a delirious Nature, are hated by all, and I should not think it credible that any entire nation could consist of such abominations, and what the more readily inclines me to believe this is the truth of the scripture, which reports men divided into two sexes, lest each sex in one man make some monstrous and execrable —

[catchword: approaching]

[marginalia: What is a ginnus. / Objection. / Solution. / In prim. 1–2 q. 47 a. 1 / Second argument. / L. 3. Phys. t. 65. / Solution of the Platonic doubt. / Third doubt.]

approaching — there is added the nature of the sacred Hebrew tongue, which knows no neuter name, but all are either masculine or feminine, namely in agreement with this passage: *Male and female he created them.* For what we read as *seraphim* in the neuter gender crept in through a corrupt custom; therefore it is to be noted that the Hebrew Androgyne of Adam is not to be admitted, as Steuco and others were of opinion. For if Adam had been an androgyne, he would have been named by a neuter name, which the Hebrew tongue lacks. Furthermore, Lyranus and many other learned men overthrow this opinion with most cogent arguments, to which we refer the reader.

Finally, some doubt whether a non-human foetus can proceed from the womb of a woman; and further, if it can happen that it is engendered therein, they enquire what the principal cause may be from which it can proceed. As to the first point, many histories attest that a non-human monster was generated in the womb of a woman, and these we have recited in the chapter on Prognostications. Furthermore, many Doctors favour this opinion; and first among them Paul the Jurist, who divided the monstrous foetuses of a woman into three kinds — namely into those that wholly depart from the human likeness, then into those that abound with certain superfluous parts, and finally into those that are lacking in certain parts — and he admitted that the first were by no means to be referred to the human race. Moreover, other learned men expert in law were of this opinion, that certain monstrous foetuses, entirely differing from the likeness of man, were not to be baptised at the sacred font; indeed the most excellent Baldus the Jurist decreed that these were to be killed at once. Wherefore from what has been stated we perceive that not always something similar in species exits from the womb of a woman, but sometimes something dissimilar. Likewise Hieronymus Anglarensis reported that of old the Emperors, looking to this, had decreed that a birth that inclined toward no monster was to be held as a human being — but why do we wander, since Aristotle in the *History of Animals* published a similar birth? His words are these: *The same causes exist both that offspring may be generated similar to parents, and different, and some like the father, and some like the mother, both in the whole body and in particular parts, and more like parents than like their more remote ancestors, and more like ancestors than like anyone else, and males more like the father, and females like the mother; and some like no kinsman, but still like a man; and some not even like a man, but already a monster.* From this doctrine of the Philosopher, therefore, it is strongly true and beyond doubt that a birth not in the least like a man sometimes exits from the womb of a woman. Furthermore this can be confirmed by daily experience, since foetuses are sometimes born who, on account of their deformity, are judged unworthy of washing at the sacred font, and the reader may see many examples in the chapter on Prognostications, in which a series of similar monsters is recited. There is therefore given a non-human monster born from the congress of a man and a woman.

As concerns the second question — namely by what reasoning such monsters can be procreated in the human womb — it is to be known that the opinions of authors have been various: for some of them have attributed this generation to foods, air, and other things called unnatural by physicians. Among these is reckoned Wierix, who committed to writing that the location, the nature of the air and of the waters drunk, contributes to the birth of monsters. Then he adds, on the view of Luis Vives, that there are certain places in Naples and in the Low Countries of Flanders in which monsters are most frequent, and multiform beasts exit from the human womb, either alone or together with infants. On this account the same author thinks that from the frequent use of certain animals as food, similar animals can be generated in the womb of a woman; and he bolsters his opinion with the example of the women of Salerno, who, from their more frequent eating of frogs, give birth to frogs in like manner. This reasoning, however, is disapproved; for if this could depend upon foodstuffs, births of novel kinds would be far more frequent; besides which, foodstuffs cannot accomplish this, since they undergo various changes according to the temperament of the one fed; indeed in times of scarcity the poor eat anything whatever, even foul things, and yet they beget children similar to themselves; and if it happens at any time that a woman gives birth to a frog or a toad, it is to be noted that this flows from the corruption of the seed, not from nourishment — as we have explained in the *History of Egg-laying Quadrupeds with Digits*.

Other authors attributed this generation of non-human birth to celestial influences. For they attributed to the Heaven such great force that they wished this effect to be produced in these lower regions, with the virtue of particular causes destroyed; moved by this opinion, Seneca in the *Hippolytus* —

[marginalia: No neuter name in the Hebrew tongue / L. non sunt haberi ff. de statu hom. / Citur ff. de liberis et Posthu. / L. 5 de mun. / In lib. de monstr. c. 4 / Salernit. women's nature]

Domitius Ulpianus likewise proclaimed that monsters derive their origin from Fate, and published the opinion that Fate is the cause of monsters. This view is not admitted on all sides, however; since if celestial causes alone sufficed for producing their effects, all other causes would be superfluous — for that which can be accomplished by fewer means is done in vain by more, as Aristotle testifies. Therefore it is not the Heavens alone that concur in this generation.

Others have assigned the cause of such monsters to the powerful imagination of the parents. Accordingly, Lodovico Vives recounts the following: the books of natural philosophers are full of examples showing that things seen at the moment of conception exert great force upon the offspring; hence married couples are advised to keep elegant images near the conjugal bed. There is a city in Brabant called 's-Hertogenbosch, in which, as in other towns of that territory, on a fixed day — the day on which the great temple of the city is said to have been dedicated — a public supplication is held and games are exhibited in honour of various saints. Some persons then put on the costumes of saints, others of demons; and one of the latter is said to have thrust his wife into bed with him, declaring that he wished to beget a demon upon her. She conceived, and the child born had that very form in which demons are painted. This story was told by Margaret, daughter of the Emperor Maximilian, to Juan Luis Vives himself — a man of incredible prudence — who was then there as ambassador of King Ferdinand. Thus far Vives.

Paré afterwards reports that in the year of Our Lord fifteen hundred and seventeen, in a certain parish in Poisy, a live frog was tied to the palm of a feverish woman's hand; and that night, lying with her husband and having conceived, she afterwards brought forth an offspring with a frog's face. It is also related that at Württemberg there was a citizen with a corpse-like face, who reported that while he was being carried in the womb, his mother had been terrified by the sight of a corpse, and that from this the foetus had been made to resemble it. Let us add that a certain woman, having unexpectedly looked upon her husband wounded in the chest, afterwards brought forth a child that had a visible cleft in that same part of the chest where the wound had been. We likewise recall having read that a modest matron was so terrified by the sudden appearance and sight of a dormouse that the foetus existing in the womb degenerated into the form of that little animal.

Yet there have been some who dared to resist, by the authority of Aristotle, Hippocrates, Galen, St Jerome, St Augustine, and St Thomas, the force assigned to imagination in the generation of monsters, and who reasoned in favour of their own opinion in the following manner. A remarkable variety in colour, shape, and flavour is observed in the fruits of plants, and nevertheless imagination does not operate in plants; therefore imagination contributes nothing to generation. Next, they declare the various imaginations of parents during intercourse to be superfluous, since the seed is poured into the womb without any form. Moreover they deny that imagination plays any part in generation, since the foetus is produced not by the soul of either father or mother, but by a certain third principle residing in the seed. They further assert that in intercourse such pleasure arises that the powers of the soul are impeded by a kind of swoon, so that they cannot afford any scope to imagination. Finally, they cite that a dog has sometimes issued from a human womb — although there is no way of believing that any desire of producing a dog could have been excited in a human mind.

To refute the first argument, we assert that such power is not to be granted to imagination that it can function as the adequate fourth principle of generation; since plants, lacking sensation, do not propagate offspring — and although variety is observed in the fruits of plants, which lack imagination, it must be understood that this can arise from the nourishment supplied by the vegetative soul, or from the air, or from the situation, or from other causes of this kind. Therefore the imaginative faculty does not always in the generation of animals produce variety in the parts of the foetus, since such variety can arise from other causes as well. And although the force of imagination is plainly attested in the sacred page concerning those rods of Jacob, at the sight of which the flocks brought forth lambs partly white and partly black, Aristotle nonetheless attributed this also to the drinking of waters, having written elsewhere that by the use of different waters some creatures change their colours; for in one place they are rendered white, and in another black. Indeed in many places there are waters such that when sheep have drunk from them and copulated, they engender black lambs: this the river called Psycrus — named for its exceeding coldness — achieves in the land of Assuritis in the Chalcidic territory of Thrace. Moreover, even in Atandra there are two rivers, one of which imparts whiteness and the other blackness to the animals that drink from them; and so likewise through many other regions the rivers flow —

[marginalia: 1. quaest. reliq. ff. de verb. sign. / Lib. 1 od. eius. Dez. / Imaginatio / Aug. ve. / Rationes adversus vim phantasiae / Solutiones Rationum / aquarum variarum vires / pecudibus]

They are endowed with those prerogatives which the Philosopher mentions in the passage already cited.

Thereafter, to overthrow the second argument, we affirm that it is falsely supposed that the force of imagination operates only at the very beginning of the generation of the foetus; for experience teaches the contrary. Indeed this virtue of imagination remains active and operative throughout the entire period of gestation in the womb, while the appetite of pregnant women, which depends upon imagination, persists throughout the whole period of pregnancy in impressing various shapes upon the foetus — over and above the fact that imagination concurs in the generation of foetuses only when sensation is operative. With these foundations laid, the third argument put forward by the adversaries falls to the ground, since we grant that the force and soul of the paternal seed is not only vegetative but we also affirm that spirits endowed with imagination are joined to it as well. When, moreover, it was said that parents in intercourse are wholly removed from every kind of imagination by reason of their extreme pleasure, it must be noted that this contradicts the teaching of Aristotle, who himself placed great delight in intercourse; yet he testified in his *Problems* that for the most part the mind of the man is variable during the act of union. The remaining arguments likewise perish, since above we have shown that imagination is not the adequate cause of variety in the parts of the foetus, nor is it to be placed in the category of an adequate cause in matters of generation. Finally, according to the doctrine of Aristotle, we do not concede that a birth resembling a brute animal — namely a dog issuing from a woman — resembles a perfect dog.

To all the foregoing must be added the power of Demons, concerning which we have spoken above in the section on causes — not to mention that the supreme Maker of all things can effect these and many other things beyond the order of Nature.

ON THE ERRORS OF NATURE IN THE FORMATION OF THE HEAD.

Chapter Three.

We have always approved with the greatest assent the method which Schenck observed in reviewing the defects of Nature with respect to foetuses of every kind, beginning from the head and carefully examining all the parts; and therefore in the present work we shall not depart from this order. Accordingly, Nature, sometimes impeded and failing in the straight path of generation, sometimes adds no head to the foetus in the womb, and sometimes forms several upon a single subject — as though wishing to introduce into the world anew so many Rolani or Geryons.

At other times, only one head is assigned to a birth, but one so unlike the subject that it constitutes something altogether different, in the manner of the differentia proper to the logicians, inasmuch as the whole head takes on the appearance of another animal's species; and at other times, again, although Nature does not render the head of the foetus otherwise than it should be, she nevertheless forms it so altered, disfigured with various fissures and spots, or filled with teeth from the very beginning of generation, or marked with the ears of another animal, as to bring no slight admiration to those who behold it.

As to the first case: Ctesias of Cnidus reported in his *Persica* that Roxane, the wife of Cambyses, gave birth to a headless girl. Upon observing this, the Magi prophesied that this birth was to be regarded as a prodigy, because, owing to the absence of a head, no one would reign after Cambyses. Likewise, in the year fifteen hundred and twenty-five, as Lycosthenes reports, a boy came into the light at Wittenberg without a head. Furthermore, in the year fifteen hundred and fifty-four after the birth of Christ, an infant without a head issued from a human womb, with the form of eyes imprinted upon the chest — as Job Fincel recorded in his work on the marvels of our time. Item: in the year fifteen hundred and sixty-two, on the first day of November, a girl was born at Villefranche in Gascony without a head; the image of whom we give here, as communicated —

[catchword: communicated]

[marginalia: Lib. 3 Proélem. prob. 12 / Ordinis Rationum / Captium / Descriptio / Monstra pata Bononia / Inopia materiae / imaginatio / caufa variarum viret]

A headless monster.

[Full-page engraving — no further translatable text]

— to Paré by the most excellent Fontanus of Agen, who affirmed that he had himself seen the monster. About the region of the neck a swelling protruded, and the ears were visible above the shoulder-blades; on the back, eyes and a snout in the manner of a proboscis appeared, all of which taken together represented the rudiments of eyes, nose, and in some measure of a face. The rest of the body was a woman's, neatly formed, except that the navel hung somewhat lower than usual. All this is shown in the figure of this monster drawn from both sides.

This ought to cause us no surprise, since similar cases of birth have been observed here at Bologna: for in the year of Our Lord fourteen hundred and thirty-one, near the gate of the Via Maggiore in the lane called Torliézare, a certain woman brought forth a male child complete in all its members, and then at once a female without head, arms, or legs, with what appeared to be a small opening in the region of the neck.

Again, in the year sixteen hundred and fifteen, from a woman formerly fruitful who had not conceived for the space of fifteen years, after she at last conceived she brought forth a fairly large boy without a head; and where the neck is wont to rest, a mouth with teeth was seen, and on the opposite side a membrane resembling the meninges of the brain was visible. The midwife showed this foetus to us, declaring that it had some movement and had been taken alive from the womb.

Again, in the year sixteen hundred and twenty-four, in the month of August, in the territory of Bologna, a monster of the female sex was born, whose neck bore the appearance of eyes, nose, and mouth, and at the summit of the neck a softer flesh protruded in the shape of a pyramid; the tongue, larynx, oesophagus, and lungs were absent, and in their place certain small flaps of flesh adhered to the ribs on either side, while the remaining parts were rightly constituted.

When, moreover, Hulderic committed to the records of his voyage the statement that in the Kingdom of Guiana, situated between Lake Cassife and the marsh of Parima, there lives a race of headless men with eyes and the other parts of the face placed on the chest, we are not easily moved to believe it, since this is more in keeping with fable than with truth — although Pliny the Elder, who lived in the time of the Emperor Vespasian, writes in his *Natural History* that towards the west of Mount Milo in Asia there lives a race of men without a head. Nonetheless, for this difficulty let the reader take refuge in the section on the distinguishing features of the first head of this *History*.

Now, if the cause of the acephalous monster be inquired into, it will not be sought from mutilated parents; for Aristotle affirmed that it is not always necessary that a foetus should be produced mutilated from mutilated parents, since where the vital part of the paternal seed is lacking for constituting a determinate member, it can sometimes be aided by the maternal seed. It is not to be believed, moreover, that an acephalous monster was procreated by parents who were themselves without heads. Yet for the most part authors agree that a mutilated monster arises from a deficiency of material, provided that so large a portion of the member is not missing. To this must be added the weakness of the operative power — although afterwards it sometimes comes about not from any deficiency of material, nor from weakness of the agent, but from the narrowness of the space. Indeed at times, with all these causes removed, such a monster is generated because the portion of material destined for the formation of some member is either unfit or corrupted; and then no image of that member appears in the birth. But this cause does not seem applicable to the monster described above, since rudiments of a face are visible on the chest.

Someone may therefore say that a mutilated foetus is sometimes generated from perfect parents because the infant loses a part in the womb through the violence of some disease. Nor is this to be proved, since the head is the principal member, and when it is destroyed or removed, the foetus loses its life in the womb. Nor is it necessary in the generation of this monster to have recourse to the imagination, since the imaginative faculty, however strong, cannot remove a portion of the material existing in the womb. Wherefore it must be asserted that when the material destined for the generation of the head is dispersed — for whatever cause — and transmitted to a lower region, since the seminal material always retains the force of generating that part for which it was originally destined, it comes about that rudiments of the face appear on the chest.

[marginalia: Lib. de gen. anim. lib. 4 cap. 3 / Inopia materiae / caufa variarum viret]

THE MULTIPLICATION OF HEADS IN THE HUMAN FOETUS.

But just as Nature sometimes falls short in forming the head, so likewise in shaping the same she is at times superfluous — not only by multiplying two, three, or more heads in their proper position, but also by producing a human head, beyond the customary one, in the belly as well, as will be observed in its proper place. Indeed, from Julius Obsequens, a two-headed girl was born in the consulship of Gaius Laelius and Lucius Domitius.

Orosius, moreover, relates that when the Macedonian war was impending, in the territory of Veii during the consulship of Gaius Petilius and Gaius Valerius, a two-headed boy was born. Likewise at Rome a woman miscarrying brought forth a two-headed foetus, which, by the order of the haruspices, was cast into the Tiber. Moreover, Rabbi Moses testified that the Sicilian women in a certain year brought forth deformed foetuses, and in particular two-headed ones.

I. The image of a two-headed girl is found in Ambroise Paré: she was elegant in the beauty of all her members, save for her two heads, which were possessed by the same desire for drinking, eating, sleeping, and speaking. This monster begged its food from door to door, but at length, by the command of the princes of Bavaria, it was removed, for they feared lest pregnant women, by frequently beholding this monster, might imprint a similar deformity upon their foetuses.

Not dissimilar is the monster which Cardano mentions, born in Milan in the month of January of the year fifteen hundred and forty-four. It was indeed two-headed, and all its remaining parts resembled a single body; when the cadaver was dissected by surgeons, the oesophagus and stomach were found to be doubled, yet they converged at the bottom where there was a single pylorus, from which afterwards twin intestines sprang, which finally converged into a single rectum. The heart was bifid, for it represented the Greek letter Y; the liver was seen to be thick and long, without lobes. The spine of the back was duplicated, with a distance of one finger's breadth between each part. The kidneys were double, but the uterus was single, and the bladder likewise single. It is manifest therefore that in these cases there occurs what is usual in such things: for Nature attempted to create two girls, but at the very beginning the principal members were dashed and crushed together, all save the head — thus all the principal members save the brain converged into one; while those which were formed later, such as the uterus, arms, and extremities, were completed as from a single principle and as in a single foetus. The monster was born alive, but died shortly after, through the negligence of the midwife, who twisted one of the necks.

II. A two-headed hermaphrodite monster, and III. Another two-headed hermaphrodite monster, are not much unlike the monster delineated above; the images of which the most learned Aldrovandus caused to be engraved, and we have not been reluctant to present them as we found them in the public museum at Leghorn for public viewing. But if we run through the series of years, we shall be able to record many more monsters of this kind. For in the year of Our Lord eleven hundred and ninety-three, as is read in the Annals of the Dominican fathers of Colmar, a woman in Selecissa gave birth to a two-headed boy. Moreover, in the year eleven hundred and eighteen, a two-headed monster was born at Namut, with a double sex but simple in its remaining members. Item: in the Chronicles of Trithemius it is stated that in the year twelve hundred and thirty-six, in the village of Gebrab, a male two-headed boy issuing from a human womb breathed the vital air for six months and as many days. Furthermore, in the year fourteen hundred and eighty-seven, a two-headed infant came into the light at Padua, in which, beyond Nature's luxuriance, nothing foul was to be observed by the beholder.

IV. In the same year a similarly two-headed infant, with an obscene member, is said to have been born at Venice, as may be observed in the figure appended. But in the year fourteen hundred and ninety —

[catchword: ninety]

[marginalia: Aphorif. ag. / Lib. 14 de var. c. 77 / Fœtus in utero / Monſtrum bifeemi conſtruetur / GUEST UH / 245 varijs temporibus]

Image of a two-headed girl.

[Full-page engraving — no further translatable text]

A two-headed hermaphroditic monster.

[Full-page engraving — no further translatable text]

Another two-headed hermaphroditic monster.

[Full-page engraving — no further translatable text]

A two-headed infant with a shameful member.

[Full-page engraving — no further translatable text]

— nine, as Cornelius Gemma noted, in the territory of Werdt, a two-headed monster of the female sex was born, but with a single breast and belly; it had two feet and four arms. A two-headed infant similar to this was born in the year fifteen hundred and fourteen, in the village of Gossau near Groningen. Moreover, Caelius records a monster of that same year, born in the month of March, when he writes: in the village of my native soil, which is named Sarzana, there was a two-headed monster of unusual size; when it was four months old it presented many things worthy of admiration — for all the members were perfectly proportioned with their height, each face of almost indiscernible similarity, the hair on the heads somewhat longer and darkening, and between the two heads a third hand rose up, which did not surpass the ears in length and was not altogether complete. The rest of the body was neatly formed and was observed without any blemish of foulness. Accordingly the monster was brought to Rovigo the day after its birth, and since it was worthy of admiration, it was decided to present it to the Spanish Duke who was holding the place of a viceroy in that region. And since there was fear of putrefaction, the monster was eviscerated, and the heart was then found to be simple, with a double liver and a twin spleen. Caelius wished therefore to insert this monster in his books, because it was regarded as a prodigy — since at that time Italy was burning with intestine discord.

Furthermore, in the year fifteen hundred and thirty-six, in the territory of Zurich, an infant with a single body but two heads was born; in the same year at Louvain, a similarly two-headed foetus, as Cornelius Gemma reports, issued from a human womb. Moreover in the year fifteen hundred and thirty-eight, a two-headed boy was indeed born, but he grew to the full stature of a man; for James Rufus acknowledges that he saw this man when he had passed the age of thirty. He was double in head and shoulders, but the heads were turned in opposite directions like the Janus-figure of antiquity, and they displayed a remarkable similarity in their beards and eyes. The appetite for food was the same, and the voice entirely alike. This seems not to differ greatly from that two-headed monster which, according to Paré's account, was seen in Bavaria.

Likewise, according to Lycosthenes, Alsace beheld a two-headed boy born in the month of January of the year fifteen hundred and forty, with its heads turned back, their faces looking forward at each other with a certain menacing expression. Similarly in the year fifteen hundred and fifty-two, in Hesse in Germany, at Witzenhausen, in the month of January there came into the light a two-headed male, with a double neck and the rest of the body excellently formed. In the same year, as Rufus relates, in England not far from Oxford, a two-headed foetus was born, the rest of the body not well formed — for it had four arms and three feet badly shaped. But in the following year, according to Schenck, in the village of Misnian territory called Ziehest, not far from Pirna, a two-headed birth, perfect in its remaining members, issued from a woman of no mean rank.

V. There is not to be omitted what happened at Genoa among the Allobroges, in the year fifteen hundred and fifty-five; for there was a monster, of the kind delineated in the figure below, born from a French woman living there — which was an indication of superabundant seminal material. It was not perfectly two-headed, but two heads inflated at the sides were so joined together by Nature that two faces appeared; it was thus two-faced, such as antiquity was wont to paint Janus — the intestines hung from the back, and the liver protruded from the vulva of the female; for the monster, on its right side, was male, and on its left side female. The legs, which are seen separately in the figure, had been so torn away by the delivering mother. For Gaspar Masserius the painter, who was present along with many others, carefully delineated everything with his brush.

We cannot attribute the generation of this monster to imagination; for just as imagination, as was explained above, cannot diminish the material destined for generation, so by the same reasoning it cannot increase the same material. Yet since it can impress an accidental form upon parts at will, it might perhaps, together with the formative power of the parts but with the assistance of spirits, constitute a two-faced foetus.

In the same year, on the twenty-seventh day of September, in the village of Freyweck, not far from the town of Adorf in Voigtland, a two-headed infant was born to the wife of a blacksmith —

[marginalia: Præsagium quale ex hoc monstre / Monftrum Jani instar / Causa / Caufa variarum viret]

A two-faced monster.

[Full-page engraving — no further translatable text]

— who had his navel between his thighs where the sex is ordinarily displayed; and beyond his two heads, he was furnished with four hands and four feet.

VI. Ambroise Paré depicts another infant with a double head, as may be seen in the figure, but it lacked the right arm; and mention is made of it in this place in order to continue the series of years, since it came into the world in the year of Our Lord fifteen hundred and seventy-five. Moreover in the year fifteen hundred and ninety-three, on the sixth day of October, as Schenck relates, in the territory of the monastery of Wolmerstall, the wife of a certain innkeeper brought forth a two-headed girl, who had died and was painted in vivid colours by Valentin Wager.

Furthermore, in the year fifteen hundred and ninety-seven, on the twenty-ninth day of the month of May, in the village of Lustnau in the Duchy of Württemberg, situated not far from Tübingen, from parents of the common people — namely a father, Jacob Hang the vine-dresser, and a mother, Agneta — a monstrous birth came into the light. For the wife of the vine-dresser, after sixteen weeks from conception, having suffered the pains of childbirth, brought forth a dead foetus without danger to her own life. This immature foetus had the genitals of both sexes, consisted of twin heads and twin necks, and each of the two heads possessed two ears, two eyes, one mouth, and one nose. This monster was dreadful and horrible to those who beheld it. The heads did not differ much from the skulls of dead men, and the individual foreheads appeared divided in the middle as if they had been cut asunder. There were two legs together with small hands and feet, lean and contracted into a narrow compass, such as are wont to be seen in miscarriages of this kind. This monster was carefully examined by physicians of that famous academy at Tübingen according to the anatomical method. A double heart was found, and likewise a double lung and a double liver; in the lower belly the stomach was simple, and the intestines presented themselves not as double. Thus far Schenck.

VII. To the foregoing must be added a two-headed human monster with a tail, depicted both from the front and the back according to artistic convention, which is reported to have been born on the twenty-sixth day of October in the year of Our Lord fifteen hundred and ninety-eight, in a town situated between Voghera and Tortona, from the union of a male cousin and his female cousin; when it was drawn by the painter it had already been dead for some time and had been embalmed with oil of spike-lavender.

The length of this monster was a span and a half, and the breadth of the belly equalled a palm with a thumb's breadth. The heads were two, the size of an apple, filled with fair hair; it had two feet and four arms, two of which occupied their proper place in the human manner, while the other two sprang from the middle of each head at the back. But in this monster, beyond all else, one thing was worthy of admiration: for above the buttocks, at a distance of two fingers' breadth, it had a tail a palm in length, which covered the outlet of the excrement, as is observed in four-footed tailed animals. This tail at its base was of the breadth of the little finger, and thereafter tapered to a point. The monster, since no form of the male genital organ and scrotum appeared, was believed to be of the female sex. Mario Galasso of Naples, a most learned investigator of natural things, communicated this image long ago to the most learned Ulisse Aldrovandi.

In the following year, namely fifteen hundred and ninety-nine, as Schenck relates, in the village of Zeitem, situated at a distance of a thousand paces from Brussels, in the bishopric of Speyer, in the month of August, the wife of a steward brought forth a two-headed and admirable birth. This woman, after the full course of gestation in the womb, was coming home from the country when she was overcome by heavy labour pains; falling to the ground, she was at once seized with epilepsy, and at nightfall she brought forth the foetus; and being held by a continuous paroxysm of the falling sickness for the space of nine hours, she at last gave up her soul that same night. The infant, however, was of horrible aspect; for those two heads imitated the faces of apes. The rest of the body was similar to a well-formed boy; except that the arms appeared somewhat defective in one respect. The feet resembled the shape of apes' feet rather than of a human being's, and finally about the buttocks the rudiment of a fox's tail was visible.

VIII. Thus far concerning the two-headed monster whose heads are seen in their proper place. Now there are some things to be said concerning a two-headed monster more horrifying and wonderful. For at the time when Francis the First, King of France, with —

[marginalia: Abortus biceps / Monftrum Anatome / Descriptio monftri / Aliud monstrum / Cauda]

A two-headed infant with a single arm.

[Full-page engraving — no further translatable text]

[caption illegible]

[Full-page engraving — no further translatable text]

A two-headed monster with one head in the belly.

[Full-page engraving — no further translatable text]

— the Helvetians concluded a treaty, an infant was born, according to Paré's account, in the year fifteen hundred and seventeen, with all its members excellently constituted, in whose belly another human head protruded, which was nourished in the manner of the other. The infant grew to manly age, as may be seen in the figure. And even then, as he travelled about, he gathered a large sum of money from curious onlookers.

The cause of this monster was explained to us by a case that recently occurred at Parma. For the most Reverend Father Liberatus Magata, a Capuchin, reported to us that he had learned from the most celebrated physician Talaferro that a young man of about sixteen years of age had fallen into a tumour about the false ribs, which, being aided by suppurative remedies, at last indicated suppuration; when it was opened by the most excellent surgeon Talaferro it poured out an abundance of matter, and thereafter day by day, from the enlarged opening of the abscess, fragments of jaw-bone and of a great quantity of human skull-bone came out along with the pus. And so, the tumour being reduced and the ulcer brought to cicatrisation, the patient was restored to his former health. Those bones, therefore, which had issued from the tumour, when carefully joined together formed a complete human skull. Hence we cannot but conjecture that Nature at the very beginning of generation had produced a monstrous head in the interior part of the said young man — just as, in the outer part of the belly of the monster described and depicted, she had produced another head. Wherefore that internal head, having died — whether from a bruise or some other cause — Nature brought about its expulsion by means of an abscess.

Thus, as Nature can produce a two-headed monster, so likewise she can at times produce a three-headed one. Indeed Philostratus related that at the time when Apollonius came to Syracuse, a woman of no mean rank brought forth a memorable monster — namely a three-headed boy, since three necks supported three heads, while the remaining body of the infant was observed to be rightly formed and constituted. Whence afterwards many diviners foretold that Sicily, which is called Trinacria, would be sought. And so thereafter Nature, according to the opportunities afforded by causes, can generate monsters filled with yet more heads.

IX. We recall having once read that in the region of Novara a monster issued from an old woman with legs and feet like those of an ox, the rest of the body human, with seven arms and an equal number of heads fixed to one thorax; yet the middle head among the rest was endowed with a single eye and the ears of a goat, as may be seen in the figure presented.

Others have recorded that this seven-headed monster, resembling the Hydra, was born in the month of January of the year fifteen hundred and eighty-seven, in the region of Eusignin in Piedmont.

Likewise in the year of Our Lord sixteen hundred and twenty-five, at Bologna, printed by Nicola Tebaldini, a certain account was published of a seven-headed monster born beyond the power of nature from a woman inhabiting the town called Forìo di Giulio — Pordenone. This monster was horrifying and dreadful to those who beheld it, like the Titan Typhoeus whom Pindar described as horrible with a hundred heads, and therefore called him *ἑκατόνταρος* — that is, the hundred-headed. Aristophanes agrees with this in the *Clouds*, where he designates that same giant *ἑκατοντακεφαλατυφῶ* (hundred-headed Typhon). Yet the scholiast affirmed that a fixed number was used in place of an indefinite one by these poets. Moreover we consider these matters to be, as it were, fabulous in comparison with the seven-headed monster here proposed.

IX. Mon—

[catchword: Monster]

[marginalia: Caput qui Parma continetur / Cranium huius manum / Ab apostemato egressum / IX. / L. 3 de Vita Apoll. c. 4 / Monstrum triceps / Monstrum septiceps]

A seven-headed monster.

[Full-page engraving — no further translatable text]

THE MULTIPLICATION OF HEADS IN THE FOETUSES OF BRUTE ANIMALS.

Julius Caesar Scaliger, in his *Commentaries on the Books on Plants* attributed to Aristotle, reviews a number of monsters, among which he mentions a two-headed dog. Moreover Rha testifies that she once saw a three-headed dog. Wherefore the poets of old, having perhaps seen a similar canine monster, invented the three-headed dog of the Styx, which they afterward called Cerberus — that is, flesh-devourer — concerning whom the ancient poets sang:

> *With triple throat this one guards the cavern of Hell,*
> *to whom three tongues fate gave, and a head threefold.*

And although Hesiod in the *Theogony* attributes fifty heads to him, and Horace calls him a hundred-headed beast, it must nevertheless be known that this was written by learned men on account of the innumerable heads of serpents, which were reported to hang not only from the three heads but from the entire body. Moreover they proclaimed that this monster was begotten from another monster — namely from Typhon and Echidna. But let these things, said in passing, suffice.

Now, turning ourselves to what has been written, we shall encounter a two-headed pig, which is reported to have been born at Cerz in the year of the world three thousand seven hundred and sixty, of the same form as may be seen in the figure below.

But what is here divulged concerning the sow can be stated also of other brute animals. For, according to Lycosthenes, in the year of the world three thousand seven hundred and sixty-eight, at Suessa, a ewe brought forth a two-headed lamb.

II. Moreover, in the following year of the world, three thousand seven hundred and sixty-nine, Lycosthenes states, on Livy's authority, that at Ascoli a two-headed lamb came into the light with five feet, exhibiting that form which we give in the figure presented.

Furthermore, we at present can confirm the birth of these monsters by a more recent case that occurred at Bologna, in the year fifteen hundred and six: for a certain ewe belonging to the most illustrious Thomas Cospi brought forth a coal-black lamb furnished with two heads and two tails; it moreover had five feet as well, but the fifth adhered to the back. This is made clear by the account which the excellent Ovidio Montalbanus communicated to us. Moreover, the most excellent Giovanni Antonio Godi keeps at home the remains of a two-headed lamb with only two feet.

But why do we wander through a flock of two-headed lambs, when lambs furnished with three heads as well have come into the world? Paré relates that in the year of Our Lord fifteen hundred and seventy-seven, in the village of Blandy situated three miles from Melun, a three-headed lamb was born, and the middle head was thicker than the others, and when one bleated the remaining heads likewise bleated. A certain Jean Bellangerius, a surgeon of Melun, affirmed that he had seen this monster and took care to have it drawn and preserved.

III. But a more recent case is that which Job Fincel relates of a lamb, born at Halberstadt on the eighteenth day of February of the year fifteen hundred and fifty-five, with a threefold mouth: the head of this animal was round, resembling a three-headed creature, with a triple mouth, a double nose, and ears drooping on to the back, like the ears of a dog. What was most worthy of wonder was that in the third mouth a large eye and a long tongue were seen — which the painter did not render correctly. It is reported that it lived one day only, and with great clamour.

But far more two-headed foetuses have been produced by cows: for it is established that in the territory of Padua a calf was born with two heads and a single body, with the hindquarters and forequarters doubled. A certain man acquired this monster and was carrying it around, and many, as Schenck reports, had been observed to behold it.

IV. And yet, thinking it better to proceed through the multitude of monsters of this kind in the order of years and enumerate them individually —

[marginalia: Canis Inferorum / qualiter / Agnus biceps / Agnus biceps Bononiae / sobra Vacca biceps / Agnus ore triplici]

A two-headed pig.

[Full-page engraving — no further translatable text]

A two-headed lamb.

[Full-page engraving — no further translatable text]

A lamb with a triple mouth.

[Full-page engraving — no further translatable text]

IV. Thus, in the year of Our Lord one hundred and twenty, in Gaul, a two-headed ox is reported to have been seen, in that manner which is represented in the figure below. Similarly, in the year of Our Lord five hundred and seventy-three, at which time the Romans set in motion a war against the Persians, many prodigies portending Roman disasters were seen, and likewise at the beginning of that war, a calf was born whose neck supported two heads. Again, from Lycosthenes: in the town of Thurgau, in the year of Our Lord fourteen hundred and thirty-three —

[marginalia: IIII. Bos biceps]

[figure captions: V. A two-headed calf with the heads joined at the occiput.]

— three, a cow brought forth a two-headed calf; and this monster, for the sake of spectacle, was fixed at the gates of the town for the space of several days. Again, from the same author, in the year fourteen hundred and ninety-nine, a prodigious calf — that is, one furnished with two heads — was born at Cracow. This account we shall be able to confirm by a similar monster born in our own region; for in the year fifteen hundred and six, a certain cow belonging to Lord Francesco Buccaferrei brought forth a two-headed calf, and the two heads of the monster were joined at the occiput, according to the account most courteously communicated to us by the most excellent Montalbano.

[catchword: Non]

[marginalia: Vitulus biceps capitibus in occipitio copulatis]

A two-headed calf with four eyes.

[Full-page engraving — no further translatable text]

A depiction of a doubled calf's head.

[Full-page engraving — no further translatable text]

Of Ulysses Aldrovandi

V. A not dissimilar monster was reported to us as having been born in Milan in the year fifteen hundred and forty: for there was a calf possessing two perfect heads, each one of which was furnished with its own tongue, teeth, nostrils, eyes, and ears; but the heads were joined at the occiput, as the figure here presented makes clear. Of these two heads, one, being rounder, appeared to correspond to the male; the other, being more elongated, appeared to correspond to the female. The foetus was removed from the mother after she had been slain, because life was in danger for one who had prolonged labour so long. The monster lived for the space of half an hour in a tavern whose sign was the Crab. What came to pass afterwards following the birth of this monster, Cardanus recounts in detail, and to him we refer our readers.

In the following year, namely the fifteen hundred and forty-first, in a town of the island of Sardinia called Lagara, a cow brought forth a two-headed birth that same night on which Charles the Fifth, Emperor of the Romans, was about to set out on his expedition to Mauritania. Lycosthenes adds that in the year fifteen hundred and fifty-one, a two-headed calf issued from the darkness of a cow's womb in the month of December, in a village called Longo, not far from Freiburg.

In the following year, fifteen hundred and fifty-two, in a town of Lower Germany called Bonn, situated on the Rhine four miles from Cologne, in the month of May, there was born a calf with two heads indeed, but also with other parts doubled; so that it would more properly be called bicorporal. But of this we shall speak later in its proper place, when we treat of monsters with double bodies.

VI. Finally, Marcus Frischius left it recorded in his *Meteorologica* that, while the Imperial Diet was being held at Augsburg by Ferdinand, the royal majesty of the Romans, seven miles from the city of Augsburg, in the year of the Lord fifteen hundred and fifty-five, on the twenty-first day of May, a calf was born in a certain village called Lader, which had two faces and four eyes — two indeed in the forehead in the manner of cattle, but the others on the flanks — as the figure placed here in this location makes clear. The rest of the body afterwards was like a complete and perfectly formed calf. It did not live long: for as soon as it drew the vital air, it expired, as though recoiling from that very air.

VII. With more recent instances we are able to confirm the old accounts of monsters: and so in this place we exhibit the figure, drawn from life, of the twin-headed calf called Bina, which was born a few years ago at Morenzano near Venice with a double mouth, four eyes, and three ears — one of these ears having been produced by Nature in the middle between the two heads, while the other two were generated on the foreheads of both heads — as the attentive reader examining the figure will be able to perceive.

We further present for inspection another figure of a two-headed calf, whose two heads were furnished with a double mouth, but with four eyes and only two ears, as is shown in the second image; we have learned from trustworthy men that a similar calf was born at Rimini six years ago. To what has been said we add the report made to us by a Pole: namely that in Poland there was born a calf with seven heads, which lived for only two hours, and from each single head it stretched out a single tongue, as he related.

Indeed the heads of cloven-hoofed animals become remarkable and monstrous through variety, diminution, doubling, and any other such circumstance. For Ludovicus Bertheme published in his voyages — as Dalechampius records in his *Annotations on Pliny* — that in the island of Zeila, cows had been seen remarkable for a single horn; and Simon Maiolus, Bishop of Volturara, relates from Olaus Magnus that a wether was found distinguished by eight horns, and he adds that this was more worthy of admiration, since Albertus Magnus had marvelled at a ram furnished with four horns — although in Italy four-horned rams are exceedingly common.

But more marvellous than all the rest was a very monstrous head of a roebuck, an image of which was once sent by the Most Serene Duke of Bavaria, on which are counted seventeen horns, some branching and some not, which we judged to be monstrous. We therefore resolved to present this head for inspection on account of the variety and beauty of its horns, as is visible in figure VIII. This roebuck seems deserving of the name *polykeros* (πολύκερως), though on account of its fine and elegant horns it might also be called *kallikeros* (καλλίκερως).

[marginalia: Two-headed calf VI. / VII. / Marcus Frischius]

VIII. A Roebuck with many-branched antlers.

[Full-page engraving — no further translatable text]

VIII. The Two-Headed Chick

Furthermore, in the family of birds more than in any other class of animals, there is no lack of examples of monsters pertinent to our subject. For Albertus, as reported by Scheuchius, observed a two-headed goose; Aelianus, cited by Porta, relates that in the southern reign of Ocneus a two-headed crane appeared, and that under another king a four-headed bird was seen. Lycosthenes records the not dissimilar birth of a goose in the year of the Lord fourteen hundred and ninety-six: for in a certain village belonging to the territory of Strasburg, called Suigenhein, situated two miles from Strasburg,

[catchword: tina]

a monstrous goose was found in an egg, with two heads, as many tongues, only a single neck, and a double outlet for excrement.

We therefore present in this place two figures of domestic chicks which we have observed: for the one placed under number VIII was born with a twin head, with wings and feet only two in number; its back was of a pale whitish colour, its temples and neck yellowish, its breast and belly white, its shanks and feet chestnut. The figure placed under number IX, however, shows a monstrous chick with a double beak. For Nature intended perhaps to form a two-headed, that is a *dicephalon*, but in the end the material of the two heads having been gathered into one, she formed an *isorrhopous* chick — that is, one integrated with a double beak alone.

Furthermore, if we turn our attention to the family of serpents, we shall find that it too does not lack monsters of this kind; and although Aristotle declared in his treatise on the generation of serpents that errors rarely occur there, and consequently that monsters are seldom produced in this class of animals — because snakes have a very long matrix or womb, and the eggs therein descend one after another and not all at once, as is wont to happen in hens, whereby a twin birth in the eggs of snakes is rare, whereas it is frequent in the eggs of hens — nevertheless this does not prevent it from happening also in the family of serpents. For Aristotle himself mentions a two-headed serpent; and indeed Aelianus published that near a river called the Arcas, two-headed serpents sometimes wander, four cubits in length, with white heads and a body otherwise black.

XI. The Two-Headed Serpent

In the Pyrenean mountains, moreover, Arnold declares that a three-headed serpent was once slain. From this some conclude that the monster of the seven-headed Lernaean Hydra actually existed at some time in nature — which we have shown in its proper place to be fabulous. Likewise, Johannes Baptista Porta observed at Naples a two-headed viper, which moved both heads and extended forked tongues from each.

XI. Therefore we ought not to be seized with any amazement; for even today a two-headed serpent has been very carefully preserved by drying and delivered to the Most Illustrious Count Philippo Aldrovandi, senator of Bologna, where it is kept in the public Museum in the manner shown in this figure.

As for the family of Aquatic creatures, if we were permitted to examine them diligently and to explore their secret haunts, we should without doubt find far more monsters than in the other families — monstrous heads of fishes,

[marginalia: Arist. de gen. anim. lib. 4 cap. 4 / Aelian. / Two-headed serpent XI.]

A two-headed fish.

[Full-page engraving — no further translatable text]

as we would observe in those families. But since we cannot search the depths of those creatures, fewer of their monsters are thereby brought to light.

XII. Nevertheless, in this place we give for inspection the figure of a two-headed fish, which was caught in the Nile of Egypt, not far from a town called Latislana. This fish was nearly equal in size to a crocodile, and was of a pale whitish colour marked with whitish spots. It possessed two heads, as shown in the figure, and for this reason could be called *Dicephalos*, or two-headed; yet because it somewhat resembled two fish bodies furnished with only a single tail, this fish should properly be placed among monsters with double bodies rather than among the two-headed.

If we investigate the particular causes of the two-headed monster before proceeding further, we must note that these proceed chiefly from an abundance of the material of the seed. For when this material, destined for the constitution of some member — for instance, the head — is distributed into two parts by the force of the formative faculty, two heads will result in a single subject; while the same abundance of material destined for only a single head will produce very small heads. If it is destined for two, two heads will result, proportioned in magnitude to the subject.

This spermatic material is the surplus that remains from the excess nourishment of the parents' heads; and therefore, being abundant, it is sometimes divided by the faculty into two parts, and two-headed births are generated. Although afterwards a deficiency of the same material may also be the cause of a two-headed monster, and this is wont to occur when the material contained in the womb is insufficient for generating twins and yet is too abundant for a single foetus: then Nature, first turning to the procreation of the head, doubles the head on account of the abundance of material, and forms the remaining body, the material falling short, as single only. Hence it comes about that many monsters of this kind have been observed.

Others attribute this kind of monster to superfetation, when a new quantity of seminal material entering the womb is added to what was there before, so that some part of the foetus may be doubled there where this new material is deposited. But we consider it exceedingly rare that this could occur — that the part generated and doubled from the new supervening material, together with the first, could ever attain complete perfection. Nor can we be induced to believe that this could depend upon an effusion of the mother's seed without superfetation: since the force of the paternal seed, already occupied in procreating the first foetus, would be drawn away from the first operation if it were to act upon a new supervening seed.

To these causes must be added the narrowness of the womb, which without doubt appears in this case worthy of some consideration, and chiefly when the two-headed foetus emerges at a first birth. For when abundance of material in a narrow place, the principal parts having been formed — namely the heads, for forming twins — cannot be converted into the other doubled parts, because the cramped space will not contain them: at that point, therefore, of the doubled parts only one body will come to be, and a two-headed monster will be generated. And indeed it is true that the lower parts of such a monster are always wont to be rather thicker than is just.

Others refer the cause of monsters to monstrous parents, in the parts where they are found to differ from the rest. For if it should come to pass that both parents are tainted with some monstrous defect, a monstrous offspring will easily be generated: because Nature is exceedingly solicitous in perpetuating species. Although it is not always necessary that this should follow; for if the parents are two-headed, a two-headed offspring will not always proceed from them, since their heads will contribute so small a portion of material to the sperm that it may serve for the formation of only one head and not of a doubled one. Nor can the abundance of nourishment supply the cause of two-headedness: since a foetus already generated in the womb will be able indeed to convert abundant nourishment into nutrition and thereby enlarge its members before the appointed time, but will not be able to double the parts. This is often observed in children whose heads have grown to an enormous size, the nourishment having been drawn by a great attractive force to the head or continually supplied from the other lower parts.

Nor should the cause of two-headedness be referred to the mental affections of the parents, as some have maintained: because the thoughts and imaginings of the parents reside only in the substance of the spirits, and therefore cannot in any way constitute a monster admirable for its superfluous parts. It will remain, therefore, for the causes assigned in the first place to be taken up;

[marginalia: XII. Two-headed fish — Causes of two-headed monsters — Abundance of material — Superfetation — Narrowness of the place — Monstrous parents — Mental affections]

THE GENERATION OF A FOREIGN HEAD IN THE HUMAN FOETUS

Ambroise Paré has left it recorded that the wife of one Michael, who was employed by an engraver, gave birth to a monster whose face resembled the head of an unfledged bird; but the foetus was dead, because she had brought it to light before the time of birth. But this ought not to cause us any great wonder: for the Most Eminent Cardinal Peter Damianus, Archbishop of Ravenna, left it written that Robert, King of France, had contracted marriage with a kinswoman, from whom he afterwards received a monstrous daughter, namely one with the neck and head of a goose. Thereupon, this having been observed, nearly all the bishops of France with one voice forbade the sacraments to the king and his wife; and the king, oppressed by these straits, returning to sound counsel, abandoning the incestuous union, embraced a lawful marriage.

Thus far we have observed foreign heads from a very remote genus in the human foetus. Now, if we approach to a nearer genus, examples and cases will not be wanting. First, Aristotle records a child born with the head of a ram, and Ambroise Paré reports a girl born with the head of a lion. Lycosthenes wrote in his *Chronicles* that in the year two hundred and six before Christ, at Sinuessa, there was born a boy with the head of an elephant. This is also related by Polydore Vergil in his history; but more recently, on the report of trustworthy men, this case occurred in Hungary, where, in the year of the Lord fifteen hundred and sixty-five, a woman gave birth to a child with the head of an elephant, the rest of the body well formed, as may be seen in figure I.

But proceeding further and ranging through the herd of four-footed digitigrade animals, we encounter a dog's head joined by Nature to a human foetus. For in the year of the Lord nine hundred and fourteen, as is read in the *Fasciculus Temporum*, a woman brought forth a birth human in body indeed but with a dog's head. Likewise Vincent, in his *Mirror of Nature*, relates that in his own age a monstrous man — namely one with a dog's head — was brought before Louis, King of France. Besides which, we remember to have read that the wife of Cornelius Gallicanus, at Rome, gave birth to an infant with the head of Anubis — that is, with a dog's head. Now Anubis was the god of the Egyptians, depicted with a dog's head; and by this image they understood Mercury, because nothing is found more sagacious than a dog. Virgil mentions him:

> *All the manifold monsters of the gods, and Anubis the barker.*

Since the poet calls Anubis the barker, we understand without doubt that he was depicted with a dog's head. It is not therefore to be wondered at if here is presented for inspection figure II: the infant with a dog's head who, according to the chronicler Lycosthenes, was born in the year fifteen hundred and fifty-six at Basle of the Rauracians, with a body well enough compacted but a bestial head, and the monster lived for about half an hour. Those who saw the monster reported that this monstrous head of the foetus represented the head of a dog, or a cat, or a monkey. To us, however, this image seems to present a *cynocephalus*.

[marginalia: Arist. de gen. anim. / Ambr. Paré / Lycosthenes / Polydorus Vergilius / Fasciculus Temporum / Vincentius in speculo naturali / Anubis / Virg. lib. 8 Aeneid. / Lycosthenes Chronol.]

A boy with an elephant's head.

[Full-page engraving — no further translatable text]

An infant with a dog's head.

[Full-page engraving — no further translatable text]

THE GENERATION OF FOREIGN HEADS IN THE FOETUSES OF BRUTES

In examining and investigating this heading, we have thought it worthwhile to consider all kinds of four-footed animals — namely Solidungulates, Cloven-hoofed animals, and Digitigrade animals — since in all of these we shall find monsters of this kind.

As regards Solidungulates, Plutarch in his *Symposium* relates that there was shown to him the birth of a mare which, except for the head, resembled the equine form, the head representing a human face. But more recent is that equine monster which, according to Lycosthenes, was born in the year of the Lord twelve hundred and fifty-four in the territory of Verona, at the time when there was fierce fighting at Mount Altino between the combined forces of the Florentines and Pisans. For at that time a foal was born of a mare with a human head; and a certain countryman who ran up at its murmur or cry, astonished by this new spectacle, instantly drew his sword and cut off the head of the monster. For this reason the herdsman was brought before a tribunal and, being questioned about the origin of the monstrous birth and the cause of the killing, testified that he had done it out of horror and detestation of the thing. This monstrous horse is shown in figure I.

Schenkius moreover, in his work on monsters, recounts two separate histories of this monstrous horse — one following the account of Ambroise Paré, and the other after Lycosthenes — but we think that both tend toward one conclusion. Mussatus also, the historian of Padua, mentions an equine foal with a monstrous face born in the territory of Verona; and when a rustic man in whose hut it had been born had looked upon it, he straightway killed the monster and fixed the head on the point of a stake for the spectacle of passers-by. We consider that this monster does not differ from the one just described, though these accounts are recorded at different times.

Now proceeding to the family of Cloven-hoofed animals, the first we meet is Aristotle, who recorded in his *Historia Animalium* that there was born a child with the head of a ram, and a calf with the head of a child. And Albertus Magnus mentions a cow which in a certain village gave birth to a calf with a human face. Indeed in the village of Kleisdorf, not far from Bamberg, according to Fincelius, a cow brought forth a monster with four calves' feet, with a beard at the chin, with human ears likewise, and with a little hair. Then we encounter a calf found in the field of the town of Bitterfeld, in the year of the Lord fifteen hundred and forty-seven, with human eyes, nostrils, and ears; the crown of the head shorn; the mouth, breast, and forelegs of a calf; the hind legs human and shorter, but both sets ending partly in calves' hooves and partly in human toes which were beneath the hooves and hung separately. This monster Caspar Peucer described in his *Terratoscopia*, as it appears in figure II below.

Lycosthenes also records in his history that this occurred in the year mentioned. But more recent than these is that birth of this kind which Fincelius relates as having happened in the village of Rossau in Pomerania, near Pasewalk, in the year of the Lord fifteen hundred and fifty-five — a calf with a bald and round head like a monkey's, with a hairy chin and a protruding tongue.

In this family there were also sheep which gave birth to lambs with foreign heads; wherefore Titus Livy relates that at Frusino, in the seven thousand seven hundred and sixty-sixth year of the world, a lamb was born with a pig's head. Likewise, from Julius Obsequens, in the eight thousand eight hundred and sixty-first year of the world, under the consulship of C. Marius and Q. Lutatius, in Lucania two lambs were born with horse's feet, but one of these had the head of a monkey.

[marginalia: I. Monster horse / Plutarch in Symposio / Lycosthenes / Mussatus Patavinus lib. 7 de Cæs. / Arist. Hist. anim. / Albertus Magnus lib. 4 de gen. anim. cap. 4 / Fincelius / Caspar Peucer in Terratoscopia / II. / Fincelius / Monstrous sheep / Titus Livius Decad. 4 lib. 1 / Iulius Obsequens]

A foal with a human face.

[Full-page engraving — no further translatable text]

A calf with a nearly human head.

[Full-page engraving — no further translatable text]

A goat with a human face.

[Full-page engraving — no further translatable text]

Likewise, under number III, we give the figure of a goat with a human face, of which Caelius Rhodiginus relates the birth in the year of the Lord fifteen hundred and forty-seven at Sybaris, from the coupling of a shepherd with a she-goat; the chief goatherd, moved by jealousy, afterwards killed the shepherd while he slept, by goring him with the horns.

Swine are to be placed in this class of cloven-hoofed animals; they at various times have given birth to foetuses with an entirely foreign head. For in the year of the Lord one thousand and ten, as the chronicler Lycosthenes relates, a sow gave birth to a pig with a human face. At that same time great disturbances of war were stirred up throughout England and Ireland. Polydore Vergil in his *History of England* is to be read, where he records that in the reign of Henry the First, when the first bishop of Ely was created, many prodigies were seen, and among others a sow gave birth to a foetus remarkable for a human face.

Likewise in the year of the Lord one thousand and eighteen, according to the same Lycosthenes, a sow brought forth a piglet furnished with a human head, and in that year a most dreadful pestilence spread.

Again from the same author: in the year of the Lord eleven hundred and nine, in the parish of Liège, a sow gave birth to an offspring with a human face, as may be seen in figure III below; at which time Philip, King of France, and Anselm, Archbishop of Canterbury, departed from this life. Finally, according to the history of the same Lycosthenes, in the year of the Lord eleven hundred and eighteen, in France, a piglet with a human head was born of a litter of swine.

Furthermore, Ambroise Paré, in his history of monsters, mentions a pig — following the account of Lycosthenes — born in a certain village of the Eburones, in the year of the Lord eleven hundred and ten, which had human head, and feet both fore and hind that were also human, as figure V shows; although we have afterwards not found this account in Lycosthenes.

Again, Ambroise Paré recounts a more recent case of an animal of this kind, which occurred in the year of the Lord fifteen hundred and sixty-four, at Brussels, where a sow gave birth to six piglets; the first of which was monstrous, for it represented a human being in head and forelegs and shoulder-blades, and in all the rest of the body a pig — indeed it even had the genitals of a female swine, and it sucked the teats after the manner of the other piglets. But on the second day after its birth, the populace, stirred by horror of the monster, ran it through together with the mother. Its figure is VI.

More recent is the history of a pig with a human head born in Cyprus, on the authority of Schenkius, in the year of the Lord fifteen hundred and sixty-nine, on the twelfth of December. The monster was such as is shown by figure VII. The whole body was that of a true pig, naked and without hair; the head bore a human likeness, and from its forehead rose a crest resembling a cock's comb, which covered part of the eyes and part of the nose. The ears were like human ears. It was reported that the monster was born of a sow, together with four other piglets resembling the mother.

Turning now to digitigrade quadrupeds, we encounter the monstrous birth of a lion with a human head, as figure VIII shows. This foetus, as Lycosthenes the Chronologer attests, was born in the territory of Constance, of a woman, in the year of the Lord eleven hundred and ninety, at which time the Emperor Rudolph was reigning.

Indeed in our own age, says Cornelius Gemma, a dog was born with the head of a hawk, as figure IX expresses; this was carried about by some person for the public to see, and the assertion was made that this monster had been born from terror. For this reason the same Cornelius Gemma marvels at the great force that imagination possesses in generating monsters — that the incredible power of the same fantasy should befall even brute animals, as is observed in the aforesaid dog. These matters concerning quadrupeds having been noted, some turn to serpents, and report that a child has sometimes been born with the head of a serpent, and conversely that a serpent has been born with the head of a man. But this they have drawn from the book *De Natura Rerum*, where it is recorded of a certain serpent with a maiden's face — on the authority of Bede — that the Devil assumed the form of a serpent with a human face, in order to deceive our first parents in the earthly Paradise.

Before we come to the vitiated figure and conformation of the head, we must investigate the causes —

[marginalia: III. Goat with human face / Caelius Rhodiginus / Sows / Lycosthenes / Polydorus Vergilius / Item Lycosthenes / Caput gallinaceum / IV. / V. / VI. / Crest of a cock / VII. / VIII. / IX. Infant with serpent's head / Cornelius Gemma]

A swine foetus with a human countenance.

[Full-page engraving — no further translatable text]

A beast with a human head and human feet.

[Full-page engraving — no further translatable text]

A pig with a human forepart.

[Full-page engraving — no further translatable text]

A pig with a human face and a crest.

[Full-page engraving — no further translatable text]

A lion with a human head.

[Full-page engraving — no further translatable text]

A dog with a bird's head.

[Full-page engraving — no further translatable text]

of generating various heads in foetuses we shall investigate. Among these the first place is occupied by the weakness of the generator: and this debility, since it admits of latitude, can also assume various degrees. A weak progenitor, therefore, the conforming virtue being feeble and the material to that extent dominant, will indeed procreate a male human being, but one not fully like him in figure. But when the vigour of both — that is, of the virtue and of the individual — is increased with respect to sex, then a foetus not like to him in form, nor male, but a dissimilar female will result. But if together with the weaker virtue of sex the power of the individual is strong, a female dissimilar in the extremities of the body will be procreated. Finally, from the feeble virtue of the seed there will emerge a foetus similar not to a man but to an animal, either in part or in whole.

Hence learned men rightly conclude that monstrous births proceed from women when the power of the male falters — which defect is various according to the greater or lesser degree of debility. And this error or defect is observed now in the head, now in other parts, insofar as that portion of the seed is diseased which was dedicated to the constitution of the head or of another part. But when this languor reaches its utmost degree, then no animal will be procreated, but a mole, or the pure seed itself, infertile, will be shed.

Then, when the virtue of the seed takes on a foreign nature, monstrous foetuses resembling the species of some animal different from the nature of the generating parents come to light; and therefore from a legitimate union some brute will be engendered. But if only a portion of that same seed takes on a foreign nature, then either the head alone, or some other part of the foetus, will represent the head or some other part of a brute; and what we affirm of man is to be understood of other animals also.

Hence it is made clearly evident why sometimes a human foetus is born with the head of a monkey or a dog, and why sometimes a dog is born with the head of a hare. This is the doctrine of Aristotle, who in the *Problemata* taught that monsters are produced from seed corrupted in the womb. By corrupted seed, however, he did not mean putrefied seed, but seed which has taken on a foreign nature through the languor of its virtue; and for that reason an animal similar to the vital seed is not generated. Although later, from seed actually putrefied in the womb, animals are indeed generated — but rather imperfect ones, such as worms, shapeless serpents, and frogs.

And so the seed degenerates in the womb just as grain sown in the earth by farmers sometimes degenerates — to the great loss of the husbandman — into darnel.

Again, the material principle of the foetus may be the cause of the monstrous foetuses described above. For Aristotle assigns this to an evil disposition of the material of foetuses; since acts of active things are not brought to perfection except in a patient most aptly disposed, and all things that are received are always received in the manner of the recipient. Therefore a not-at-all-languid agent, not degenerating from its own nature, when it takes hold of material perfectly disposed, produces an effect most like itself — namely one formed according to the conditions of the generic, specific, and individual nature. But conversely, if the same agent encounters material that is not at all suitable, and less apt to receive individual endowments, it then procreates something like in specific essence, but not in the individual.

When, however, the material is possessed of yet greater inaptitude, with no tendency whatsoever to receive the conditions of the specific nature, it will take on a foreign form; and then a complete animal of a different species will result. But if only a portion of this material should lack the aforesaid prerogatives, then a monster will emerge possessing a part — for example, a head — foreign to its proper species, provided that portion of material was destined for the head. And when many portions of the material are alien to these prerogatives, then equally many parts of the foetus will take on the form of the members of an animal of another species. At the limit, from material altogether destitute of aptitude, pieces of flesh and moles are generated in the womb, as was explained in its proper place.

Again by the doctrine of Aristotle, this monstrous defect will be attributable to the nutritive virtue; for this, when it cannot perform its proper function in assimilating nourishment to the parts, the human form of the parts is without doubt corrupted. For if we reason by the same proportion, we shall say that just as the formative virtue of the conception, oppressed by debility, cannot imprint the human image in some portion of the material — and then a foreign figure is generated there — so likewise the nutritive virtue, assimilating nourishment,

[marginalia: Another cause / Sedul. lib. 4 Probl. prob. 13 / Disposition of material / Virtue of nutrition]

when it languishes, cannot perform its proper function; and for this reason the parts are rendered monstrous.

Moreover, if the nutritive virtue can be a cause of monstrousness, the alimentary material likewise is not to be excluded from the same defects: since an evil disposition of this alimentary material, without any defect of the nutritive virtue, can imprint a monstrous form upon some part both within and outside the womb; since every form, as was set out a little before, is received in the manner of the recipient. Therefore, when a portion of nourishment adhering to some member lacks the disposition to receive the figure of any particular part, that part will be rendered monstrous both outside and inside the womb.

To this must be referred imagination: for just as it often comes to pass that the fruits which a pregnant woman more vehemently craves are afterwards found imprinted in the foetuses, so in like proportion a woman carrying in her womb, if she should be gripped by a powerful desire to eat the feet of a calf or of a lamb's head, the signs of this appetite are imprinted upon the foetus; and for this reason infants are sometimes born with a calf's foot, and sometimes with a lamb's head.

We have learned that this happened at Bologna three years ago from a trustworthy midwife: for a certain wife of an apothecary, being pregnant, had often looked through her window at skinned lambs hanging in the open air at the neighbouring houses, and had desired them; and at last she gave birth to a child with a large lamb's head, to the great grief of those related to her, but it did not live long.

The same must be affirmed if pregnant women should observe various kinds of wild beasts. But this monstrous fantasy is to be attributed more to the mother than to the father: for women can retain some image hidden in the mind not only at the moment of coupling, but also after coitus — that is, throughout the whole time of carrying in the womb — since women are always inclined to adhere to more violent imaginings. In years past also, a Sicilian noblewoman, as Licetus relates, having caught sight of a lobster freshly caught from the sea in the hand of a fisherman, at last at the time of delivery gave birth together with the foetus to something entirely like a sea-lobster.

Nor are the parents to be excluded from the causes of this kind of monstrousness: for if both of them shall have been endowed with various members alien to human nature, monstrous births may also emerge from the union of them both — since Nature always strives to procreate something similar to itself in essence. Indeed they maintain this to be the chief reason why in the region of Africa very many monsters of this kind are engendered.

Again, from the causes of these monsters, illicit sexual intercourse is not to be removed: for since historians and the doctrine of Aristotle take the same view — that women have sometimes lain with brutes, and men have mingled with brutes — we ought not to be seized with any amazement if sometimes from women there have emerged infants marked with the heads of brutes, and if sometimes from brutes there have emerged foetuses furnished with a human head or other human members. For Aristotle stated this plainly in his books *On the Generation of Animals*, when he wrote that from this abominable union monsters could repeatedly arise, provided that the nature, size, and time of gestation of the coupling animals did not greatly differ from one another. For if afterwards the contrary should occur, it is to be maintained that rarely, or never, would a monstrous offspring of this kind arise. For this reason Pliny, Aelianus, Maiolus, Lemnius, and Cornelius Gemma have left it recorded that foetuses have sometimes proceeded from the coupling of humans with wild beasts.

Nor should anyone persuade himself that from animals of different species a third species can always emerge; since the matter must be judged by the dominance of the seed. For if the seed of one parent should prevail, it will produce an offspring similar in essence to its own species, but with the accidental characteristics of the other. But if the seeds should be joined in a fitting proportion, a monstrous third species will result, provided that the natures of the parents — for example, of a man and an ox — do not greatly differ from one another. But if the difference in nature is not of any considerable moment, as between horse and ass, or between dog and wolf, then a not very monstrous offspring will proceed from these parents; and this offspring Aristotle also admitted, when the times of gestation agreed.

These things thus understood and expounded, attending also to the account of Aristotle on the origin of a birth from the intermingling of humans with wild beasts — which sometimes reflects the nature solely of the mother, sometimes of the father, and sometimes of both — we may reason about the matter thus: when a perfect foetus emerges from the abominable union of human and beast,

[catchword: inde]

[marginalia: Imagination — its quality / Women imagine more vehemently / Monstrous parents / Illicit intercourse / Plin. lib. 7 cap. 2 / Aelian. / Third species — its quality / Arist. lib. 2 de gen. an. cap. 6]

this comes about because the male seed perfectly prevails over the female, and by this means a male child is said to have been born of a cow. When, however, the foetus contracts a resemblance to the mother, this happens because the seed of the man who acts is feeble; by reason of which the material, not being rightly mastered, cannot imprint upon it its own image, and then the birth turns out to resemble the beast and not the man.

Finally, if in the union of a man and a brute the bestial seed should be more powerful in procreating the upper parts, and the human seed powerful only in generating the lower parts, then there come into the world monsters furnished with an ass's, or a dog's, or a calf's head. Although we might also affirm that in the womb of the beast, and in the womb of the woman, the seeds of both received there — whether by the coupling of the man or by the coupling of the beast — are mingled on account of the narrowness of the place; and thereafter, from this material united together, a beast with a human head and a man with a bestial head can arise, as the reader is able to observe in the figures presented.

Finally, as a crowning conclusion to these causes, we affirm that the power of the Demon is not to be passed over: he, by deluding the senses of those who behold, can represent a man with a lion's head. Indeed he is sometimes able to remove the true birth and, having brought a monster from elsewhere, secretly to substitute it beneath a woman in labour. Furthermore the Demon, with God's permission, can bring all the natural causes of a monster into the womb; or can so weaken the virtue of the sperm that the foetus proceeding from it is not like its parents. Or at times he can so corrupt this spermatic material that the members only of some imperfect animal are formed in the womb. Nor would we stray from the straight path if we were to say that the seed of an animal of a differing species can be conveyed into the womb by the Demon, so that monstrous foetuses with the head of a monkey, or with the head of a calf, might thence arise.

Unless we are willing to affirm that by the power of the Demon the foetus of some brute can be joined to a human foetus. Besides which, the Demon, afflicting the foetus with ill health, can disfigure it into a bestial form. And finally, he can communicate some horrible spectre to the fantasy of the parents, so that a birth marked with some bestial head may in due time go forth into the vital air.

THE FOUL CONSTITUTION OF THE HEAD

Hitherto we have spoken of the doubled head and of the foreign head, both in human foetuses and in those of brutes. Now we must discuss heads that are remarkable for some notable mark, yet do not depart altogether from the proper species.

First, if we weigh the hair, we recall having seen some years ago a foreign woman so abundantly furnished with hair on her head that, when the tresses were let down, they reached to the ground; and she therefore went about on a circuit for profit, displaying herself to the people with great admiration by letting her hair loose.

This we have also observed as something worthy of wonder in brutes: for three years ago the horse of the Most Illustrious Lord Count Philippo Aldrovandi, senator of Bologna, died, whose mane hung down so far as to reach the ground; and in walking it swept the ground with it, and perhaps on account of its longer mane this horse was called *Bella Donna*.

Furthermore, a boy was born with a beard in the year of the Lord three hundred and eight, at Antioch, in the age of the Emperor Constantius; we have treated of this monster in the section on Portents. The portrait likewise of a German woman is kept in the Museum of the Most Illustrious Senate of Bologna — a woman who in past years was led about for all to see on account of the remarkable beard which she wore hanging down to the belly.

Moreover, infants have been born remarkable for teeth — that bearded boy, of whom we made mention a little before, being one, in the year of the Lord three hundred and eight. Then Titus Livy records that a girl with teeth was born at Uxentum. Likewise, from Marcello Donato, in the year fifteen hundred and seventy-two, a certain daughter of a tailor, with three —

[marginalia: Women with very long hair / A horse with a very long mane / Bearded woman]

An infant with a hedgehog's head.

[Full-page engraving — no further translatable text]

An infant with an obscene countenance.

[Full-page engraving — no further translatable text]

emerged from the maternal womb with three teeth. In our own age we have likewise observed a small boy perfectly formed in all his members, and somewhat large, born with four teeth. Yet still greater admiration ought to be aroused by those who had, in place of teeth, a continuous bony ridge: for Cardano, among memorable things, records a noblewoman residing in the household of the Prince of Luxembourg, who had a double ridge of bone in place of teeth.

All of this, however, seems of small account in comparison with what must next be said concerning the malformed and misshapen heads of infants. For sometimes certain persons have been born with a Thersitean head, which has struck those who beheld them with both terror and wonder at once.

Thersites was a certain Greek man who, as Homer wrote, could not be imagined more deformed than he was. For this reason we at present call a deformed head, disfigured by various marks, a Thersitean head — as the reader may observe in Figure I. For indeed in the year one thousand five hundred and fifty-four after the birth of the Virgin, an infant was born at Stettin, as Lycosthenes reported, who seemed in some manner to resist the priest who was about to consecrate him with the sacred font of Baptism, through various agitations of the body and cries; but the priest, having poured forth prayers to God, dipped the same child in the holy water.

The boy had upon the crown of his head a mass of flesh resembling the shape of a red tortoise, and toward the neck a fleshy tail of oblong form, like the tail of a mute creature; his head was Thersitean, and his eyes prominent.

There must also be mentioned here that boy born at Venice in the year one thousand four hundred and eighty-seven, who had a genital member grown upon the crown of his head: on account of this obscenity his parents did not dare to carry him out in public. But still more remarkable was a boy recently born in the territory of Modena, with the testicles and scrotum — full of urine — attached to the back of his head; wherefore an Orchitomus was summoned to remove this deformity, and at once with great skill cut away this protrusion, and by applying the proper remedies expected the boy's complete recovery. But immediately, the urine being suppressed, the infant perished: from which it was understood that these superfluous parts attached to the back of the head had maintained a great sympathy with the other genital parts and with the bladder.

Figure II. We add the figure of a boy of obscene countenance, who was born, as Lycosthenes relates, in the year one thousand five hundred and fifty at Freiburg, with a hard and prominent mass of flesh about the forehead and occiput, which disfigured the entire head of this otherwise well-formed infant. Not unlike him was a monstrous boy as regards a mass of flesh growing from the forehead in the shape of a horn, whose description the most distinguished man Giovanni Agostino Cucchi, a most practised soldier of the medical arena and a man most zealous for truth, kindly communicated to us. This boy was born at Bologna in the Via di San Felice in the year one thousand six hundred and thirty, in the month of April, shortly after which, in the following month, a plague began to rage; this infant had all the parts of its body aptly formed and constituted, save for its head, the middle of its forehead being occupied by a horn composed as it were of flesh. In the face there was visible only one eye socket, with a large eye, and no nose. The opening of the mouth was round and so narrow that the child could not seize the nurse's breast; rather, for the sake of nourishment, milk was instilled through a small tube fitted to the little orifice.

Formerly also in Germany, namely in the year one thousand five hundred and twelve, in a village called Elceffelbach, there was born of a peasant's wife an infant with a most narrow opening for a mouth; then the entire face resembled a mass of flesh, in the middle of which sat what looked like a small dagger fashioned of the same flesh; beneath this mass of flesh were set two large and dissimilar eyes; wherefore by reason of this deformity it was not consecrated with the water of the sacred font, but was buried alive.

From the obscenity of these heads we must not remove that monster born in the city of Fermo in Italy in the year one thousand six hundred and twenty-four: for it was a girl perfectly constituted in all her members except for the head, which was horrible to behold, with a wrinkled forehead, beneath which certain orbits could be seen lacking eyes; and in place of the nose a pear-shaped piece of flesh occupied the middle of the face; beneath this mass of flesh there was a square-shaped patch of reddish skin, which on either side imitated — as it were — the eyes of a hen.

[catchword: dentzabat]

[marginalia: Boys born with teeth. / Thersitean head. / Monster born at Stettin. / Monster born at Bologna. / Monster born with one eye, without a nose. / Monster in Germany with a narrow mouth.]

A girl lacking nose and eyes.

[Full-page engraving — no further translatable text]

Another girl lacking eyes and nose.

[Full-page engraving — no further translatable text]

A monster with three legs and four hands.

[Full-page engraving — no further translatable text]

A girl with ox-like eyes.

[Full-page engraving — no further translatable text]

one dark eye was visible in the occiput, while another, bright and human, was seen above the coronal suture — but without eyelids or lashes, the place of which was supplied by the hairs of the head.

If we now turn to those monsters which are reported to have been born without eyes: Pliny, in the first place, narrates that there was once reared in Egypt a man without eyes in the front part of the head, but that eyes were in truth visible at the back of the head; and this seems to have come about through a weakness of nature, inasmuch as the woman, worn down by illness, was unable to transmit the eyes to the front part of the head, it being clearly established from anatomical inspection that the origin of the optic nerves resides in the occiput.

But Cornelius Gemma records a female infant entirely lacking both eyes and nostrils, whose figure appears in Figure II.

Likewise, from the historian Lycosthenes, a boy was born in Hesse with all his members rightly constituted, but monstrous in the head, because he lacked eyes, nostrils, and ears; so that in his face only the mouth could be seen. Again at Rimini, ninety-one years before the birth of Christ, a small boy came forth into the vital air without eyes or nose. Likewise on the tenth day of May in the year one thousand five hundred and fourteen, there was brought to the church of Saint Dominic at Bologna the daughter of some unknown citizen, to be reborn through the Sacrament of Baptism, who lacked both a nose and its openings. Finally Rufus adds the figure of another girl who was born without eyes or nostrils, as is made clear in Figure IV.

Just as Nature, as has been explained up to this point, is sometimes deficient in forming eyes, so conversely, in producing the same, she is sometimes superfluous. For we find in Marcellinus that in the year of the Lord three hundred and eight, a boy was born at Antioch distinguished by four eyes, and likewise at Rome in the year one hundred and twenty-three a boy furnished with four eyes emerged from a female slave. Moreover Amatus Lusitanus confirms this by a monster born at Ancona: for there a woman in the third month of her pregnancy brought forth a small body remarkable for four eyes, with lips so deformed as to be a wonder to all who beheld it. Indeed, in the month of January of the year one thousand five hundred and fourteen, the wife of Domenico de' Malatendis, called the *Communisquatro*, brought forth a girl with two openings in her face and four eyes; and the most eminent Cardinal de' Grassi, then Bishop of Bologna, purified her in the celestial font and called her Maria; but she prolonged her life to the fourth day only.

Here therefore we present a monster furnished with three eyes, which we suppose to have been born, like the birth of other monsters, by reason of an impediment of matter ill disposed. Although others report, from Lycosthenes in the Chronological Appendix, that monsters with three eyes and four hands, large mouths and nostrils, broad and round ears, are found in certain parts of Arabia; where the males are said to have breasts as large as those of women, so large that they can scarcely cover them. They clothe themselves in the skins of beasts, go without shoes, and are reported to have feet without toes; and they assert that men of this monstrous kind are called Sterlochi. They have a large mouth because they are voracious, for they feed on half-cooked flesh. Concerning these and similar peoples, one must read the Rubric of the differences in the first chapter of this book, where Figure V was to be placed.

But if Nature, in forming infants, produces only two eyes, she sometimes so deforms them that they resemble the eyes of beasts rather than of men — as is observed in Figure VI. For this was a monstrous girl born at Strasbourg, the noble metropolis of Alsace, with a wide mouth, an aquiline nose, bovine and prominent eyes, in the year of the Lord one thousand five hundred and forty-four. For at that time, as Lycosthenes rightly notes, the Emperor Charles V occupied Africa through his Spaniards.

If we proceed to enumerate the obscenities of noses, we shall fall upon a certain monstrous and two-faced effigy that is reported about. This creature bore on each side of its face, in place of a nose, a male member, with testicles in place of a chin; and at the end of the prodigious nose twin eyes could be seen; the sex of this monster was uncertain, but they report it to have been born before the King of France, in the previous century, led his forces into Italy.

A not dissimilar obscenity was recently observed at Parma, in the monstrous birth of the wife

[marginalia: Multiplication of eyes. / Monsters lacking eyes. / Monsters with four eyes. / Monsters without eyes or noses.]

VII. An infant with split nostrils.

[Full-page engraving — no further translatable text]

VIII. An infant with hare-like ears.

[Full-page engraving — no further translatable text]

of a certain baker, born in the month of September of the year one thousand five hundred and ninety-four. This boy lived two hours; he lacked a nose, but on his forehead he bore two testicles together with a portion of flesh resembling a penis; moreover each hand of the infant was furnished with six fingers, and the anterior part represented the male sex while the posterior represented the female sex.

Furthermore, in the third part of the History of Portuguese India we read that it is rare for infants in those regions to come into the light marked with any sign of deformity; nonetheless sometimes, at the distance of a mile from Pitatining, there was born a monstrous girl who bore a nose extended as far as the chin, and her mouth was visible beneath the chin. But her father buried her alive — the mode of death by which they are accustomed to punish those whom they suspect to be tainted by the suspicion of adultery.

Thus far we have spoken of obscene and excessively prominent noses. Now we must treat of monstrous infants who have been born with open nostrils: for indeed, according to Lycosthenes, in the year one thousand five hundred and fifty-six, around the feast of Easter, a boy was born at Basel with nostrils so wide open that the spectators could easily see the infant's brain through them, as Figure VII shows.

Now something must be reported concerning ears, since infants have been found born without ears — as happened at Basel, according to Lycosthenes, where a male infant lacking ears was born in the month of September of the year one thousand five hundred and fifty-six; and in place of ears two small slits appeared, but so closed that the boy could hear nothing. The infant lived in poor health until the month of August, at which time, tormented by severe pains, he perished.

Furthermore, human infants have sometimes been born with the ears of brutes; and the most distinguished Columbus confesses in his book of Anatomy that he observed a birth of this kind. Then at Königsberg, in the year one thousand five hundred and ninety-three, a male infant was born with a hare's ear, together with a portion of flesh like a cap, as Schenck noted. Likewise at Eusigij in the new land beside the banks of the Danube, a monster was seen with a human face and the ears of an ass.

Again in a suburban village of Cracow, in the month of November of the year one thousand four hundred and ninety-four, a woman, as Lycosthenes relates, bore a fetus distinguished by hare's ears, the true likeness of which monster Figure VIII makes known.

Human infants are born moreover with the head disfigured by horns: for Amatus Lusitanus mentions a boy born with a small horn upon his head, and as the boy grew, the horn also grew, and the boy begged his father to have it removed from his head, because the other boys called him horned; the rest of this history the reader may see in the Rubric of the Diseases of the first chapter of this book.

Then formerly in Chieri in the Piedmontese region, namely in the year one thousand five hundred and seventy-seven in the month of January, a monstrous boy was born with a head distinguished by five horns, and from his occiput a certain mass of flesh hung down, of which we shall speak in its proper place. Likewise in the town of Reifstadt in the Noric Alps, which the inhabitants call the Tauern, there was born a horned infant, as Figure IX shows, in the year of the Lord one thousand five hundred and fifty-one.

In the village of the March of Dammenwald, near Wittstock, the wife of a certain peasant brought forth a monstrous birth, namely a horned infant, which Fincelius described as follows, as reported by Lycosthenes. The infant was of a dark chestnut colour throughout its body, its head furnished with rather long horns, with thick eyes and lacking a nose, with a very wide mouth, in the middle of which a white, four-cornered tongue could be seen; and the head adhered to the shoulders without a neck; then the whole body was swollen and wrinkled, the arms attached to the sides, the feet long and slender, and finally from the navel there hung down to the feet a structure resembling the large intestine — as the reader will be able to contemplate in Figure X.

We were pleased, in confirmation of the foregoing, to add another human monster furnished with ram's horns, which was brought from France into Italy: it lacked a nose and neck, and the lower jaw was joined to the sternum; its head had ears and horns, but the horns bore the form of a ram's horns, as Figure XI makes plain.

Before we descend to the other parts of monstrous infants, something must be said about lips —

[marginalia: Head disfigured with a nose-like growth. / Adulteress punished with burial in those parts. / Monstrous births with ears. / Century 6, number 97. / Monsters with horns born at Königsberg. / Monster with ram's horns.]

IX. A horned boy.

[Full-page engraving — no further translatable text]

X. A horned infant with a gaping mouth.

[Full-page engraving — no further translatable text]

XI. A human monster with rams' horns.

[Full-page engraving — no further translatable text]

for lips too sometimes acquire their own deformity. For certain men are indeed at times observed to be possessed of so short a lip that they cannot cover their teeth; moreover Trincavella narrates that he observed certain persons born with cleft lips, who were not a little deficient in speech. At Bologna too some have been born with joined lips, who when grown, being ashamed of their deformity, sought through the skill of a surgeon the joining together and healing of the open lips: for the surgeon, removing with iron the surface of the flesh of the cleft in the lips, and stitching the wound, glued together the cleft lips.

At times infants have been born with deformed fleshy growths about the lips, which entirely disfigured the face of the infant; and though many cases of this kind which occurred at Bologna could be recounted, nonetheless one may serve in place of all, that recalled by Johann Georg Schenck, concerning a boy born at Hagenau in Alsace in the year one thousand six hundred and eight, in the month of September. This boy was a completely whole and perfectly formed infant in every respect, except that about the upper lip and the space of the nose there was grown a monstrous piece of flesh, like a sort of proboscis, and it resembled the figure of a sheep's head, with a tongue protruding as if bleating; and this monstrous growth of flesh did not exceed the space of the nose, the remaining upper lip being cleft on each side; wherefore the wailing infant, with its mouth spread wide open and the wings of the upper lip parted and gaping, presented an astonishing countenance to the spectators. Moreover the nose of this infant was wholly grown together with this fleshy growth, impervious and flat; so that there was no passage open to it for drawing in air: nor similarly did this monstrous flesh present any impediment to taking in nourishment.

And so Schenck, having inquired of the mother the cause of this cleft lip (for Johann Georg Schenck was a physician of Hagenau), discovered that the mother had for many years had an aversion to those sheep's heads which in the butchers' stalls are displayed for public sale with the tongue protruding; and the occasion of this disgust was that she had seen a head with a protruding tongue on the publicly exhibited skeleton of an executed criminal. Wherefore the local memory, which retains all ideas, making an analogy, referred that image of the head of the decapitated man to the bleating sheep's heads with protruding tongues frequently seen at home; this image afterward the mother was able easily to imprint upon the infant through the power of imagination, inasmuch as when she was pregnant she bought and ate sheep's heads, although she had previously held them in hatred. The boy thus stained with this deformity, surnamed Johannes Jacobus, lived long.

We wished to recount in this place the cause of this monstrous birth, both because it proceeds from the manifest power of imagination, and because Schenck joined it to the description of the monster.

Among the monstrous heads depraved in the womb must be placed those which lack necks, as may be seen in Figures IX, X, and XI. But we were pleased, for greater explanation of this matter, to set before the eye the figure of that infant who was born without a neck at Basel, according to the account of Lycosthenes, in the month of August, in the year one thousand five hundred and fifty-seven. For with all its other members most excellently formed, the face alone was monstrous: in the first place it was not elevated above a neck, since it lacked one; the eyes of enormous size appeared as if set in the forehead. Moreover the upper part of the head was lacking to this infant; it had in the occiput an opening such as surgeons are accustomed to make with hot iron to excite a small issue. From this opening, therefore, blood gradually flowed: for this reason the infant exchanged birth for death. This monster is shown in Figure XII.

We were again pleased to set before the eye a picture, found in the public Museum, of the figure of a monstrous boy resembling Bacchus. For it was an embryo — that is, a premature birth of five months — lacking neck and forehead, with a very broad face: wherefore it is no wonder if it was called *Bucomos* by that most learned man Ulisse Aldrovandi, since it represented the likeness of an ox. This monster therefore, viewed from the front, rear, and sides, is shown in Figures XIII, XIV, and XV.

But if Nature forms a neck in the infant, she sometimes so distorts it by a twisting in the womb that the head of the infant can in no way be raised upright. This is shown by the figure of that small boy born in the year one thousand five hundred and forty-two, in the town of Bilsen in Bohemia, as Lycosthenes has recorded.

For this infant, by the stiffness of the neck, resembled an image of the crucified Christ: for the head was turned to one

[catchword: latus]

[marginalia: Case of a boy with a cleft lip. / Cause of the monstrous countenance. / Births lacking a neck. / Monster in the shape of Bacchus. / Monster in respect of the neck.]

XII. An infant without a neck.

[Full-page engraving — no further translatable text]

XIII. A foetus without a neck, with arm-like appendages, depicted from the front.

[Full-page engraving — no further translatable text]

XIIII. The same foetus without a neck, depicted again from the back.

[Full-page engraving — no further translatable text]

XV. The same foetus depicted from the side.

[Full-page engraving — no further translatable text]

XVI. An infant with a twisted neck.

[Full-page engraving — no further translatable text]

side so that food could with difficulty be inserted into its mouth. The legs too it bore laid crosswise — as may be seen in Figure XVI — and even if they were pulled apart, they would nevertheless of themselves return to their former position. This monster lived for some time at Vienna in Austria.

At length, in depraving heads, Nature sometimes does not wholly transform them into an alien — that is, a brute's — constitution, as we showed a little above, but deforms them only moderately, so that they bear some rudiment of the countenance of a beast. Hence men are born with a human face presenting the appearance of a dog, an ape, an eagle, and similar creatures — namely, when a human head inclines toward the likeness of a brute. Wherefore, in the opinion of Paré, a woman once bore a fetus with the countenance of a lion; and recently at Perugia, namely in the year one thousand six hundred and twenty-six, in the month of March, a boy came to light formed with all his members rightly constituted, except the face, which, by reason of its shaggy forehead, represented the image of an owl, with the tongue protruding from the mouth — an aspect which struck beholders with both horror and wonder.

There have also been boys who came to light with the appearance of a frog, and one may serve for all: the infant delineated by Paré, born in the year of the Lord one thousand five hundred and seventeen, of parents of the lowest condition, namely of Amadeus Pernico and Magdalena Sarbucata, in the forest of Brie in the Parish of Bois-le-Roi, on the road to the spring of Belleeau. The mother of this monstrous birth, already tormented by fever, on the advice of a certain sick woman had a live frog bound to the palm of her hand, to be held there until it expired; coming afterward to intercourse with her husband in this state, she conceived a fetus of this form, as may be seen in Figure XVII. Wherefore Jean Bellanger, Surgeon to the Royal Engine, who contemplated this monstrous boy in the presence of the guards of justice of the town of Harmon, concluded that the application of the frog to the hand of the mother had been the cause of the deformity of the fetus.

We add to the foregoing the figure of a woman found in the public Museum, who, as regards the face, resembled an ape — as Figure XVIII makes plain.

There are furthermore certain infants who disfigure the face with various contortions of the eyes and mouth — such as those who were born with the mouth gaping open with an immense opening, like those crying out in a horrible fashion. For in the year one thousand five hundred and seventy-eight, in the district of Mecklenburg at Grevesmühlen, by the authority of Schenck, the wife of a tailor gave birth to a male infant, whole and well constituted in its body, except for the head, whose actual face was covered by a certain fleshy covering; when this was drawn upward, the face and head resembled a long Turkish cap, and the mouth was seen gaping open with an immense opening — the gesture which those who cry out in a horrible fashion are wont to make. The infant lacked a tongue, and the inner region of the mouth appeared filled with nothing but blood. The eyes were open, but filled with no pupil; the nostrils imitated the flat nose of a dog; the neck was soft and of unusual length, so that when the neck was held upright the head would of necessity slide forward, backward, or to either side. Schenck also noticed another remarkable feature in this infant, that the right hand was spread open and the left closed as if contracted into a fist; and even if it was opened by force, nevertheless the fingers would of their own accord come together again into a fist.

We also found in the public Museum the figure of a fetus of female sex, with the mouth very wide open, with the nostrils and eyes set almost in the forehead, and the hair appears raised as into a cone, as Figure XIX shows.

What has hitherto been related of the depraved heads of men, we think must be understood of those of brutes as well: since in the heads of animals such great deformity is sometimes observed that they seem as it were alien to their own species. First, setting aside the four-horned deer which Nicocreon is said to have had, we shall recount more horrible heads: since in the year one thousand five hundred and fifty-four, in a village of Pomerania near Rügenwalde at the mouth of the Oder, according to the account of Lycosthenes, a foal was born with a monstrous and horrifying head. In place of eyes it had reddish spots, and pendant ears like the ears of a keen-scented hound, the lowest parts of which had grown together with the skin; and it had a horrible mouth, with lips so swollen that it could not suck the breast. Moreover the neck was twisted, sinuous, and variegated with different colours as if with so many collars, with a dishevelled mane; and it produced a great neighing like that of a grown horse; the skin was rough and the coat shaggy; and finally in place of a tail some kind of crest was —

[marginalia: Deformity of the heads of brutes. / Boy born with the face of a lion. / Face resembling a frog. / Monster with the mouth open wide. / Face resembling an owl at Perugia.]

XVII. A boy with the face of a frog.

[Full-page engraving — no further translatable text]

XVIII. A woman with the face of an ape.

[Full-page engraving — no further translatable text]

XIX. A female foetus with a greatly gaping mouth.

[Full-page engraving — no further translatable text]

XX. A lamb with a monstrous head.

[Full-page engraving — no further translatable text]

XXI. A dog with a monstrous head.

[Full-page engraving — no further translatable text]

Schenck also recounts, following the opinion of Paré, that a lamb was born with a monstrous head in the year one thousand five hundred and seventy-three, in the suburb of the city of Sens, a place called the Blessed Field, in the house of Jean Polet, a salt-measurer. This beast, brought to light, immediately perished and gave no signs of life except for a slight movement. This monstrous head is shown in Figure XX. In the time of Dio, as Plutarch relates, pigs were born otherwise perfect but lacking ears, which they reckoned to be counted among portents.

We were pleased further, for greater confirmation of what has been asserted, to set before the eye the figure of a dog with a monstrous head, and one-eyed, which we found carved in the public Museum, together with the dog-shaped plant — namely the crocus of Dioscorides according to Lobel — as is represented in Figure XXI.

Before we proceed to write out the chapter on monstrous arms and hands, first the causes of the monstrous head present themselves for examination. As regards infants born with teeth, it must be noted that this proceeds from the formative power of the parts of the human body, which — whether it be the spirit issuing from the seed, as Aristotle held, or some unknown thing, as Galen supposed in his book on the formation of the fetus, or something divine depending on the Ideas or the world-soul, as Plotinus the interpreter of Plato affirmed, or the Intelligence which Avicenna called the Giver of Forms — generates teeth in the mother's womb, or acquires the power of producing them.

For this reason in some men teeth sometimes emerge later, and sometimes before the appointed time: hence the time of teething is not fixed for all, since even in extreme old age molar teeth may be born. For the great anatomist Vesalius narrates that a molar tooth was born to him in the twenty-sixth year of his age. Likewise Alexander Benedetti records that teeth grew again in the mouth of an eighty-year-old woman called Vittoria Fabbriense. Wherefore that formative power sometimes quickly — namely in the womb — and sometimes more slowly — namely outside the womb — exerts its operation.

As regards infants born with a beard, we must commit to memory that the cause of hairs is a dry sooty substance mixed with a thick and viscous moisture; from which material infants sometimes overflowing, with a strong expulsive faculty, incur a precocious generation of hairs and a beard. Sometimes this cause is referred to the seed of the male, as regards that part which looks to the head: for the paternal seed, drawing its origin from the head of the father while his powers were unimpaired, in forming the head of the male fetus — but then, in forming the remaining parts afterward, fails from its former vigour, when the remaining task — that is, forming the lower parts — is left to the spiritual part of the maternal seed. Hence it is no wonder if a woman has been seen with a virile head and beard, but with the remaining parts feminine.

Sometimes the cause of this effect is referred to the imagination of the parents, by reason of some phantom of a certain image impressed upon the fancy of those who begot: for this, communicated to the spirits and to the formative power, easily causes the tender fetus to contract the mark of this image. Nor should this draw us to wonder, since if the imagination of the parents is able to produce upon the human conceptus the marks of fruits and of brutes — which differ most greatly from human nature — it will be much more capable of producing the form of a monstrous figure of the same species.

Finally this effect is referred to the nature and form of like parents: for if any one of the parents be endowed with a monstrous figure, without doubt he will be able to beget offspring like himself, since Nature always exerts all her efforts to produce an effect like herself. This recently happened at Parma in the most serene court of Farnese, in that girl of a hairy face, who, married and compressed, bore certain infants hairy all over the face. The same must be said of the bearded German woman; although this does not always necessarily follow, because if the paternal seed be endowed with greater vigour and the maternal seed be overcome, the fetus thence begotten will without doubt be born both perfect and without monstrous deformity. But if, on the contrary, the maternal seed predominates, nothing but a monstrous birth of the same species can emerge.

When, however, monsters without eyes present themselves, we cannot but refer this effect to the weakness of the formative power, which, since it alone performs the task of forming

[marginalia: Arist. de gen. anim. lib. 2 cap. 6 cap. 3 / cap. 6 cap. 4 / Cause of precocious hair growth. / Imagination. / Imagination in brutes. / What the cause of monsters is.]

the parts — for this alone imprints upon each part its own particular form — when weakened by deficiency of heat, or intemperate spirits, or some other cause, it is unable to imprint upon the part to be formed its fitting and natural figure; hence some infants are sometimes brought forth without eyes. Moreover we may assert this the more confidently because Aristotle wrote that such heat is present in the substance of the seed as is fitted to each part of the body, and that by its abundance or defect these infants are frequently accustomed to arise. Wherefore in certain infants the formation of the eyes is found in the forehead, by reason of the weakness of the faculty, which conveys the material to the appointed place.

Next we ought to weigh the disposition of the material of infants; for it is possible that by a slight cause some member may be damaged later, and particularly by a more violent motion; and hence a birth acquires a monstrous form without any fault on the part of the mother. It is indeed true that sometimes the blame for monstrous infants is transferred to the mother, when a pregnant woman takes delight in dances, leaping, and other disorderly motions: for on account of the narrowness of the womb, the more violent motion gives rise to a monstrous birth. Thus we suppose the boy with cleft nostrils to have been begotten.

Moreover, when the head of a human fetus presents itself furnished with the hare's ears — or those of another beast — some immediately have recourse to the mingling of seeds and to nefarious intercourse as the proper cause. Others refer this defect to monstrous parents. Others elicit the cause of this effect from some fault or disease, since the face of a man is sometimes changed by the force of disease into the face of a satyr, as happens in Satyriasis and Elephantiasis, of which affections physicians speak in many places. Others attribute the ugliness of this countenance to a vice of nourishment or of the nutritive faculty when diseased. Others transfer the blame to the material principle of infants: since a perverted disposition of matter — or, in the opinion of Averroes, the disobedience of matter — can be the cause of many monsters of this kind.

Others do not omit the degeneration of seed into an alien nature, when many parts of brutes are produced in human fetuses. Finally others call the principal cause of these monsters the weakness of the agent or begetter. However, in our case we judge that imagination has had great force: for the fancy of either parent can furnish the cause for a monstrous fetus; but the woman is particularly overflowing with this, not only on account of the long circuit of the pregnant womb, but also because in women imagination operates most intensely.

Besides which, without any awareness on the part of the parents, all things are represented through sleep: whence sometimes enormous phantoms with various parts of brutes present themselves to the imagination. But whoever desires to know more about these things should have recourse to the universal causes written out in the Rubric of Causes. For thus was born the boy deformed with the shape of a vulture, and in this manner we suppose to have been born the boy with that mass of flesh about the occiput resembling a tortoise; since from the imagination of the parents — and chiefly from the vehement imagination of the mother — the occasion is supplied to the formative faculty of forming various different parts of animals, as the tortoise, or other monsters. The same has been explained above to happen in brutes, when Cornelius Gemma published that from a pregnant bitch, terrified by the sight of a lion, a birth of this kind arose.

Moreover the face of the fetus is disfigured by a multitude of eyes from an abundance of material destined for forming these parts, and by the strong power of the formative faculty: unless we prefer to assert that this effect is to be attributed to the strength of the separative faculty, while it distributes the material destined for forming the eyes into four portions: from which afterward it comes about that four small eyes are fashioned by the formative power, defiling the face of the infants.

Finally, infants born without a neck, although they could derive their origin from many causes, nevertheless we judged this our monstrous fetus to have arisen from an abundance of material and from the narrowness of the womb: for the fetus was constituted with fleshy members, and in some manner imitated the figure of Bacchus. There was, then, an abundance of material which, on account of the narrowness of the womb, could not be extended and increased along its length; wherefore the head of the monster, joined to the shoulders, grew together with them. But this narrowness of the womb could be natural, or adventitious through affections of the womb — and chiefly through tumours beyond nature;

[marginalia: Cause of perverted matter / Disposition / Imagination / Imagination in brutes / Boys born without a neck.]

which, whether they are in the womb itself or arise in the surrounding parts, can always narrow the womb of women.

ON THE MALFORMED CONFORMATION OF THE ARMS AND HANDS.

Since Nature, ensnared by many impediments in forming the arms and hands, has sometimes committed errors, we have decided in this place to write them out. First we shall put forward various infants born without arms; then births with mutilated and transposed arms; thirdly we shall consider those with multiplied arms; so that at last we may also recount monstrous hands.

As regards the first difference, Schenck in his Observations has written out many histories of those who came to light without arms. Dio, in the Life of Augustus, cited by Caelius Rhodiginus, reckoned among the gifts sent to Augustus by the Indians tigers never before seen at Rome, and a youth without arms who used his feet to perform the functions of hands, shooting arrows by drawing a bow. Again, Georg Pictorius confesses that he saw a Spaniard born without arms, and very swift on his feet; for he swam and sewed with a needle more expeditiously than the swiftest woman using both hands. Moreover he handled weapons of war so skilfully that no soldier could use them with greater agility.

Again Gyraldus knew a man born without arms, who when grown used his feet with marvellous dexterity in place of hands, for grasping, throwing, cutting, and playing. Moreover Weinrich recorded that in the year one thousand and twelve, in the time of Henry II, twins were born in Saxony who had, in place of arms, the wings of geese. The monster born at Ravenna without arms in the year one thousand five hundred and twelve is also remembered by authors as having had wings in their place.

Likewise Giacomo Russo mentions a girl born without arms at Priverno in the year three thousand one hundred and fifty-three of the world, who, save for her arms, was excellently constituted in the rest of her body, as anyone may see in Figure I. This history was also related by Lycosthenes.

But according to the account of the same author, in the year of the Lord one thousand five hundred and twenty-eight, a woman without arms was born at Frankfurt on the Main; who when grown, although lacking hands, used her feet with remarkable agility: for grasping a pen with her feet she wrote elegant letters, handled the distaff, counted money, and accomplished the most delicate tasks with the toes of her feet.

Likewise Nicolas Roch narrates that he saw a woman without arms, in the year of the Lord one thousand five hundred and forty, at the Castle of Amandino in Alsace, who with her feet — in place of hands — grasped a cup, and in the manner of fighters, seizing sticks, beat a drum. Paré also records that he observed at Paris a woman without arms working at many tasks.

Furthermore in the year of the Lord one thousand five hundred and forty-eight, in the month of April, at Meissen, according to the opinion of Lycosthenes, an infant was born having in place of a mouth a very small opening; but still more remarkable is that it lacked arms, and was supported on a single leg only, as Figure II demonstrates. Moreover Haly Rodohamin recorded in his Commentaries on the Medical Art of Galen that he had once seen a man very greatly diminished, who lacked both arms and feet.

Again in the Picene territory, as Cornelius Gemma published, an infant came to light without arms but also lacking feet — and Lycosthenes made this public, saying it occurred in the year of the world three thousand seven hundred and seventy-two — as may be seen in Figure III.

To the foregoing is added another birth without arms, born in Thrace in the year six hundred and one of the Lord. There a woman gave birth to a monstrous fetus, and as it were an expiation of Nature: for it had neither hands nor arms; and moreover, as regards the rest of the constitution of its body, it lacked proper figure and form; for it was deprived of eyes, lashes, and eyebrows; and at the haunches a tail like that of a fish hung attached to it. Now this most monstrous work of Nature, when the Emperor Mauritius beheld it, he ordered it to be killed, and a sword was immediately set to it. The mother, who had borne the monster, was absolved of blame since she did not believe that she had produced it through any fault of her own. Figure III manifests this monster.

Cardano also committed to record that he had seen a certain man lacking both arms, who hurled a spear with his right foot, sewed garments, ate, wrote, and threaded a needle; and he asserts that witnesses were by no means lacking, since the matter was conducted in public. Likewise Julius Caesar Scaliger testifies that he observed the same man — named Antonio, who declared he was born at Naples — in the province of the Allobroges, who was a wonder to all: for in addition to the operations recounted by Cardano, as Scaliger says, he drove a nail deep into a plank with a hammer, and then with marvellous speed, with the claw of the hammer turned, drew it out.

[marginalia: Lib. 5 of the Suburbans / Lib. 2 Itinerary / In the book of Curiosities / Man lacking arms.]

I. A girl without arms.

[Full-page engraving — no further translatable text]

II. An infant without arms and with a single leg.

[Full-page engraving — no further translatable text]

III. An infant without arms or feet.

[Full-page engraving — no further translatable text]

A man of this monstrous kind was seen, Lycosthenes records, in the year one thousand five hundred and twenty-eight. Paré moreover affirms that he saw at Paris a man of forty years of age, square-bodied, lacking arms, as Figure V shows, who successfully discharged all the duties ordinarily performed with hands; since, aided by the stump of his shoulder, his head, and his neck, he swung an axe at a post opposite him with a greater blow than any other man could achieve with his hand. He cracked a coachman's whip with such force that he made a great crack, striking the air. Moreover he ate, drank, played at dice and cards with his feet; but at last, apprehended as a thief and murderer, and taken, sentenced to the final punishment, he was strangled and fixed to a wheel.

But Johann Schenck the elder, whether he saw the same man or another of the same age and build — lacking arms, who declared himself a Swiss — saw him at Hagenau; where, in addition to the other things narrated by Paré, he cut in a single blow through a branch of beech as thick as an arm, seized in his chin and shoulders with his drawn sword, and in like manner drove a hatchet taken up in the same way accurately into a designated place on a board affixed to a wall.

Johann Georg Schenck mentions another man lacking both arms, who was seen at Hall in Swabia in the year one thousand five hundred and eighty-six, who was called Thomas Schweicker, and whatever other men perform with their hands — these most ingenious tasks — he accomplished with his feet with incredible dexterity. Moreover Schenck confesses that he saw writing inscribed by this man with his feet, so elegantly traced and adorned about the margins with various devices, that without doubt it could have surpassed the most practised men who exercise the public office of writing in cities. For this reason an epigram composed in praise of the dexterity of this man is found in Schenck, of this tenor:

What others achieve with their fingers, this same thing
Schweicker accomplishes with marvellous dexterity of his feet.
He elegantly traces letters adorned with a wreath of verse,
He grasps food with his feet, and does everything.
That this is the work of God, no man will deny
Who has a breast that has power with reason.

Concerning this man born without arms many testimonies could be adduced, but in place of all let the most learned Camerarius suffice, who produced these words about him: Marvellous is the foresight and solicitude of Nature, which the Maker of all things assigns to her as to the best mother. For when the limbs of animals are twisted, mutilated, weakened, or even entirely absent, she for the most part supplies to other members — beyond their own office to which they are assigned — strength and dexterity from continuous habit, so that it is wondrous to speak of. For when we were at Comburg, at the home of that noble and most distinguished man Erasmus Neinstetter,

[marginalia: Thomas Schweicker. / Operations of the man without arms. / Extraordinary deeds.]

III. A foetus without arms, with a fish's tail.

[Full-page engraving — no further translatable text]

V. A forty-year-old man lacking an arm.

[Full-page engraving — no further translatable text]

he, having omitted no offices of kindness toward us, ordered Thomas Schweicker to be summoned from the neighbouring Swabian saltworks, then in his thirty-first year, and born of honest parents; who, although his mother had borne him without arms, nonetheless performed all the duties of hands with the aid of his feet. For when he had climbed to a higher place, which equalled the height of a table on which food had been set out, he seized a knife with his feet, cut bread and other foods, and with his feet — as with hands — brought a cup to his mouth. After the meal was finished, he painted with his feet, in the sight of all, Latin and German letters so elegant that we took examples of them away with us as something admirable. Then with a penknife he prepared quills most fit for writing, which he afterward gave to us as a gift. While he was occupied in these tasks, we carefully examined the form of his feet, whose toes were so long and suited for grasping objects that to those observing from a distance they appeared to be hands. This spectacle was truly pleasant and gratifying to us. He had also shortly before been presented to the Imperial Majesty — namely Maximilian II, when he passed through the city of Hall on his way to the Diet of Speyer — and to the Electors Palatine and of Saxony, Ludwig and August; whose Majesty and Highness witnessed this admirable compensation of Nature not without munificence and with wonder. Wherefore afterward Johannes Postius, physician and distinguished poet, illustrated the operations of this man without hands performed before the Imperial Majesty with this most elegant epigram:

With marvellous trust Schweicker does all things with his right foot,
To whom Nature his parent gave no arms.
For he drinks with his feet, with his feet takes up his dishes,
Turns with them books, with them prepares the quill.
Moreover, he knows how to trace letters with his foot so well
That he would surpass the letters of a skilful hand.
Greatest Caesar Maximilian once admired this;
And gave liberal and honourable gifts to him as he wrote.
O how much can vigilant industry accomplish,
And genius achieves what Nature herself denies.

Furthermore we are not reluctant to add another epigram proposed and composed by Schenck concerning the same Thomas Schweicker, lacking arms:

Thomas Schweicker, a little man of marvellous fortune,
Whom piety and talent alike make wealthy.
Without little arms he beheld the vital airs of light
Beneath the slow waters of the Swabian Black Forest.
Yet lest Nature endure so bitter a loss,
She granted him strength in his powerful feet.
What others handle with their right hands and accomplish with their left,
He with the service of his feet performs all.
For he drinks and writes with his feet, and eating does everything —
You would marvel if you were to see the man.
Most excellent is the quill he prepares for writers,
Which he makes ready with wondrous skill for them.
This Maximilian Caesar wondered at, and to him
Writing, once gave generous gifts.
Counts marvelled, barons marvelled;
They set before us a model worthy of wonder.
If anything has been withdrawn from one member, it is compensated
By another: this example gives the greatest credence to this.
What does not assiduous Nature accomplish in her own way?
I have seen a man who fares well — for he deserves it indeed.

In our own age too — that is, in the years just past, namely in the year one thousand six hundred and twenty-eight — a youth lacking arms arrived at Bologna, who before the people performed with his feet the operations hitherto described, and beyond these he discharged a hand-cannon.

[marginalia: Thomas Schweicker. / Operations of the man without arms. / Man lacking arms, seen at Bologna.]

MUTILATED AND TRANSPOSED ARMS.

We have hitherto spoken of those born without arms. We must now examine those monstrous births that came into the world with a single arm, or with one of those members mutilated, or transposed. For Orosius the historian has left on record that, when the Macedonian War was impending — namely in the consulship of C. Petilius and C. Valerius — a boy was born at Sinuessa with a single arm. Julius Obsequens, however, attests that in the consulship of C. Valerius and M. Herennius a boy born of a slave-woman came into the world with but one arm. We now present an image of a foetus born with a single arm, and that one imperfect, since the fingers were few and ill-formed; this figure, found in the public Museum, is here exhibited.

Jacobus Rufus, in his work on human conception, reported that at Amiternum two infants were once born, of whom one was rightly constituted in all parts of the body save the feet, of which there were three — for the third grew out from the knee of the left leg. The other boy had three feet, but afterwards lacked the right arm. Of this second foetus born with a single arm, in the year of the world three thousand eight hundred and nineteen, at Amiternum, Lycosthenes makes mention, and it is shown in figure II.

If we proceed further, we encounter a monstrous man who had one arm entire, the other mutilated. He was born in the year one thousand four hundred and ninety-seven, in the village of Dirlishoiff, on the feast day of December, well constituted of body, but the left arm was formed only as far as the elbow, at the extremity of which a fleshy tumour the size of a small nut protruded. The other arm was indeed entire, but the hand was divided into only three fingers, and those nearly joined together. This boy was reared, and received food and drink not only with his monstrous hands, but also counted money, drew up reckonings, and set them down in most elegant characters in a book. He thereafter performed those other offices which other men are accustomed to accomplish with both hands whole. He lived, according to Lycosthenes, until the year one thousand five hundred and fifty-seven, at which time he had already passed the sixtieth year of his age; and his form is such as is set before the viewer in figure III.

There lives at Bologna even today a youth of sixteen years, named Thomas Bug, an Englishman, whose right arm ends at the elbow, where rudiments of fingers and nails appear. Likewise, while we were writing this, in the year one thousand six hundred and forty, on the twenty-eighth day of June, the wife of a certain carpenter brought forth a boy entire in all parts save the left arm, which ended at the elbow, where confused rudiments of fingers and nails may be observed.

Now if the mind turns to monstrous births having transposed arms, we could without doubt bring many examples forward; but one or two cases of these will suffice. The first is recorded by Caelius Rhodiginus, who says a birth occurred in a village of his own native soil; the birth was indeed of four months, but of unusual size. The little body was integrally formed and two-headed, with two arms placed in their proper position, but a third arm rose between the two heads from the shoulders.

Another monstrous infant was born at Stettin, in a suburb, in the year one thousand five hundred and fifty-four, as Lycosthenes noted from Fincel. This foetus, among other monstrous features, had the left arm transposed, so that it occupied the place of an ear. Moreover it could not be determined whether the foetus was male, or female, or hermaphrodite. Furthermore, the arms and legs of the infant were rigid with a continuous bone, without joints, elbows, or knee-hollows. The hands and feet hung loose as if broken; this birth came into the light dead, though it had been alive in the maternal womb, as its image placed in number IV demonstrates.

[catchword: partus]

[marginalia: Orosius hist. lib. 4 cap. 5 / Iulius Obsequens / Iacobus Rufus de conceptu humano / Licosthenes / Homo brachio mutilato / Caelius Rhodiginus lib. 34 lect. antiq. cap. 3]

I. A foetus with a single arm.

[Full-page engraving — no further translatable text]

II. A boy with a single arm and three feet.

[Full-page engraving — no further translatable text]

III. A monster with one of its arms mutilated.

[Full-page engraving — no further translatable text]

III. An infant with a transposed arm.

[Full-page engraving — no further translatable text]

this birth came dead into the light, though it had lived in the maternal womb, as its image placed in number IV demonstrates.

In inquiring into the causes of these monsters, we must not have recourse to monstrous parents; for according to the doctrine of Aristotle, from injured and mutilated parents, children are sometimes born mutilated, and sometimes not at all injured. For where the vigour of the paternal seed fails in the forming of some part, the vital faculty of the maternal seed sometimes so operates as to supply in the generation of that member what the paternal seed lacked. Yet in this case all authorities converge upon this view: that mutilated monsters take their origin from a deficiency of matter. It is true that in assigning this cause we may proceed with the following distinction, namely by saying that monstrous births are mutilated either in the larger parts of the body, such as the arms, or lack only the smaller parts. For if large parts such as the arms are absent, which is what happens in our case, then we must assert, with learned men, that such great monsters take their origin from a defect in that matter which was suited to the formation of that part; whereas when a foetus lacks small parts, namely an eye, or an ear, or the like, we may then assert that this arises from a deficiency of that matter which flowed from the residue of the nourishment of the like parts in the bodies of the parents.

Unless we wish to refer the cause of these monsters to that portion of the seed destined for the generation of the mutilated members, which may lack fecundity, while the other parts of the seed retain their perfect nature: either because this portion of the seed did not attain its final perfection in the testes, or finally because its vigour was dissolved and dissipated in the womb by some cause. Hence another account of this effect has come forward: namely when the matter for receiving the form of the missing member was, at the very beginning of generation, unsuited to the task, it cannot be transmuted into living substance. And so a foetus comes into the light with only one arm, or with a mutilated arm.

Although this defect also often proceeds from the narrowness of the receptacle of the foetus, and chiefly when the impaired foetus was conceived together with a mola, or with other perfect foetuses of proper size. Indeed, in the interest of brevity, leaving aside the imagination, which cannot augment or diminish matter, we could reduce this defect to the diseases by which some part of the foetus is mutilated in the womb; but of these enough has been said.

As regards the transposition of members, it must be noted that the principal cause can be the ill-formed shape of the womb, whether that deformity be natural or adventitious; for if on account of the obliquity of the matrix, or on account of a tumour of the same, the matter destined for forming the arm cannot expand in its proper place, it is carried to another location and attaches itself to the neck or head, where it takes on the form of an arm. Hence the foetus brought forth comes into the vital air with an arm, or some other member, transposed. Sometimes the cause may be referred to the placenta of the womb, which, adhering to the base of the matrix, is accustomed to discharge the office of the liver in pregnant women. If therefore this placenta acquires a greater bulk than is proper, or increases in an unnatural position for any cause whatsoever, it then drives the matter destined for forming the foetus away from its natural seat; and thus the monsters described above result.

Nor in this case must the mola be omitted, which is nothing other than a substance of flesh generated in the womb from corrupted seed, either before the foetus is conceived, or after, or together with the conception itself; for this, by reason of its hardness, can impede some member of the foetus, so that it takes on its proper form not in its proper place but in a transposed one. Furthermore, the cause of this effect can depend rather on the motion and agitation of the seminal matter: when the conceiving mother is afflicted with violent motion and wandering agitation, or suffers a blow to the belly — for then that matter which pertains to the formation of the foetus is torn away and transposed from its natural seat to an alien one; and in this way the arm, which ought to hang from the shoulders, sometimes takes its origin from the neck.

We do not deny that in producing this effect the weakness of the operative faculty plays a part — that faculty which segregates the parts of the as yet confused and crude matter existing in the womb and dispatches them to their appointed seat: when therefore such a faculty, through torpor, does not perform its office, and the formative power possesses great vigour,

[catchword: tunc]

[marginalia: Materie defectus quid operetur / Materia inepta ad formam / Morbi vis / Mola est causa monstrorum / Imbecillitas / Causa transpositionis]

then a great danger impends lest the members be generated in the foetuses without any order.

Beyond this, Nature in forming the parts of the foetus is sometimes impeded by the viscosity and toughness of the matter from distributing to each member its proper seat; for tenacious matter is divided only with difficulty, and the formative power, though strong, then operates upon matter not placed in its proper seat — since the natural agent always works upon disposed matter so that it takes on its due form, even if that matter has been removed from its destined place.

MULTIPLIED ARMS IN MONSTERS.

Nature is observed sometimes to multiply arms in foetuses, in monsters brought to light at various ages. First to be recalled is that foetus described earlier, born in the territory of Zürich in the year of the Lord one thousand five hundred and thirty-six, as the historian Conrad Lycosthenes relates. It was endowed with three arms and three feet; though it also had two heads, and was very similar to one that came into the light among the Helvetians in the village of Gossau six years before.

Moreover, Julius Obsequens has committed to record that in the consulship of P. Crassus and M. Juventius a foetus furnished with three arms emerged from a woman's womb. Jacobus Rufus also, in his little work on the conception and generation of man, makes mention of a boy endowed with three arms and three feet who, as the Roman history records, was born at Venafrum; the image of this foetus is shown in figure I.

What of this: histories record that infants have sometimes been seen with four arms. For we have gathered from Lycosthenes that in the year one hundred and sixty-two before the birth of Christ, an infant with four arms and four feet was seen at the Theatre of Teanum. Though others, such as Johann Georg Schenck, read that this boy was born at Teanum, in the consulship of M. Marcellus and P. Sulpicius. Likewise, from the account of Julius Obsequens, in the year sixty above a hundred before the birth of Christ, in the consulship of T. Gracchus, Antiquity beheld and marvelled at a birth remarkable for four arms. Again, in the year one hundred and thirty-three before the nativity of Christ, a boy born of a slave-woman with four arms and four feet was recorded by Lycosthenes.

Again, in the year of the Lord thirteen hundred and eighty-nine, in Italy, as Lycosthenes reports, an infant with four arms and four feet was seen, who, sprinkled with the heavenly lavacrum, immediately expired. This monstrous boy may well correspond to that one said to have been born in Italy at the time when the Venetians and the Genoese concluded their treaty. Moreover, in the year one thousand four hundred and thirteen, there was seen a girl — though two-headed — endowed with four arms and four feet, who drew her vital breath in northern Bohemia between the rivers Danube and Elbe.

Near Esslingen on the Neckar, in the year of the Lord one thousand five hundred and twenty-eight, from the history of Lycosthenes, a monstrous infant was seen with four arms and four feet. Indeed in the following year, as Jovianus Pontanus noted, namely in the year of the Lord one thousand five hundred and twenty-nine, on the ninth day of January, a woman in Germany brought forth a male infant furnished with four arms and four feet. Jacobus Rufus, a Swiss surgeon, relates that he saw another similar one, furnished with the genitals of both male and female, of the form depicted in figure I.

Likewise, from Jacobus Rufus, in England, in the year of the Lord one thousand five hundred and fifty-two, not far from Oxford, a two-headed boy with four arms and a single belly was born. Again, on the twenty-seventh day of December of the year one thousand five hundred and

[marginalia: Monstrum tribus brachiis natum / Monstra quatuor brachiis nata / Monstrum ex ancilla natum / Monstra brachiis quadruplicatis]

A boy born with three arms and as many feet.

[Full-page engraving — no further translatable text]

I. A foetus with four arms and four feet.

[Full-page engraving — no further translatable text]

fifty-five, in the village of Freywerk, not far from the town of Adorf in Vogtland, a boy with four arms and four feet but a double head was observed, who came out of the womb of a blacksmith's wife; though Lycosthenes reports that the sex of this foetus was unknown, because the navel alone occupied the place of the genitals.

We have also been informed by trustworthy men that recently, in the territory of Ferrara, namely in the year one thousand five hundred and seventy-nine, on the twenty-fourth day of July, at the approach of evening twilight, a monster remarkable for four arms came into the light, each of whose hands was furnished with six fingers. We now set before the reader a hermaphroditic monster to be admired, complete with four arms and feet, whose image was found in the public Museum, as shown in figure III.

Concerning the multiplication of arms, authors differ among themselves in opinion; for Conrad Lycosthenes, in his history, speaks in two places of multiplied arms, and everywhere appears always to assign these multiple arms to certain nations, as if wishing to suggest to us that men furnished with so many arms are not to be counted among monsters.

He mentions these firstly when he recounts that, among Portuguese navigators, in the middle of the voyage to Calicut, where the pole-star cannot be seen, there were found on a certain island men furnished with two arms and as many hands on the right side, with asses' ears and a human face, who run after the manner of stags. Elsewhere, again from the report of others, he committed to writing these words: in the *Deeds of Alexander the Great, King of the Macedonians*, we read that in India there live men furnished with six arms and as many hands, who throughout the entire course of their lives never suffer any illness; an image of these is seen in figure IV — if indeed Lycosthenes in writing these things did not depart from the straight path of truth, which is held in doubt. For if Nature, erring in the forming of foetuses, sometimes generates seven-headed births, as was demonstrated above, why should she not sometimes also be able to produce boys furnished with six arms, that is, hexachirs, who afterwards, in the age of Alexander the Great, being encountered in some remote region, were believed to be various species of men? But concerning these, the chapter on differences in the first section of this history is to be read, where figure V was to have been placed.

If any monstrous births are said to owe their cause to an excess of seminal matter, then without doubt monsters furnished with many arms are to be reduced to those births aforesaid. For it is the opinion of the Philosophers who have written on monsters that if at any time the seminal matter shed in congress by an animal that is by nature oviparous — as man is — exceeds what is necessary for the generation of one animal, it cannot be that from all that matter only one animal is generated; whence either twins or multiple foetuses result. Hence it comes about that births of this kind are afterwards reported to be portents and monsters, because they are produced beyond the customary law of nature. Wherefore we assert that births integrated with superfluous parts, examples of which are found in the figures above, have the same cause as the generation of twins and of multiple births.

For it is quite clear that from a more copious emission of seed than the nature of the birth requires, a multiplication of parts comes about. Thus Saint Augustine relates that in his time a boy was born in the East whose upper parts were doubled, while the lower parts were only single: for he is said to have had four arms and four ears, yet lived for some while. Likewise Caelius Rhodiginus reports that two monstrous births of this kind were formerly seen in Italy — namely those who had multiplied parts — of whom one was of the male sex, the other of the female; but the male died quickly, whereas the female, beyond all expectation, extended her life to the twenty-fifth year, contrary to the condition of monsters, since these are commonly said to be of shorter life, inasmuch as, having come into being in defiance of reluctant Nature, they likewise live so. From these briefly set forth, therefore, everyone will be able to draw the cause of monsters furnished with many arms, which consists in the exceeding abundance of matter.

[marginalia: Manus quadrigiti / Homines multis brachiis in India / Causa monstrorum brachiis multis praeditorum / Partus monstrosi in Italia / Monstra vitae breuis / Sanctus Augustinus / Caelius Rhodiginus]

III. A hermaphroditic monster with four arms and as many legs.

[Full-page engraving — no further translatable text]

VIII. A man covered all over with arms.

[Full-page engraving — no further translatable text]

MONSTROUS CONFORMATION OF HANDS AND FINGERS.

It ought not to seem surprising if we do not treat monstrous hands in greater detail than arms; for these parts are so closely joined together that authors repeatedly name one in place of the other. For it is quite certain that historians describing a foetus without an arm have declared it to have been born without a hand, and conversely have reported that a monster mutilated in the hand alone lacked an arm. For Lycosthenes has committed to posterity in his *Chronicles* that in the year of the world three thousand seven hundred and seventy-four, in Picenum, a boy was born with bloody hands; and Hali Rodohám, in his commentaries on the medical art of Galen, testifies that he himself beheld a living man without hands, though afterwards he also lacked arms along with the hands.

Likewise, in the year of the world three thousand seven hundred and ninety-two, in the time of Acelius, a one-handed boy was seen — if truth is to be found in histories. Also at Rome, in the year of the world three thousand eight hundred and seventy-two, a slave-woman brought forth a boy mutilated in one hand. And Julius Obsequens makes mention of a girl born without a hand at Privinum.

Schenck, moreover, describes in his *Observations* a girl whose hands were cut off, not from birth, but because they had fallen away by the force of disease, as if amputated by a blade, though the trunk itself was unharmed; for this reason she was begging alms along the roads. Jacobus Rufus, in his work on the conception and generation of man, testifies that he observed an infant mutilated in the hands from birth, while yet the remaining form of the body was proper and perfect, and he attributes the cause of the monstrous birth to imperfect seed. The image of this is shown in figure I.

A girl likewise with a truncated hand and a certain tumour from which the hand ought to have grown, Levinus Lemnius confesses to have observed. The parents therefore most willingly exhibited her to him to be examined; and accordingly Levinus discovered by touch in that tumour the joints, which by Nature's gift should have burst forth, rolled up and twisted back upon themselves, so as to present no rudiment of the fingers. For all the parts of the hand, by which it is accustomed to be opened and closed, had failed at the beginning of generation. At that point therefore, this having been noted, he declared the error and defect of nature to have been contracted thence; because that formative faculty which serves the procreation of foetuses was prevented by some impediment from perfecting the joints and from forming and extending them into a spacious and seemly hand.

For the mother of this girl suffered from hardness of the spleen; and since female foetuses resting in the maternal womb incline toward the left side, where the spleen is situated, Levinus conjectured that the monstrous hand, having adhered to the affection or tumour of that viscus as to a reef, had in consequence acquired a deformed and unseemly shape.

As Nature, impeded as has been related, does not perform its functions in forming the hands of foetuses, so conversely, prompted by another cause, it sometimes so multiplies the fingers on the hands and feet of some foetus that the infant appears to bear doubled hands in each arm and twin feet in each leg.

Jacobus Rufus describes in his work on the conception and generation of man a boy not unlike this one, who came into the light with doubled hands and twin digits on the feet, the remaining members being rightly constituted, as figure II shows.

Furthermore, from Julius Obsequens, a four-handed boy is recorded, born in the year of the world three thousand eight hundred and thirty. And recently at Terracina many beheld and marvelled at a four-handed foetus.

[marginalia: Monstrum sine manibus / Hali Rodohám in commentariis ad artem medicinalem Galeni / Monstrum unimanum / Iacobus Rufus lib. 5 cap. 6 / Leuinus Lemnius lib. 4 de Occulta Natura miraculis cap. 7 / Causa grauiditatis / Manus multiplicata]

I. An infant with mutilated hands.

[Full-page engraving — no further translatable text]

II. An infant with doubled fingers.

[Full-page engraving — no further translatable text]

Moreover, Nature, vexed by other impediments and prompted by other causes in forming the hands of foetuses, generates hands and feet indeed complete with a proper and suitable number of fingers, but afterwards produces hands that are twisted and depraved in other ways. That this happened at Bologna in the year of the Lord one thousand four hundred and forty-six, on the last day of December, is established by histories; for at the eighth hour of the night an infant was born without an anus, with teeth and split lips, but with twisted hands and feet. Ambroise Paré exhibits the image of a monster with distorted hands and feet, as is seen in figure III.

The distortion of hands recalled to memory a deformed, hook-shaped, and monstrous hand formed in the maternal womb by reason of crayfish, the history of which is to be read in Schenck, book five of the *Observationes recognitae*.

Furthermore, in the past year, namely the year one thousand six hundred and forty, in the month of May, while we were writing this, there came to Bologna a certain beggar of twenty years of age, born in the territory of Rimini, by name Antonio, who brought from his mother's womb one hand very monstrous, the other however entire; and perhaps for a reason not very different from that which Levinus related in the case of the girl with a tumorous hand: for in examining this hand also, only three fingers had erupted as far as the second joint, though twisted and stunted, while the remaining joints of the fingers were found within the skin of the tumorous hand, fused together to the touch. We therefore took care to have this hand drawn prone and supine, so that the reader might weigh and marvel at what deformities Nature, spurred by impediments, produces in foetuses. This monstrous hand drawn prone is shown in figure IV, and the same drawn supine is shown in figure V.

Schenck also makes mention of a monstrous and horrible hand. For a girl in her thirteenth year had her left hand monstrous — not from the first formation of the womb, but after the eighth year of her age — because it had grown to so great a size, was sprinkled with whitish spots, and was so foul to look upon that it represented the image of a large toad. Moreover she appeared to have been born with this monstrous hand, since it was soft to the touch and partook of no pain, as if a sponge had been placed beneath it, the joints of the fingers being on no account visible on account of the swelling. This hand remained always at the same magnitude and enormous figure, and neither grew nor diminished with any changes of air or moon. This was observed in the year one thousand five hundred and fifty-five. Also Julius Caesar Scaliger published in his *Exercitationes* that he had seen a matron who had one hand twice the size of the other.

It remains now to proceed to the particular consideration of the fingers. For the formative faculty in the maternal womb, disturbed by impinging causes, disfigures the hands by a paucity of fingers: thus Johann Georg Schenck shows the image of a monstrous hand complete with only four fingers, of which the thumb displayed an unusual length and proportion. Beyond this, we have mentioned above the man of sixty years, whose right hand was complete with only three fingers; yet he diligently performed the duty of accounting in the house of a most generous man. In our own age, namely in the year one thousand six hundred and fourteen, there was at Bologna a certain medical student from Trento who had only four fingers, and those ill-formed and twisted, in each hand; yet together with other medical students possessing five fingers, he was swiftly taking down in shorthand the words of the publicly lecturing doctor.

Ambroise Paré observed a monstrous boy of nine years with diminished fingers, at Paris, in the year of the Lord one thousand five hundred and seventy-three, who was born at the village of Parpauille, six miles from the town of Guise, begotten by Pierre Renard and his mother Marguerite. He had only two fingers on the left hand, the arm however not unbecomingly formed as far as the elbow, and from there to the two fingers very unsightly. He also lacked legs, and from the left buttock an imperfect figure of a foot with only four fingers was produced, and from the middle of the right buttock two fingers burst forth, one of which was very like a male genital. The image of this little boy appears in figure VI.

[marginalia: Manus distorta / Causa manus vitiatae / Exercit. / Digitorum conformatio / Iulius Caesar Scaliger / Ambrosius Paraeus]

III. A foetus with distorted hands and feet.

[Full-page engraving — no further translatable text]

IIII. A monstrous hand depicted in the prone position.

[Full-page engraving — no further translatable text]

V. The same monstrous hand, drawn palm upwards.

[Full-page engraving — no further translatable text]

VI. A little boy with stunted fingers.

[Full-page engraving — no further translatable text]

Moreover, as Nature sometimes constitutes a foetus with diminished fingers, so it likewise sometimes produces superfluous ones. For in the hands and feet there are sometimes observed, as it were, grafted additions — that is, supernumerary growths — when a superfluous finger grows onto the hand or foot by reason of an abundance of matter. For a man has indeed sometimes been seen with six fingers in each hand, the sixth placed between the ring finger and the little finger, moveable however and serviceable, but the hand was of remarkable breadth. Although Paulus Aegineta has written that supernumerary fingers of this kind are sometimes entirely fleshy and also ill-formed, and sometimes immoveable. Hali Rodohám appears to confirm this view in his commentaries on the medical art of Galen, where he reports to have often seen a sixth finger added.

This was also the teaching of Pliny, and of Petrus Crinitus, who reported that the daughters of M. Coracius had six fingers in their hands; for this reason they called them *sedigitae* — that is, six-fingered. Likewise they called the man Volcacius, most celebrated in the art of poetry, *sedigitus* for the same reason, since Nature added a sixth finger to his hands.

Schenck also makes mention of an honourable matron with six fingers in each hand and foot, who afterwards bore a daughter furnished with the same number of fingers. It also happened that, while battles were being fought at Gath, a man was there observed with the longest six fingers in each hand, as Schenck is the authority.

And Lycosthenes beheld in the year one thousand five hundred and fifty-six an agricultural labourer at Basel among the Rauraci with six fingers in each hand, of proper size and due proportion. Another observation confirms this: Valeriola, who came to know a youth of fifteen at Arles in the year one thousand five hundred and sixty-one, in the month of July, who bore each hand adorned with six fingers and each foot complete with seven fingers.

Finally, Schenck adds that he knew a young man who had the index finger of his left hand divided into three points, which elegantly represented three little digits. We ourselves saw at Bologna a man of the lowest station with a sixth finger between the ring finger and the little finger, but moveable and suited to all uses, since the hands were of remarkable breadth.

And so Nature errs not only in the diminution and augmentation of fingers, but also disfigures the hands for another reason, so that they appear to belong rather to a brute than to a man. This was manifest in that foetus born in Germany, near the town of Laufenburg, situated on the borders of the Helvetians by the river Rhine, in the year of the Lord one thousand two hundred and seventy-four, who, according to the opinion of Lycosthenes, had the hands and feet of a goose, as is seen in figure VII. But recently in the territory of Reggio, namely in the year one thousand six hundred and thirty-eight, trustworthy men reported to us a monster of this kind born with such hands and feet.

In inquiring into the causes of the monsters described in this section, we shall proceed in reverse order, assigning the causes of the last monster first, and thereafter meditating upon those of the others as well. Since therefore the monstrous boy delineated last has the hands and feet of another species of animal, we shall establish him as constituted from different species of animals; and accordingly we must have recourse to the causes of these monsters. The primary cause among these is the weakness of the generative faculty: for while it languishes in one or more portions of the seed, no determinate particle can issue from it. Unless we wish to assert that the force of the seed sometimes degenerates into an alien nature, and when it degenerates, then the parts of the monstrous birth — as in the hands or feet — are born monstrous; and so the form of the feet resembles the figure of goose-feet or calf's feet.

Then the material principle of the foetus is to be counted among these causes: for since it is not optimally disposed to receive the form of the hands or feet, it then takes on the figure of another species of animal, and from this goose-feet or ass's feet easily result.

Furthermore, setting aside the defect of the nutritive faculty, and of nourishment, and disease, all of which can transform the parts of foetuses into an alien nature, we shall proceed to the imagination, which so operates in parents, and chiefly in the mother bearing in the womb, that the mark of the thing desired by her is imprinted on the birth. Wherefore if she avidly longs for a calf

[marginalia: Digiti superflui / Pedes anserini procreata / Causae monstrorum peculiares / Imaginationis vis]

VII. An infant with goose-like hands and feet.

[Full-page engraving — no further translatable text]

or a goose, it can easily come about that the birth comes into the light furnished with calf's or goose's feet.

Although we are not unaware that this is sometimes to be referred to monstrous parents, and sometimes to unnatural intercourse. Nonetheless, in this matter the imagination appears to hold first place; for we know an honest woman bearing in the womb who feared from eating a goose-egg lest some part of the goose be imprinted on the foetus; and the fingers of the foetus's hands came into the light separated by a certain membrane, in the likeness of goose-feet, which was afterwards carefully removed by a surgeon's aid. We likewise pass over another cause, namely the power of the Evil Demon, who can corrupt infants existing in the womb by various means.

We also dismiss the cause of monsters that are disfigured by the multitude and diminution of hands and fingers; for it has already been made manifest that these monsters take their origin from matter that is more abundant or deficient. We shall therefore descend to those births that come sedately into the light by the distortion of their members; for these monsters, for the most part, contract their depraved birth from the depraved habit of positioning the body.

This is calamitous in the case of pregnant women, when this defect distorts and perverts not only the mother's body but also that of the offspring enclosed in the womb. For when the woman is moved in any manner whatsoever, all things that are in her womb must also necessarily be moved. Moreover those women who compress their body with girdles, swaddling-bands, or tight clothing bring forth offspring that is bent back, distorted, hunchbacked, and oblique in feet and hands, as may be seen in the figure drawn above.

To these must be added blows and falls from a height, which occasions and similar injuries pertaining to the pregnant woman will necessarily extend to and penetrate the offspring as well. Wherefore the tender bones of the foetus are sometimes broken, twisted, dislocated, or depraved by whatever other enormous foulness. Beyond this, from the violent shock of such falls and from the entire body being strongly shaken, a vein, seized and opened, gives rise to a haemorrhage; and so nourishment is withdrawn from the foetus. Hence afterwards a stunted, thin, and plainly monstrous offspring tends to result.

ON THE DEPRAVED CONSTITUTION OF THE BELLY AND THE GENITALS.

It remains for us to proceed to the weighing of the depraved parts of the belly and the genitals. Hesiod writes in Melpomene that a certain Hercules found in a cave a maiden of double nature, since the parts below the navel terminated in the form of a Serpent, as was recounted in the history of serpents. Then in Thrace, a little before the death of Mauritius, Emperor of the Romans, a woman brought forth a horrible monster, which as far as the navel presented the rudiment of human form, but the parts of the belly terminated in a fish; this was killed at the order of Mauritius, and the mother, since she had contributed nothing to this monster, was absolved of blame, as we set out in the preceding chapter according to the opinion of Lycosthenes.

Here is to be recalled to memory that monster commemorated in the chapter on two-headed births, which was born in the year one thousand five hundred and ninety-eight, in the month of October, between Voghera and Tortona, which had a tail around the buttocks about two fingers in length, nearly five fingers long, which covered the opening of the anus, as is observed in four-footed animals with tails. Also at Geneva, in the year one thousand five hundred and fifty-five, from a French woman dwelling there, a two-faced monster like Janus was born, of which we treated above; but beyond this deformity, from its back its intestines protruded, and around the lower part of the belly the liver hung from the prolapsed

[marginalia: Cacoedaemon / Causa distorsionis membrorum / Causae aliud quid praestant / Monstrum humanum caudatum / Hesiodus in Melpomene / Licosthenes]

I. An infant with an open belly.

[Full-page engraving — no further translatable text]

womb; for this monster partook of both sexes, and on the right side was male, and on the left was female.

Not much unlike this was the monster delineated by Lycosthenes, which was born in the town of Adorf in Vogtland in the year of the Lord one thousand five hundred and forty-seven. For it was an infant lacking a belly, and the intestines, the body being open, hung down from the thorax, and the navel appeared in the left shin. Moreover the feet inclined toward the head, and the head was pointed like a tiara, as it is depicted in figure I.

Lycosthenes records another case of this kind, which occurred in the year of the world three thousand eight hundred and fifty-nine, and one hundred and four years before the birth of the Virgin, at Nursia, where twins were born from a free-born woman: namely a girl with all members intact, and also a boy with the belly open so that the intestines could be seen, and solid on the posterior part, who expired having uttered a cry.

Another deformation of the belly was also observed by Johann Georg Schenck, a physician of Haguenau, at Haguenau in Alsace, in the year one thousand six hundred and six, in the cadaver of an infant who had nevertheless survived for some days. From its first formation in the womb, it had, as far as the navel, a round and open aperture penetrating by an open passage to the innermost viscera of the belly, as if stabbed through with a dagger — a marvellous spectacle; wherefore foodstuffs and excreta immediately flowed out through this natural wound.

Then, the cadaver having been opened, with the other parts entire, the body was found devoid of a bladder, and with the anus without a perforation. Wherefore, in investigating the cause of this monstrous body, it was reported that the pregnant woman, persecuted by her husband, had been terrified by a drawn sword, and had betaken herself into a corner of the house to avoid the attack of her enraged husband; which imagination of the mother in respect of the foetus could easily imprint on it the mark of a sword driven into the belly; indeed this contraction and compression of the body in the corner of the house furnished the occasion for the lack of the bladder and the absence of perforation.

Nor do we wish to pass over the Burgundian man of thirty years of age, ill-formed in the belly, delineated in figure II, who, while travelling abroad, passed through Bologna in the year one thousand six hundred and forty, in the month of March, and was received most hospitably in the house of the hospice dedicated to Saint Francis. For here almost innumerable pilgrims, passing through each year, take lodgings. For the most illustrious lord Vincentius Tanarius, a Bolognese patrician second to none in the study of the Muses, and a diligent investigator of natural things, who was then by office visiting these hospitable premises, having observed the foulness of this man's belly, summoned the most excellent and most learned men Giovanni Agostino Cucchi, Pompeo Bolognetti, Giovanni Antonio Godi, Andrea Mariani, Bartolommeo Massari, Hyacinth Ambrosinus my brother, and Francesco Galleci to this curious and monstrous spectacle. Wherefore all these Doctors of Philosophy and Medicine, in the presence of many medical students, having carefully inspected and examined the belly, observed that all the things which are set out in the patent letters of the Doctors of the Medical Institution of the University of Aix, issued at Aix in the Royal Hall of the University, on the Kalends of July, in the year one thousand six hundred and thirty-nine, were present therein; so that they judged it superfluous to add anything to them; save for certain condylomata, hanging from the bottom of the belly, and for this reason it pleased them to recite those letters in the present place. They are of the following tenor:

We, the Doctors of Medicine and Professors of the most renowned University of Aix, certify to each and every one to whom these our writings shall come, that Stephen Beauvais of the diocese of Bourges, of keen attention and sharpness of eye, willingly examined in the medical school, exhibits a plainly monstrous conformation of the belly and chiefly of the shameful parts; for, besides the fact that the whole protruding mass of the abdomen, undivided by any wrinkles of the navel, does not end at the lowest part of the belly in a detached but as it were scar-covered trace of the navel, there is seen adhering to the pubic bone, opposite the bladder and fixed into the belly, a fungous flesh of exquisite sensitivity, of saturated redness, pervious to breezes, through which urine drips continually and imperceptibly without ceasing; which

[catchword: ominente]

[marginalia: Puer aluo aperta / Vispham / Doctores qui inspexerunt / Litterae patentes Aquensium]

A man with a malformed belly.

[Full-page engraving — no further translatable text]

urine arising from the more fleshy neck of the bladder, or from the muscle of the same, performing the entire function, protruding and thrust out beyond the abdomen — whether it proceeds from the error of the formative faculty and the agitation of the seminal matter, from those cavities that are bent inward and curved in a circle into forming the member, and then converging toward the glans, or whether it exists as a solid fungus grown thereon — it is very difficult to determine. But above this flesh, abundantly watered by the irrigation, not quite exceeding the size of a large nut, there succeeds another placed below, by no means perforated, resembling the appearance of the glans, which when pressed with the fingers causes no pain, is not filled with air, and is not distended; it is ruddy, but is seen flaccid, corrupted, and pale. The prepuce, tied with a band, hangs down beneath; on the sides toward the groins, not outwardly covered, nor pendant, but inwardly and at considerable depth on either side, the testes of round and somewhat oblong figure are found, enclosed in the place of the scrotum, covered by the vagina and wrapping, distinguished only by a single line. From which we therefore declare our conclusion: that the said Stephen, though from birth up to the eighteenth year, by his own account, he was believed to be of the female sex, is in truth a male, since he possesses male parts both inwardly and outwardly, though formed with a malign conformation. Thus far the physicians of Aix.

This man, moreover, beyond this foulness of his belly, for the sake of gain, out of curiosity, pretended to be imperforate, and many believed in this solid conformation of the anus, because the aperture of the posterior was not in its usual place, but was hidden in the perineum toward the seat of the genitals.

We may also observe a monstrous and admirable belly sometimes in brute animals. Recently in Germany, as Lycosthenes reports, a horned belly was seen in a goat; for through that region, in the year of the Lord one thousand five hundred and fifty-five, a goat furnished with three horns was led about by a certain mountebank for the sake of gain, of which two adorned the head of the animal, while the third protruded from the belly.

Nor ought we to marvel at this horn grown in the belly of a goat; for the reason that we have observed a third horn growing on the neck of an ox. For, besides the two horns conspicuous in the forehead common to the rest, a third was seen to have grown on the middle of the neck of an eight-year-old ox, of the length of a span, with a thick root of a palm and a half, inclining somewhat to the right side, moveable, fixed no higher than the skin, attached only to the flesh and certain membranes, at its lowest portion still tender, not yet hardened into the consistency of horn, which had recently been forming into the substance of a horn. But the upper part of the horn was hard and of solid consistency, and was plainly of horn, and of the same substance and colour as horn. Finally it terminated in a point, but blunt, and somewhat as it were hooked, or curved. This painting was communicated by the most learned Antonio Gigas, who asserted that the beast was born at Epidaurus, as appears in the image.

[marginalia: Conformatio pudendorum / Capra cum cornu in ventre / Cornu in collo Bouis natum]

An ox with a third horn on its neck.

[Full-page engraving — no further translatable text]

MALFORMED CONSTITUTION OF THE MALE AND FEMALE GENITALS.

Just as Nature is sometimes liberal and sometimes sparing in forming other parts of the body as occasion demands, so likewise in the generation of the genitals she seems at times to proceed by the same principle, when in males she either produces no penis at all, or doubles it. For Tobias Kneulius, in his *Observations* sent to Schenckius, makes mention of an infant born without a genital member, in whose place was an opening through which the urine was voided; but afterwards it had a scrotum with both testicles properly formed. And Haly Rodoham, in his *Commentaries on Galen's Medical Art*, relates that he himself saw a foetus without a penis and without testicles, in whose place a small opening had been produced by nature, through which the urine trickled out little by little.

Conversely, Nature at times multiplies these genitals. For Jacobus Vucherius, in his *Observations* sent to Schenckius, reports that he saw in Bologna, at a public dissection, the corpse of a man furnished with a double penis; and Cardanus records a rightly constituted infant born in Britain whose genitals were inserted within genitals. Moreover Vesalius published in his work on the fabric of the human body that he had known at Padua a noble young student of law who had two passages opening at the tip of the glans, of which one served for semen and the other for urine. And conversely, some have been born with the glans imperforated.

What we have thus far declared regarding the penis, we think must be understood of the testicles as well: for Eusebius left in writing that Dorotheus, Bishop of Antioch, most learned in Greek and Hebrew letters, was a eunuch — that is, born without testicles. For there are eunuchs who come forth from the maternal womb without testicles; and those also are called eunuchs who are deprived of their testicles before puberty, although such persons, in the opinion of some, are rather called *spadones*, from the Greek word *spao* or *spalo*, because their testicles were torn out after birth. Of these, a certain poet sang thus:

> *With testicles cut away you lose the marks of manhood.*
> *Yet the penis shall prove that I am a man.*

Others, among those castrated, establish a twofold distinction: they call *spadones* those who lack only one testicle, and designate as eunuchs those deprived of both. Nor is there any doubt that infants have been seen born with only a single testicle. Caelius Rhodiginus reports that Sulla and Cotta were men remarkable for having only a single testicle. And Haly Rodoham, in his *Commentaries on Galen's Medical Art*, recorded that in his time there lived a boy furnished with only one testicle.

What we have thus far affirmed regarding the human foetus, we think must be understood of brute animals as well: inasmuch as Trincavella, in his works, reported that he observed a dog born with only one testicle. Likewise Cardanus saw a dog born without either testicle, but when he observed the animal inclined to venery, he then perceived the testicles within, though not externally by touch.

On the other side, Nature sometimes multiplies the testicles in animals: for which reason Rhodiginus published the most agreeable history of Agathocles, tyrant of Sicily, who was called *triorchis* — either because, as many supposed, he was furnished with three testicles, or because he resembled the *triorchis* bird of the hawk family, which the *Ornithologist* calls the buzzard, an animal said to be most rapacious and most prompt to lust. Furthermore, Montus in the *Anasceve of Diseases* and Fernelius in his *Pathology* have mentioned men furnished with three testicles. Likewise the Scholiast of Hollerius wrote that it fell to him to see a third testicle in the son of a printer. We too, at Bologna some years past, observed in a young Piedmontese student three testicles indeed, but the third was perceived by touch to be fully half the size of the others.

[marginalia: A boy born without a penis. / Lib. 14 de subtil. var. et rer. / Lib. 5 cap. 14 / Spadones, Eunuchi. / Lib. 4 lect. antiq. cap. 7.]

A family furnished with three testicles.

Furthermore there are those who assert that it is peculiar to certain families to have a third testicle: for there is a most illustrious family at Bergamo from which sprang Bartolomeo Colleoni, renowned and distinguished for his valour and fidelity in the service of Venice, whose equestrian statue is to be seen at Venice in the square of Saints John and Paul. Many of this family are therefore said to have had three testicles, and clear testimony to this fact is supplied by the armorial bearings of the family, which are emblazoned with the device of three black testicles. Hence arose the proverb most current among Italians: *Coglioni da Bergamo* — which is used not of a stupid and obscene man, but commonly of something unusual and unheard-of.

From this same malformed constitution the genitals of women are not to be excluded. For it is evident from many of Schenckius's observations that females are born *atretes* — that is, without an opening. Moreover Aristotle, in his *History of Animals*, calls certain animals monstrous in their entire parts simply because they have certain passages sealed. He reports, then, that females are sometimes born with the mouth of the womb closed over from the first formation, just as males are sometimes born with the glans imperforated. This malformed constitution of the genitals deceives even skilled midwives: for Pinaeus relates that at Paris, in the year one thousand five hundred and seventy-seven, in the street of Saint Denis, a certain woman gave birth at night to an infant who, owing to weakness of vital powers, was hastily baptised with water from the sacred font and named Jeanne, since it was believed to be female; but a few days later, not without great astonishment on the part of all, it was observed to be male, and the cause of the error was the malformed constitution of the genital parts: for the penis was short and hidden in the upper part within a fissure, in the manner of a clitoris, between the two labia and the nymphae of the female pudendum; while the two sides of the scrotum projected like the labia of a woman's pudendum; and by this deceptive appearance of a malformed constitution of these parts, midwives are often deceived.

Wherefore we must reject the opinion of those who have thought that females can over time be transformed into males; since there is neither reason nor argument by which this can be plainly proved, especially in human beings. For the genital parts of each sex are so unlike one another that nothing more dissimilar can be found. Besides, the genital parts of women are situated deeply in the lower abdomen and attached to the region of the kidneys by vessels, ligaments, and membranous tissues, which cannot descend without great relaxation. For this reason the genital parts of women cannot be transformed into those of men.

Why this transformation from female to male does not occur.

These matters being understood, it is said that girls sometimes believed to have turned into men are declared to be males when the male sex is discovered — not because the female genital parts change into male ones, but because the male sex is detected, as we explained above in the first chapter of this *History* and in the rubric on transformations.

A case from Catalonia.

We have a clear case of this which occurred in Catalonia, as trustworthy men have reported. In a certain castle of that region there dwelt a girl eighteen years of age, who, while playing with others, was seized by an extreme pain in the genitals as if she were about to die forthwith: a physician was therefore summoned, who, diligently examining the shameful parts, observed something hard lying beneath the skin of the pudendum; and thereupon he dilated the skin with a lancet, and immediately a male member with a scrotum came out: for the opening of it was so accommodated to the opening of the supposed female member that the urine could conveniently flow out from it. Wherefore, when the wound had healed, she married a wife, with whom she lived for many years.

Columbus likewise observed this malformed constitution of the part when he reports that there was a woman whose vulva did not differ in shape from that of other women, and a portion of the neck of the womb protruded; yet in the abdomen neither a womb, nor spermatic vessels, nor testicles were to be found. It was therefore no wonder if she always complained during intercourse.

But more worthy of admiration is the fact that Nature sometimes doubles the pudenda in women as well. For from Julius Obsequens, as cited by Schenckius, a two-headed girl was born with a doubled vulva, but she was stillborn, in the consulship of Gaius Laelius and Lucius Domitius. Similarly, as the same Obsequens testifies, a woman is recorded as furnished with a double vulva, said to have been born in the consulship of Gaius Claudius and Marcus Perpenna.

The deformities afterwards produced in the pudenda of women after birth could be recounted without limit; inasmuch as Schenckius makes mention of many women — indeed of a great number — from whose groins or flanks of the vulva fleshy tumours in the manner of goitres, of a weight of twenty pounds, hung growing down to the knees; and the substance of these tumours appeared to resemble the udders of cows. Schenckius likewise records a woman from whose pudendum hung a vein of the length and thickness of a thumb; although the most illustrious Mercurialis expounded this story as concerning a feminine penis. Schenckius also mentions a certain matron whose clitoris grew to the length and thickness of a goose's neck.

A not dissimilar case occurred recently at Bologna. For a certain man was endeavouring to obtain a divorce from his wife with whom he had lived for ten years, on the ground that she was no longer capable of intercourse. Wherefore, to resolve the dispute between the spouses, two physicians, moved by entreaties, inspected the pudendum of this woman and determined that the point of a needle could not penetrate through the fissure of the genitals. Meanwhile the most excellent Giovanni Agostino Cucchi, second to none in the medical faculty, was chosen to visit the woman together with the Inquisitor of the archiepiscopal court, who at first sight observed that the opening of the pudendum was greatly obstructed, because the clitoris had so grown that it closed the entire fissure: nevertheless, when he raised it, he found the fissure so open that it could admit whatever thickness, even that of an arm.

[marginalia: Arist. Hist. Animal. / Lib. 4 de subtil. / Sext. 5 anat.]

THE VARIETY OF HERMAPHRODITES.

Since it was observed in the preceding rubric that Nature sometimes doubles the penis in males and the vulva in females, we must now consider those foetuses who partake of the genitals of both sexes. These are called, according to Pollux, *concubini*, and according to others, *androgyni* or *hermaphrodites*. According to this distich,

> *In whom the face of Mercury and of Venus is seen;*
> *Neither man nor maiden is — a Hermaphrodite he is.*

Moreover these infants are called not only androgyni and hermaphrodites, but also by the Greek terms *diphueis*, *androtheleis*, and *arsenotheleis*. Aristotle seems to admit of them when he writes in his *History of Animals*: in those to whom it happens to have twin genitals, one male and one female, one is always found effectual and the other ineffectual. Likewise Pliny recorded that foetuses are sometimes born whom they call hermaphrodites: once reckoned among prodigies, they are now counted among curiosities.

Thereafter various authors establish various distinctions among hermaphrodites, corresponding to Nature's various sport. In males, some have observed a small female pudendum in the perineum, and likewise in the scrotum, without any discharge of excrement. In the same way they have observed above the root of the penis the shape of a vulva. In females, variation was observed when the penis protrudes upon the summit of the genitals in the clitoris, and when a penis is presented at the groin or in the perineum. But this variation, to speak the truth, is manifold, such that nothing certain can be fixed — both on account of the copious number of hermaphrodites who have been born, and also because authors, in recounting hermaphrodites of various ages, do not explain the true position of the genital parts of each sex.

How hermaphrodites were treated by the ancients.

From Julius Obsequens we learn that in the consulship of Marcus Messalla and Gaius Livius, a hermaphrodite about twelve years of age was killed by order of the haruspices. As the same Obsequens testifies, in the consulship of Lucius Metellus and Quintus Maximus, a hermaphrodite born at Luna was conveyed by command of the haruspices into the sea. Likewise, from Lycosthenes, in the year one hundred and thirty-two before the birth of the Virgin, a hermaphrodite born in the territory of Ferentinum was thrown into a river. Similarly in the Roman territory a hermaphrodite eight years of age was found and conveyed to the sea in the consulship of Lucius Caecilius and Lucius Aurelius, if Julius Obsequens has attained the truth. Moreover, at Rome hermaphrodites born there were sometimes conveyed to the sea. Again, in the year one hundred and fourteen before the birth of the Virgin, according to Lycosthenes, a hermaphrodite of ten years was found at Saturnia and drowned in the sea.

[catchword: tus]

[marginalia: Lib. 4 de Generat. Animal. / Androgyni as they were called by the ancients.]

I. A hermaphrodite with a swelling around the navel.

[Full-page engraving — no further translatable text]

II. An androgyne.

[Full-page engraving — no further translatable text]

According to the same source, a hermaphrodite born at Urbino in the year ninety-three before the birth of the Virgin was drowned in the sea.

Therefore, whoever desires to see a long series of foetuses of ambiguous sex, let him consult Julius Obsequens and Lycosthenes, who seem to enumerate almost countless instances, yet without expressing the true position of the genitals. Finally, Haly Rodoham in his *Commentaries on Galen's Medical Art* confesses that he himself once happened to see in passing a man who had a penis with testicles and also a woman's vulva. Similarly it is read in the *French Annals* that in the year of salvation one thousand four hundred and seventy-eight, in the reign of Louis XI, among the Arverni, a certain hermaphrodite monk lived in the monastery of Isoria, who in the course of time became pregnant and was kept with the greatest care until she gave birth. Moreover in the year of salvation one thousand four hundred and ninety-six, near Heidelberg, in the district of the Palatinate called Rohrbach, twins were born joined at the back, and Lycosthenes attests that both were hermaphrodites.

At Zurich in Switzerland, on the first of January in the year of salvation one thousand five hundred and nineteen, according to Lycosthenes, there was born a hermaphrodite who bore a fleshy protuberance about the navel, and a little lower a female pudendum; while in its proper place a male member was present, as is shown in figure I.

Jacobus Ruffus in his work on the conception and generation of man seems to represent a not dissimilar figure — namely one with a mass of red flesh about the navel and with a female pudendum above the male genitals: and for this reason we judge that this figure coincides with the preceding one; nevertheless, because we also came upon it in a public museum, we represent it in figure I.

Cornelius Gemma presents two figures of hermaphrodites, of which the first shows both genitals, male as well as female, between the groins, while the other shows the female genital in the pubic region and the male member in its usual place, yet the foetus is open across the thorax, as figure III demonstrates.

Here however it must be observed that these genital parts of both sexes, present externally in one and the same subject, rarely have their corresponding internal parts. For Bauhin, in his own *Observations*, makes mention of a girl of eighteen years of age whose corpse, when opened, showed a male member and testicles, though she was believed to be a girl, because she urinated through a small fissure beneath the penis; and when the penis was dissected two ample nerves were found, and no urinary duct was observed.

Likewise Columbus relates that it fell to him to see a woman who, besides a vulva, was also furnished with a male member, which however was not very thick; wherefore in her anatomy the *vasa praeparantia* did not differ from those of other women. But the *vasa deferentia* differed: they were bipartite, because Nature had produced four from two, of which two that were the larger were directed toward the cavity of the womb, while the remaining two descended toward the root of the penis, which afterwards lacked assisting glands.

In this subject the sagacity of Nature was most admirable, who had chosen a sufficiently secure passage by which these vessels could be conveyed to the penis. The uterus, moreover, and likewise the neck of the womb, did not differ from the womb of other women and the colon at all; but some difference was observed in the testicles, since in this subject the testicles were thicker than in other women, but as to their position no difference was detected. The penile scrotum was not continuous; indeed it wholly lacked a scrotum, and this penis was furnished with two muscles, not four as are observed in perfect males. Furthermore the penis of this hermaphrodite was covered with thin skin, and there was no prepuce there, but two spongy bodies were visible, through which two arteries ran, arising from those which extended toward the bladder. Hence it is to be gathered, as was explained above, that the internal genital vessels in hermaphrodites rarely or never correspond to the external genitals.

Columbus further confesses, in the passage cited, that he saw two living hermaphrodites — namely a male and a female (for hermaphrodites are called males and females according to the vigour of the sex: if they are more powerful in the male genitals they are called males, otherwise females). The hermaphrodite male, whom Columbus examined with the utmost diligence,

Consideration of the internal genitals.

[marginalia: Lib. 10 Anat. / Lib. 4 cap. 62.]

III. The hermaphrodite of Gemma.

[Full-page engraving — no further translatable text]

had a penis with a scrotum and testicles, beneath which — that is, in the perineum — was a cleft fashioned in the likeness of a vulva, but it did not penetrate. But the female hermaphrodite was a woman of the race of those Ethiopians whom the Italian common people call *Cingaras*. For she could neither act nor be acted upon with ease, because the penis did not exceed the length and thickness of the little finger, and moreover the fissure of the vulva was so narrow that it could not admit the tip of the little finger. The signs for discerning the predominant force of hermaphrodites, by which we can determine whether they are to be referred to the female or the male sex, were explained in the rubric of Differences in the first chapter of this *History*.

This deformity, or ambiguity of sex, is sometimes observed in brute animals as well. For Pliny records that mares of this kind were seen in the time of Nero. Nero had mares partaking of both sexes harnessed to his carriage, which were found in the Treveran region of Gaul. Textor likewise relates that, while Xerxes was preparing his army for the invasion of Greece, a mule gave birth to a mule furnished with the genitals of both sexes, male and female. Furthermore Cardanus observed at Antwerp a hermaphrodite horse, which had one testicle in its proper place, with swelling teats like a mare, and then a vulva in its proper position, but from which a penis protruded. Moreover, as a male, with erect head and thicker body, it whinnied toward mares.

These matters having been set forth, we shall proceed to the causes. Authors treating of the causes of monstrous birth have for the most part observed that this arises from terror and fear conceived by the mother while carrying in the womb. For Rufus wrote that it sometimes comes about by some accident that, from sudden fright, the seed contracts some defect about these members. He himself confesses that he saw an infant whose sex was not determinate, because the testicles protruded without a genital member, and below the testicles a fissure was visible through which the urine flowed. Accordingly the mother confessed that she had been so terrified by some sight that she conjectured this defect had thence been contracted in the infant. Although monstrous births of this kind can also arise from an agitation of the seed caused by any other reason.

Before we speak of the causes of hermaphrodites, it is briefly to be considered whether these ought to be classed among the varieties of monsters, since some, embracing a different view, reason thus: those things are called monsters which occur rarely, but hermaphrodites are born frequently, therefore they are not to be placed in the number of monsters. They further strengthen this opinion on the grounds that androgyni seem to display no defect of Nature: for when the force of both seeds — the paternal and the maternal — is so vigorous in forming the foetus that the infant perfectly follows both sexes, this is not to be imputed to an error of Nature, since Nature then produces something like itself in both sexes; and therefore according to this view, not all hermaphrodites are placed in the series of monsters, but only those whose sex is imperfect by reason of its smallness, or those whose sex is transposed.

We do not think this opinion should be adhered to; first, because hermaphrodites seem to be born frequently only in comparison to other monsters, not absolutely. Then we believe that no foetuses, or very few, have been born as monstrous with both sexes perfect. Moreover, if they were born, they would have to be reckoned among monsters: since Nature in the generation of animals always intends to produce a male and not a female, and when she falls short of this perfect degree, she produces a female. Finally we have the manifest teaching of Aristotle, who called hermaphrodites monstrous, and wrote that one of their two sexes is effectual and the other ineffectual.

Therefore if we direct our attention to the causes of these, we shall at first encounter the opinion of the astrologers, who refer the cause of this effect to the stars, and especially when the conjunction of Venus and Mercury is celebrated in significant bicorporeal signs; to which opinion Paul of Aegina seems to subscribe. Suessanus embraces another cause of this effect when he wrote that, after the flow of the menses, males are begotten from the first to the fifth day after the first intercourse, then females up to the eighth day, and hermaphrodites up to the twelfth. But neither reason nor experience supports this view: since a male or a female is observed to be generated, with no distinction of days observed, from the predominating male or female seed. Further, if androgyni were produced after the twelfth day after the flow

[catchword: xionis]

[marginalia: True cause of the generation of androgyni.]

of the menses, their number would be found more copious. Wherefore the birth of these is to be attributed to the equal vigour of the seeds of the parents, as Boëtius rightly declared in his *Concordance of Philosophers and Physicians on Human Conception*: for according to the common and true view, these monstrous foetuses are said to derive the cause of their generation and formation from the abundance of the seminal material. For when an equal portion of seminal material has been poured out by both parents, then the formative faculty, which always strives to fashion something like itself, applies its equal forces to each material; hence afterwards it is no wonder if both sexes are detected in one and the same foetus.

OF THE MALFORMED CONSTITUTION OF THE FEET.

Chapter VI.

What we observed above concerning the formation of the arms and hands must now also be considered in relation to the constitution of the legs and feet. For Nature, impeded in forming these members as well, either produces no feet at all, or reduced ones, or doubles them, or disfigures them in any other way. As to the first point, the histories report that in the time of the Emperor Maurice, who reigned in the year five hundred and seventy-eight after the birth of the Virgin, an infant was born without feet, the lower part of this foetus ending in a fish's tail, the figure of which is to be sought in the fourth chapter of this *History*. Haly Rodoham, in his *Commentaries on Galen's Medical Art*, confesses that he himself beheld a living man without feet; and Schenckius in his *Observations* mentions a girl without feet, whose feet had been lost through the violence of disease, though the ankle remained intact, and who afterwards begged in the public roads. Likewise in the Picene territory, as the Roman history relates, there was born an infant who, lacking genitals together with the legs and feet, ended in a kind of cone or pyramid. He was of the male sex, with all other parts integrally formed. Finally Rufus in his work on the conception and generation of man testifies that he himself beheld infants mutilated by the defect of their members and lacking feet.

Infants born without feet.

Moreover, if we proceed through a series of years, we shall find that in the village of Nerpitez not far from the town of Wutzerli, situated on the Moise, as Lycosthenes relates, an infant was born without feet in the year one thousand five hundred and thirty-seven, as is shown in figure I.

A not very different foetus Nicolas Roch declares that he himself saw born on the eighth day of February, in the year of the Lord one thousand five hundred and forty-one, in the castle of Saint-Amand-Alissier, in the territory of Bourbon, from a well-known woman; this infant, from the head to the navel, bore the likeness of a human being, and thereafter, in the place of legs and feet, a fish-like tail in the manner of Sirens was substituted, and the monster is said to have lived for an hour after birth.

Moreover in the year of salvation one thousand five hundred and fifty-two, at Widensbach, which is distant the space of a mile from Schleusingen, according to Lycosthenes, a monster was born of a woman having the likeness of an infant, but without legs and feet, in whose place a tapering point was produced; indeed from the sides as well certain small points protruded, as may be seen in figure II.

Let us add to this a not much dissimilar and horrifying monster, which the wife of a potter bore in the year of salvation one thousand five hundred and fifty-six. From the crown of the head to the hypochondria it presented a human form, with a protruding mouth however, and a grim face. But from the navel downward, the human form being abandoned, it ended in a pyramidal shape,

A pyramidal infant.

[catchword: mina-]

[marginalia: Infants born without feet.]

I. An infant without feet.

[Full-page engraving — no further translatable text]

II. An infant tapering to a point in place of feet.

[Full-page engraving — no further translatable text]

A monster seen at Rome and at Bologna: the same.

terminating at the tip in the likeness of a pig's tail, inserted crookedly. Furthermore about the spine another likeness of a navel was visible, and it displayed no sex whatsoever.

Nor is there to be omitted the young French woman of about eighteen years of age, lacking her lower parts — namely the thighs, legs, and feet — whom Bologna saw and marvelled at in the year of salvation one thousand five hundred and ninety-four. She was born in the city of Besançon in the territory of Avignon, and was called by name Catherina Mazzina; she was of comely form and of the height of three-quarters of a cubit plus a hand-breadth, but lacking hips, legs, and consequently feet. Her arms were perfectly constituted, longer than the chest and trunk. The lower part of her body appeared in some manner bifid, imitating the bottom of a lyre.

She spoke aptly on any subject, sang, played the cittern, and moved on her hands in the Spanish, Moorish, Italian, and French manner. She likewise composed the gestures of her imperfect body so well in harmony with the music of the lyre that those who had seen her from a distance would without doubt have declared that she danced with her feet. For as to the endowments of her mind, nothing was lacking to her that Nature has granted to other human beings.

Furthermore she was furnished with both sexes, but leaned more toward the female, because the female sex was more vigorous in her, and for that reason she was called more female than male. We believe this monster to be entirely the same as that which was displayed at Rome in the year one thousand five hundred and eighty-five; for then the monstrous young woman was in her eighth year. For it was conveyed to us by letters that at that time there was being carried about at Rome for viewing a girl of eight years, in whom from birth the legs, shins, and feet were lacking, with all other members properly constituted, as figure III demonstrates.

But sometimes Nature, stirred by various impediments, fashions the foetus in the womb with thighs and legs intact, except for the feet, which are nowhere seen at birth. For Jacobus Ruffus proposes this conformation of an infant in his work on the conception and generation of man, when he testifies that he sometimes saw an infant otherwise justly and perfectly formed in the whole body, but lacking only the feet, and he thinks this defect of the foetus is to be imputed to the imperfect seed. The figure of this monster is shown in figure IV.

Furthermore it is not to be called into doubt that, just as Nature, oppressed at times by various impediments, produces neither legs nor feet in foetuses; so likewise, stimulated at times by other causes, she brings forth a foetus with only a single leg and foot: as happened at Myina in the month of April of the year of salvation one thousand five hundred and forty-eight, according to Lycosthenes; where there was born an infant furnished with only a single leg and foot, whose figure the reader will find in the fourth chapter of this *History*.

[catchword: BRVC]

[marginalia: Monster at Rome and Bologna. / The same seen.]

III. A young Frenchman lacking thighs, legs, and feet.

[Full-page engraving — no further translatable text]

IIII. The son of Giacomo Rossi.

[Full-page engraving — no further translatable text]

DIVERSE KINDS OF BRUTE ANIMALS.

If Nature sometimes commits various errors in forming human foetuses — impeded in some measure, so that she cannot attain her intended end, as was observed in the preceding rubric concerning the feet of human foetuses — yet it is not to be supposed that this cannot happen at all in the foetuses of beasts: for we shall show by various examples and cases that Nature commits errors in like manner in forming the feet of brutes, since *apodeia* — that is, the defect of feet — has its place in brute animals as well.

Feet deficient in brutes.

For Albertus makes mention of a he-goat born with only the forelegs, which therefore, lacking the hind ones, did indeed walk, but dragged its hind part along the ground.

Lycosthenes the historian likewise records a calf born of a cow lacking its forelegs, which was born in the month of January in the year one thousand five hundred and fifty-six, in a certain village of the diocese of Dielingen, called in the vernacular tongue Obenhausen. This calf, although it lacked the forelegs, nevertheless, as the author relates, ran erect with such speed that it easily surpassed other calves in running.

We also give a figure, numbered I, of a calf that was recently born without forelegs in the territory of Bologna; on which occasion we observed the enveloping membranes of a bovine foetus and its position in the womb, on the thirteenth day of January in the year one thousand five hundred and ninety-two.

Anatomy of the bovine foetus.

The bovine foetus therefore is wrapped in two membranes, of which one is called the inner and the other the outer. These differ from one another in thickness, for the inner is very thin, since it takes its origin from the peritoneum of the foetus, which covers the umbilical vessels of the foetus, and indeed, issuing from the body and at last spread out, it wraps the foetus and abounds in numerous cotyledons, which are nothing other than certain fleshy portions resembling in substance and shape the kidneys. To these fleshy parts the seminal vessels adhere, conveyed through this membrane and dispersed like the fibres of the portal vein through the mesentery.

The other membrane is thicker, taking its origin from the carneous membrane that grows onto all the aforesaid fleshy portions, sending a certain portion of itself into each cavity of the said flesh: for these fleshy parts are on the outside, as it were, rough, having a certain oblong channel by which they face the outer membrane, into which channels the outer membrane sends certain portions of itself, by which it is most tenaciously inserted and coheres.

Aristotle spoke of the position of quadrupeds in the womb in his *History of Animals*, when he wrote that their position in the womb is extended; which however we have found to be false in the bovine foetus. For in the womb it is carried in such a way that it has its spine flexed and humped; with the knees bent and the forelegs crossed; when however the bovine foetus is perfect — for the one we describe here was imperfect.

The position of the bovine foetus.

The head rests somewhat upon the left shinbone. The right foot is turned upward toward the belly. In the hind part the legs are wholly bent back in the manner of a dog lying low and sleeping, and are folded forward under the belly. The tail is drawn back between the legs. The hooves are tender and white as snow. Of the umbilical vessels, which by anatomists are said to consist of two arteries and one vein, in this foetus two veins are visible externally, which within converge to a single origin.

Between the foetus and the first membrane of the foetus is contained the greatest abundance of a pituitous, viscid, and sluggish humour, adhering to the fingers so that it can scarcely be wiped away. This humour is moreover the matter of urine and of the serous water of the blood, nourishing the foetus, which descends from the bladder through the urachus into this cavity. For this moisture is kept there by Nature's design,

[marginalia: Arist. Hist. Anim. lib. 7 cap. 8.]

I. A two-footed calf.

[Full-page engraving — no further translatable text]

A two-footed dog with Cynomaza.

[Full-page engraving — no further translatable text]

II. A hare-like two-footed dog with Cynocephalea.

[Full-page engraving — no further translatable text]

so that the embryo, swimming in it, may be more conveniently retained in the womb until the full time of parturition; for that watery humour somewhat raises and supports the weight of the foetus, and when it has flowed out it is necessary that the foetus should sink down and, lying against the body of the womb, press upon it by its own weight, and consequently stimulate its exit.

Some here doubt how this humour, partaking of the nature of urine, can be easily contained, since by its acrimony it might injure the tender skin of the foetus. But it is to be noted that this matter is by no means acrid or bilious, but only thick, pituitous, and sluggish in the manner of mucus, which is able to temper any acrimony. And let these remarks, said in passing, suffice concerning the enveloping membranes and the position of the bovine foetus.

For the greater confirmation of the monstrous defect of feet, there are set forth for viewing the figures of monstrous animals that came to our hands — and these are principally figures of two-legged dogs born without forelegs.

II.

The first figure will be that of a dog of the sagacious breed, distinguished by a white and chestnut colour, which from birth, lacking the forelegs, walked in the course of time supported only by the hind ones, and it is depicted here in figure II, with the herb *pomum herba* — that is, with the black *chamaeleon*.

III.

The other figure of a two-legged dog is that of a greyhound, as is to be seen in figure III, where, with the *cynocephalea* — that is, with the *oxyris* of Lobelius — this dog of white colour was born in France, namely at Lyons.

We learned that this happened in the feline kind from the most illustrious Licetus, who reported that at Padua, in the Ravenna College, a cat among many kittens gave birth to one that was two-legged, because it lacked the forelegs, and it had an opening of the mouth near the throat, with square ears; but he says it perished within a short space of time, because, lacking the forelegs, it could not crawl to suckle its nutriment of milk.

A two-legged cat.

Hitherto we have spoken of quadrupeds born two-legged. Now it is to be noted that animals quadruped by nature are sometimes born three-legged, when Nature, impeded in the womb, has been unable to add a fourth foot to the foetus. Thus Lycosthenes the historian has recorded that in the year of the world three thousand seven hundred and eighty-four, and one hundred and seventy-eight years before the birth of the Virgin Theotokos, a three-legged mule was born at Reate, as appears in figure IV. Moreover, from the same author, in the year of the world three thousand seven hundred and ninety-four, an ass is said to have been born three-legged at Calatia.

III.

Furthermore in our own time this happened in a dog of white and russet colour, which we exhibit drawn for viewing, together with the *cynordardum* — that is, with the *nasturtium* of Lobelius — as figure V shows.

An animal quadruped born lame.

It sometimes happens, however, that a quadruped animal is born with four legs, but one of them maimed. For a foal, as Job Fincelius relates in his work *On the Miracles of Our Time*, cited by Lycosthenes, was born in the village of Pomerania near Rugium at the mouth of the Oder, in the year of salvation one thousand five hundred and forty-four. This foal had a horrible head, with pendant ears like the ears of a hound, a monstrous mouth, and lips so turned inward that it could not grasp the teat. The neck was twisted and sinuous, the mane unkempt, the skin rough and shaggy, and moreover the tail stood erect like a crest.

Finally this foal stood upright, terrible to look upon at first sight, although one of its forelegs was maimed, for it lacked the foot, while the other foreleg resembled a human foot; the hind legs however were horse-like, as appears in figure VI.

Fincelius reported that it lived three days, and was afterwards buried in the earth when it died.

[catchword: MVL-]

[marginalia: Felis bipes. / Animal quadruped lame.]

IIII. A three-footed mule.

[Full-page engraving — no further translatable text]

A three-footed dog with Cynocardamum.

[Full-page engraving — no further translatable text]

VI. A male foal.

[Full-page engraving — no further translatable text]

THE MULTIPLICATION OF FEET IN HUMAN FOETUSES.

Although the multiplication of feet in the human foetus might make men quadrupeds, it must be observed that the expression "man quadruped" (*homo quadrupes*) can incur an equivocation; and therefore it will be our business to clarify this ambiguity from the outset, so that the reading may be more lucid thereafter. In the first place, a quadruped man is what a child who is beginning to walk is called — one not yet supported on his weak legs, who walks on hands and feet in the manner of quadrupeds. Then, iconographers, in order to suggest to all the mutual and harmonious love of matrimony, have depicted a man and his wife in a single body with four feet; whereupon a certain poet, alluding to this, sang in this wise:

> *Let a loving wife and husband make one man;*
> *thus he who was before a biped becomes a quadruped.*

Finally, from the *Fasciculus Temporum* we have gathered that in the time of the Emperor Maurice there was born a quadruped boy — not in the sense that he had four feet and two hands, but he was called quadruped because his hands took the form of feet, and moreover he walked in the manner of beasts. Likewise, according to Conrad Gesner, in the year of salvation one thousand five hundred and thirty-one, there was found in the forest of Hahnsberg in Meissen a monster with a wholly human body, with eagle's talons, bearded and of tawny colour with tufted bristles like a crest, and it travelled prone in the manner of quadrupeds. On which account someone could assert that this was an abandoned infant who, taught by no one, had become quadruped, had not learned to speak, and had consequently grown up and in those forested places nourished itself on wild fruits by the indulgence of nurses named —

How a quadruped man walks.

Likewise in the time of Albertus Magnus, two human beings — a man and a woman — are said to have been found in the woods of Germany walking in the manner of quadrupeds. And yet who would not find this marvellous, seeing that in the previous year there arrived at Bologna a most miserable beggar, who in the manner of a quadruped went about asking alms; and the cause of this manner of walking was the malformed constitution of the hip-joints, since he could in no way raise himself upright.

A mendicant man walking quadruped.

Now that three meanings of the expression "human quadruped" have been set forth, it is to be noted that in none of these senses is our own meaning to be placed: inasmuch as, when we treat of the multiplication of feet in the human foetus, we intend a foetus formed in the womb with arms and legs, but these then doubled, or multiplied in any other way. For Julius Obsequens relates that formerly, in the consulship of Publius Africanus and Laelius, there was born at Amiternum a boy with three feet and only one arm, whose figure the reader will find in the fourth chapter of this *History*.

The true meaning.

Furthermore, according to the opinion of the same Julius Obsequens, in the consulship of Appius Claudius and Publius Metellus, an infant was born at Amiternum with three feet, with all the remaining parts of the whole body properly constituted, as may be seen in figure I here.

Likewise from the account of Jacobus Ruffus, in the year of salvation one thousand five hundred and fifty-two, in England not far from Oxford, a two-headed girl was born with four arms and hands, one belly and one seat intact, but on one side there were two feet and on the other only one foot was seen extended, so that she was furnished with only three feet in all.

Furthermore we could bring forward more cases of children born with four feet: inasmuch as Lycosthenes exhibits the figure of an infant born to be viewed, born in the year one hundred and sixty-two before the birth of the Virgin, at Thermi Selinuntii, who had four feet and the same number of arms. The same Lycosthenes, in the year one hundred and sixty before the birth of Christ, makes mention of an infant born at Caere with four feet. And from the same, in the year one hundred and thirty-three before the birth of the Virgin, a girl furnished with four feet was seen.

Infants born with four feet.

[catchword: Cate-]

[marginalia: The meaning of a quadruped man. / Homo medicans vita quadrupedis graditur. / Verus sensus.]

I. A three-footed boy.

[Full-page engraving — no further translatable text]

II. A four-footed infant of Rossi.

[Full-page engraving — no further translatable text]

Furthermore, in the year of salvation fourteen hundred and thirteen, in northern Bavaria between two rivers, namely between the Danube and the Aleman, a girl was discovered with four feet and as many arms. Again, in the year of salvation one thousand five hundred and twenty-nine, in Germany, Jovianus Pontanus reports, as related by Parcus, that on the ninth of January an infant was observed with four feet and as many arms.

Also in the year one thousand five hundred and thirty-six, in the territory of Zurich, from Lycosthenes, there was born a two-headed infant with four feet. A two-headed child was likewise born, from the same author, to the wife of a blacksmith on the twenty-seventh of December in the year one thousand five hundred and fifty-five, in a certain village not far from the town of Adorff in Vogtland, with four feet and as many hands, lacking any mark indicating sex, in the place of which a navel had been produced. Finally at Terracina quadrupeds are said to have been born. We here set forth the figure of a four-footed foetus born at Rome, as Jacobus Rufus reported, the remaining parts of the body being rightly formed, as appears in figure II.

Now that quadrupedal boy born in the time of Mauritius, whom Lycosthenes mentioned in his History, did not actually have four feet; rather, he was called a quadruped because, after the manner of quadrupeds, he moved about on account of the malformed condition of his hinder parts. Whoever wishes to see more examples of this kind, let him consult the fourth chapter of this History, where mention is made of the multiplication of arms in human beings.

MULTIPLICATION OF FEET IN WILD QUADRUPED ANIMALS.

We are about to speak of the monstrous, or multiplied, feet of brute animals; and first we shall treat of the Horse, as the most noble of animals. The feet of these animals ought to be four in number, since they are classed among quadrupeds according to the Latins, and among *tetrapoda* (τετράποδα) according to the Greeks. However, if these animals chance to have fewer or more feet, this must be reckoned among the category of monsters and called an error of Nature. And although two kinds of horses are found among certain ancient and recent authors, namely the domestic and the wild, yet nowhere do we read — as some have wrongly maintained — that wild horses differ from domestic ones in the number of feet.

Erasmus Stella, following the doctrine of Pliny, has published that there are wild horses in Prussia today, described by neither Greeks nor Latins, yet altogether like domestic horses, differing from them not in the number of feet, but in the back alone: for wild horses have backs unsuitable for riding, and can never be made tame.

Hence if feet were multiplied in horses, we could without doubt call such creatures extremely swift in running: for a horse is by nature so swift in running that in the epigram of Aeschias the horse, swiftest of all, is read as *aietoc iz retu* — that is, almost as an Eagle — since that bird is the swiftest of all. Indeed Oppian, speaking of the horses of Spain, has declared them to be of such great speed that only Eagles, or those called Circus-hawks, can contend with them. Again, Homer, wishing to express the most swift running of the horses of Erichthonius the son of Dardanus, feigned them to have been conceived of the north wind Aquilo, which wind took its name from the most vehement flight of the Eagle. He likewise feigned that Balius and Xanthus, the most excellent horses of Achilles, had been conceived of the west wind Zephyr from Podarge the swiftest of mares, while she grazed in flowery meadows. Moreover, Podarge herself was so named from the swiftness of her feet. Indeed Varinus has declared that Podarge was a Harpy, from whom those horses are afterwards said to have been begotten, *a amapnoisin petisthin* — that is, because they flew, as it were, with the speed of the winds. Likewise, we read in Silius Italicus that in the same manner the horse Pelorus was conceived of Zephyr, and

[catchword: His]

[marginalia: Girl with four feet. / Infant with four feet. / Two-headed infant. / Multiplication of feet in brute quadrupeds. / Velocity of the horse. / Erasmus Stella on wild horses.]

I. A horse with five feet.

[Full-page engraving — no further translatable text]

II. A horse with eight feet.

[Full-page engraving — no further translatable text]

These things having been set forth concerning the swiftness of horses, it must be noted that if Nature, while erring in an impediment during the generation of bestial offspring, should add other feet to the four equine feet, so far from rendering them swifter, they would rather become exceedingly slow in running; for, in our opinion, a fifth or sixth foot added to them would be an impediment preventing them from attaining their accustomed speed.

Histories report a horse born with five feet; and first, in the year of the world three thousand eight hundred and twenty-nine, and one hundred and thirty-four years before the birth of the Virgin, there was born at Rome a horse supported on five legs on the Esquiline Hill. The Esquiline is a hill and a ward of Rome so named because there the citadel and outposts of King Tullus were stationed, who added that hill to the City. Furthermore, another horse of this condition was observed at Berne of the Helvetians in the year of salvation fifteen hundred and fifty-five; for the fifth leg, together with the shin, was added rather to the hind feet than to the fore feet, as may be seen in figure I.

But we ought not to wander through ancient histories, since in our own age, at Rome, a mare endowed with eight feet was conspicuous in the year of our salvation one thousand six hundred and thirty-four.

For indeed a certain pack-mare was carrying lime into the City, and gave birth to a mare formed with eight feet; his Most Eminent Eminence Cardinal Francesco Barberini — most adorned with the munificence of the Muses and Graces, and a most diligent investigator of natural things — ordered this creature to be carefully fed, preserved for offspring, and a stallion to be presented to her at the appointed time; he who, while laying up the opulent furnishings of learning in a precious treasury for the benefit of the present and future age, never degenerates from his uncle Urban VIII, the Supreme Pontiff and in many ways the greatest in letters.

This mare at last, being pregnant, gave birth to an elegant foal likewise possessed of eight feet, as is shown in figure II, which the most distinguished gentleman Honorius Beatus, most excellent in the medical faculty, most kindly imparted to us so that we might insert it among the monsters of this History. Although afterwards the mare perished, and the foal, through the negligence of its keepers, as we have learned, was crushed and killed by falling from a wild place.

If we now turn our mind and discourse to the bovine family, we shall find that it too is not lacking in monsters of this kind. For we have it from Conrad Lycosthenes that in the year of our salvation one thousand five hundred and fifty-one, at Basel of the Rauraci, an ox with five feet was seen, which was led about by a certain mountebank for gain: for the fifth leg with its foot hung from the right shoulder, as appears in figure I.

Aelianus likewise, in his *History of Animals*, confesses that he saw an ox endowed with five feet, and likewise a calf from whose shoulder a fifth foot hung, altogether useless for walking. Nor should this seem strange to anyone; for in years past there was going about Bologna a mountebank who led a cow integrated with eight feet, for the purpose of gain, to be viewed for a spectacle, and at last sold her to the Grand Duke of Tuscany.

Furthermore, in the year of salvation fifteen hundred and fifty-two, by the authority of Lycosthenes, in a village of Thuringia, there was born a six-footed calf; for Nature had added one foot to the fore feet and another to the hind feet in the womb; moreover, this monster bore a mass of flesh beside its right flank.

Then in the year of salvation fifteen hundred and fifty-six, on the third of March, there was born a monster resembling a calf with six feet and a double head, of which one looked toward the East and the other toward the West; and three feet belonged to one head and three to the other, if Lycosthenes has attained the truth. We here set forth the figure of the six-footed calf — that is, born with six feet — of which two, wholly useless for walking, hung from the back, as is depicted in figure II, together with Origanum Heracleotica.

We saw another calf born with seven feet, resembling in some way a bicorporal monster; although it had only one head, yet there was a certain division apparent on the back, and from each side its own tail hung. It had four hind feet; two fore feet; for the seventh had its origin from the end of the neck, as

[catchword: pictura]

[marginalia: Horse with five feet. / Esquiline Hill. / Mare with eight feet. / Francesco Barberini. / Bovine family. / Ox with five feet. Aelianus Hist. Animal. lib. 12 cap. 3. / Cow with eight feet. / Six-footed calf. / Calf born with six feet.]

An ox born with five feet.

[Full-page engraving — no further translatable text]

A six-footed calf with the face of a lamb, with Heraclean marjoram.

[Full-page engraving — no further translatable text]

III. A calf born with seven feet, with the smallest yellow trefoil.

[Full-page engraving — no further translatable text]

the picture III shows. This monstrous Calf a certain mountebank was carrying about for gain, in the year of our salvation one thousand five hundred and seventy-eight, and attested that it had been born in the territory of Vicenza; wherefore we took care to have it drawn, together with the Lesser Yellow Trefoil of the herbalists.

Not very dissimilar was a calf furnished with seven feet born at Kalisz in Poland, in the year of the Lord one thousand two hundred and sixty-nine, within the octave of Christmas; but because beyond the multiplied feet it also had a double head, so that it resembled a bicorporal monster, this monster will be treated separately in its proper chapter.

While we were writing this, there was born in the territory of Bologna, namely in the year one thousand six hundred and forty-one, a calf with eight feet and without a neck; of these feet, four supported the hind part of the animal, which was in a certain way doubled, along with two tails; two supported the fore part; and the remaining two sprang from the neck. The remains of this calf are preserved in the house of the most distinguished gentleman Giovanni Antonio Godi, Surgeon and most celebrated Anatomist. We also keep in the Museum of the Most Illustrious Senate of Bologna two skins of calves, of which one was five-footed, and the other six-footed.

If from here we descend to examine the flock of Sheep, we shall find in Lycosthenes that — from Livy — in the year of the world three thousand seven hundred and sixty-nine, and one hundred and ninety-four years before the birth of the Virgin, a lamb with five feet was born at Asculum; but beyond the strangeness of its feet, it was also two-headed.

Aelianus records another two-headed Lamb, but born with eight feet and a double tail; but because he understood that this monster was said to have spoken with a human voice, he therefore judged it to be fabulous.

We here set before the reader for inspection an eight-footed Lamb, born a few years ago in the territory of Padua, whose figure Signor Francesco Riccio of Padua gave us to be published. This Lamb was entirely black, with a double back joined together, two tails, three ears, eight feet, of which however two sprang from the beginning of the back, as is shown in figure III, together with Lesser Plantain of Dodonaeus.

Likewise in a certain village called Süggenheim, which belongs to the Diocese of Strasbourg, two miles from Strasbourg, in the year of salvation one thousand four hundred and ninety-six, a pig with six feet is reported, by the account of Lycosthenes, to have been born.

Men of trustworthy reputation recently told us that a dog with six feet had been born at Rimini. We do not think this departs from the truth, since recently at Bologna a dog with eight feet of the scent-hound breed came into the world; for six feet protected the hind part of the animal, and only two the fore part. We took care to have this monstrous dog drawn together with the Dog-rose of Lobel, namely with the Mandrake, as may be seen in figure V.

For the moment we pass over the fact that, from Lycosthenes, in the year of the Lord one thousand five hundred and fifty-two, in the house of Ludwig Dheitz, a certain domestic cat among other offspring gave birth to a live kitten furnished with eight feet and monocephalous but bicorporal, of either sex; concerning which we shall speak below, namely in the chapter on bicorporal monsters.

Furthermore, while we were writing the *History of Digitigrade Quadrupeds*, there was born at Bologna a cat with eight feet of either sex, with two heads and two tails, but with the backs joined together; not long after, there came to light a female cat with six feet, partly white and partly dark ash-coloured in colour, for four feet supported the hind part, and only two the fore part of the cat. The image of this monstrous female cat, depicted together with *Aelurognon* — that is, Borage — we give in figure VI.

Among wild animals also, monsters of this kind have sometimes been observed. For we read in Conrad Lycosthenes that in the year of our salvation one thousand five hundred and thirty-three, at the Episcopal town of Zell in Thurgau among the Helvetians, when a pregnant Hare was being eviscerated, there was found in its belly a leveret with a single body and head, yet with four ears and eight feet, of which four occupied the proper position, and the remaining four were prominent on the back, as if representing another leveret. Since therefore this monstrous leveret had been seen and observed there by many, it was afterwards sent to Zurich as an object of wonder; the figure of this leveret is VII.

[catchword: Versa]

[marginalia: Calf with seven feet. / Calf in Poland. / Calf with eight feet born at Bologna 1641. / Lamb with five feet. Aelianus. / Eight-footed Lamb born in Padua. / Pig with six feet. / Dog with six feet. / Cat with eight feet. / Monstrous cat with six feet. / Monstrous hare.]

IIII. An eight-footed lamb.

[Full-page engraving — no further translatable text]

V. An eight-footed dog with dog-rose.

[Full-page engraving — no further translatable text]

VI. A female six-footed cat with Aelurogamum.

[Full-page engraving — no further translatable text]

VII. An eight-footed leveret.

[Full-page engraving — no further translatable text]

[caption illegible]

[Full-page engraving — no further translatable text]

occupied their own proper position, and the remaining four were prominent on the back, as if representing another leveret. Since therefore this monstrous leveret had been seen and observed there by many, it was afterwards sent to Zurich as an admirable thing; the figure of this leveret is VII.

Among the genus of cloven-hoofed animals there is a certain genus of Goats which Pliny calls *Capreae* and other Latin authors call *Capreoli*. Although afterwards Aristotle called these *Dorcades*, which name Martial then employed in Latin, speaking of these animals which, on account of their elegant spots, were kept as delights by Roman girls, when he sings:

You will give as a gift at the birth of your child a Dorcas,
Which the City is accustomed to send bound in silken bands.

Oppian calls this animal for the most part *dorchos* (δόρχον); although sometimes he may have named these does *iorces* (ἴορκες), as it were Dorcos for the sake of the verse, in this manner:

These men call by the fitting name of Iorces (ἴορκες):

For in this passage Oppian describes Roes as having a deer-like body and a skin spotted all over, no differently from the Panther; and for this reason this animal is most elegant, nor is it strange if once, as Martial reports, it was kept as a pet. Virgil also describes the Roe, distinguished by spots, in his second Eclogue, where Corydon promises two roes to the boy Alexis in this manner:

Besides, I found two roe-kids in no safe hiding,
Spotted even now with white upon their skins,
Who drain twice daily the udders of a doe; I keep them for you.

Servius, however, in his exposition of this passage, interprets the roes as those sprinkled with white spots that are still hidden; for he asserts that in the course of time they afterwards change this colour, and the spots begin to be of lesser charm. These things we have set forth with pleasure for the better understanding of the figure to be presented. And so, in the genus of these beasts, there was occasionally found a Roe with six feet, elegantly varied by Nature with whitish spots, like a Lynx. Whence it must be gathered that this animal was lying down; for this six-footed beast had four hind feet and two fore feet. This animal is depicted in figure VIII together with *Barbicapra*, which the herbalists call Queen of the Meadow.

MULTIPLICATION OF FEET IN THE EMBRYOS OF BIRDS.

But in animals that produce many offspring, as was set forth in another place, numerous monsters are produced, and likewise in Egyptian Sheep and Goats — since they are more fruitful than our own — and hence their seminal matter is by its very nature inclined and disposed toward monstrous birth. This will be made still more evident in the genus of all birds, much more so, on account of their numerous progeny; for birds are very often produced with many feet, since they frequently come together and often conceive: for this reason the conceptions cohere, since they are close together, and the whites of eggs are sometimes continuous, not separated by any intervening membrane; hence monstrous chicks come forth integrated with many feet, many wings, and many heads. We shall be able to demonstrate this assertion first in the genus of Chickens, then in the genus of Geese, Ducks, Doves, and other birds.

Indeed, among the chicken family, more copious monsters result than in any other genus of animals; wherefore we have decided to set before our readers here several monstrous figures of these, many of which we have ourselves observed; both lest anything be wanting to this *History of Monsters*, and also that readers may be able to contemplate the various marvels of Nature.

First, in the year of the world three thousand eight hundred and thirty-eight, and before the birth of the Virgin

[catchword: partum]

[marginalia: Roe with six feet. / Multiplication of feet in the embryos of birds. / Marvels of Nature in Egypt. / Chicken family.]

[figure captions: II. Five-footed cockerel.]

of the Virgin one hundred and twenty-five years, according to the opinion of Lycosthenes, a domestic cockerel with five feet was observed at Cere, as is depicted in figure I.

Polydore Virgil in his *History of England* has committed to writing that, in the reign of Henry the First, among other prodigies that appeared, a four-footed cockerel was born. Lycosthenes likewise related that this happened in the year of salvation one thousand and ten. He then adds that in the year of the Lord one thousand and fifty-five, towards the end of the reign of Henry the Third, Emperor of the Romans, a Hen produced a chick endowed with four feet, as figure II shows.

[figure captions: II. Four-footed chick.]

[marginalia: Five-footed cockerel at Cere. / Four-footed cockerel. Polydore Virgil, Hist. Anglica. / Four-footed chick.]

[figure captions: III. Four-footed cockerel.]

We ourselves have also observed, in our own age, many monstrous and quadrupedal beasts of this kind; for we set forth in figure III a four-footed Cockerel, which was prone from the neck to the belly of a chestnut colour, and supine from the back to the rump of a yellow colour with interspersed chestnut feathers.

The wings were white, with green flight-feathers. From the back near the tail, chestnut feathers of considerable length hung down. The tail was green and black, the crest double and not at all notched. The feet were four in number; the fore feet were yellow and perfect, such as befit beasts of this kind; the hind feet were imperfect and pale, as they are depicted in figure III, together with *Aegylops*.

[catchword: Rur-]

[marginalia: Four-footed cockerel observed by us.]

III. A four-footed cock with wild oat.

[Full-page engraving — no further translatable text]

A four-footed cock with a hen and spelt wheat from Utica.

[Full-page engraving — no further translatable text]

[figure captions: V. Three-footed cockerel born in Bruttium.]

Again, a Hen with four feet was observed, of uniform colour, namely with the whole body of a somewhat rusty hue. The feet were yellow and malformed by Nature, namely in that manner which is seen in figure IV.

Thereafter, many beasts of this kind are found that were born with ill-formed feet, but most often as three-footed. For Lycosthenes makes mention of a three-footed cockerel, born together with many other chicks in Bruttium, in the year of the world three thousand seven hundred and sixty-eight, and one hundred and ninety-four years before the birth of the Mother of God, as is shown in figure V.

[catchword: Amplius]

[marginalia: Four-footed Hen. / Three-footed cockerel born in Bruttium. Licosthenes.]

VI. A three-footed cock with the lesser foxtail grass.

[Full-page engraving — no further translatable text]

VII. A hen with barley.

[Full-page engraving — no further translatable text]

[figure captions: VIII. Three-footed chick.]

Furthermore, Conrad Lycosthenes records that he saw at Basel, in the suburb of Chinau at a blacksmith's house, in the year of salvation one thousand five hundred and fifty-four, a chick of Gaul furnished with three feet, and in running of such great swiftness that it outstripped the remaining birds. We set forth a Cockerel similar to the one above, likewise furnished with three feet, which the common people call a Grotesque Cockerel: this one was from the neck to the vent of black colour, but sprinkled with white spots; the whole back to the rump was of a rusty colour. The greater part of the wings was likewise rusty, at their beginning and where they faced the belly, of a dark colour but sprinkled with whitish spots, with oblong feathers. All the flight-feathers were white. The tail was half-green and half-black. A red patch encircled the eyes, as the reader may observe in figure VI, where the Lesser Foxtail Grass is also depicted.

[catchword: His]

[marginalia: Three-footed chick of remarkable swiftness. / Grotesque Cockerel.]

IX. The skeleton of a three-footed pullet, whose third foot was furnished with five toes.

[Full-page engraving — no further translatable text]

To these we add, from our own observations, a three-footed Hen, which had its third foot growing near the vent. This hen was almost entirely yellow throughout her body. Her wings and back were sprinkled throughout with dusky spots. Likewise certain dusky feathers hung from the neck over the beginnings of the wings. The whole tail was finally dusky, the rest yellow. This is shown in figure VII with Barley.

It likewise fell to us to see, in years past, a chick recently hatched from the egg furnished with three feet, and it had the third foot as if born from the rump; wherefore, on account of the monstrous variety, we took care to have it drawn, and we present it depicted in figure VIII.

Indeed we did not shrink from exhibiting also a drawing of the skeleton of a monstrous Poulard, similar to the chick described above, except that the third foot, born near the vent, was furnished with five toes, as is shown in figure IX.

Nor do we wish to omit the record of a three-footed Cockerel given to us as a living gift by the learned and most courteous gentleman Francesco Severino, Doctor of Philosophical and Medical training, in the year of salvation one thousand six hundred and thirty-five, who, besides the two perfect feet common to all cockerels, had a third as if springing from the vent, complete with six toes; for which reason it could not be mingled with the hens, since the third six-toed foot was an impediment to its congress with them. Therefore, in lasting memorial to the donor, we placed this creature, drawn from life in colours, to be preserved in the Museum of the Most Illustrious Senate of Bologna; where also the skeleton of the same three-footed cockerel is hung (for it has lately died), and may be seen and admired by anyone visiting this public Museum.

Furthermore we do not wish to pass over in silence the most beautiful figure of a monstrous Capon observed by us, who perhaps should not be numbered among the three-footed beasts; for, besides the two perfect feet, it had two elongated toes added: nevertheless in the living animal these two joined toes, adhering to the right leg, represented in a certain way a third foot; as we have expressed in figure X, together with *Bromus*, or Sterile Oat.

After mention is made of the multiplication of toes on the feet of Brutes, the observation must not be omitted of a chick furnished with five toes on each foot, which we set forth drawn in figure XI.

We can confirm this by a certain observation of the most distinguished Licetus, who reported that in the year one thousand six hundred and twenty-four, at Padua, a maidservant plucking a hen found five toes with their claws distinct on each foot. To this we readily assent, by another observation of a three-footed chick born at Bologna which stood on a single foot alone, since the other two feet were mutilated, of which one was furnished with five toes and the other with four. Moreover, it had a double outlet for excrement, as appears in figure XII.

Before we depart from the chicken family, we do not wish to wrap in silence a monstrous Hen, which is today kept as a thing rightly to be admired in the house of the Most Illustrious Fulvio Antonio Marescalchi, Most Prudent Senator of Bologna. This hen is of whitish colour tending toward yellow, without a tail, and walks erect after the human fashion, with its haunches lowered to its heels, as appears in figure XIII; which seems to deserve mention here, not because it is furnished with monstrous feet, but because it cannot walk in any other way, on account of the malformed condition of its lower parts. For the most distinguished gentleman Giovanni Antonio Godi, not ordinarily learned in the conduct of anatomical dissection, having diligently examined and inspected the parts of this hen, found the haunches too long and the nameless bones malformed; wherefore this creature is compelled to sweep the ground with its vent and to walk in a certain way erect.

It does indeed lay eggs, but miscarries for the most part; as the Most Illustrious Giovanni Francesco Marescalchi, brother of the Senator, most courteously told us, and we judge this to arise from the malformed constitution of the aforesaid parts, and also from the observation of a longer sternum; since when this creature moves incongruously again and again, it then easily incurs miscarriage.

[catchword: In]

[marginalia: Three-footed Hen, our observation. / Three-footed chick. / Skeleton of a monstrous Poulard. / Three-footed cockerel given by Francesco Severino. / Monstrous Capon. / Chick with five toes on each foot. / Licetus's observation. / Three-footed chick at Bologna. / Monstrous Hen in the house of Marescalchi. / Giovanni Antonio Godi, Anatomist.]

X. A three-footed Capon, with sterile Brome-grass.

[Full-page engraving — no further translatable text]

XI. A three-footed chick with five toes on the third foot.

[Full-page engraving — no further translatable text]

III. A monstrous hen of the most illustrious Senator Marescalchi.

[Full-page engraving — no further translatable text]

Among the genus of Ducks and Geese also, monsters not unlike these have sometimes been found. For Julius Caesar Scaliger, in his *Commentaries* on the books concerning plants attributed to Aristotle, mentions a small Duck lacking one leg, with no traces of the other remaining; and Giovanni Battista della Porta, in his *Natural Magic*, declared that a small four-footed Duck had been seen, with a broad bill, black at the first part and yellow at the tip, with a black head, ash-coloured eyes, a black circle surrounding the neck, wings, back, and tail blackish, yellow feet not far apart from one another, which is still preserved at Torga.

Nor should this seem strange to anyone, since among a flock of Geese, others are continually born differing from the rest in number or conformation of limbs.

For indeed in the year of salvation one thousand four hundred and ninety-six, as Lycosthenes reports, in a certain village called Sagheva belonging to the Diocese of Strasbourg, a Goose was found of monstrous form, namely with four feet and two heads, with a double outlet for excrement. Albertus also confesses that he saw a monstrous Goose with four feet, as many wings, a single back, and a double neck; but reports that it did not live long.

We have here taken care to have depicted a four-footed Goose that lived in Bologna for several years, which we saw several times, and caused to be painted as an unusual animal, as appears in figure XIII, where there is also Marsh Mallow.

Since therefore monsters of this kind happen among animals that frequently come together and give birth, the family of Doves will not be lacking in monsters of this kind.

For since the time and place occasion it and food is plentiful, Doves breed in whatever months; wherefore not unreasonably Aelianus committed to writing that Doves give birth at every season of the year; but he cites this from Aristotle, who taught that our domestic Doves lay throughout the year, provided the place were convenient and food were abundantly available.

Doves are indeed lascivious creatures, and although they kiss one another before congress; nevertheless the female, sometimes stimulated by excessive lasciviousness, admits the male without a kiss. And so monsters in the genus of these animals occur, either as to colour, or as to number and malformation of parts.

Oppian, as to colour, reports that Doves will be monstrous — that is, as if painted — when they are held with the desire of Venus and are now mixing kisses with their mates: that the Dove-keeper should exhibit his dove-coat decorated with the variety of colours, especially purple, conspicuous, to these birds, with these verses:

> *The same thing performs the cunning fowler who in season*
> *Has birds in his care, and the deadly arrow,*
> *By this art shaping the Doves' chicks:*
> *He spreads out tapestries flashing with flame-coloured eyes,*
> *And the fowler throws down robes drenched in purple;*
> *Then, feasting his eyes, he gently ensnares their souls,*
> *And sends out chicks tinged with purple distinction.*

The monstrous beauty in Doves we do not now admire, but investigate the malformation of parts and the doubling of feet.

And so at first sight we set forth for inspection the figure of a four-footed Dove, caught in Germany in the year of our salvation one thousand five hundred and fifty, near the village of Rikensofen, not far from the town of Landau. For this bird not only had four feet, but also a double outlet for excrement; it was afterwards sent to Augsburg — for the Imperial Diet of the Roman Empire was being celebrated there at the time — where it was first viewed with wonder by Charles Caesar and the Princes of the Empire, and then in succession by the remaining multitude of men, as Lycosthenes reports, as may be seen in figure XV.

A second four-footed Dove of ash-grey colour tending toward amethyst, born at Bologna with a double belly; and therefore, so that the distinction might be observed, we caused this one to be drawn with Hemp, and set it forth for inspection in figure XVI.

Since there is great diversity among exotic Doves, not only with regard to feet, but also as to the size of the bill and the crest of the head, it must be noted that among them the Cyprian are the most beautiful, of which two kinds are seen: one crested, one quite

[catchword: plane]

[marginalia: Julius Caesar Scaliger. / Duck lacking one leg. / Porta Magia Naturali. / Four-footed Duck. / Monstrous Goose with four feet. Albertus. / Four-footed Goose at Bologna. / Aelianus on Doves. Aristotle. / Doves lascivious. / Oppian on the colours of Doves. / Four-footed Dove caught in Germany. / Four-footed Dove born at Bologna.]

XIII. A four-footed bird with marsh mallow.

[Full-page engraving — no further translatable text]

XV. A dove.

[Full-page engraving — no further translatable text]

XVI. A certain other dove, with hemp.

[Full-page engraving — no further translatable text]

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Among the Cyprian pigeons we once had occasion to observe a monstrous one with a flat head, whose colour was whitish with an amethystine tinge. The bird was in a certain sense bicorporeal, putting forth from a single belly one pair of feet, while two other feet served a second complete body. The colour of the head was amethystine, mingled with another colour, puniceous. The feet were of a pale red, and the claws were blackish. This is observed in figure XVII, where it is depicted together with the thistle plant.

Among the remaining kinds of birds, since they are all oviparous, it is not to be doubted that monstrous births sometimes occur. For Aelianus reports, as Porta relates in his *Natural Magic*, that under a certain king a four-headed bird was seen. The same Aelianus records, on the authority of Apion, that while Oeneus was reigning at midday, a two-headed crane appeared, and that at some time a three-footed hawk was observed. We now propose for consideration a monstrous bird of the goldfinch kind. We believe this kind of bird is known to all, inasmuch as — unless we are mistaken — there is no region that does not produce this species of small bird; whence among all nations it is commonly kept in cages. We shall not labour at length here upon the description of this most familiar bird, which is always before our eyes, but instead we exhibit for the reader's consideration the figure of a four-footed goldfinch, which came into our hands, in figure XVIII, together with the woolly thistle. Recently too it happened at Bologna that an illustrious lady, led by curiosity, dilated with a needle a peacock's egg taken from incubation and pierced; but upon catching sight of a four-footed and two-headed chick, she was so terrified by the monstrous peacock that she cast away both egg and chick.

To inquire now into the causes of deficiency and multiplication of feet in the offspring of animals may seem in a sense vain, since these can be investigated under the heading of the causes of excess and defect of parts. Nevertheless, as a kindness to the reader — lest he always have recourse thither — we shall touch on only a few points peculiar to this subject. First, as regards defect: monstrous parents are to be recalled to mind, who, having been mutilated in some part, sometimes — but not always — produce monstrous offspring.

For the most part, however, authors attribute the causes of mutilated parts not only to a deficiency of matter but also to a languor of the formative faculty. For when the portion of seed set apart for procreating the deficient members is deprived of the temperature that Nature requires for generating those parts, then the offspring becomes monstrous. Then again, when by an excess of uterine heat that virtue of the seed which was dedicated to the formation of some part is dissolved, it is deprived of its generative power, and consequently monstrous parts emerge from that portion of the seed, while the other portions of the seed retain their proper strength. Moreover, in the opinion of Aristotle, among these causes immoderate heat of the seed must be counted.

Finally, diseases are not to be set aside — diseases by which fetuses in the womb sometimes lose a part already formed, and by this means are rendered mutilate. Indeed, the narrowness of the place must also be brought to mind, by reason of which the parts of fetuses sometimes become mutilated.

Furthermore, the authors generally refer the causes of multiplication of parts to an abundance of seminal matter. Meanwhile, monstrous parents are not to be passed over, since this is manifestly shown in that eight-footed mare which, recently mated in Rome, gave birth equally to an eight-footed foal — as was shown above in the figures — although from this it does not always follow, in Aristotle's view, that such an outcome is necessary. Nevertheless, matter in great abundance, divided into several portions for fashioning the legs, feet, and toes, is accustomed to produce duplication of legs, feet, and toes. Even so, seminal matter that is copious and destined for producing twin offspring does, on account of the narrowness of the place, sometimes multiply the feet while the rest of the body of the offspring remains single — as the reader may observe in the pigeons proposed in the last place, which represent in some fashion a bicorporeal offspring.

Unless we prefer to assert that twin fetuses in the maternal womb are sometimes, through some violent concussion, fused into one monster, while the lower parts are doubled and the upper parts represent but a single body. And we believe this frequently comes to pass in human fetuses, since such fetuses do not always maintain the same position in the womb.

[catchword: Demum]

[marginalia: Differences of the Cyprian pigeons / Fig. XVII / Three-footed hawk / Fig. XVIII / Causes of multiplication of feet / Abundance of seminal matter / Copious seminal matter, what it produces]

XVII. Cyprian doves.

[Full-page engraving — no further translatable text]

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XVII. The Goldfinch (*Carduelis*), a quadruped, with the Woolly Thistle (*Carduus tomentosus*)

Finally, among these causes must be placed the scarcity of matter in the offspring that exceeds the norm; and although this may seem absurd, it is by no means foreign to the truth. For matter which, in quantity, is unfit for producing two offspring because it is too little, yet is plentiful for forming one, ends by generating only one offspring, and that a monstrous one, in that it multiplies the legs and feet and then generates the upper parts simple; and so in turn we ought to recall those causes to mind which we mentioned under the heading of the universal causes.

[marginalia: Scarcity of matter, what it produces]

HORRID AND MALIGN CONFORMATION OF THE FEET IN ANIMAL OFFSPRING.

CHAPTER [5]

Nature sometimes produces in animals such forms of feet that spectators have been terrified by the sight of them. We shall deliberately omit the infant born in Saxony with inverted feet in the year fifteen hundred and twenty-five, as Lycosthenes published; and likewise the men mentioned by Saint Augustine who are said to have been born near Hippo with crescent-shaped soles and two toes on each foot. Also we shall pass over in silence the boy born in the year fifteen hundred and sixty-four in the village of Papavilla, six miles distant from the town of Guise, who was without legs but from whose right buttock two oblong toes grew, and from whose left side an imperfect foot without a leg protruded — whose figure is shown in the fourth chapter of this *History*. Indeed we also pass over the infant born in the imperial city of Cologne, as Schenck relates, in the year of our salvation one thousand five hundred and ninety-seven, on the second day of May, who was well formed except that his thighs and feet, from the lowest part of the belly to the tips of the feet, had grown together, the toes of the left foot being entirely absent, in whose place a certain mass of flesh adhered to the region of the heel of that same left foot. For these monstrous births are of almost no account in comparison with those we are about to treat.

If therefore we advance to the recounting of the more horrid conformations of the feet, we shall at the very outset encounter Textor, who relates that a most ancient man by the name of Marin had the upper part of his body human and the lower part equine, being said to have been born with horse's legs; although others have recorded that he was believed to have horse's legs because he was said to have been the first of all men to have mounted a horse. However that may be, the generation of brutes' legs and feet in human offspring is not entirely to be rejected. For Plutarch, following Aristotle, reports that a girl named Onoscelis was born in Asia with only the legs of an ass, the rest of the body human, on account of the intercourse of Aristonymus of Ephesus with that same she-ass. Moreover Peucerus publishes that, in the reign of Michael the Stammerer, a human offspring was born into the light with goat's feet. Likewise from Caelius Rhodiginus we learn that at Sybaris, from the intercourse of a shepherd and a she-goat, an infant emerged with goat's legs.

Furthermore, in the year one thousand four hundred and ninety-three, an unmarried girl brought forth a human offspring with dog's legs and feet. This monster is mentioned by Cardanus and Paré, but first of all by Lycosthenes in his chronological work, as is shown in figure [5]. Not very different from this offspring, Magius records in his *Miscellanea* that in the year one thousand five hundred and forty-five, a birth occurred at Avignon with the upper parts human and the lower parts canine — and therefore Francis, King of France, ordered the mother to be burned together with the offspring. Likewise Volaterranus left it written in his *Commentarii Urbani* that in the age of Pope Pius III, a birth not greatly differing from the above-mentioned ones emerged in Hetruria, from a woman, as he himself says, violated by a dog; and for this reason the woman was brought before the Supreme Pontiff for the sake of expiation. Sometimes too monstrous births have been produced having the feet of another animal. For in Germany near the town of Landsberg, situated on the borders of Helvetia by the river Rhine, in the year of our salvation one thousand two hundred and seventy-four, a boy with goose's feet is reported by Conrad Lycosthenes to have been born.

We here present a hermaphroditic monster furnished with eagle's legs and feet, otherwise human, which perhaps, because it could not be taken alive, was stabbed to death. The figure is II, such as we found it in the public museum.

[marginalia: Civit. Dei cap. 8 / Boy with fused legs / Onoscelis / L. 4. Chron. / Boy burned with the mother / Puer with goose's feet]

Infant with canine lower parts.

[Full-page engraving — no further translatable text]

II. A hermaphroditic monster with eagle's feet.

[Full-page engraving — no further translatable text]

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It was stabbed to death. The figure is II, as we found it in the public museum.

Nor have there been lacking animal offspring furnished sometimes with human feet and sometimes with the feet of animals of different kinds; as Jacobus Rufus relates that a mare in France, covered by a stag, gave birth to a foal with the hind legs and feet of a stag, which Ludovico, King of France, afterwards received as a gift from its owner. The same author likewise records the birth of a foal from a mare covered by a bull in Helvetia: it had horse's feet but was in the rest of its body not unlike a bull. And we assert this most especially because Giovanni Battista Porta, in his *Natural Magic*, recorded from Gesner that at the foot of Mount Speluncae in Rhaetia there was seen a horse sired by a mare and a bull.

Authors are accustomed to call an animal produced from a bull and a mare a Hippobous (*Hippobous*); wherefore it has pleased us to exhibit openly the figure of this beast, born with monstrous feet, which might justly be called a horny-hoofed creature (*cornipes*). For Nature, in fashioning the feet of this animal, wished in a certain fashion to produce at once solid-hoofed and cloven-hoofed members, and brought about a monstrous formation of the feet, as it is depicted in figure II, together with the coltsfoot (*farfara*), which plant the botanists call the horse's hoof (*ungula caballina*).

Since the subject of horrid feet is under discussion, we are unwilling to pass over in silence the offspring of a cat born with horrendous feet in the year of our salvation one thousand five hundred and fifty-four. For Lycosthenes publishes in his chronological work that at Basel there was kept at home a most prolific domestic cat, which, after it had reached its eighth year of age, gave birth for the most part to monstrous offspring, and, contrary to the nature of other mothers, began to devour the kittens she had delivered. And so, among the other kittens which she brought into the light at a single birth, one was found furnished with two horrendous feet, reflexed as into a coil, as is shown in figure IIII.

Pliny, moreover, speaking of the horse of Caesar the Dictator — which is reported never to have received any rider on its back except Caesar himself — recorded that it had front feet similar to human feet; by which words Pliny described the horse as monstrous rather than ominous. Suetonius also set down the description of this horse in these words: *Gaius Julius Caesar used a remarkable horse, with feet almost like a man's and with claws cleft in the manner of fingers, which, being born on his estate, he reared with great care, since soothsayers had declared that it portended the dominion of the world to its master*. This is shown in figure V.

Let no one think this surprising, inasmuch as in the year one thousand six hundred and twenty-nine, in the month of July, in the territory of Padua, near the town of Monteilice, in the villa called Amolaradiena, as the most distinguished Licetus relates, a cat was seen with human legs, which dragged behind it those parts adherent to its posterior; and the monster, brought into the city of Padua, was at last thrown into the river. For the wife of a certain cowherd in the said villa, after giving birth to a perfectly formed boy, brought forth this horrid monster.

Here too must be mentioned a monster horrifying by the variety of its feet, which in the year of the Christ-bearing Virgin one thousand five hundred and thirty-one was captured in the territory of the Bishop of Salzburg, namely in the forest they call the Amesburg. It was, according to Lycosthenes, a quadruped, with a head nearly human and bearded and crested, with hind feet like an eagle's and front feet nearly like a lion's, with a dog's tail, a body tawny verging toward yellow, of unaccustomed ferocity; it fled from men and sought hiding-places, but since it could neither be compelled nor enticed to take food, it died a few days later. Its figure is VI.

The causes of these monsters, many learned men — such as Daré — refer to the varied and promiscuous confusion of the seeds of different species, since monsters half-human and half-beast are born; and they maintain that equal deformity of offspring results if beasts of different kinds mate. Wherefore they inveigh in wondrous fashion against those men who, fearing neither God nor the laws, so abase themselves that they think there is no difference between themselves and beasts, daring to mingle with them. Nevertheless we ought not to embrace this view entirely, since it cannot occur, in Aristotle's opinion, that offspring should be born from the mingling of animals differing greatly in species, temperament, and the duration of gestation; wherefore it will be necessary to have recourse to other natural causes.

Thus the Philosopher wrote in his *Problems* that monsters sometimes emerge from corrupted seed, but by corrupted seed he did not mean seed utterly putrefied [...]

[marginalia: L. 5 de conformat. cap. 4 / Cat with human hind legs / Fig. VI / Causes of the aforesaid monsters]

II. A hippobos with horse's feet.

[Full-page engraving — no further translatable text]

IIII. A cat with monstrous feet.

[Full-page engraving — no further translatable text]

V. A horse with human fore-parts.

[Full-page engraving — no further translatable text]

VI. A monster horrible for the variety of its feet.

[Full-page engraving — no further translatable text]

[...] he meant only that seed in which the virtue of the species languishes, whence afterwards either the whole offspring, or some of its parts, are produced unlike the parents; for when the formative virtue finds the matter of the offspring rightly disposed, it then generates offspring similar to its generator, but if otherwise, it produces one unlike it.

We shall now omit the causes derived from nourishment, from the nutritive virtue, from diseases, and from monstrous parents — of which more was treated at length under the heading of the universal causes. Since for the most part the generation of these monsters proceeds from a vehement imagination. For just as it happens that a pregnant woman imprints upon the offspring the image of a thing she desires, so too it may occur that a woman, filled with human seed, if she should afterwards mingle with a dog, may, through continual thought and fear of giving birth to a dog, imprint even the parts of a dog upon the offspring. It will not then be said that the birth proceeded from the seed of the dog, since no agreement is observed between human seed and that of a dog. We have asserted above that this cause holds good also for the offspring of brutes; since Cornelius Gemma reported that a dog with a hawk's head was born out of terror of that bird.

We do not deny, however, that monsters may issue from different animals of nevertheless agreeable nature and temperament; since Aristotle attested this in the monsters of Africa. Indeed in monsters of this kind, when the seed of the male — if he be a man — has had its vigour in the upper parts of the offspring, then the upper parts come out human; and if the male seed has operated powerfully in fashioning the lower parts, the lower parts of the monster will turn out beast-like.

Although sometimes monsters of this kind, proceeding from two animal species, can be born from two seeds enclosed in the womb, which, by reason of the narrowness of the place, cannot be expanded to form two offspring, but both coalesce into one, and a horrid monster is born — as the reader may meditate upon in the figures below — provided the seeds have had some agreement with each other.

Likewise, without doubt, the cat with horrendous feet seems to have emerged from the narrowness of the place; for the matter constituted for the formation of the feet, since it could not be expanded in that position, was produced in length, and the feet, for the convenience of the place, were formed into a coil. The horse with human feet is believed to have been born because the matter of the hooves, while still tender in the womb, was divided into several portions, as if for fashioning human fingers; although Antiquity referred this to omens and auguries.

THE MONSTROUS SKIN

CHAPTER VII.

OF THE MONSTROUS CONSTITUTION OF THE SKIN OF OFFSPRING

The defects that disfigure the skin of many offspring are sometimes drawn from colour — namely when Ethiopians are born of white parents, and contrariwise when white infants are born of Ethiopians. Then under these defects are included hairy offspring, who by their nature ought to be smooth and hairless; and moreover certain prominences composed of flesh and skin, which sometimes depend from the skin of a man and of other animals; and finally among these defects are reckoned a laceration and an excessive hardness of the skin of the offspring.

As regards the colour of the skin it is to be noted that sometimes white infants are born of black parents, and contrariwise black offspring come forth from white parents. For Heliodorus reported that Persina, Queen of Ethiopia, received from her husband Hydaspes — likewise an Ethiopian — a daughter remarkable for a white colour, because in the act of intercourse, with eyes fixed and mind intent, she was gazing upon the opposite image of the beautiful Andromeda. Contrariwise Hippocrates relates that a certain noble woman who was white, from a husband likewise [white, bore black offspring] —

[marginalia: Power of the imagination / Monsters of Africa / Narrowness of the place / White infants born of Ethiopians]

A hairy Ethiopian maiden.

[Full-page engraving — no further translatable text]

[...] likewise white, gave birth to a black offspring as dark as an Ethiopian, as is demonstrated in figure I.

And the origin of this is said to have been the following: the woman, in the act of intercourse, was meditating on the image of an Ethiopian placed opposite her. For this reason Hippocrates is said to have freed this matron from the suspicion of adultery.

Besides this, it sometimes happens in this case, on the authority of Aristotle, that after many generations of parents, the resemblance is given back; and an example of this is made manifest in the case of the woman in Elis, who, having mingled with an Ethiopian, did not give birth to a daughter resembling the Ethiopian in colour, but much later from that daughter's daughter an infant emerged resembling an Ethiopian. Likewise Nicaeus the Byzantine poet degenerated, from two white parents, back toward an Ethiopian grandfather. Hence too the reason is to be gathered why offspring are sometimes unlike their parents: for it often happens, for the reasons given, that grandchildren resemble their black great-grandfathers or great-great-grandfathers rather than their own parents. And although births of this kind, considered simply, do not appear to be monstrous, nevertheless, compared with the parents, to whom they are not of the same colour, they are to be honoured with the name of monsters.

Sometimes it also happens that the whole offspring comes forth into the light filled with a yellow colour, and this we believe to proceed from jaundice. Thus too Diogenes Laertius committed to record that the bare thigh of Pythagoras appeared golden. But Aelianus makes Aristotle the witness of this matter in these words: *Aristotle says that the Crotonians named Pythagoras the Hyperborean Apollo, and he added hereto on the authority of Nicomachus that on the same day and at the same hour Pythagoras was seen by many both at Metapontum and at Croton in Italy rising, and that at the same time he also showed his golden thigh at Croton*. The cause of this effect we refer to yellow bile dispatched by Nature into the thigh — since this effect and condition named jaundice depends upon such bile — as also do the authors call it Aura (*Aurugo*).

If we turn our attention to the hairy skin, we shall find that men remarkable for an abundance of hair, and offspring covered with long hairs, have been born into the light. First of all we read in Holy Scripture that Esau was born hairy. And Maiolus in his *Colloquia* relates that in a village of the Pisan district, the name of which is Pietrasanta, a virgin was brought forth covered with long hairs, as is observed in figure I.

Authors, moreover, refer the cause of this effect to the image of St. John the Baptist in his camelskin, after the custom of the pagan figure; whose image the mother was intently gazing upon, hanging in her bedchamber.

Hairy too was that offspring bristling like small twigs, published by Lycosthenes, who came into the light in the year of our salvation one thousand two hundred and eighty-two, from a noble lady, when Martin IV was governing the Christian world as Supreme Pontiff, at whose command all images of bears painted in the dwelling of that lady were destroyed — a manifest argument that the imagination had been received from those figures during conception. This hairy boy is shown in figure II. Peucerus likewise, as Lycosthenes records, seems to confirm this birth by another case, reporting that in the year of our salvation one thousand five hundred and forty-nine he himself saw a birth covered with bear-like hair.

Moreover Realdo Colombo confesses that he himself saw a certain Spaniard covered with long hairs on every part of his body, except the hands and face. Julius Caesar Scaliger mentions, and he himself saw, a certain small Spanish boy covered with white hairs, who was said to have been brought from India, or to have been born in Spain of Indian parents. Likewise Henry, King of France, by the authority of Bosco, caused a young man, not much less hairy than a dog, to be instructed in the humaner letters at Paris. Recently too, in the most serene court of Parma, hairy men brought from elsewhere were kept, whose figures are placed in the first chapter of this *History*.

To the causes of the hairy birth already set out, we can add hairy parents, since Nature always produces effects not unlike their causes; and accordingly we have learned that hairy offspring from those hairy parents are still living at Parma. Then we can recount another cause, namely the thickness and abundance of the sooty humour with which the maternal blood sometimes abounds; since this can generate offspring smothered in hairs. Even men have been found with a hairy heart, although that chief part is wont to be altogether free of the growing of hairs. Nor are [...]

[marginalia: Power of the imagination / Monsters of Africa / Narrowness of the place / White infants born of Ethiopians / Children's colour is traced back to the ancestors / Yellow-coloured offspring / Genef. 5. 27 / Causes of the hairy offspring]

An ox in the likeness of a bear.

[Full-page engraving — no further translatable text]

[...] dirty sheets and rags in which common women for the most part lie, are not to be passed over, since the frequent sight of hairs may imprint a similar form upon the tender offspring.

APPENDAGES OF THE MONSTROUS SKIN.

Nature, abounding in superfluous residue, with a vigorous formative virtue, fashions in offspring various appendages of flesh and skin — representing a helm, a mantle, and a hood — and other monstrous prominences of the skin, which are afterwards integrated from a fleshy and membranous substance. And this we gather to take its origin from an abundance of the seminal residue, since women that discharge such offspring scarcely emit any quantity of serum or mucus; and infants wrapped in these membranous substances, when they are born, incur an evident danger of death, unless they are freed from these membranes as speedily as possible. Hence Leuinus Lemnius reported that infants sometimes come monstrous into the vital air, while they are born with the head covered by a certain membranous veil imitating a monastic cowl; for which reason, on the authority of Guainerio, this membranous covering of the offspring has sometimes drawn husbands into the suspicion of adultery.

Finally, midwives and other clinical women are accustomed, as Leuinus relates, to presage good things from the reddish membranous bands of offspring, and ill things from the blackish ones. Hence they report that the French proverb has its origin: *Il est né coiffé* — that is, he was born cowled — and the saying is applied to him for whom all things fall out according to his wish. For this reason, midwives among certain nations sell these bands and membranous helms of offspring dearly to Advocates, by whose help they believe they are aided. Indeed the Ancients of old attributed to these a wondrous virtue, because they reported that Mark Antony was made celebrated by a cowl of this kind. And so an infant furnished with a helm of this kind, together with the same separated from the offspring, is shown in figure I.

Furthermore, noting the record of Fincelius as written by Lycosthenes: in the year of the Christ-bearing Virgin one thousand five hundred and fifty-three, at Bremgarten, a city of the March, an infant is said to have been born wrapped in a loose, ample, and membranous mass of flesh, so that it seemed to be covered by a German military cloak (*sagus*). We call this form of garment a mantle. The image of this infant is exhibited in figure II.

Moreover, innumerable other appendages and prominences of flesh representing the form of other things have been observed in offspring. Schenck mentions a handsome and elegant infant who had an appendage grown upon the anus in the likeness of a sausage. He likewise records a boy born at Cologne, in the year one thousand five hundred and ninety-seven, of most beautiful appearance, except that he had brought from his mother's womb two continuous appendages of flesh upon his neck, in the likeness of two eggs.

Similarly among the Piedmontese, as Ambroise Paré relates, in the town of Chieri, two miles distant from Turin, on the seventeenth day of January in the year of salvation one thousand five hundred and seventy-eight, a respectable woman gave birth to a fetus furnished with five horns like those of a ram; in addition the infant bore from the top of the forehead to the occiput, and over nearly the whole back, an oblong appendage of flesh imitating a woman's hood (*capitium*); then around the neck another fleshy substance was wound like the collar of a shirt. Moreover the fingers of the hands were crooked, and the hams were seized upon from the knees; the right leg with its foot was reddish, while the rest of the body was filled with a bay colour (*baetica*). This offspring came into the light with a great cry; when it was brought to the Prince of Piedmont, as Paré testifies, various were the judgements both of the courtiers and of others. The image of the monster is exhibited in figure III.

Furthermore at Stettin an infant was brought into the light in the year one thousand five hundred and fifty-four, who had on the crown of the head a mass of flesh presenting the image of a tortoise, and on the neck a whitish fleshy tail, but like the tail of a mouse, whose figure the reader will seek in the third chapter of this *History*.

[catchword: Hoc]

[marginalia: Infants wrapped in membranous substances / Membranous covering of the fetus, to what end / Other monstrous skin appendages / Fig. III]

I. A hooded infant, with the membranous hood separated from the foetus.

The hood separated from the foetus.

[Full-page engraving — no further translatable text]

II. An infant clothed in a fleshy mantle.

[Full-page engraving — no further translatable text]

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Here in this place is also to be recorded the little Indian man with a fleshy substance hanging from his chest: he, passing through Bologna in the year one thousand five hundred and ninety-two, was brought as a monstrous creature to the most distinguished Ulysses Aldrovandi. He was of the stature of six palms, and between his mouth and his right ear he had a double fleshy mass hanging down to his chest, of which the one, namely the one nearer the mouth, was shorter; and it adhered to the ear. Likewise a similar loose flesh hung down over his shoulder, and was covered with certain little hairs, just as were the others. Under his chin, and around the beginning of the thorax, another most large and very wide fleshy mass, herniating and covering first the shoulder, hung down over nearly the whole belly, and then extended from the nipple to the armpit. The thickness of the fleshy mass was half a finger's width, and could be lifted up by hand, because it adhered to the skin only at its origin. Moreover, that part of the body which was covered by this fleshy and membranous matter was felt to be quite warm; and therefore it was to be believed that the digestion of the stomach could be aided by heat of this kind. This little monstrous man is exhibited for viewing in figure IIII.

Recently too in the ancient city of Lisbon, the ancient seat of the Kings of Portugal, in the year of salvation one thousand six hundred and thirty-eight, an infant was born of respectable parents armed at every point; inasmuch as various appendages of skin and flesh, by reason of their shape, represented those protective arms with which men setting out for war are accustomed to equip themselves — indeed the same matter had furnished him with a helm and with greaves (*ocreae*) — wherefore he drew all spectators into great admiration.

Moreover, at various times boys have been born with shapeless appendages of flesh, as we observed in that boy born at Freiburg in the year fifty after one thousand five hundred, with an ugly face, with a hard fleshy mass on the forehead and occiput, whose figure is to be sought in the third chapter of this *History*.

Likewise in the year one thousand six hundred and eight, at Haguenau in Alsace, as Schenck relates, a male infant came from the womb of his mother perfectly formed, except for his upper lip, in the interstice of which a small piece of flesh in the likeness of a proboscis was grown. Similarly in the year one thousand five hundred and ninety-three, in the month of September, a boy emerged into the light with a portion of flesh around his neck, and another fleshy mass above his head. At Zurich too a hermaphrodite was brought forth in the year one thousand five hundred and nineteen, who had about the navel a red mass of flesh.

For the rest, it is to be noted that these appendages of the skin sometimes also come into the light together with animal offspring. For in the year one thousand five hundred and fifty-one, as Lycosthenes notes, in a village of Thuringia, a six-footed calf was born with a mass of flesh hanging from its sides. Nor is it to be doubted that all these false appendages of the skin are generated from the excrement or residue of the seminal matter, which afterwards, in accordance with the varied disposition of the matter, takes on various shapes as well, as was set out a little before.

[marginalia: Description of the little Indian man with a quadruple prominence of flesh / Fig. III / Boy armed at birth / Appendages in animal offspring]

A monster with a fleshy hood.

[Full-page engraving — no further translatable text]

VII. A man enveloped in a fleshy substance.

[Full-page engraving — no further translatable text]

THE SKIN INJURED BY NATURAL WOUNDS.

Natural wounds in teratology are those which are inflicted by Nature upon offspring still existing in the womb. For from Lycosthenes we learn that in the year of salvation one thousand five hundred and fifty-six, a woman at Basel gave birth to an infant with the nostrils so cleft that the brain itself could be perceived through them. Moreover the most distinguished Trincavella confesses that he himself saw not a few infants born with cleft lips, who in later life were not a little deficient in their speech. Likewise Lycosthenes observed at Basel a small boy in the year one thousand five hundred and fifty-seven, who was born with a hole in the occiput as if made by a dagger, from which blood was slowly flowing; for this reason the offspring died a little after birth.

Furthermore Schenck records that in the year one thousand six hundred and six, at Haguenau, a monstrous boy was observed who survived for some days, though he had above the navel a wide and round opening penetrating into the very bowels of the belly, as if he had been stabbed with a dagger; wherefore whatever nourishment he drank in, together with his excrement, immediately flowed out through this natural wound.

He likewise records a small boy born at Venice with the mouth cleft in several places, who on account of many other uglier things was not exhibited to public view. Again Lycosthenes records another small boy born in Misnia with the skull divided on the forehead, as if separated by a sword. Similarly Genus in the year one thousand five hundred and fifty-five, a certain French woman gave birth to an hermaphrodite infant whose intestines came forth through an open back as through a wound — just as likewise at Ploo in Normandy an infant was seen recently born, with the belly so open that all the viscera were visible.

Thus far let enough be said of the particular members of offspring that are wounded; but a greater spectacle offers itself when the whole circumference of the skin appears lacerated in the infant as it comes forth from the womb. This occurred in Saxony, in the month of February, in the year of the Christ-bearing Virgin one thousand five hundred and forty-five, where a woman brought forth an offspring of very horrid appearance, with the body indeed whole and rightly formed, except for the skin, which appeared wholly wounded and lacerated — except for the head of the offspring, which was oblong and as if crowned by a Turkish cap, as is related by Lycosthenes, and as is observed in figure I.

Jobius Fincelius also, as Lycosthenes records, relates that a certain beast was born with a skin most thoroughly cleft; for it was a horse which came into the light in the March, not far from the Regal Mount, most monstrous — namely in the year one thousand five hundred and fifty-five — since a membranous substance formed boots (*caligae*) and a breastplate (*thorax*), with which the beast appeared to be clothed; then the whole hide was split and lacerated, as is apparent in figures II and III. We may therefore call this a natural laceration, since Nature brings it about in the maternal womb.

As regards the causes, Aristotle wrote that there is in the seminal excrement a heat proper to whichever part of the body, such as each member requires; which, if it either falls short or exceeds, then the part to be generated is rendered either inferior or injured. From this it is to be inferred that sometimes, through a want of this heat with the formative faculty weakened, injured members are produced.

Monstrous parents too of these offspring are usually among the causes, as they go together suffering blows and beget offspring like to themselves. Although to this must be referred the narrowness of the place, and the frequent motion of the part, or the disorderly motion of the pregnant woman — all of which can injure the tender members of infants in a wondrous manner.

[marginalia: Natural wounds, what they are / Boy born with an open belly / Cap. 4 / Offspring born with the back open / Fig. I]

An infant with lacerated skin.

[Full-page engraving — no further translatable text]

II. A horse with lacerated skin.

[Full-page engraving — no further translatable text]

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From these causes the discharges of women occurring at the time of conception are not to be set aside. For if the parents lie together at this time, the danger impends that monsters of this kind may be procreated. This was the opinion of the most distinguished Paré and of other most learned men, because while impure blood is mixed with this mass, it cannot but be that some monstrous birth emerges, and above all one afflicted with wounds.

Finally the imagination of the parents, whether waking or sleeping, operates powerfully upon the tender little body of the offspring, above all at the time when the framework of the members is being constructed. For if a mother sees a man stabbed with many wounds, or observes the edge of a sword threatening herself, she may give birth to an offspring lacerated everywhere, or stabbed only in some one place. Moreover many infants are generated with cleft lips in the form of a hare's mouth; and boys grow up with this condition and a deformed mouth because the mothers who are carrying them in the womb are disturbed by frights or sudden sights of hares, or because they too eagerly desire to eat hare. The horse afterwards lacerated and shown above we assert to have been rather ominous than monstrous.

THE MONSTROUS HARDNESS OF THE SKIN.

Among the disfigurements of the skin roughness and hardness take their place, because the skin, since by its nature it should be smooth, if it acquires roughness or hardness from Nature, it beyond doubt acquires a form that is not natural but monstrous. And this will be the more wonderful if the skin of the offspring, along with the offspring itself, should turn to stone while still in the womb. For Johannes Georgius Schenck related that something similar had happened at Sens (*Agedineum Senonum*), which is the capital of Celtic Gaul, and called a similar offspring by the name of *lithopedion* from its effect — that is, a stony child (*lithopedion*).

This offspring was taken from the dead mother, and its position in the womb was nearly spherical, with the face fixed upon the thorax, the knees raised toward the buttocks; for this reason the face appeared broad, blunt, and snub-nosed. The bones of the head were thin and firm, and moreover bright like horn, the skin of the head hairy in many places; the head reclined upon the left arm, so that the ear and the back of the skull were pressed by the projecting shoulder, because they were seen to be hollowed in that part. The elbow was bent back to the top of the shoulder, only the hand extended, which was contracted into a fist, and the fingertips clung to the palm in such a way that, though they appeared distinct from one another, they had nevertheless grown together into one and the same stony body. The right arm stretched the hand to the navel; the left thigh, knee, and shin lay upon the right, yet they were so entangled with them that they were bound in an indissoluble knot. Both legs were turned back to the buttocks and chest, and concealed the surest mark of the female sex. Both shins were twisted back to the buttocks, with the feet and toes of the feet so compacted and petrified among themselves that one might have said it was the work of some engraver who had expressed a most perfect image of a fetus in ivory or marble.

Moreover the internal parts — namely all the viscera, the heart, and the brain — were naturally constituted, except that they had acquired an extreme hardness, though less than the external parts, so that this little body is to this day preserved untouched by putrefaction and worm-damage.

The story however was this. A woman of Sens, by name Columba Chatry, who had married Louis, a little man yet square-built and well-formed, a tailor — this woman, at the age of twenty-eight years, who had never previously been with child, though she had long since been married, had most certain signs of a begun pregnancy. For those discharges which were accustomed to come at regular intervals were immediately suppressed. She suffered from cravings (*pica*) in the early months, felt the timely motion of the offspring and its frequent stirring, fell into swelling of the loins and of the breasts, and finally, at the completion of the course of the gestation of the womb, began to feel the heavy pains of childbirth; the urine was suppressed for some days, which at last burst forth in great quantity, and that serum also poured out which is accustomed to precede a woman in labour, the breasts fell, the motion [...]

[catchword: Ddd 3 motus]

[marginalia: The discharges of women, what they produce / Power of the imagination / The lithopedion, why it was so called / Stony children in the womb / Cravings in pregnancy]

— the motion of the infant ceased, and the labour pains grew milder. By all of these things the midwives were astonished, as they had expected a perfectly certain delivery.

The patient, oppressed by the mockery of this pregnancy, took to her bed for three years, complaining without ceasing of swelling, hardness, and griping pains of the belly, and also of that heavy weight which, on account of its various motion, now settled on one side, now on the other. For this reason she would submit the swelling to be treated by whatever physicians and surgeons were available, and for this reason asserted that she was afflicted by some sort of sorcery.

After she had died, physicians and surgeons were summoned, who opened the woman's abdomen, and supposed that they had found a scirrhous tumour; but on cutting with a scalpel they found a portentous and chalky mass: for that infant, curled round upon itself, had been converted into stone.

The cause of this petrification of the foetus may be referred to intemperate condition and disordered matter; because this stony foetus could have proceeded from no other cause than that from which small stones are generated in the human body. Now this cause is usually twofold: namely, thick and dense matter, together with either excessive heat or excessive cold. For heat dissolves the thinner parts and converts the thicker ones into a hard substance. In like manner, in the joints of gouty persons, hard and chalky matter accumulates, which afterwards emerges through abscesses or is extracted by surgical operation. Thus a foetus hardening to stone in the womb drew its origin from nowhere else but from the matter destined for generation, which was thick, viscid, and earthy, and upon which the intemperately hot condition of the womb acting and dissipating the thinner parts condensed it into stone. Although also a constitution of the womb that is colder than proper can press out the thinner parts and render the thicker ones hard, dense, and stony.

ON MONSTERS OF TAILS.

CHAPTER VIII.

In the generation of the tails of animals, Nature sometimes falls into such impediments that she is compelled — as has been set forth in the fabrication of other parts — either to produce none at all, or to add a tail to an animal to which it does not belong, or to disfigure one species with the tail of another, or to deform tails, or finally to multiply them in animals.

It is most well known to all that men lack a tail; nevertheless the Annals of the English record that in those regions boys were once born distinguished by a tail — but we judge this to be attributed to a miracle: since John Major writes in his *History of the Scots* that the blessed Augustine, passing through Rochester, had been sent into England by the blessed Gregory the Great to spread the Gospel of God; but the common people, by way of mockery, threw fish tails at that just man — and hence from that time forward tailed children were born as a punishment for the crime; whereas at this present time tailed men are not born there, since this was wrought above the power of Nature only for that time, that that unbelieving people might give credence to the teacher. In Spain also, as Eusebius the Jesuit testifies, there was another tailed people.

But these things are to be passed over, inasmuch as they do not at all depend on a natural cause, if we are to reflect upon natural effects. We recall having exhibited in the third chapter of this History the engraving of a two-headed tailed foetus. Furthermore in the sixth chapter we likewise set forth for view an engraving of an infant with a fish's tail; and therefore with Horace we were able to sing:

> *The beautiful woman ends in a fish below.*

Yet this Horatian verse will not be able to attain the truth in the foetus mentioned, since the upper parts of that foetus were exceedingly deformed. Schenck also exhibits an engraving of a boy born at Cologne in the year after fifteen hundred and ninety-seven, who, besides the many monstrous parts described in their proper place, bore above the anus a pig's tail in his posterior part.

[catchword: In pro-]

[marginalia: Gens caudata. / L. degest? Scot.]

In brute animals we have more often observed monstrous tails. For Lycosthenes makes mention of a horse born on an estate in Pomerania in the year after fifteen hundred and fifty-four, with a dreadful head, pendulous ears, in-turned lips, a crooked neck, and an unkempt mane; in place of a tail there finally rose on it a tall crest. Furthermore, a calf with a lamb's tail, and conversely a lamb with a calf's tail, are said to have been born. Likewise a cock with a quadruped's tail was displayed in the second chapter of this History. Again, in a certain estate in Thuringia on the Unstrut, from Lycosthenes, a tailed toad was observed. And a trustworthy man, a diligent investigator of natural things, reported that he had once seen a frog distinguished by a tail.

Finally all serpents are by nature furnished with long and cylindrical tails. From this it does not follow, however, that a monstrous — namely a compressed — serpent tail is never seen. For we recall having seen the depiction of a serpent (if it is true, that is, if we are not mistaken), in the Table of Bembo, which serpent appears not at all to follow the nature of others, since after the neck it had a very broad body, of a nearly oval shape, but with a greatly compressed tail; as the reader may contemplate in figure I.

Thus far on the depraved conformation of tails: now something must be weighed concerning their defect and multiplication. For although calves, lambs, and dogs furnished with two tails are rarely observed, nonetheless in another kind of animal — namely in Lizards — the multiplication of tails is often observed. For we have seen lizards with two, three, and four tails, which the common people thereafter, with great foolishness, declare to be favourable at games. Now that these tails could have proceeded from no other cause, Giovanni Battista Porta in his *Natural Magic* was of the opinion that they arose from double-yolked eggs. We exhibit for the reader these monstrous lizards in figure LI. But among others the most admirable was the four-tailed lizard, which was given to us as a gift in the year after fifteen hundred and ninety-six: for the longer tail put forth three other small branches. Wherefore we judged this monstrous animal to have been born from an abundance of matter; and chiefly because the other parts of the body were larger than proper.

[catchword: In]

[marginalia: Cauda fuilla. / Agni cauda vitulina. / Bufo caudatus. / Rana caudaia.]

II. A lizard with two, three, and four tails.

[Full-page engraving — no further translatable text]

III. A green Lizard with a double tail.

[Full-page engraving — no further translatable text]

IIII. A representation of the slough of a green Lizard with a twinned tail.

[Full-page engraving — no further translatable text]

Among the Lizards there is reckoned a certain species called the green lizard, or great lizard, because compared with the common lizard it appears to be twice or three times as large. The Greeks call it *chlorosaura* (χλωροσαῦρα) on account of its green colour. At Bologna it is called *Liguoro*, that is to say something like a Ligurian, perhaps because animals of this kind occur more frequently in Liguria. Sylvaticus thereafter designates this lizard *ophiomachus* from its overcoming and attacking serpents — and not without reason, since this beast attacks serpents by natural instinct and fights most fiercely with them, as countryfolk have often observed when it has been wounded by Serpents. And so from this kind of creature there came into our hands one with a monstrously bifurcate tail, which we depict for the reader in an engraving.

And because this animal gave great pleasure by its beauty, it was gutted and carefully dried, and is still preserved hanging in the public Museum. We therefore set forth likewise the image of this dried specimen, found in the museum, on account of its doubled tail, in figure IIII.

We judge that we ought not to linger long upon the causes, since these particular causes are to be drawn from the universal ones explained above. For if we look to the defect of the tail, we shall often observe lizards lacking tails to generate others more frequently like themselves: wherefore this cause will coincide with that in which we were discussing monstrous progenitors. Unless we choose to refer this effect to the poverty of matter and to the enfeebled formative power — all of which may be causes of the defect of the tail; although sometimes monstrous effects of this kind are generated without poverty of matter or languor of the operative virtue, because the matter is unfit to receive the form of such a part.

If anyone moreover desires to know the causes by which a tail is sometimes monstrously added to a human foetus, recourse must be had to the causes of foul appendages of the skin.

Concerning the twinning of tails, Giovanni Battista Porta in his *Natural Magic*, pondering the multiplication of tails in lizards, acknowledged that it could come to pass that this effect proceeded from double-yolked eggs — *dilycthos* (δίλήκυθον): the word they use for a twin vessel, or double flask — and so he was willing to infer that two eggs are sometimes joined together resembling a double flask, which can produce twinned tails. Although also the matter destined for the formation of the tail, divided into two or more parts, may be able to produce this multiplication of tails.

ON FOETUSES DEGENERATING FROM BOTH PARENTS.

CHAPTER [IX].

Although there have been many authors who have committed to writing that offspring unlike their progenitors should not be placed among monsters, nevertheless we cannot but call monstrous those foetuses which are not conformable to the nature of their Progenitors; and this reasoning of ours is derived from the Problems of Aristotle, where the Philosopher, inquiring why offspring proceeding from human seed should be called ours, and conversely why that which, though proceeding from a human womb, is unlike should by no means be so called. He answers that what proceeds from uncorrupted seed is assimilated, and consequently the offspring can be called ours; whereas what proceeds from corrupted seed is unlike, and consequently is not to be referred to human offspring but will be judged altogether monstrous. The words of Aristotle are these:

> *If from our substance only the seed an animal be, it should be called offspring; what has so arisen we have judged ours, where either the seed had rotted or been corrupted in the womb, so that what is born therefrom — since the foetus emerging from perfect and uncorrupted seed is assimilated to us — we call monsters, saying that to be in no way our offspring, when from corrupted seed it is created; not moreover from ours is it created, but from another's; as that which comes from excrement: now all things of this kind are judged created from corrupted seed; hence it is judged that from uncorrupted seed Nature ordains that such be created as was he from whom the generative seed proceeded. For example, if from a horse a horse, and from a man a man.*

[marginalia: Arist. de gen. anim. / Seld. 4 prob.]

There is reckoned among the kinds of Lizards a certain species which is called the green lizard, or great lizard, because it appears to be twice or three times as large as the common lizard. The Greeks call it *dipsas* (δίψας) and more recently *chlorosaura* (χλωροσαῦρα) on account of its green colour. At Bologna it is called *Liguoro*, that is to say something like a Ligurian, perhaps because creatures of this kind occur more frequently in Liguria. Sylvaticus thereafter designates this lizard *ophiomachus*, from its overcoming and attacking serpents — and not without reason, since this beast attacks serpents by natural instinct and fights most fiercely with them, as countryfolk have often observed it wounded by Serpents. Accordingly, from this kind of creature there came into our hands one with a monstrously bifurcate tail, which we depict for the reader in an engraving.

And because this animal gave great pleasure by its beauty, it was gutted and carefully dried, and is still preserved hanging in the public Museum. Wherefore we set forth likewise the image of this dried specimen, found in the museum, on account of its twinned tail, in engraving III.

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Furthermore, offspring of this kind unlike their Progenitors, when compared afterwards with their Progenitors, beget in spectators no small admiration — a condition monsters ought not to lack. Wherefore Ovid (though it be fabulous) introduced Alcidamas marvelling, when he observed a dove coming forth from the body of his daughter, in these verses:

> *Thus the father Alcidamas was to wonder that from the body of his daughter there could have been born a gentle dove.*

And so it is most certain that a non-human foetus can be generated in the womb of a woman; since many Histories recounted in the section on Prodigies testify to this. Moreover many Doctors and experience favour this opinion. Beyond what Aristotle left written in his *History of Animals* — that some foetuses are like the father, some like the mother, some like blood-relations, and some utterly unlike any of these, which last are to be numbered among monstrous births — from this we shall conclude that a non-human monster can emerge from a human womb.

Moreover Caelius Aurelianus, Marcellus, Paré, and other recent trustworthy authors have reported that there were women who gave birth to mice, owls, moles, hedgehogs, frogs, leverets, cats, lobsters, caterpillars, polypes, leeches, lizards, serpents, piglets, and elephants — sometimes together with a human foetus, and sometimes without one. For in the year of the World eight thousand nine hundred and seventy-four after the three thousands, and eighty-nine before the birth of Christ the Virgin's child, at the beginning of the Marsic War, Alcipe, a woman, gave birth to an elephant, and a certain maidservant to a serpent, as Lycosthenes records.

We moreover remember having read that a certain honourable matron, suddenly terrified by the encounter of a dormouse, brought forth a dormouse in place of a human birth. And Conrad Lycosthenes records the history of a woman who, in the territory of Constance, gave birth to a lion — but this animal had a human face — : this matter does not appear to concern this place, since this birth does not degenerate at all from the parents. But the same author elsewhere makes mention of a noble matron who, in the territory of Helvetia at Aargau, gave birth to a lion very like a lion-cub; Scumpsius in his *Chronicles of the Swiss* records that this birth occurred in the year of salvation after one thousand two hundred and seventy-eight, though other historians assign this birth to a different time.

Likewise, from Johann Georg Schenck, Margaret Herkelin, a citizen of Passau, in the year of salvation after fifteen hundred and ninety, brought into the light a monster utterly unlike human nature, which was a hideous animal bearing the likeness rather of a demon than of any other beast; which, as soon as it came out of the womb, ran through the room at great speed — and so the women in the chamber, having summoned the neighbours to their aid, seized and killed it.

Furthermore many women are said to have given birth to dogs. This first occurred at Brescia, in the year of salvation after one thousand and four hundred and seventy-one; and another woman at Pavia gave birth to a cat. Again, in the year of our Lord after one thousand four hundred and eighty-eight, as Majolus records, a married woman gave birth to two dogs, and on the following day three others — though not all were born alive. Finally, Volaterrano testifies that he saw a papal diploma issued for the exculpation of a woman who had given birth to a dog.

Dinothus also records in his *Adversaria* that, as the Sullan War was impending, a woman brought forth into the living air a viper instead of a child. Lycosthenes records that this occurred in the year of the World eight thousand nine hundred and eighty-two after the three thousands, and ninety-five before the birth of Christ the Virgin's child; and in the same year at Clusium in Etruria, the mistress of a household expelled a living serpent from her womb; which by order of the haruspices was cast into the river and swam away. And so it will not be worthy of wonder if Lucan wrote:

> *A mother —*

[catchword: Matrem]

[marginalia: Varia in vtero mulieris genita. / Monſtrum forma cacodemonis. / Mulier peperit viperiam. / Vacca enixa serpente. / Bos enixa et serpente.]

A tailed toad born from the womb.

[Full-page engraving — no further translatable text]

Indeed more dread ought to have been inspired in the mother by the Toad, of whose birth from a woman Wierus records, following the opinion of Bodin in his work *Daemonolatria*, where the woman was said to have given birth to a Toad at Laon — at which the midwife and all the others present were seized with a certain horror: for it was a Toad unlike others, which many afterwards saw when it had been brought to the house of the Prefect.

Lycosthenes also divulges that in the year of salvation after fifteen hundred and fifty-three, in a certain hamlet in Thuringia, a woman gave birth to a tailed toad, as is shown in the engraving.

Although before that time — namely in the year of our salvation after fifteen hundred and thirty-one, from the same author — at Augsburg a woman gave birth to a serpent two feet long, and a piglet.

What we have hitherto observed concerning unlike births in the human kind we may likewise meditate upon in brute animals: for from Schenck, in the territory of Senigallia in Piceno, a cow gave birth to a serpent of wondrous size, with a thicker head, a longer neck, and a body like a dog's but rounder. When this had been brought forth and the cow had turned and looked upon it, as if terrified she let out a great lowing. Meanwhile the serpent, with its tail wrapped about the cow's hind legs, brought its mouth to the udder and sucked for a long time until the milk was spent; then leaving the cow it fled to the neighbouring woods. And the udder, and that part of the legs which the serpent's tail had touched, remained as if scorched and blackened. The herdsmen affirmed that they had seen this (because the cow was among the herd); indeed they reported that shortly afterwards a calf had emerged from the same cow.

Bauhin also, in his *Appendix to Rousset*, publishes this history of a cow, communicated to him by the most distinguished Felix Platter, who gave birth to a skeleton along with a calf: because the cow, impeded by the difficulty of birth and unable to deliver the foetus she had conceived, having suffered nothing more grievous, after some time conceived again; and when the time was completed she gave birth to a living calf and the skeleton of the previous calf. It is wonderful that the cow was able to bear the putrefaction of the foetus, and to conceive again with the bones of the previous calf retained: but this monster does not appear altogether unlike the mother, for the reason that although it was not a calf, the bones were nonetheless said to be those of a calf.

But altogether wonderful, and unlike the mother, was the monster born from a cow at a place in Burgos in Spain in the year of salvation after fifteen hundred and ninety-seven, as Johann Georg Schenck publishes. There the cow is said to have given birth to a male and a female human foetus, rightly formed and distinct in their members. This was to all a source of the greatest astonishment and fear: wherefore the Archbishop of that place refused to admit such foetuses to the washing of the sacred font.

Furthermore Lodovico Cellius writes, as Paré relates, that he had read in some approved author that a lion was once born of a sheep — a creature of plainly unequal and hostile condition. Finally Giovanni Battista Porta in his *Natural Magic* declared that he had seen at Rome a dog bred from a she-wolf — which birth does not seem very wonderful, since between a wolf and a dog the difference is not great. For these animals are indeed of different species, but they are the kind from which are wont to arise creatures that are called of mixed breed and of a third species.

In investigating the causes of these monsters, if we consult Caelius Aurelianus: he and Platearius have committed to writing that women sometimes give birth to Toads and other creatures of this kind together with a human foetus, but do not assign a cause for this monstrous conception. Platearius does indeed teach that those remedies recommended for provoking the menses also expel the Toad, which the men of Salerno call the brother of women: just as others call the Lizard the brother of the Lombards, since the women of Salerno more often give birth to Toads together with foetuses, and the Lombards to Lizards. For this reason the women of Salerno, at the very beginning of conception, drink the juice of parsley and leek, so as to destroy the animal of this kind before the human foetus quickens. Otherwise, concerning remedies for expelling or destroying similar beasts in the womb, the innocuous Spanish verses composed on this matter are to be read, which run as follows:

> *She arouses, therefore, the female menstrual flux long suppressed, and if it is blocked from where it usually flows —*

[marginalia: Lib. 2, 7, 8. / Bufo cauda ab vtero mulieris egressus. / Bos enixa et serpente. / Vacca duo fetus. / Animalia humana in vtero egressa. / L. 54. c. 6.]

She flushes out worms from the womb, and drives them through > The slippery passages of the bowel, by which the path of cast-out food is known; > And also, little by little, from the putrid menstrual flux she brings forth > Serpents generated within the lair of the uterus. > Monsters bearing the foul form of lizards, > Long (a horror!) not less black than the sole of a foot.

It is not difficult for animals of this kind to be generated in the female womb, since it is well known that from the excretions of women cast upon the ground and acquiring further putrefaction, both serpents and toads are generated. Hence Giovanni Battista Porta committed to writing in his *Natural Magic* that similar animals can also be produced in the womb, since retained excretions proceed to a higher degree of putrefaction. This is therefore wont to befall women who abound in impure blood on account of a depraved mode of life.

Unless we prefer to refer the cause of this monstrous birth not to the first seed but to the second seed emitted: for we are persuaded that from the first seed deposited in the womb a wholly intact birth results; whereas thereafter the error proceeds from the second seed, which, having attained eminent putrefaction, generates some absurd animal — wherefore Matthew of Gradi wrote in the second part of his commentary *On the Almansor* that something had issued from the womb of a woman and flown away.

Finally, a nefarious union — namely one between human and beast — is not to be removed from these causes: for although the Philosopher does not appear in one place to admit this, nevertheless elsewhere he left written that animals of different species, if their period of gestation is in some measure equal, can, if they copulate, generate offspring. Beyond which Plutarch, a philosopher of no common rank, declared that in his own time a beautiful infant had been born of the union of a man and a mare. Furthermore, the disposition of the vessels relating to birth is to be considered; since the bovine uterus can, as to its size, be capable of containing a human foetus. Other causes of this kind the reader may seek in the section on universal causes.

ON THE MONSTROUS STATURE OF ANIMALS.

CHAPTER X.

When in this place we make mention of the monstrous stature of animals, we do not mean the tallness of Giants, nor the smallness of Pygmies — who are almost entirely born of the race of Giants or Pygmies — since we have spoken of these in the first chapter of this History. But we are discoursing of the unusual stature of any animal whatsoever, whether tending to smallness or to greatness; being those births which, sprung from progenitors of accustomed and common stature and growing up, do not equal the stature of those progenitors or else surpass it. For foetuses of the like kind beget great admiration in spectators.

We shall therefore pass over dwarfish persons born with very large heads, who are to be placed in the section on deformities of the head. For we know from Lycosthenes that in the territory of Piceno, in the year after one thousand four hundred and seventy-two, an infant was born with a face of unusual size; and the most distinguished Licetus acknowledges that he saw at Padua, in the year of salvation after one thousand six hundred and eleven, a girl of four years with a very large head, entirely out of proportion to the rest of her body.

Now, to return to our subject: in the times of Valentinian there were found two men monstrous in their stature, of whom one in Syria towered above all men, and the other in Egypt lived in an incredible degree of smallness. Likewise the Emperor Charles V, when he had come to Bologna to receive the imperial diadem from the Supreme Pontiff Clement VII —

[catchword: diade-]

[marginalia: Varia in vtero mulieris genita. / Foetus magno capite. / Lib. 2, cap. 9.]

Men of Gigantic Stature

— had a footservant of monstrous size, as was related in the first chapter of this book. And Johann Georg Schenck relates that he had known a certain Antoni Francken, a Gueldersman by origin, in his thirty-ninth year, of a stature very nearly monstrous, because he surpassed a length of seven feet.

Likewise in the year after fifteen hundred and forty-nine, according to the account of Lycosthenes, a boy was born in the territory of Zurich, in the dominion of Kyburg, in the parish of Wiesendangen, in the month of May, from the married couple John and Barbara, who were of middling and common stature. This boy was cleansed by baptism by the parish priest, who named him Heinrich, and his subsequent growth was a wonder to all: for when he had completed six years of age, he equalled the height of a youth of fifteen years, and surpassed him in thickness and corpulence, with a large voice, enlarged genitals, and a rough pubescence; nor did he cease to grow. At five years of age he carried enormous loads and managed a plough like a full-grown man. All the citizens of Zurich knew him, and Gesner testifies that he saw him at the age of five.

Andreas of Gigantic Stature

Not unlike this birth recently came into the light in the territory of Naples, from spouses of common stature who were market-gardeners; he was baptised with sacred water and called Andreas, in the year of salvation after one thousand six hundred and thirty-one, in the month of March. Within the space of a year and a half he surpassed a height of eight palms with proportionate corpulence, for whom the food of two nurses was said not to suffice.

What we have hitherto expounded concerning male foetuses we judge should be understood of female ones likewise. For we read that, under Justin of Thrace, a woman was brought from Cilicia of admirable stature, because she stood a full cubit above all men. The blessed Augustine also records that a woman of gigantic size was seen at Rome, before the city was ravaged by the sacking of the Goths.

Dwarfs

On the other side, some also are seen as monsters on account of the admirable brevity of their stature: for in the age of Valentinian, a very small man was seen in Egypt; and Suetonius Tranquillus testifies that Octavian Augustus once exhibited publicly for viewing a youth named Lucius, born of honourable family, smaller than two feet and weighing seventeen pounds. Canopas, as Pliny testifies, was the pet of Julia, the niece of Augustus, and was only two feet and a palm in height. In recent years also, from the *Natural History* of the Jesuit Eusebius, a little man perfectly formed in his members was seen in Spain: at seven years he was already bearded, at ten he had all his strength, and he sired a son.

To these must be added the Dwarf of the Most Illustrious Lord Charles de Créquy, in his forty-first year and thirty inches tall, of whom we treated in the first chapter of this volume. Not unlike him are the dwarfs — a male and a female, who are brother and sister — maintained by the Most Illustrious Ferdinando Cospi, a Patrician of Bologna, Commander of the Cavalry for the Supreme Pontiff, Count of Bologna, Knight of the Sacred Order of Saint Stephen with a very large cross displayed upon his breast, *Balivus* of the City of Arezzo, and actual chamberlain of the Most Serene Ferdinando the Elder, reigning Grand Duke of Tuscany, and a most prudent man — who rears and educates them, born of needy parents of just stature surnamed de Biavati, land-tillers in a community called Bagnarola in the territory of Bologna; because he has found these dwarfs fitted for the discharge of any office whatsoever.

The dwarf by name Sebastian, now in his twenty-sixth year, barely surpasses a height of three quarters and a half. Nina, his sister by the other, whose name is Angelica, is now in her twenty-third year, and yet her height amounts to only three quarters and two inches. Moreover both of them, on account of the elegant proportion of their parts as befits the brief stature of their bodies, are to be admired: wherefore we set forth the portraits of both for the reader to view.

[catchword: Ex al-]

[marginalia: Homines Surae gigantae. / Andreas Surae gigantea. / L. 15 de ciuit. Dei cap. / Homunciones.]

The dwarf of the most illustrious Knight Ferdinando Cospi.

[Full-page engraving — no further translatable text]

The sister of another dwarf woman.

[Full-page engraving — no further translatable text]

On the other side, in the kind of Brutes likewise, one ought to contemplate a similar monstrous stature as regards both greatness and smallness. We recall having seen very small dogs and cats, as well as dwarf hens, which on account of the brevity of their legs touch the ground with their belly. The common people call creatures of this sort dwarfs.

Among cattle, dwarfs are sometimes seen, an engraving of which, found in the public museum, we give for the reader to view — although some authors say that this is a breed of ox that admits a rider like a horse.

[figure captions: Bos pumilus — the dwarf ox.]

[catchword: In]

In investigating the causes of these monsters, we shall not need to have recourse to monstrous parents, since we shall not find there the genuine causes; for if men of tall stature are born of Giants, and if conversely men of short stature are born of Pygmies and Dwarfs, this will without doubt not be deemed monstrous, since Nature always strives to reproduce her like. Wherefore we shall turn our attention to the vigorous power of the concocting faculty dedicated to each part (speaking, however, of the extraordinary bulk of a creature): for when this faculty assimilates more nourishment than is proper, the increase of the parts becomes greater; and thereupon the parts to be nourished attract with great force, and so the animal craves more vigorously and demands a more abundant quantity of food.

What we attribute to all the parts of an animal must be affirmed of some particular part — for instance, of an excessively enlarged head. For while the other parts of the body assimilate their due quantity of nourishment, that single monstrous part converts to itself an excess of nutriment, drawing that food from the other parts as if by a cupping-glass, whence it is easily transmitted thither from the other parts.

Furthermore, the very opposite must be maintained concerning Dwarfs, whose parts attract but little and consequently assimilate but little. Beyond this, when the faculty that augments and enlarges the body has been weakened and broken by some cause, only the nutritive virtue remains to minister to the sustenance of the parts.

The causes that break off the body's growth and impede the enlargement of the parts are not only grave and malignant affections, but also poisons or foods redolent of a malignant quality that afflict the body before the seventh year; as happened to the two dwarfs of the Most Illustrious Cospi, who, both being still in tender age, ate dead chicks that had died from eating mouldy wheat, and thereafter, swollen, wasted away for four years: and when at last the malignant quality was expelled, they had lost the faculty of bodily growth — which is why, from the same parents before and after their birth, other sons were born of a stature similar to their progenitors.

ON TWO-BODIED MONSTERS.

CHAPTER XI.

Equivocal Terms

Since in our History the word *bicorpor* [two-bodied] admits of many meanings, we have thought it worth the labour to explain at the outset the various significations of the name, before we proceed to the particular monsters of this kind. For in this place we understand a two-bodied monster in three senses: first, insofar as it embraces human monsters; second, insofar as it embraces bestial monsters; and third, insofar as it embraces intermediate monsters — that is, those composed of human and animal parts combined; and sometimes also those which Lucretius called *bina corpora* [twin bodies], in these words:

> *But at no time can there exist a double nature and a twin body.*

And when we contemplate a human monster of this kind, we shall find it varying in two respects: for one sort is double in the upper part and simple in the lower, while another is twinned in the lower parts and retains a single upper portion. Sometimes there has been seen a body perfectly and completely formed in all its members, to which another imperfect little body was glued and adhered. Sometimes it happens that two bodies are perfect and complete, but so conjoined in the mother's womb by a natural bond that they present a monstrous ugliness — namely two faces and two bodies — of which we may sing with Lucretius in this manner:

> *And the twin faces of men and their double bodies.*

[marginalia: Caufa proceri et humilis flaturae. / Caufa breuis flaturai. / Monftra generata in parte.]

These monsters are distinguished from one another by reason of the varied manner of their conjunction. For some are seen joined along the anterior part, others along the posterior, others along the lateral; and finally there are those which adhere by the buttocks, their heads in some manner opposed. Moreover, the differences that are observed in human monsters of this nature the reader will also be able to contemplate in bestial ones.

HUMAN TWO-BODIED MONSTERS CONJOINED BY A SINGLE HEAD ALONE

Many monsters of this nature were formerly seen, as no mere pamphleteer authors testify. First, Albertus Magnus in his *Commentaries on Aristotle* makes mention of a monster that had four legs, but this doubled body was governed from a single upper part. Likewise Petrus de Abano in his *Commentaries on the Problems of Aristotle* records a monster observed in Italy, of the female sex, continuous down to the hollow of the abdomen, and thereafter twinned. Valeriola likewise in his *Loci Communes* records a certain monster seen at Avignon, which from the neck downward carried about a double body.

Imperato also reported that a monster was born at Naples from a harlot afflicted with the Indian disease, which displayed two bodies joined by a single head. The head was very large; one side of it bore the likeness of a face, the other exhibited only a single ear; and when the cadaver was dissected, two hearts together with a single ventricle were found.

Furthermore, if we range over a series of years, we shall admire far more monsters of this condition. Lycosthenes first exhibits an engraving of a girl born at Berne in Italy — namely in the year of salvation after one thousand four hundred and seventy-two — with a single head and twinned lower parts. But in the year of our Lord after fifteen hundred and seventy-eight, a boy was born in Germany with a single head and duplicated lower parts, together with many other monstrous deformities that do not appear to concern this place.

Furthermore, in the year of the Virgin who bore Christ after fifteen hundred and thirty-one, near Esslingen, an infant with a single head came into the light with four ears, together with other twinned lower parts; Paré also makes mention of this monster, not noting the twinning of the ears in the same order. Again, in the year of our Lord after fifteen hundred and forty-seven, twin infants joined by a single head are said to have been born at Leuven.

To these is added an engraving of a monstrous foetus born in the year of salvation after fifteen hundred and sixty-nine from a certain woman of Tours, who gave birth to two twins embracing one another and distinguished by a single head; Ambroise Paré acknowledges that he received the skeleton of this monster from René Ciret; and this monster is displayed in an engraving.

Then in the year of salvation after fifteen hundred and seventy-nine, in an island of an obscure lake in the territory of Ferrara, there was observed a monster born with a single head, with a crest of flesh around the occiput; in the mouth there were two tongues, the sharper one resting upon the broader; it was furnished with a single neck, with the rest of the body twinned and of the female sex. This monster, depicted in its living colours, is to be seen in the public museum, where likewise a hermaphroditic, two-bodied, and one-headed monster is to be found.

We wish to describe and depict another more monstrous creature, born in the year of our salvation after fifteen hundred and ninety, in the month of October, from farm-labouring spouses, in a hamlet of Piceno in the diocese of Osimo. The constitution of this monster was as follows. The head was single and large, with eyes protruding like those of a toad, nostrils turned upward, a wide mouth drawn open to the ears after the fashion of frogs, with ropy fibres, curly as locks of hair, hanging from the chin and turned somewhat upward at their lower ends —

[marginalia: Monftri bicorporis varia connexio. / Varia bicorporum exempla. / Monftra vulgo II.]

I. A twin infant with one head.

[Full-page engraving — no further translatable text]

II. A two-bodied monster with one head, the head being greatly monstrous.

[Full-page engraving — no further translatable text]

not at all twisted; and accordingly the fleshy appendages, like a beard of satyrs, imitated them in some fashion. There was a single thorax, belly, and navel, but four arms and in all four legs, as well as swelling breasts. The posterior arms were so short that their fingers scarcely reached the elbows of the anterior arms. The remaining lower members, being duplicated, were set opposite one another across a diameter; and so the buttocks and privy passages were placed at the sides of the monster, with a distinct feminine sex, so that a double female sex was represented by this monster. For the parts below the navel were so excellently formed by Nature that they filled all beholders with admiration. When the cadaver was dissected, the viscera were found to be paired, except for the heart. The monster was born in the seventh month of gestation, and was such as is depicted in figure ii.

To these monsters must be added those whose perfect body carries upon it another, imperfect body — since these are undoubtedly reported to have been born at the same time. Where therefore two bodies are governed under a single head, they must by no means be excluded from this chapter; and accordingly we present in the first place a male and female infant with two bodies, in which the one body appears to lurk, as it were, beneath the arm of the other, and from one side of the monster three arms hang, and from the other only one. As may be seen in figure [ii]. Platerus also, in his own observations, records a human body of this condition, from which hung another human being complete in all parts except the head. Moreover, as often as the perfect male urinated, the imperfect one likewise discharged urine; yet the anus was closed and nowhere visible.

Description of the bicorporeal monocephalous monster

This monster will not differ from the monstrous boy from Illyricum, six years of age, of good constitution and well-formed, who in the year of salvation one thousand five hundred and fifty-two, as Amatus Lusitanus reports, came to Ancona, from whose navel, toward the thorax, another small body of an infant hung, with two arms and as many feet, but without a head. It had a scrotum without testicles, representing an elongated prepuce, through which urine dribbled. Moreover, whenever the perfect boy urinated, at once urine flowed through this passage of the imperfect boy. He was an object of such admiration to all that his parents, as they traveled through all of Italy, collected a great sum of money.

Another similar monster

This boy was perhaps not greatly unlike the bicorporeal monocephalous monster that Benevenius described, saying: A certain woman named Alexandra came from Milan to Florence, who used to exhibit twin males for money to look upon; of these, one was entire in all his body and with distinct members, but the other adhered to the thorax of the first in such a way that the whole head appeared to have been thrust into him there, with the remaining body hanging apart from the other in the manner of an infant sucking at a nipple.

Marcellus Virgilius also, in his commentaries on Dioscorides, describes a monster brought from France into Italy. For it was an imperfect body without a head, emerging somewhat from the region of the belly of another perfect small boy, and it moved in response to the senses and necessities of the perfect boy. Likewise, Giovanni Battista della Porta confesses in his *Natural Magic* that he saw at Naples a monster from whose chest another entire infant issued, retaining only the head inside the belly of the more perfect human being. Furthermore, according to a trustworthy account preserved with that most distinguished man Guido Montalbano, adorned with every branch of learning, in the year of salvation one thousand five hundred and fifteen, on the eleventh day of May, there came to Bologna a Spanish youth who carried beneath his armpit an infant complete in all members save the head, which appeared to be concealed within the thorax of the perfect young man.

Although in the preceding year — that is, one thousand five hundred and fourteen — according to the opinion of Lycosthenes, at Colmar, an imperial town of Alsace situated on the Ill river, a male infant was born, from whose chest a small body of an infant, complete in all thirteen members down to the knees, hung, with only the head hidden inside the body of the larger infant; as is shown in figure iii.

Furthermore, from the same Lycosthenes, in the year of the Lord one thousand five hundred and nineteen, a certain man of mature age, of full form and with all his members rightly constituted, came from Savoy into Switzerland, from whose region of the belly another human body hung in such a way that only the head and arms were lacking — which appeared to be hidden inside the belly of the other —

[catchword: recondi-]

[marginalia: Platerus / Amatus Lusitanus / Benevenius / Marcellus Virgilius in comment. ad Dioscorid. / Joannes Baptista Porta lib. 2 c. 17 / Guido Montalbanus / Licosthenes / L. 4 de morb. c. 143]

A two-bodied, one-headed monster of both sexes.

[Full-page engraving — no further translatable text]

A one-headed monster with two bodies.

[Full-page engraving — no further translatable text]

— hidden there, as it seemed. This man carried this mass through various regions, making a great spectacle and earning money from the crowds that gathered from all sides to gape at him.

Likewise, in the year from the birth of the Virgin Christ-bearer one thousand five hundred and twenty-five, a monstrous infant of male sex was born, from whose body, about the chest, another human body hung, complete in all its parts except the head, which appeared to be concealed in the other body. This monster came to manhood, and traveling here and there, collected money from those curious to observe this wonder of nature. Accordingly it was seen at Strasbourg at the fair near the feast of Saint John the Baptist, in the year above one thousand five hundred and fifty-five. Indeed Lycosthenes confesses that he himself saw this monster at Basel in the following year, one thousand five hundred and fifty-six.

The bicorporeal monster that came to manhood

This is perhaps the same monster that is published by Jacobus Rueff in his work on human conception, under the year one thousand five hundred and twenty-nine, when it had come to mature age, as is shown in figure v.

Ambroise Paré also makes mention of a not dissimilar monster, seen at Paris in the year of the Lord one thousand five hundred and thirty. Likewise Cardano records a man of monstrous form of this kind, who lived to his twenty-fifth year. A certain Janus Vitalis of Palermo also composed verses about this monster in the following manner:

He balances an empty trunk beneath his chest:
A boy emerged — a body without a name overlooks
This breast; the neck is its head, and small arms
Serve for hands; the back seems to gaze upon the sky.

Langius too committed to record that in the year from the birth of the Virgin Mother of God one thousand five hundred and fifty-six, in a village of the city of Strasbourg, a destitute woman, through the abundance of her sex, gave birth to a male, from whose epigastrium a mass not unlike an infant hung, so that one infant appeared to be inserted neck-deep into the other, with legs and feet perfect but hands mutilated; since on the right four and on the left only three fingers were to be seen.

A similar bicorporeal monocephalous monster was brought to Realdo Colombo, the most celebrated anatomist, to be dissected at Padua. It was a six-month infant, with another imperfect one, headless, glued to it; since the medical men desired to see whether the heart and other viscera were doubled. And so, when the cadaver was opened, in the imperfect boy some intestines were found, from a portion of which the bladder and anus were formed, but there no heart, no liver, and no brain was to be seen; only a very large kidney was there, which perhaps performed the office of the liver; for from the extremity of the liver of the perfect infant a vein like an artery ran to that large kidney, and from there several other veins were distributed through the body.

Before we turn to other discourse, it will not be out of place to recite certain verses that Pierius composed about a similar monster for Leo X, Supreme Pontiff; they are of this tenor:

That Nature and the fixed order of the world
Do nothing in vain and to no purpose is plain enough;
Of her pervasive works we wonder at nothing,
And there is no one to whom the use of them is unknown.
But things that seem feebly begun
Are portents, and the hidden changes of things:
So that they may exercise their force upon mortals.
Now we behold in Rome monsters that Celtiberia
Nursed, yet born on Gallic soil.
A boy hanging from the navel, that is,
A body without a head, by the shared
Viscera; and one can never touch this one's head,
The shoulders and arms so slender in their thinness
As to be utterly useless,
So short as to be no more than a thumb,
Boneless —

[catchword: Exossei]

[marginalia: epist. epist. / Langius / Realdus Columbus / Pierius / Leo X / Janus Vitalis Panormitanus / Licosthenes / Jacobus Rueff / Ambroise Paré / Cardanus]

V. A one-headed, two-bodied monster that reached adult age.

[Full-page engraving — no further translatable text]

Boneless, slack, and flaccid and faint.
The legs swollen, and the knee-joints
Now blasted by the heat, and already less fit for use.
These were not shown without result, O Leo;
But for your certain glory:
They raised to heaven, and another counsel
That a thing born in Gaul, reared by a Spanish man,
Should be without head, without hand, and on firm foot
Be brought into the Lateran and there take root —
As that church recently made manifest to an exhausted world.
This is to lead Leo, this is to recall Hercules,
Who subdued all monsters.

BEAST-LIKE MONSTERS WITH TWO BODIES UNDER A SINGLE HEAD

We find that the same things that are observed in human generation also occur among the offspring of brute animals. For whatever happens contrary to the common law and order of Nature in human generation, the same, we assert, can occur in the womb of brute creatures — and more frequently at that, since very many brutes bring forth multiple young, and even if they were not multiple-bearing, this might happen to them on account of the abundance of semen, since they practise coupling less frequently. For this reason, cattle often give birth to monstrous offspring, which the most distinguished Ulisse Aldrovandi caused to be depicted in lifelike colours, and any person can today gaze upon with great admiration in the public Museum; indeed, not only those he was himself able to observe, but also similar monstrous births observed by trustworthy investigators of natural things, as he learned. Among these births we have found one relevant to our purpose: it was a monocephalous, bicorporeal calf, endowed with five ears, with the upper feet of the two bodies mutually embracing one another, and these somewhat deer-like, as appears in figure i.

II

Not unlike in form was a bicorporeal pig endowed with a single head, born in the year of salvation one thousand four hundred and ninety-six, in Suntgau, a most fertile province of Germany, in the village of Lanser, as Lycosthenes records.

This pig had a single head, four ears, two eyes, as many tongues, and besides eight feet; this beast was joined from the head to the navel. The posterior, or lower, parts were separated, as may be seen in figure ii.

III. Description of the monstrous sucking pig

It has not displeased us to delineate in this place another monstrous suckling pig, since it belongs to the class of monocephalous bicorporals. This monster was born in the year of the Lord one thousand five hundred and seventy-two, on the day after Easter, at Metz in Lorraine, in an inn whose sign is an image of the Holy Spirit, endowed with eight feet, four ears, and a single head somewhat like that of a dog. The posterior parts of the monster were distinct as those of twins, but the anterior were joined, with two tongues in the mouth and four teeth on each side of the upper jaw and as many on the lower. The distinction of sex was not sufficiently expressed by Nature, because no one could determine whether it was male or female: for only a small slit beneath the tail of each body was open. Ambroise Paré acknowledges that he received the image of this monster from the most celebrated physician Burgess of Metz; as is shown in figure iii.

Similar monsters are wont to occur now and then in cats and dogs, since these are multiple-bearing animals; and so by reason of the abundance of semen and the multiplicity of births they produce bicorporeal monsters. Lycosthenes makes mention of a monocephalous bicorporeal kitten born at Basel in the month of February, in the year of salvation one thousand five hundred and fifty-two, in the house of Ludwig Dehitz, from a domestic cat which, among other numerous offspring, gave birth to —

[catchword: merofos]

[marginalia: Aldrovandus / Licosthenes / Ambroise Paré / Albertus Magnus]

A one-headed, two-bodied calf furnished with five legs.

[Full-page engraving — no further translatable text]

II. A twin pig with one head.

[Full-page engraving — no further translatable text]

III. Another two-bodied, one-headed pig.

[Full-page engraving — no further translatable text]

a monocephalous bicorporeal kitten with eight feet, of both sexes, with the bodies joined under a single head: so that they presented the appearance of two creatures kissing one another; whence many men drew from the birth of this monster a presage of health and harmony.

We now offer the image of a monocephalous and bicorporeal, and likewise eight-footed, cat — but differing from the first already described; because in this one the two bodies are glued together not only by the head but also by the sternum; as is depicted in figure iiii, on each side together with catnip, which herbalists call balm of cats.

IIII

Moreover we set before the reader for inspection another image of a monstrous cat that came to our hands. For it was a kitten of a domestic cat, white in colour, eight-footed, monocephalous in its upper parts and bicorporeal in its lower parts, with two tails, as is delineated in figure v, together with the greater Valerian.

V

What we have asserted to have befallen kittens of cats, we acknowledge also sometimes to happen to the whelps of dogs; inasmuch as images have come to our hands which represent monstrous dogs of this kind. We first exhibit for inspection the image of a monstrous dog — namely monocephalous and bicorporeal — but it differs from the foregoing cat monsters, since those cats were eight-footed, while this dog is only six-footed, being without two front feet; as the reader may observe in figure vi, where this monster is depicted on each side, together with fleawort, which botanists call the dog-herb or dog-like plant.

VI

We likewise set before the reader another canine monster of this kind for inspection, which is indeed monocephalous and bicorporeal, and joined at the head, sternum, and belly, but is eight-footed — differing from the foregoing recently delineated — as may be seen in figure vii, where it is shown on each side.

VII

In the tribe of birds, monocephalous and bicorporeal monsters of this kind are frequently observed; inasmuch as, according to the historian Lycosthenes, in the year one thousand five hundred and thirty-eight, at Colmar, a noble town of upper Alsace and of the Roman Empire, in the house of Thomas Eberlinus, on the Thursday before the feast of Easter (for it was the eighteenth day of April), there was hatched from an egg a chick monocephalous, with a double neck and two bodies joined together — that is, endowed with four feet and as many wings — as is seen in figure viii.

VIII

Thereupon men of no common learning conjectured that this had been a presage of that unity which Christ's faithful must always profess; since this monster came into the light on that very day on which Christ's mystical supper, as a memorial of his Passion, was being celebrated; while all the faithful of Christ, receiving the sacrament of communion, are in a manner joined together, and constitute one body of the Church under one head, Christ.

Furthermore they proclaimed that this chick, born in those regions as a prodigy, and especially on that day with four wings and as many feet under a single head, was meant to convey that the four writers of the Gospel were unanimous in describing the mystical supper, which is to be preserved in the Church of the faithful without any dissent whatsoever. Indeed, just as this prodigious chick stood on four feet, so the Church of Christ, supported on four Evangelists as on firm foundations, under one head — namely Christ — can never fall.

Furthermore in France, according to the assertion of Lycosthenes, in the year of our salvation one thousand five hundred and fifty-one, from a hen's egg there was also hatched a doubled and monocephalous chick, which, although it was furnished with four feet and as many wings under a single head, nevertheless differed from the foregoing already described in the neck: for that one bore two necks distinct from each other, while this one has necks joined together under a single head, as is shown in figure viiii.

VIIII

Likewise in the tribe of geese a similar monster was once seen, and especially in the year of the Lord one thousand two hundred and sixty-eight, if Lycosthenes touched the truth. For at this time a gosling with a single head and doubled neck, as well as the rest of the body, came forth from an egg, as appears in figure x: Albert confesses that he himself saw such a chick, monocephalous, with a double neck, four feet, and as many wings.

Therefore the common teacher Aristotle rightly taught that monsters with more —

[catchword: bris]

[marginalia: Lycosthenes / Albertus Magnus / Aristoteles / Licosthenes]

III. A one-headed, two-bodied cat, depicted prone and supine, with pennyroyal.

[Full-page engraving — no further translatable text]

V. Another two-bodied, one-headed cat, with greater valerian.

[Full-page engraving — no further translatable text]

VI. A one-headed, two-bodied, six-footed dog, depicted on both sides, with fleawort.

[Full-page engraving — no further translatable text]

VII. Another one-headed and two-bodied dog.

[Full-page engraving — no further translatable text]

VIII. A twin chick with one head.

[Full-page engraving — no further translatable text]

VIIII. Another twin chick with one head.

[Full-page engraving — no further translatable text]

X. A one-headed goose with doubled neck and body.

[Full-page engraving — no further translatable text]

— members than are needed are very rarely generated in the womb of those animals that give birth to single offspring, but are more frequently produced in those animals whose birth is numerous; and especially in the tribe of birds; among which hens are fertile in monstrous generation, inasmuch as they have a numerous birth, not only because, like doves, they often breed, but also because they always contain many births within them: for this reason they bring forth several doubled fetuses; for the conceptions coalesce by reason of proximity, and monstrous chicks, such as those offered for inspection in the figures, frequently emerge from eggs. Nor does this happen to chicks alone; because the fetuses of other animals also coalesce in the womb, and many of their members adhere together, and thus acquire a deformity. For this reason we may justly sing with Lucretius:

Many there were, maimed of foot, or in turn bereft of hands,
Many found mute also of mouth, without visage and blind,
And the whole body's members bound fast to one another.

HUMAN MONSTERS SIMPLE IN THEIR LOWER PARTS AND DOUBLED IN THEIR UPPER PARTS

Now that in the preceding chapter monsters with two bodies under a single head but doubled in their lower part have been brought forward, it remains, and appears consonant with reason, to enumerate in this place monsters opposite to those just described — namely those which, having their upper parts duplicated, end in simple lower parts.

In the first place, Saint Augustine makes mention of a monster of this kind, which is afterwards repeated by Pietro Crinito in his work on refined learning. There was then a boy born in the town of Emaus, simple to the navel, with his upper parts doubled — namely with four arms, as many hands, and two heads — during the reign of the Emperor Theodosius. But Paul the Deacon, speaking of the Emperor Caesar, wrote that after the death of Theodosius a similar birth was reported, perfect to the navel and thenceforth doubled in the upper part, since it had two heads, two chests, and four arms: indeed while one of them was awake the other fetus slept; and in turn they commonly engaged in various different activities. Then at the same time, according to Saint Jerome, another monster of this kind is said to have been born in Lydia, which was endowed with two heads, four arms, and two feet.

Likewise Albert the Great, in his commentaries on Aristotle, makes mention of a certain bicorporeal monster which was simple in its lower parts. And Cardano, in his commentaries on Hippocrates, published that a monster in Egypt lived to its fourth year, which was doubled to the navel, while the lower parts represented only a single child.

Furthermore, George Buchanan, the historian of Scottish affairs, by the account of Camerarius, related that a monster was born in Scotland which, from the navel upward, bore the appearance of a male and did not differ from the common form of men; but above the navel all the members were doubled. The King of Scotland took care to have it educated and instructed in various languages, and especially in music, in which it made wonderful progress, so that to the great admiration of all it sang harmoniously.

The monster is educated

Moreover in this monster two other things were worthy of admiration: first, because these heads frequently quarrelled with one another; then because, when the lower parts were injured, both bodies were affected with pain; but if any of the upper parts were injured, the sensation of pain fell to only one body. The reason for this effect need not be sought far afield: for the upper parts of the monster were distinct from one another, while the lower parts were observed to be common to both bodies. Whence the nerves that impart sensation to the members, since in the legs of both bodies —

[catchword: que]

[marginalia: Augustinus de Civ. Dei / Petrus Crinitus / Paulus Diaconus / Hieronymus / Albertus Magnus / Cardanus / Georgius Buchananus / Camerarius / Aristoteles]

I. A foetus twinned in the upper part and single in the lower, joined at the haunches.

[Full-page engraving — no further translatable text]

— they were common to both bodies, consequently the injury of these also harmed both; whereas the contrary had to be said of the upper parts. This monster is said to have prolonged its life to its twenty-eighth year, and to have died while John, as Viceroy, was administering Scotland.

If we range over a broad series of years, we shall find very many more monsters of this kind: for it is related in Lycosthenes that in the year of our salvation one thousand and forty-four, on the border of Normandy and Brittany, in the reign of Henry the Third, a woman was born with two heads, four arms, and all the remaining parts doubled to the navel; while the lower parts were simple. Each head ate, but the excrements of the belly were expelled through only one outlet. But when one part of the monster had died first, the other survived for the space of nearly three years, carrying the deceased, until it failed from the weight of the mass and the stench of the corpse. Some prophets supposed and even committed to record that by this monster were signified the regions of England and Normandy, which, though divided among themselves, were governed under one sovereignty alone; concerning which presage or interpretation of the monster, Vincent in his *Speculum Naturale* is to be read. The birth of this monster was afterwards placed by Matthew of Paris in the sixty-first year above one thousand from Christ.

Likewise in England, in the year of the Lord one thousand and one hundred and twelve, from the history of Lycosthenes, there was born a paired boy, divided from the hips upward in such a way that they appeared to be two complete infants, who, cohering at the hips, ended in only two feet. This monster, sprinkled with the water of the sacred font, survived three days, and was of such a form as is shown in the figure.

But in the year of salvation one thousand two hundred and thirty-four, in the hilly regions of Bologna, a monster not unlike came forth into the vital air from a woman, of which the upper part represented two infants and the lower part only one; but of these fetuses one died on the first day and the other perished on the following day.

The monster dies

At the end of the Greek Empire, Andronicus the last reigning, around the year of salvation one thousand two hundred and ninety-three, a monstrous boy was born at Constantinople, continuous from the feet to the navel, and from there separated so as to have two heads, two chests, and consequently a double spinal column with four arms; but he expired after his first day of birth.

Furthermore, in the year from the birth of the Christ-bearing Virgin one thousand three hundred and ten, in the Florentine countryside, a monstrous boy of bicorporeal form is said to have been born, as the history of Lycosthenes records, with twin heads, four arms, but about the genital parts so joined as to end in only two feet, and he lived but a few days.

The twin boy of Florence

The image of this boy is to be seen painted on the wall of the Hospital at the Stairs in Florence, with an epigram of the following tenor:

Here lie we, Peter and Paul, two under one body —
A wonder of nature's craft. We rest in the earth.
Each had his own hand, each his own mouth,
One bladder, and one was the work of the belly.
Our extremities, the limbs of both our bodies, joined us
Which neither alone could claim, and each called his own.
Neither side had feet; each side had two heads,
But from the middle of the body one sole grew.
Two, which from the middle of the body hung downward;
Upward, there was one hand more.
Not indeed was our sleep and food in common,
Nor was laughter, weeping, and wakefulness one for us.
One gave his limbs to sleep, the other laughed and wept,
One sucked and the other was the one that wept.
Born in the Florentine valley of the river Arno,
The loving care of our father gave us to the land.
Then raised up and lifted together from the sacred font,
We lived both ten and as many days twice over.
Why do you wonder now at Neptune, and now at two-faced Janus?

[marginalia: Lycosthenes / Vincentius in Speculo Naturali / Matthaeus Palmerius / Paulus Diaconus / Hieronymus / Albertus Magnus / Cardanus / Georgius Buchananus]

II. A two-bodied monster as far as the groin.

[Full-page engraving — no further translatable text]

Why marvel? What do the three-headed caves conceal?
And why Geryon's three bodies? We, forsooth,
One body and two souls — learn this by rule.

Francis Petrarch also makes mention of this monster in his work on memorable matters.

Nor did Nature's errors cease here; for in the year of the Lord one thousand four hundred and ninety-four, in the town of Germany called Rottweil, situated near the Hercynian Forest, an infant is said to have been born with two heads, four arms, and only two feet, as Lycosthenes noted.

Another monster of the same kind

Likewise in the year one thousand four hundred and ninety-eight, from the opinion of the same historian, a monster very similar to the foregoing, of the female sex, was born in the lordship of Württemberg, with two heads, four arms, a single belly, and two feet.

Finally, in the village of Rinach not far from Basel of the Rauraci, in the year one thousand five hundred and forty-three, as Lycosthenes writes, a woman gave birth to male twins with bodies joined above the navel, with four arms and standing on only two feet. This monster was elegantly described by Sebastian Münster in his *Cosmography*.

To these we add the image of a bicorporeal monster down to the pubic region, depicted in lifelike colours in the public Museum, which was born in the countryside of the city of Osimo in Picenum, and was twice sprinkled with the sacred baptismal water. One of its heads sucked very well, the other not at all. The image is represented in figure ii.

HUMAN BICORPOREAL MONSTERS JOINED TOGETHER IN VARIOUS WAYS IN THE MATERNAL WOMB

It is now our task to approach for examination those monsters that are truly bicorporeal — which, when it is established that they are complete in all their external parts, are connected in the womb in such a way that they cannot be separated from one another. It is indeed true that in these bicorporeal ones some small parts are sometimes lacking, and at other times also superfluous ones are observed. Yet it does not follow from this that they cannot be called bicorporeal, since they are constituted from the greater number of their parts.

Rufus, therefore, and Cornelius Gemma record the occurrence of both these monsters in various places, and Raffaele Maffei publishes that he saw in Rome twin infants joined face to face, who did not prolong their life for a long time.

The origin of the connection

There were also seen at Louvain, according to Schenk, triplet twins joined by the chest and belly in such a way that they were distinguished only by a double head, four arms, and as many feet; and so when the cadaver was dissected, the heart was found to be common to both; while the remaining parts were doubled.

For this reason a controversy then arose among learned men as to whether the faculty of reason had its domicile in the heart or in the brain. But we shall purposely pass over this dispute; because we recall that we have elsewhere, to the hearing of physicians, asserted that the dignity of the human form and the domicile of reason reside in the brain and not in the heart; although the source of heat and the chief knot of the natural and animal faculties lie hidden in the heart.

The connection of twins

We consider it better, therefore, if we turn, as is our custom, to a series of years in recounting these cases; and thus we shall set forth the connection of twins first according to the anterior part, then according to the posterior, and thenceforth according to the lateral. And so in the year of the world three thousand eight hundred and seventy-one, and ninety-two years before the birth of the Virgin Mother of God, from Lycosthenes, twin girls joined together and born dead were born at Worms. Likewise in the year of the Lord one thousand and sixty-three —

[catchword: tertio]

[marginalia: Franciscus Petrarca / Lycosthenes / Schenckius / Cornelius Gemma / Rufus / Volaterranus / Sebastianus Münster in Cosmographia / Licetus]

I. Twins joined at the navel.

[Full-page engraving — no further translatable text]

II. Twins joined at the chest.

[Full-page engraving — no further translatable text]

— in the year one thousand and sixty-three, at Constance on Lake Constance, twins of both sexes with all their members complete, but joined at the navel, came into the light.

Likewise in the village of the upper valley of the Arno called Terranova, in the year of human salvation one thousand three hundred and sixteen, a monster was born resembling two twins joined at the navel, of whom one had two legs and the other only one, as is shown in figure i.

I

Similarly, in the year of the Lord one thousand four hundred and ninety-four, in the month of February, at Bierheim in the lordship of the most illustrious Prince, the Count Palatine Elector, in a village not far from Heidelberg, male twins were born joined at the bellies, with all the remaining parts rightly formed, and the navel was common to both, as is evident in figure ii.

II

Furthermore in the year of human salvation one thousand four hundred and ninety-five, in the month of September, as Lycosthenes, Cornelius Gemma, and Paré attest, near Worms and Bensheim, a certain woman gave birth to monstrous girls joined at the forehead, facing one another, whom Sebastian Münster in his *Cosmography* says he saw at Mainz in the year one thousand five hundred and one; for at that time they had reached the age of six years. These were compelled to walk together, to sleep together, and likewise to rise; indeed when one advanced the other retreated, and the noses of both were as if touching one another. Their eyes for vision were turned only to the sides, because just above the eyes their foreheads were firmly adhering to one another.

The death of the twins

They are said to have lived to their tenth year; inasmuch as when one died first, the other died shortly after: either because the survivor, after the cadaver of the other had been separated, perished from the wound; or because the brain was lethally affected by the putrefaction of the cadaver.

The occasion of this monster is reported by authorities to have been this: two women were talking with each other, one of whom was carrying twins in her womb, but a third woman coming upon them unexpectedly struck the heads of those conversing; whereupon the frightened mother imprinted the mark of the shock upon the fetus, as is shown in figure iii.

III

Furthermore in the year one thousand five hundred and three, in the village of Gossau in the canton of Zurich among the Swiss, an honest woman gave birth to two fetuses joined at the navel, with two heads, four arms, and as many legs. And in the year one thousand five hundred and thirty-eight, by the authority of Lycosthenes, similar fetuses joined at the navel from birth were seen.

Likewise in the year one thousand five hundred and forty-one, in the month of February, at Freiberg in Misnia, boys were brought forth with the entire anterior part of the fetus adhering; as Peucer set down in the *Teratoscopia*. Indeed in the following year in the Duchy of Württemberg two births joined at the chest were born.

C

Similarly at Heidelberg on the Neckar river, on the day of Pentecost in the year one thousand five hundred and forty-four, from the father Caspar Besler the smith and the mother Catherine, a double fetus of the male sex was born, joined at the belly, the remaining parts complete; it lived a day and a half, and when the cadaver was opened, the surgeons found only one heart.

Likewise in the year one thousand five hundred and forty-six, in a town of Saxony on the Elbe, infants were born joined from the thighs to the neck, so that they appeared to clasp each other in mutual embraces. This case we can confirm with another older one, and likewise a more recent. The first is read in Schenk: for in the year of the Lord one thousand one hundred and six, in the month of January, in the celebrated and imperial city of Strasbourg, a monstrous fetus was brought forth from common parents — namely from Stephen the father, a carpenter — that is, a bicorporeal fetus of the female sex, joined at the heads, necks, chests, and bellies. One face appeared with two eyes, four ears, a nose, and a mouth not unbecomingly formed — if however the monster were viewed from the front, that is, from the part on which the faces of the two joined heads were figured. But when the fetus lay face downward, where the face of the other infant was to be formed, two heads were seen joined together in the manner of a wineskin; and nothing was to be seen worthy of note except for two small ears placed at the summit of the neck.

These twin girls, adhering at the chest and belly, seemed to embrace each other mutually — that is, with their arms and legs in turn crossed back and forth, with the navel of each hanging below. The monster lived an hour and a half, and after death, when the small body was opened, the surgeons found —

[catchword: ei]

[marginalia: Lycosthenes / Cornelius Gemma / Ambroise Paré / Sebastianus Münster in Cosmographia / Peucerus in Teratoscopia / Schenckius / Georgius Buchananus]

III. Twin girls adhering at the foreheads.

[Full-page engraving — no further translatable text]

A folded two-bodied foetus — a white Ethiopian.

[Full-page engraving — no further translatable text]

— in them one heart, one lung, one stomach, with a double liver and four kidneys.

A more recent monstrous birth

A not greatly dissimilar but more recent monstrous birth occurred at Reggio, in the month of November of the year one thousand six hundred and fifteen. The monster was bicorporeal, filled with both sexes; there were two twins, one a Moor and the other white, joined at the belly, thorax, and a single navel, otherwise perfectly formed, who appeared to be, as it were, in mutual embraces. They lived only three hours.

Figure iii shows the embrace and the connection.

In the same year at Bologna, in the month of July, two joined twin girls were born dead. First, the outer parts of each were most perfectly formed; and they differed not at all from other perfect parts, except only the chest, which was single and common to both. For by this part they were joined to one another. The junction began at the sternum bone and ended at the navel. The size of the body was the same in each, but the figure was not the same.

For the girl who occupied the right side was inserted into the other in some fashion, so that the chest of one and the back were curved. This constitution of the body was the cause of the weakness of their strength; for the dead one came forth while the other emerged alive.

The structure of the umbilical vein was unusual; for at its origin it was single, and as in every fetus singular; but presently, where it entered the liver, it was divided into two branches, each of which was inserted into the individual fetuses to bring nourishment.

The anatomy of the joined twins

The liver was indeed double, but to one not carefully examining it appeared single: for one lay hidden under the other as if concealed. The gallbladders were two, placed in the upper part of the liver. Likewise the stomachs were two, which were thereafter joined into the jejunum intestine near the pylorus. The kidneys were not joined but separate, yet two to each. One lay near the side of the liver, and the other was hiding beneath it. The spleen was single and visible only in the left fetus, bearing the shape of a dog's spleen rather than a human one. The colon intestine lacked its cells. The diaphragm was perforated in two places, because there were two esophagi and as many stomachs toward which they tended.

At the sternum bone (for there the fetuses were joined), they were so bound to one another that they appeared to be only one bone. The pericardium was one, which however embraced two hearts, the position of which was very different from the common: for whereas in every human being the apex of the heart is directed downward, in these twins the apices of the hearts were placed opposite one another.

Now if we return to the ancient series of years, we shall fall upon the year one thousand five hundred and forty; for in the month of April, from Peucer in the *Teratoscopia*, a double fetus at Louvain came into the light, joined at the heads, or somewhat at the back of the head, the remaining parts being perfectly complete, as is seen in figure v.

V

Again in the year one thousand five hundred and fifty, in the month of August, in the lordship of the Abbot of Ursinen, in the village of Reiden, three miles distant from the Swabian town of Kaufbeuren, the wife of a certain smith gave birth to twins perfectly formed in all parts but joined at the belly to the neck. Again in the month of March of the year one thousand five hundred and fifty-three, at Herbsleben in a village of Thuringia, twin girls were born joined at the bellies, who expired two hours after birth.

Again in the year of the Lord one thousand five hundred and seventy-two, as Ambroise Paré reports, at the small town of Pont-Saint-André in Anjou, in the month of July, there came into the light female infants of the female sex with all their members perfectly formed, save that one of them had only four fingers on her hand; the fetuses adhered along their anterior part from the chin to the navel, which was common to both, as was the heart, and a liver divided into four lobes. They lived an hour and a half, and are depicted in figure vi.

VI

In the following year — that is, one thousand five hundred and seventy-three — on the sixth day of October, from the observation of Cornelius Gemma, a prodigious species of twin girls was born, which in all their parts perfectly in the maternal womb had grown together so at the chests and the lower jaw as to present the appearance of a single bone. These died in the space of an hour and a half after birth. When the cadaver was opened, each had her own heart in her own place and distinct; whereas the complete opposite had been found in many other monsters of this kind.

VII

The image of these is such as is placed in figure vii.

[catchword: Rursus]

[marginalia: Lycosthenes / Cornelius Gemma / Ambroise Paré lib. 24 c. 62 / Peucerus in Teratoscopia / Cornelius Gemma in Cosmocrit. lib. 4 / Schenckius / Licetus]

V. A two-bodied foetus joined at the heads.

[Full-page engraving — no further translatable text]

VI. Portrait of the twin girls of Paré.

[Full-page engraving — no further translatable text]

VII. Twin girls joined at the chest and lower jaw.

[Full-page engraving — no further translatable text]

Again, from Schenk, in the year of human salvation one thousand five hundred and ninety, in the month of May, in the village of Hermelzheim in the diocese of the Archbishopric of Strasbourg, Margaret, wife of Theobald Helden the citizen, gave birth to a bicorporeal fetus with two heads, four hands, as many feet, and a double female pudendum, complete and perfectly formed in all its parts, except the navel; which was common to each little body.

Finally, from Licetus, in the year one thousand six hundred and seven, in the month of March, in the lordship of Genoa, from the married couple Battista Colloreto and Peregrina, a bicorporeal fetus was born, joined at the belly, its other parts separate from one another, of the male sex; but one was twice the size of the other, and the lesser fetus was deficient in one leg, otherwise rightly formed, save that it did not have its eyes open. The parents however were not monstrous and enjoyed good health; indeed before the birth of this monster they had begotten other sons well formed in their members. This monster afterwards at the age of four years was seen more than once at Venice and Padua by the most distinguished Licetus; since the parents, wandering through the world, collected no small sum of money from curious spectators by exhibiting this monster.

According to the same Licetus's account, in the year of salvation one thousand six hundred and fourteen, in the month of June, in the village of Porcetti near the town of Cologne, from married farm-workers, twins were born joined as if through a third part of the belly into the light. The sex of one was male; while the sex of the other was not distinct, in whose place a certain cavity stretching to the knees was to be seen, which rather bore the mark of a distinction of the thighs than of the female sex; since the legs were grown together, as two trunks of plants are accustomed to coalesce. In place of feet, certain fleshy outgrowths at the extremity, divided like the feet of a pig, were to be seen.

The connection according to the back

Hitherto we have spoken of twins joined according to their anterior part; now we shall turn our discourse to the joining at the back, since infants are sometimes accustomed to be glued together in the maternal womb along their back.

For we read in the history of Lycosthenes that in the year of human salvation one thousand four hundred and seventy-five, a bicorporeal fetus joined at the back was born. But Ambroise Paré explains this more accurately. Namely, in the same year, at Verona in Italy, two girls were brought forth from a woman, most tightly joined at the back from the lowest part of the shoulders to the buttocks; as is seen in figure viii.

VIII

Wherefore the novelty of the monster impelled the indigent parents to carry this monster through all the towns of Italy, in order to collect money from the crowds coming from everywhere to see the spectacle.

From the same authors, in the year of the Lord one thousand four hundred and ninety-six, in a village of the Palatinate county not far from Heidelberg called Rorbach, hermaphrodite twins were born, joined at the backs, and came into the vital air; whose image appears in figure ix.

IX

Just as they sometimes coalesce at the belly and the back, so likewise two fetuses sometimes coalesce in the womb at their sides. For this reason we gather from the history of Lycosthenes that in the year of human salvation one thousand five hundred and thirty-four, in the town of Seyckingen — the homeland of that most distinguished man Johannes Jacobus Beurer, professor at the University of Freiburg — situated three miles above Basel on the bank of the Rhine, a double fetus, joined at its sides, was born, but did not live long on account of the severe labour pains of the mother.

Likewise at Schaffhausen among the Swiss, as Schenk reported, in the year of the Lord one thousand five hundred and forty-three, two infants were born joined at one of their sides, of the female sex, with two heads, four arms, and as many feet, and a single navel common to both. Of these, one emerged dead from the other; the other, born alive, immediately expired.

Similarly in the town of Aachen in Saxony, infants were born joined at the side, but in such a way that the right one with its left hand rested upon the shoulder of the other, and the left one extended its right hand crosswise against the thorax of the other; as Peucer delineated in the *Teratoscopia*.

Sometimes the lateral connection of two twins causes each fetus, adhering laterally to the other, to be without one of its arms. Inasmuch as in the year of human salvation —

[catchword: mane]

[marginalia: Schenckius / Licetus / Lycosthenes / Ambroise Paré / Peucerus in Teratoscopia / Cornelius Gemma]

VIII. Twin girls fused at the back.

[Full-page engraving — no further translatable text]

IX. Hermaphroditic twins joined at the back.

[Full-page engraving — no further translatable text]

X. Male twins, each lacking one arm, fused at the side.

[Full-page engraving — no further translatable text]

HUMAN TWIN-BODIED MONSTERS BORN WITH HEADS OPPOSED DIAMETRICALLY

It happens at times that two foetuses in a human womb coalesce at the buttocks and perineum, so that the infants consequently appear to look upon one another face to face in diametrically opposite directions. For it is reported that long ago in Rome, according to the account of Lycosthenes, in the year of human salvation fourteen hundred and ninety-three, twins were born so joined that they faced one another with opposite hands and faces, and they lived only a few days.

Again, in the year of the Lord fifteen hundred and fifty-two, in the month of August, at Mildestoft in England, a twin-bodied foetus was reportedly delivered, with faces opposed, four hands, a single belly, a single navel, and likewise a single anus fitted for expelling excrement. From one side of the body two legs with feet of proper proportion hung down. From the other side a single leg with a foot emerged; this foot appeared as if fashioned from two feet and was adorned with nine toes, as may be seen in figure I.

Schenck adds, drawing on the account of Jacobus Rufus, that a not dissimilar monster of female sex had been observed, and that one of the foetuses survived fifteen days and the other only a single day. They wept in different ways: for one was notably cheerful while the other was sad and inclined toward sleep. The length and breadth of these infants are said to have been five palms, and their likeness is shown in figure I.

Ambroise Paré spoke of a monster not greatly unlike this one, which was born in Paris in the year of human salvation fifteen hundred and seventy, in the month of July, joined at the perineum to the buttocks, with the navel in the place of the sex organs. He writes thus: in the street of the Gravelliers at the sign of the Bell, from a father called Pierre le Porteur, surnamed the German, and a mother Matthea Pernella, two little ones were born whom unity of the buttocks and a single navel joined together; they looked upon one another diametrically, with distinction of sex — for indeed, having been sprinkled with holy water, they were named Louis and Louise.

Furthermore these monstrous conjoined bodies were exhibited to the nobility and to the people. Concerning these the following verses are read in Sorbinus:

> *Whence this strange race of monster? What dire passion*
> *Perverts the course of Nature and creates*
> *An unspeakable birth — twins joined at the genital part,*
> *The rest of the body otherwise complete and separate,*
> *Facing faces looking upon one another with opposite mouths,*
> *Alternating hands and alternating legs and feet,*
> *One frame alone below, and in the middle projecting from the single belly*
> *A single navel, nor is there any clear distinction of sex.*
> *Unless by the fact that one is said to have borne, in their separated body,*
> *The marks of the male, and to have been in appearance more manly,*
> *While the other might be taken as a kind of Androgyne.*
> *Nor is the conjecture far off, that one might say*
> *That this was the androgyne foretold in a poet's verses,*
> *Shown to us — along with many other signs of evils —*
> *Before twice six and five earlier years,*
> *In ten of which a war had already raged throughout Gaul,*
> *And so forth.*

Furthermore, in the year of the Lord fifteen hundred and seventy-two, in the month of February, as Ambroise Paré relates, in the parish of Viabani on the road that leads from Chartres to Paris, in the village called Paruatum Bordarum, Cipriana Giranda, wife of Jacques Mercator the farmer, gave birth to girls joined at the buttocks and consequently looking upon one another diametrically, who shared a single pudendum, a single navel, and a single belly — although this monster had two chests, four arms, and legs — but it survived only a short time.

Also at Venice, in the year after the birth of Christ fifteen hundred and seventy-five, in the month of May, an admirable monster was born of a Hebrew woman. There were two infants joined at the buttocks and perineum, with legs intertwined, destitute of private and natural parts, the place of which was supplied by the navel; and each, with faces turned away from the other, took food and drink. All of this is therefore set before the eyes in figure II.

Again at Venice we have learned that a monster of this kind was born in the year of salvation sixteen hundred and seventeen; and a not dissimilar one is reported to have been born at Genoa in the month of March in the year sixteen hundred and seven.

Finally, in the territory of Pistoia, in the year of human salvation sixteen hundred and ten, in the month of March, from spouses who practised charcoal-burning, infants were born equally joined about the pudenda and buttocks, with their faces likewise opposite, so that the sex could not be distinguished — although they seemed to partake more of the female sex. They were therefore perfect in all their members as far as the navel, with only a single exit for excrement. Moreover another fissure was also observed there, the internal cavity of which displayed two openings.

Of these infants, one possessed only a single leg — although the hand of the observing surgeon could feel perfectly well the bones of both legs — except that such a joint ended in two stumped feet, for they were furnished with only eight toes, as is shown from the delineation of the monster in figure LII.

Meanwhile, while one of these infants sucked at the breast the other was seen to weep.

Both infants suckled well, and chiefly the first, who had come into the light.

[catchword: Pratereas]

[marginalia: Other twins looking upon one another diametrically. / II. / Monster born in the territory of Pistoia. / III.]

II. A two-bodied monster with heads set diametrically opposite.

[Full-page engraving — no further translatable text]

Furthermore these monstrous conjoined bodies were exhibited to the nobility and to the people. Concerning these the following verses are read in Sorbinus:

Whence this novel kind of portent? What dire passion
Perverts the course of Nature, and creates
An unspeakable birth — twins joined at the genital part,
Their bodies otherwise complete and distinct,
Facing faces looking upon one another with opposite mouths,
Alternating hands and alternating legs and feet.
One frame is formed below, and one navel alone
Protrudes from the single belly;
Nor is there any clear distinction of sex.
Unless perhaps it is said that one, in a body divided thus,
Bears the marks of the male, and in appearance is more manly,
While the other might be taken as the form of an Androgyne.
The conjecture is not far off, that one might say
This is that androgyne foretold in the verses of the poet,
Shown to us before twice six and five earlier years,
Together with many other signs of evils —
In ten of which war had already raged throughout Gaul.
And so forth.

Moreover, in the year of the Lord fifteen hundred and seventy-two, in the month of February, as Ambroise Paré relates, in the parish of Viabani on the road that leads from Chartres to Paris, in the village called Paruatum Bordarum, Cipriana Giranda, wife of Jacobus the Merchant-farmer, gave birth to girls joined at the buttocks and consequently looking upon one another diametrically; they shared a common pudendum, a single navel, and a single belly — although this monster had two chests, four arms, and four legs — but it survived only a short time.

Also at Venice, in the year after the birth of Christ fifteen hundred and seventy-five, in the month of May, an admirable monster was born of a Hebrew woman. There were two infants joined at the buttocks and perineum, with legs intertwined, destitute of private and natural parts, the place of which was supplied by the navel; and each, with faces turned toward one another, took food and drink. All is therefore placed before the eyes in figure II.

Again at Venice we have learned that a monster of this kind was born in the year of salvation sixteen hundred and seventeen; and a not dissimilar one is reported to have been born at Genoa in the month of March of the year sixteen hundred and seven.

Finally, in the territory of Pistoia, in the year of human salvation sixteen hundred and ten, in the month of March, from spouses who practised charcoal-burning, infants were born equally joined about the pudenda and buttocks, with their faces likewise opposite, so that the sex could not be distinguished — although they appeared to partake more of the female sex. They were therefore perfect in all their members as far as the navel, with only a single exit for excrement. Moreover another fissure was also observed there, the internal cavity of which displayed two openings.

Of these infants, one possessed only a single leg — although the hand of the observing surgeon could feel perfectly the bones of both legs — except that such a joint ended in two stumped feet, furnished with only eight toes, as is shown from the depiction of the monster in figure LII.

Meanwhile, while one of these infants sucked at the breast the other was seen to weep.

Both infants suckled well, and chiefly the first, who had come into the light first.

[marginalia: Other twins looking upon one another diametrically. / II. / Monster born in the territory of Pistoia. / III.]

II. Two infants joined together at the buttocks.

[Full-page engraving — no further translatable text]

A twin foetus with faces set opposite, born in the district of Pistoia.

[Full-page engraving — no further translatable text]

TWIN-BODIED MONSTERS FROM HUMAN AND BESTIAL FOETUSES CONJOINED

Before we descend to setting out the history of twin-bodied bestial monsters, we have thought it necessary to reveal something concerning monsters that partake of both natures, so that we may pass from one extreme to the other through some middle ground — that is, from the twin-bodied human monsters, to the twin-bodied bestial monsters likewise, by way of those that partake of both natures.

For at the beginning of this eleventh chapter it was stated that twin-bodied monsters are to be understood in three ways: first, inasmuch as they are human; then, inasmuch as they are bestial; and last, inasmuch as they are composed of foetuses partly human and partly bestial. These last are again accepted in two ways, since some understand by a twin-bodied monster partaking of both human and bestial nature that which, in a single body, is compounded of a double nature — as was that birth of a half-man and half-dog, which they declared to have been born at Rome in the year of human salvation fourteen hundred and ninety-three, born of a virgin girl as a prodigious sign of the crimes that were to follow. As is shown in figure I. But of similar monsters we have no discourse in the present place, since previously, in the chapter on monstrous feet, something was said about them.

But in this place by monsters partaking of both human and bestial nature we ought to understand those which are conjoined not only of a double nature but also of two bodies differing from one another in species — so that we may say with the poet:

> *There may be beings of double nature and double body.*

One monster of this kind was that which was born in the year of the Lord eight hundred and fifty-four, towards the end of the reign of Emperor Lothair Caesar, who was Duke of Saxony, born of a certain woman in the form of a man and a dog. For there were two bodies joined most tightly along the spine of the back, and after the birth of this monster the death of the Emperor followed.

Likewise, in the year after the birth of Christ the Virgin one thousand one hundred and twenty-six, in Albania, a woman of low station gave birth to a twin-bodied monster, one face of which was human with the remaining parts corresponding in proportion to the face, while the other was canine with the remaining canine members befitting a dog's head; and the spines of the back of both foetuses were fused, as is set before the eyes in figure II.

Now it is worthy of note and of the greatest admiration, according to the view of Arnaldus Sorbinus, that at the time when this monster compounded of dog and man was born in Albania, the unhappy city of Montalban of the Aquitanians was biting its neighbouring cities with treacheries and betrayals, infected with the errors of the Albigensians, with nearly the same rage that today gnaws nearly all the adjacent places with dog-like bites. Therefore Sorbinus related that the misery of these people could not be more clearly signified, since though they appeared to many as men professing abstinence, yet behind they were the most biting of dogs — insolent, blasphemous, sacrilegious, following the error and impiety of the Calvinists; for priests were everywhere slaughtered by the heretics, the sacred temples of God were despoiled, cities were seized by treacheries, and finally Catholic men walked bowed down with grief and distress. Some bewailed the loss of their possessions, others the oppression of their own country and the wretched calamity of that time. At last all things were filled with weeping and sighs, so great was the impious ferocity of heretical wickedness. That this was to come, we perceive to have been foreshown by the birth of the monster born in Albania.

[figure captions: I. / II.]

[marginalia: Fabulous monsters. / Diverse examples of twin-bodied beings. / Monstrous progeny.]

II. Figure of a foetus half-human and half-dog.

[Full-page engraving — no further translatable text]

II. A two-bodied foetus, human and canine.

[Full-page engraving — no further translatable text]

Another two-bodied monster, canine and human.

[Full-page engraving — no further translatable text]

IIII. A two-bodied foetus, human and serpentine.

[Full-page engraving — no further translatable text]

are produced.

We know indeed that there were some who, to represent the image of the twin-bodied monster of double nature born in Albania, employ another figure in which a human and a canine birth are shown together, but they assign human hands even to the dog, as may be seen in figure III.

Nevertheless, adhering to the second figure, we believe this likeness to have been taken from the histories of those who declare that such monsters are found in Ethiopia: men who, though they are of complete human nature, are reported to carry upon their shoulders the body of a dog furnished with human hands and joined to them, and to be subject to the power of the Great Khan of the Tartars. But this we believe to be fabulous, or to have drawn its origin from some monster of this kind observed in those regions.

More horrifying and admirable than the foregoing we can set before the public that twin-bodied monster of this kind which was born in the month of September, in the year after the birth of the Virgin Mother of God fourteen hundred and ninety-four, at Krakow, in the square which takes its name from the Holy Spirit, where a certain woman was delivered of a dead foetus, to whose back a serpent was attached, feeding upon the infant's corpse, as may be seen in figure III.

TWIN-BODIED BESTIAL MONSTERS

It is not to be believed that such things are wrought by Nature in the human womb that are not also fashioned in the foetuses of brute beasts; for Nature, according to impediments, occasions, and the disposition of matter, is wont to err equally in bestial as in human births, and if twin-bodied monsters proceed from the human womb, twin-bodied foetuses also in the wombs of brutes.

For we read in the history of Poland that at Kalisz in Poland, in the year after the birth of the Virgin one thousand two hundred and sixty-nine, within the octave of Christ's Nativity, a twin-bodied calf was born with two heads and canine teeth, of which heads — for these two heads differed in smallness and size — the larger was situated in its proper place, while the other, namely the smaller, occupied the place of the tail. It stood on seven calves' feet, of which four protected the front part of the beast and the other three, together with the tail, adorned the hinder part. Afterwards dogs and birds are said to have recoiled from the carcass of this monster; this monster is represented in figure I.

A not greatly dissimilar twin-bodied calf-monster was that which came to light in the year of the Lord fifteen hundred and fifty-six, in the month of March, in the town of Bergendorff. It was accordingly a six-footed, two-headed calf, with a single rump and two tails. Then the parts of the monster were so distributed that one head appeared to look toward the east and the other toward the west. Three feet belonged to one part of the beast and the same number to the other part. The two tails together with the rump were to be seen about the side of the monster.

Moreover no less horrifying than admirable was that calf-monster born at Bonn, a town of lower Germany of no little note situated on the Rhine four miles from Cologne, in the year of human salvation fifteen hundred and fifty-two, in the month of May; for it was a calf with two heads and two tails, but furnished with only three eyes — as it is set forth to be seen in figure II.

Furthermore it happens in brutes — something that has not yet been observed in human nature — that a three-bodied monster is produced; and this is thought to arise from the fact that many brutes are more prolific than men. For when numerous foetuses are conceived in the womb, two or three small bodies can easily be joined or conjoined. This happened at Basel in the year of the Lord fifteen hundred and fifty-four in a domestic cat belonging to Conrad Lycosthenes.

[figure captions: I. / II. / III.]

[marginalia: Fabulous monsters. / II. / Twin-bodied birds.]

I. A two-bodied calf with dog-like heads.

[Full-page engraving — no further translatable text]

II. A two-bodied calf furnished with three eyes.

[Full-page engraving — no further translatable text]

III. A three-bodied cat joined at the bellies.

[Full-page engraving — no further translatable text]

For he himself relates that he kept at home a most prolific cat, which in a single litter brought forth three kittens joined not by the bond of the navel but truly conjoined by their bellies in the maternal womb, and these the narrowness of the birth killed as they were being born. This monster appears in figure III. Lycosthenes declared the mother of this monster to be truly a most prolific cat, since she had conceived three times in successive years, bringing forth now five, now six kittens. But after she had reached her eighth year of age, she gave birth for the most part to monsters, and at last, contrary to the nature of mothers, she devoured the kittens she had delivered and fit for running; and therefore for this savagery she was drowned.

Twin-bodied birds are sometimes reported to have been found among the class of birds. For in the year of the Lord fourteen hundred and ninety-six, according to Lycosthenes, in a certain village belonging to the bishopric of Strasbourg, called Süggenheim, two miles from Strasbourg, a goose of monstrous form was hatched from an egg, with two heads and as many tongues, a single neck, four feet — of which two occupied the place from which the wings normally emerge in other animals of this kind, and the other two were to be seen about the rump, where there was a double exit for excrement — and finally the wings were in some manner attached to the neck.

Therefore we shall be entitled to call this goose a twin-bodied one, not greatly differing from that which Albertus Magnus professes to have seen, with a double neck, four wings, as many feet, and a single back, so that one goose appeared to carry the other upon it — as may be seen in figure IV.

As a crowning conclusion to these monsters we wish to bring into the field a twin-bodied monster of the class of lizards — if indeed it was ever in the nature of things — which is found depicted in a panel of Torquatus Bembus and appears to represent the figure of two lizards joined together; and so it has seemed fitting to designate this monster as a twin-bodied lizard, or amphisbaena, as it may be seen in figure V.

But greater wonder will occupy the minds of readers when they contemplate the figure of a twin-bodied lizard which, living, was given as a gift to the most illustrious Ulisse Aldrovandi by Francesco Cento, a most celebrated tooth-drawer. This lizard had another head in place of a tail, and for this reason it moved toward each head in turn. Wherefore we must confess that it had proceeded from a twin egg, and such as it was when alive is depicted in figure VI.

That which we have observed in the duplicated outer parts of living creatures, we judge the same to be declared also concerning their inner parts; for Pontanus cites a witness who affirmed that he had seen an eviscerated ram in which the heart and intestines were found to be duplicated. Not to mention that above, in many places, we have recorded the doubling of viscera in many living creatures.

Although the causes of all twin-bodied foetuses appear to derive their origin from the abundance of seminal matter, nevertheless many of the causes of these foetuses are to be referred to a want of matter; as when twin-bodied foetuses are generated with respect to the upper or lower parts, while the remaining parts are subsequently produced simply and alone. The reason is that the matter destined for constituting two foetuses, when it does not attain that quantity which the twinned foetus demands, then produces a twin-bodied foetus only with respect either to the lower or to the upper parts. For Nature, intent upon the fashioning of twins, if after forming the upper parts the matter fails, the foetus will result as twin-bodied with respect to the head and thorax, and thereafter only a simple little body will remain.

On the other side, quite the opposite would have to be said concerning foetuses that are twin-bodied with respect to the lower parts and simple with respect to the upper parts, were it not that a difficulty stands in the way — concerning the first origin of the principal parts and especially the generation of the brain — since Nature, occupied first in forming the brain and head, will always produce this kind of twin-bodied beings, and twins, through penury of matter, with simple upper parts and twin-bodied lower parts.

Moreover, it is necessary to observe that sometimes in producing this kind of twin-bodied being, not only a want of matter suitable for generating the principal parts is an impediment to Nature's ability to produce perfect twins in the upper part, but also sometimes the narrowness of the place, which cannot receive a double distribution of the material for the brain —

[catchword: capere]

[marginalia: Most prolific cat. / Twin-bodied birds. / VI. / Duplicated inner parts of animals. / Cause of twin-bodied beings. / What the narrowness of the place can effect.]

II. A two-bodied goose.

[Full-page engraving — no further translatable text]

V. A two-bodied lizard.

VI. Another two-bodied lizard.

[Full-page engraving — no further translatable text]

cannot receive; and therefore the matter, conjoined together, forms only a single head instead of twins — though this may also arise from a violent agitation of the mother; wherefore we observe that twins with simple upper parts are for the most part governed by a very large head.

Nor are monstrous parents to be excluded from these causes, since if both were furnished with some superfluous part, it is easily possible that from these a monstrous offspring with numerous parts may result — for Nature always strives to perpetuate something similar in kind. Although this need not always be the case thereafter; for from the superfluous parts of the parents, so small a portion of the seed will be assigned to constituting the foetus that the parts of the foetus cannot be duplicated.

When, however, twins perfect in all their parts are joined in the maternal womb in various ways — as has been shown in many figures — we believe this to take its origin from many causes. First, a woman carrying twins in the womb may, from a violent shock of the body, a fall, or another cause of this kind, bring it about that the tender substance of the foetuses coalesces. And because twins in the womb do not always occupy the same position, hence it comes about that twin-bodied births are sometimes joined lengthwise along their bodies and sometimes at the buttocks.

At times also diseases of the foetuses can be the cause that joined twins come to light, while some sharp humour flowing to the womb erodes the tender surface of the twins; whereupon, the flux being restrained, the afflicted parts of those infants are glued together into one, and the twins, joined at the front, back, or side, emerge into the vital air.

What we have so far asserted concerning the twinned human birth will need to be confirmed for the causes of the twin-bodied foetus of brutes, since Nature operates in both cases alike according to the disposition of the matter and the impediments it encounters.

As for those twin-bodied monsters which have had an imperfect body of smaller stature annexed to them, it is to be noted that this arises most commonly from superfetation. And although this is rare, such monsters of this kind are said also to have been observed rarely. Not to mention that nearly all authors admit superfetation, and daily experience and observation teach it. First, Cardano, in his Commentaries on Hippocrates, observed superfetation in his own time. Indeed Dodonaeus, in his Annotations on the third chapter of Benivieni, relates that the wife of an honourable citizen, in the year of the Lord fifteen hundred and sixty, on the seventh day of December, was delivered of a happy birth, and on the following day, namely the eighth of the same month, brought forth another foetus not yet of four months — one which showed as yet no likeness of eyes, nostrils, or mouth — and thereby argued the later conception and consequently a superfetation. Finally Alexander Benedictus also records a monstrous superfetation, to which we refer our readers.

Since superfetation sometimes occurs, therefore, it may happen at various periods of pregnancy. For if this takes place in the first period of gestation, then the seed adhering to the other conceptus will be able to generate a new part upon it — as was observed in that monstrous foetus which, besides its own head, bore another in its belly, concerning which monster we spoke in the chapter on bicephalous monsters.

But if superfetation occurs in the second or third month of pregnancy, then the second foetus will result as smaller than the first, which, as it grows, is sometimes on account of the narrowness of the place, or on account of another cause unknown to us, agglutinated to the larger foetus — as was shown in the foetuses from whose belly or chest another imperfect little body hung. Hence it comes about that by reason of superfetation and the varying time of conception, one body of a twinned foetus always turns out larger than the other, since they were begotten at different times; for twins conceived at the same time, whether separate or conjoined, always obtain an equal mass of body.

Finally, the causes of twin-bodied beings composed of both human and bestial nature are to be drawn from those universal causes which concerned foetuses composed of parts from animals of different species. For from corrupt seed degenerating into an alien nature, even in the womb of a beast, frogs and serpents are generated — as was explained above; and thus we believe the infant with the serpent adhering to its back to have come into being. Although —

[catchword: Quamquam]

[marginalia: Causes of twin-bodied beings. / What superfetation can produce. / The time of superfetation. / Causes of twin-bodied beings from both human and bestial nature.]

Although the weakness of the generative faculty, the material principle of the foetus badly disposed, the imagination of the parents, and unspeakable intercourse — that is, between beast and man — together with the other things of this kind, are to be numbered among these causes.

Nevertheless, the power of the evil demon is not to be omitted in this place, which — God permitting — operates in a wonderful manner among natural causes; while it transforms a part of the seed existing in the womb into a viler nature, so that thence only the little body of a brute can result; at other times it carries secretly the prolific seed of some beast into the womb of a woman, so that thence a horrifying monster may emerge. Indeed it can transfer the foetus of some brute into the womb of a woman and glue it to the human conceptus, so that from the human womb a half-human and half-bestial monster may burst forth. And let this much said concerning the monsters of animals suffice.

OF THE MONSTERS OF PLANTS

Chapter Twelve

The reason of the order recorded at the beginning of this History demands that at the present time we speak of the monsters of plants; since in their generation Nature equally commits some errors, and chiefly because plants appear to have the greatest affinity with animals. For there were some who attributed to plants all five senses of living creatures. Indeed it is clearly established that the sense of touch is present in zoophytes, since the sea-nettle, the sensitive plant (Mimosa), and others of this kind contract themselves at a mere touch.

Moreover, some attributed taste to plants and especially to maritime ones: since in soil lacking in saltiness, they either do not spring up at all, or when transplanted they perish immediately. Next, they claim that smell is possessed by those herbs which languish on account of the approach of women suffering from their monthly courses. Furthermore, in plants some have observed hearing — on account of the white violet growing on Mount Myceno, which, as soon as it is called "stepmother," is immediately corrupted. Finally, sight has been observed in certain herbs and chiefly in Arax, a plant which, as soon as it sees itself observed by virgins, immediately pours out blood and wastes away. But to confess the truth, these things we believe to be vain and trifling.

Since besides these, there are arguments that we can use to prove the greatest affinity between animals and plants: for between animal and plant there has been placed by nature a certain medium, as it were a bond between animal and plant, which is called a zoophyte — that is, a plant-animal or animal-plant — which, in the manner of a plant, adheres to the ground, and in the manner of an animal contracts itself at any light touch.

Furthermore the kinship between plants and animals, extending to mutual generation, is recognised from the fact that animals are generated from plants and conversely plants from animals. Witnesses are Aristotle, Theophrastus, and Pliny — that from the horns of a living stag, ivy sometimes bursts forth as from the ground. Again Plutarch leads us into the arena, with a man who had long suffered from difficulty of urination, who at last discharged a barley stalk together with his urine. Hence we ought not to be restrained by any wonder if ears of barley have sometimes burst forth from the nostrils of a living woman, as was recorded in the section on Prodigies. Finally, mossy herbs growing on the backs of testaceous creatures and crustaceans are sometimes observed.

In turn, animals are generated from plants. For Acosta records worms and mice born from reeds in New Spain. Giovanni Battista della Porta, in his *Natural Magic*, teaches that eels spring of their own accord from seaweed, and finally Cardano left in writing that silkworms are generated from the leaves of the mulberry growing in a warmer climate, just as bees are produced from the carcasses of oxen.

Finally, the turpentine tree, according to Pliny's testimony, emits certain galls from which small creatures like gnats fly forth a little later; but, striving for brevity, we omit infinitely many things of this kind.

[catchword: animalcula]

[marginalia: The power of the evil demon. / Affinity between animals and plants. / Senses in plants. / Kinship between animals and plants. / Animals generated from plants.]

— small creatures like gnats fly forth shortly after; but, striving for brevity, we omit infinitely many things of this kind.

These things concerning the correspondence between plants and animals being understood, it seems conformable with reason to declare, together with Aristotle, that monsters occur in plants no less necessarily than in animals — though they are rarer, since it is easier to err in works of many parts joined together with wonderful art, such as animals are composed of, than to commit an error in the simpler parts which constitute plants.

But before we come to the particular monsters of plants, it will be better to distinguish among the monsters of plants, since these are understood in many ways: for the monsters of plants are called either proper or improper, and these latter are accepted in two ways — first inasmuch as something prodigious has occurred in plants; then inasmuch as, in some leaf of a tree, or flower, or trunk of a tree, Nature playing has represented to certain persons some image, or has expressed some engraving of a thing, or has caused some root or branch to refer by various crookednesses and excrescences to the carving of some thing.

But the monsters of plants considered properly still present themselves in two ways — namely as occurring either naturally or by art. By art, plants are rendered monstrous in two ways: either by grafting, when one tree produces a double or triple kind of flowers or fruits; or by such compression or folding of fruits, or of a tender plant, that its proper shape is altered. But the natural monsters of plants are so called when Nature, oppressed by some impediment in roots, stalks, leaves, flowers, and fruits, commits an error — as when two or three fruits are joined within the narrowness of a branch, which also happens in the womb of animals when through the narrowness of the place two foetuses are conjoined.

Although in this last way all authors, and chiefly Aristotle, have asserted that monsters are rarely produced in plants — both because the seed of plants is drier in comparison with the seed of animals, which, being softer, is more subject to any alteration; and also because the greater number of parts belongs to the constitution of animals than to that of plants, a single deficiency of which parts then occasions a monster. Nevertheless from constant observation we find many monsters also in plants; and therefore we have resolved to illustrate this history with various figures of this kind.

PRODIGIOUS MONSTERS IN PLANTS

We read that many monsters indeed prodigious in plants have been observed at various times. For Gualterius cites Sigibertus as the author of a certain elderberry that, contrary to custom, bore grapes; and accordingly he proclaimed that in the course of time the flowers and fruits of the elder had been transformed into flowers and fruits of the vine. Unless perhaps he was deceived by that species of elder which produces fruits very similar to grapes, which today in gardens is called the muscat elder by gardeners, because the fruits, when tasted, recall the flavour of muscat grapes, commonly called muscatella.

However that may be, we do not deny that many things of this kind beyond what is customary have been observed in plants, and chiefly because Pliny testifies that crops were born on trees in the year of the world three thousand seven hundred and sixty-five, a hundred and ninety-eight years before the birth of Christ, at the time when Plautus from Sarsina in Umbria died at Rome, having hired himself out to a bakery because of a dearth of provisions. Likewise, from Lycosthenes, in the year of the world three thousand eight hundred and thirty-one, a hundred and thirty-two years before the birth of Christ, [...]

[marginalia: Monsters of plants. / Proper and improper monsters of plants. / Prodigious monsters of plants. / Muscat elder.]

I. Monstrous grain-stalks laden with ears.

[Full-page engraving — no further translatable text]

crops are reported to have sprung up in trees. Again, in the year of the world three thousand eight hundred and forty-one, a hundred and twenty-two years before the birth of Christ, at Veii, as Lycosthenes relates, grain grew on trees — as the reader may see in figure I.

Moreover in the year of human salvation ninety-eight, several have related that a prodigious tree grew. For from Philostratus, in his *Life of Apollonius of Tyana*, we learn that Thespeton, the senior leader of the Gymnosophists, commanded a certain elm to greet Apollonius of Tyana, which succeeded according to expectation: for the tree is reported to have been obedient to its orders, bowing its summit and rustling its leaves.

Indeed, according to Pliny, in a grove sacred to Juno near Nuceria, during the time of the Cimbrian war, an old elm that had fallen to the ground, its top cut away, raised itself up again and put forth leaves anew. Hence the interpreters of prodigies foretold that the Roman people was to be freed from its present afflictions. Elsewhere also a willow and a maple tree, long since laid flat on the ground, put forth leaves anew.

Furthermore, in the year of the Lord fifteen hundred and forty-six, at Basel — which is Rauricum — in a certain widow's field, as Lycosthenes testifies, in the suburb of Saint Alban, a stalk of rye adorned with seven ears was found, among which one ear rising above the rest surpassed them in size; and in that same year the Emperor Charles V, attended by Spanish forces, broke into Germany to reduce certain princes who were not sufficiently submissive.

This prodigious rye recalled to memory a stalk with fifteen ears skilfully furnished, which in the year of human salvation fifteen hundred and forty-one, in Germany near the village of Malsch, not far from the imperial town of Speyer, was found without any sowing — according to the account of Lycosthenes — and thereafter the present dearness of corn was followed by abundance of grain. This monstrous plant is shown in figure II.

Again, we should be filled with yet greater admiration by those monstrous vines which, in the year of human salvation fifteen hundred and forty-one, produced grapes furnished with long beards. For Lycosthenes relates that bearded grapes were found at vintage time in Germany near Alberschweiler, not far from the town of Landau, which were first sent as a gift to Ludwig, Duke and Elector of Bavaria, then viewed by King Ferdinand and the Princes of the Empire as a wonder, and finally were portrayed in living colours by Heinrich Vogtherr the distinguished painter, as they are delineated in figure III.

To the foregoing we wish to add a prodigious cabbage born in a certain village not far from Nuremberg, in the year of the Lord fifteen hundred and fifty-three, according to the history of Lycosthenes, which village is called in the vernacular Zutdem Thon; for there, in the field of the farmer Hoselett, there was found a head of cabbage to which six other heads, over ten of them distinct with their own leaves, had grown from one and the same stalk; which cabbage, as being prodigious, was brought to the lords of that place and displayed to many others.

We ourselves also remember having seen at Bologna, some years ago, in the garden of a certain market-gardener, a headed cabbage of immense size, to see which many people ran together. The gardener, moved by curiosity, dug around the roots of the cabbage and found an old shoe buried in the earth to which the root of the cabbage had reached. From this the gardener gathered that the shoemaker's trade would be favourable to this herb.

We could also bring forward from Pliny the fact that at the first coming of Xerxes to Laodicea, a plane tree was transformed into an olive. And elsewhere a plane tree, already dried up, regained the greenness of its foliage anew. Item, in the last year of the reign of Nero, on the estates of Valerius Marcellus, a Roman knight who administered the affairs of Nero, many trees and chiefly olives changed their place. Indeed, from Lycosthenes, in the year fifteen hundred and fifty, toward the end of June, in Germany near the village of Bertholdsdorf not far from the town of Coburg, in a pear tree of proper size and height, pears approaching ripeness were found, while from the top of the tree other flowers were bursting forth, as indices of a second fruit of the same year.

Finally Surius, as reported by Cornelius Gemma, relates that in the year of the Lord fifteen hundred and fifty-nine, in the month of March, in the region of England which the ancients called Cambria, and more recently called Wales, an aged ash tree, split through the middle by a great storm, artfully represented the image of the Lord's Cross, and remained there for several years to impress upon human hearts the memory of the Cross — and chiefly at that time when the most wicked of men were living.

All these prodigious things, whether proper or improper, we resolve, together with St Augustine, to derive their origin from the highest God; since he left in writing: Whatever bodily or seminal causes are employed for generating things — whether by the operations of angels, or of men, or of whatsoever animals, or by the commingling of males and females — whatever also the desires or movements of the mother's soul are able to add to the lineaments or colours of tender conceptions, they do not at all fashion the things that are thus or otherwise effected in their kind, save only the highest God, whose secret power, penetrating all things, makes with an immutable presence everything that exists in any manner whatsoever to exist, in as great a degree as it exists; because unless He made it to be such or such, it could not possibly exist at all. Thus far Saint Augustine — and of these things enough.

SIMULATED IMAGES IN PLANTS

Various images observed in roots, branches, and other parts of plants are either always represented in them — and in determinate herbs by Nature — or are fashioned only in some of them and rarely. If these images are figured of themselves in herbs, then these plants are not called monstrous, as one may see in *Antirrhinum sylvestre*, the heads of which recall a human skull — wherefore botanists call this plant the Dead Man's Head. Furthermore *andrópelos* is a certain plant among the Greeks resembling a man, as if *andreikelós*, formed by syncope and with the smooth changed into a rough breathing. This accordingly appears to agree with the mandrake, which in its root presents rudiments recalling the human figure; wherefore Columella called the mandrake a half-man, thus:

> *Let the mandrake, offspring of frenzied herb, half-human,*
> *Bear flowers, and let the mighty hemlock.*

Then this same plant was called by the Pythagoreans *anthropomorphos* — as if bearing the form of a man. Not to mention other plants representing the human figure, such as certain species of satyria, the flower of one of which very handsomely imitates the human form — wherefore it is named by the Greeks *anthropophoros*, as if this plant bears in its flower the figure of a man. Likewise Palma Christi, among the species of satyrium, itself also produces roots imitating a human hand, and in the same way one may observe the same thing in many other plants — as was set out in the first chapter of this book, namely in the section on forms derived from likeness.

For the rest, in the present place there is no need to speak of these, since they are produced continually according to the laws of Nature, but only certain rare images that have at times been observed in plants will be enumerated. Of this kind was a certain root of white bryony found with some human likeness, still preserved in the public Museum. Again, a certain root was given to us as a gift, in which Nature artfully fashioned the image of a man, as is shown in figure I, set face-down and face-up.

[marginalia: Fraxinus manifesting a cross. / Saint Augustine. / Antirrhinum. / Anthropos. / Anthropomorphous species of satyrion. / A rare bryony root.]

II. A monstrous stalk bearing fifteen ears.

[Full-page engraving — no further translatable text]

A monstrous grape-cluster adorned with tendrils.

[Full-page engraving — no further translatable text]

the ancients called Cambria, and more recently Wales, an aged ash tree, split through the middle by a great storm, artfully represented the image of the Lord's Cross, and remained there for several years to impress upon human hearts the memory of the Cross — and chiefly at that time when the most wicked of men were living.

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[marginalia: Fraxinus manifesting a cross. / Saint Augustine. / Antirrhinum. / Andrópelos. / Anthropomorphous species of satyrion. / A rare bryony root.]

The likeness of a man in the root of a certain plant, depicted prone and supine.

Nature, in roots and plants, from time to time fashions not only likenesses of man but also of other things, and presents monstrous roots to those who gather and examine them. There is preserved today in the Museum of the Most Illustrious Senate of Bologna a *rhiza ophiōdēs* (ῥίζα ὀφιώδης) — that is, a serpent-formed root — so called because it artfully imitates the form of a serpent: wherefore it shall rightly be called a serpent-formed likeness sculptured by Nature in a root, as appears in Figure II.

Nor do we wish to pass over the ophiphyton branch — that is, the snake-wood — which was given as a thing of wonder to the most celebrated man Ulysses Aldrovandi.

[catchword: tum]

[marginalia: Simulacrum serpentiforme / Simulacrum serpentiforme in radice]

II. A serpent-shaped image carved by Nature in a root.

[Full-page engraving — no further translatable text]

A serpent-shaped Branch.

[Full-page engraving — no further translatable text]

we have therefore decided to give it to the Reader depicted, that he may contemplate how Nature has fashioned the figure of a serpent from certain prominences and depressions on a small branch, as is shown in Figure III. It pleased that most celebrated man to call this figure a serpentine branch, since its image altogether imitated a serpent. It was called a branch, and not a root, since another similar specimen was observed in the clematis, which is commonly called Vitalba. For there had grown between one twig and another a small branchlet which altogether resembled the snake called Cenchritis. Therefore, just as such a branch had once been produced in the clematis, so likewise nothing prevents a branch of this sort from being able to arise in another plant as well.

Now that the depicted figure represents a branch and not a root we gather from this: that it is entirely devoid of fibres. For no plant grows in the whole of nature whose root is deprived of fibres — whether large, middling, or very small — since in both perfect and imperfect plants fibres are necessary for life, that they may draw nourishment from the earth, since they correspond in proportion to the mesenteric veins which in animals carry chyle to the liver.

What we have just observed to be concealed by Nature in roots and certain branches, we may sometimes discern also in certain stones rolled along by torrents and rivers, since stones sometimes bear the figure of bread, cheese, and melons. Indeed Olaus Magnus reports that on the shores of the Ostrogoths — that is, the eastern shore of the sea called Braukien — there are observed stones which represent the various figures of parts of the human body as if they had been artfully carved. Although the inhabitants, accustomed to such spectacles, make nothing of likenesses of this kind.

Thus far we have meditated on the sculptures of Nature; now we must contemplate the paintings of Nature. For if it comes to pass that art, by sculpting and painting, imitates Nature in all things, Nature in turn, as if mocking art, seems to imitate the work of the sculptor and the painter, when she so skilfully contrives certain lineaments — drawn as if with a brush on branches and trunks of trees, and sometimes on stones — that she expresses the various likenesses of things. We therefore propose for examination in this place a portion of the trunk of a Guaiac tree, still preserved in the public Museum, in which two figures rendered from life are visible, one of which is a water-bird, and the other of a mushroom.

For the trunk of the tree in which these two figures are seen was adorned with them only in that lower part which faced the earth: the upper part of the Guaiac trunk appeared somewhat cleft and was in a manner divided into two smaller parts of a sesquipalm's breadth; but in the lower part, not cleft at all, those two figures set opposite each other appeared to correspond to two forked branches — or rather to branch-cores without pith. For Guaiac wood of its own nature has a somewhat blackish pith, generally larger than the surrounding wood; yet in this piece of wood the contrary is observed, since the black spots are smaller than the surrounding wood.

Thus on one side of the wood is seen the figure of a water-bird, namely the sea-heron called Totanus, and on the other side of the trunk appears the figure of that mushroom which the common people call Galletto, as is expressed in Figure IV.

Wherefore we cannot but admire the most beautiful works of Nature, who not only generates monstrous things in animals, but also in stones and plants, in which she fashions, by the variety of spots, many likenesses of animals, herbs, and other things, which we believe without doubt to have been made by chance. Although some men — and chiefly Albertus Magnus — assign the generation of these to the constellations. For if it should come to pass, they say, that the stars dispose the natural agents toward the production of dogs, then a man is born with a face in some way imitating the appearance of a dog; and likewise at that time in certain stones and trunks of trees not unlike figures of dogs are delineated; and so forth they assert of the forms of other animals.

[marginalia: Various figures in stones / Natural paintings / Figures in the Guaiac trunk / Causes of figures in trunks and plants]

II. A portion of a tree-trunk with monstrous figures traced by Nature

[Full-page engraving — no further translatable text]

PLANTS RENDERED MONSTROUS WITH RESPECT TO THEIR VARIOUS PARTS

Monstrous plants are produced in many ways. First, through grafting, when from the commingling of plants of different kinds a tree that is by nature sterile, upon receiving a seeding from a fertile stock, produces fruit. Wherefore it is worthy of memory what Pliny testifies he saw, namely a grafted linden-tree at Tibur, laden with every kind of fruit — one branch with nuts, another with berries, another with grape, figs, pears, and pomegranates — and not unreasonably did Virgil sing:

> *The wild plum is grafted from the shoot of the walnut tree,*
> *And sterile plane-trees have borne good apple-crops;*
> *The chestnut has clothed the beech, the ash has blossomed white*
> *With pear-blossom, and the swine have crunched acorns under the elms.*

Likewise Calpurnius, having regard to this in his Eclogues, wrote:

> *Come now, my apple-tree tempers the pear, and forces*
> *The early-ripening peach to creep in upon the plums.*

We ourselves have seen, in the most beautiful gardens and flower-beds of the Most Serene Grand Duke, clusters of grapes issuing from a lemon tree, as well as roses which a jasmine plant was bearing: but these do not seem truly monstrous, since they are contrived in gardens by marvellous artifice.

Therefore, setting aside those plant-monsters prepared by art, we shall proceed to weigh those plants which in the beginning of their generation, with respect to root, or leaves, or stems, or flowers, or fruits, are brought forth monstrous by Nature: since we have observed the errors of Nature in all the aforesaid parts of plants, as we shall in due course show by presenting figures.

First there offers itself for our consideration a monster about the root of a plant, which was found some years past in the public garden. This plant grows commonly among the crops, near hedges, and on the borders of fields, with leaves similar to cultivated basil, with hairy little branches whose tips are occupied by white flowers, after the fall of which come little vessels containing black seed, with a thin and hollow root — a plant which Matthiolus calls *ocymastrum*, *ocymoides*, and *ocymum sylvestre*; Castor Durante indeed calls it *basilicum sylvestre*; Dodonaeus calls it *Lychnis gentilis alba*; and Bauhin named it *saponaria hirsuta Italorum*.

Now since four species of this plant are observed: the first is that already described, which puts forth a simple white flower; from the second, purple flowers burst forth; the third grows with a full white flower, wherefore Lobel called this one *Lychnis sylvestris alba multiflora*; the fourth finally produces a full purple flower. Wherefore the last three, differing in beauty and rarity, are cultivated in flower-gardens. But the first species, as the most common, growing of its own accord in gardens, is eradicated by the most diligent cultivators.

It came to pass that the keeper of the gardens, in rooting out wild herbs, pulled up such an ocymastrum with a root so swollen that it seemed to rival a turnip; since therefore this plant is by nature of a thin root, we exhibit this one depicted as a monstrous specimen for the Reader to examine, in Figure I. It is indeed true that a similar plant in gardens, owing to the abundance of nourishment, produces both flowers and leaves larger than ordinary, but such a root has never been observed, even when it has grown in earth saturated with dung. Beyond which, the top of the plant whence the flowers issued appeared to be suffering from some swelling contrary to nature.

If we now come to the monstrous leaves of plants, we shall propose first for examination a branch of an almond tree furnished with monstrous leaves, once communicated as a thing of wonder to —

[marginalia: Monstrous plants produced by grafting / Virgil, Georgics Book 2 / Calpurnius, Eclogue 1 / Description of ocymastrum / Species of ocymastrum]

I. *Ocymastrum* with a monstrous root bearing swellings about the crown

[Full-page engraving — no further translatable text]

the most celebrated man Ulysses Aldrovandi by Brother Gregory the Capuchin of Reggio.

The almond tree is a most well-known tree — tall, with a thick and straight trunk, rough bark — and it bears leaves similar to those of the peach. Now on the topmost part of a branch of this tree certain leaves were visible that were very large, thick, and curled, and marked with a purple colour, which altogether degenerated from the true leaves of the almond; and then among these monstrous leaves some were green, some were exceedingly thick, and some were so folded together upon each other that they seemed to imitate those little pouches of the elm from which small creatures like gnats are wont to fly out.

Wherefore we may conjecture that the folding of these leaves was brought about by certain caterpillars in making their cocoons, since among these monstrous leaves white threads were lurking together with certain eggs, which had without doubt been laid by a caterpillar or similar little creature. Beyond which, we judge that some particular species of caterpillar had settled there, which had made its cocoons between these leaves for the propagation of its offspring; for from the interwoven cocoons similar little creatures transformed after the manner of caterpillars into a chrysalis produce butterflies.

Moreover, since the almond tree is a tree abounding in many excretions and superfluities, we cannot but say that the monstrous leaves arose from these. Especially since a great abundance of gum drips from this tree. For it is called by the Greeks *amygdalē* (ἀμυγδάλη) — that is, from *amykas pollas* (ἀμύκας πολλάς) — because it has many cracks from which a great abundance of gum flows out; and especially since we have heard that in trees of this kind similar leaves are sometimes found. Wherefore from this overflowing matter such monstrous fronds can emerge, from which proportionate matter the generation of caterpillars can afterwards take place, according to the opinion of Aristotle: not anything from anything, but a determinate thing from a determinate thing. Unless we choose to assert that so great is this tree's greed in attracting and its luxuriousness in putting forth leaves that, on account of the fruit's portion, it does injury to the fruit, while nourishment drawn too eagerly from the soil is consumed in leaves: and thus the portion necessary for the fruits is intercepted. The opinion of Theophrastus is therefore to be approved, who, speaking of this defect of the tree, used the word *exybrizein* (ἐξυβρίζειν). For *exybrizō* (ἐξυβρίζω) means "I am borne forth more insolently" or "I exceed the measure in wantonness"; and it seems to refer to those plants which run riot and luxuriate from an excessive richness of soil. This monster is shown in Figure II.

From these plant-monsters there must not be excluded a certain species of nettle brought forth monstrously by Nature, which has come to our hands; for nettles are various, namely stinging and non-stinging, and these grow either fetid or non-fetid, or spotted or unspotted. Of those stinging nettles two kinds are assigned by Dioscorides: although in Italy three kinds grow everywhere. The first kind grows with a rough, round, and stinging stem, and bears hairy and bristling little balls together with seed on the stem. The second kind arises with leaves indeed similar, but with a stem almost square, rough, and bristling to the touch, with clustered and small seed. The third kind grows with smaller but more acrid leaves.

The first kind Matthiolus called *Urtica prima*, Tragus *Urtica Romana*, Lobel *Urtica sylvestris semine lini*, Fuchs in his *Icons Urtica vera*, Gesner in his *Hortus medicus Urtica mascula*, and Dodonaeus *Urtica urens prior*. The second kind is called by Bauhin *Urtica urens maxima* and *Urtica secunda Dioscoridis*, by Fuchs *Urtica maior*, by Lobel *Urtica sylvestris asperior*, by Tragus *Urtica vulgaris urens*, and by some it is called *Urtica femina* and *communis*. The third and last kind is named by Matthiolus *Urtica urens minor*, by Bauhin perhaps *Urtica Plinii*, by Cesalpino *Urtica exigua*, and by Dodonaeus *Urtica urens minima*.

Differing from all these we have observed a stinging nettle which we give in Figure III: not however differing in species, but only in the monstrous appearance of its leaves, by which it could afterwards be referred to the second species. For we do not wish to imitate Tabernaemontanus, who, having observed that the first species of stinging nettle sometimes turns red in the stem and root, constituted two species of nettle, calling one *Urtica maior* and the other *Urtica rubra*.

[marginalia: Description of the almond tree / Greek name of the almond tree / Theophrastus, Hist. plant. lib. 3 / Causes of monstrous leaves / Kinds of nettle / Lib. 4, de mat. med. / Lib. 4, de mat. med.]

II. Monstrous leaves of the almond (*Amygdalus*)

[Full-page engraving — no further translatable text]

III. Monstrous vine (*Vitis*)

[Full-page engraving — no further translatable text]

In this monstrous plant therefore, with respect to position and shape, the leaves are diverse: for some of them are broad, some narrow, some crenate, some not at all so, some hang from a leaf-stalk, some adhere to the stem, some finally have attained a perfect form and others appear badly shaped. Nature is wont to produce this when she is variously impeded in the bringing-forth of plants.

Nor do we wish to pass over in silence a monstrous leaf found in the citron, or medica apple. For the citron — or medica apple, or Assyrian, or Hesperian — takes its name from the region, and a variety of fruits is observed in size and taste. It is a tree perpetually bearing fruit, which equals in height the plant of the orange and the lemon; for these three kinds of apples — namely the citron, the lemon, and the orange — common in the dispensaries of physicians, belong to one genus: for the leaves are perpetually green on the tree and differ little or nothing from the leaves of the orange-tree, being pervious with tiny openings that escape sight, with pliant branches clad in green bark and furnished with a great number of thorns.

With these things understood concerning the proper figure of the leaves of the medica apple, we cannot but assert that the leaf depicted in Figure IV has been monstrous, since it differed in every way from the true leaf of the Assyrian apple, as the Reader will be able to observe.

For it sometimes befalls plants what happens to animals in the production of twins: since in the womb of an animal two foetuses are sometimes joined together, so in plants two leaves are sometimes united and form one monstrous one; as may be seen in this place; and although the leaf of Mechoacan is also visible there, this was done because it had been depicted by the Painter on the same tablet and engraved by the engraver.

Now our discussion will be directed to the monstrous misshapen appearance of plant stems. For in plants, stems are sometimes monstrously enlarged and widened, just as the foetuses of animals sometimes attain an enormous size: since monstrous stems have been observed in many and diverse plants, the start shall therefore be made from the better known herbs.

There is therefore a certain plant called *kichōrion* (κιχώριον), either because it is like chicory, or because it is reckoned among the kinds of chicory; by Dioscorides it is called *seris* (σέρις), and by the Latins *Intubus* or *Intubum*, because the stem of this plant is tubed in the manner of a tube. Hence the common folk of herbalists, corrupting the Latin name, call it *Indivia*, as if from *Intubia*.

This plant therefore is of two kinds, being divided into the domestic and the wild. The domestic is again divided into two species: namely the broad-leaved, and the narrow-leaved with more deeply incised leaves. Likewise the wild intubus comprises two species, which are distinguished from the garden intubus by reason of the small seed and narrowness of the leaves.

Now among these species there is one which is called *Intubus erraticum* by Pliny, *Intubus agreste* by Gesner in his *Hortus medicus*, *Intubus sylvestre* and *angustifolium* by the Lugdunensians, *Solfequium* by Brunfels, *Cichorium sylvestre* by Lobel, Dodonaeus, and Matthiolus, *Cichorea caerulea* by Tragus, and finally *Cichorium officinarum* and *Seris picris* of Dioscorides according to Bauhin. This plant varies in the colour of its flower: namely blue, white, and rose, although the one we give would have produced a blue flower. Indeed the breadth of the stem of this plant has sometimes been observed to be four fingers' width, as Dalechamp testifies, cited by Bauhin in the *Historia plantarum* in the chapter on Beta. Since this plant, owing to the abundance of its matter, is wont to display monstrous stems.

A not dissimilar monster of intubus we exhibit for examination in Figure V, where a very broad and flattened stem is seen; which flattening is afterwards wont to arise either from the narrowness of a place or from something compressing it.

A not dissimilar monstrous plant was found by the Most Illustrious Giovanni Battista Samperi, Senator of Bologna, who caused it to be depicted in lively colours, prone and supine, to enrich the public museum, on the twenty-seventh day of July of the year sixteen hundred and thirty-seven. This was a species of intubus with a blue flower, a very broad stem, and with leaves so folded and joined together that they seemed to imitate the nest of some bird.

[catchword: Soncho,]

[marginalia: Cause of the monster / Monstrous stems of plants / Individual species / Species of intubus — how many / Monster of intubus observed by the Most Illustrious Senator Samperi]

IIII. A monstrous leaf of the Assyrian Apple [citron], with a normal leaf of Mechoacan.

[Full-page engraving — no further translatable text]

V. Wild *Intibus* (chicory) with a monstrous stem

[Full-page engraving — no further translatable text]

The hawkweeds are related to sow-thistle and intubus; accordingly, authors after the history of sow-thistle and intubus pass to the examination of the species of hawkweed. Dioscorides calls this plant *hierakion* (ἱεράκιον), from the bird the hawk, which is called *hierax* (ἱέραξ) among the Greeks. Wherefore the Latins, following the Greeks, called this plant *Hieracium* and *Accipitrina*, since, as Pliny observed, hawks dispel dimness of the eyes by contact with the leaves of this plant. Beyond which, this herb is called *sonchibēs* (σογχίτης) by certain Greeks, since it does not greatly depart from the nature and properties of sow-thistle, as was noted a little earlier.

Dioscorides in the passage cited assigns two species to this plant: namely the great and the small hawkweed; though in our age far more species are observed, for Bauhin in the *Phytopinax* enumerated more than twenty species. Thus the *Hieracium maius* of Matthiolus, Fuchs, Dodonaeus, and Lobel — or the *Hieracium magnum* of Cesalpino, the *Taraxacon maius* of Lonicerus, and the *Hieracium minus* of Dalechamp in the *Herbarium Lugdunense* — being one and the same, grows everywhere in uncultivated places, with leaves not unlike those of sow-thistle and intubus, with a slender stem and yellow flowers which in the end, turned to thistledown, fly away into the air. This, in places saturated with dung, generally by reason of the abundance of matter and richness of nourishment, becomes monstrous, as may be seen in Figure VI, where this plant appears to have put forth a very thick stem, and, thus degenerating from the nature of the hawkweeds, it approached the stem of the balsam flower, which has a thick, fat, and juice-filled stem.

To this we wish to add a broom with a broad and monstrous stem, produced thus by errant Nature. The plant therefore which is called by Matthiolus *Genista*, by Bauhin *Genista juncea longifolia*, by Dodonaeus *Genista Italica*, by Cesalpino *Genista altera trunco rotundo*, by Camerarius *Genista Transalpina* or *Hispanica*, by Gesner in the *Hortus medicus Spartium* or *Spartum*, and by Lobel *Spartium Dioscoridis*, grows with rather long leaves almost like the leaves of flax, and produces yellow flowers rivalling the young moon.

Hence Mesue enumerated the broom among the mountain shrubs, reporting that from its root many straight, pliant shoots burst forth that are stubborn to break, with yellow flowers of a moon-like shape, after the fall of which pods succeed — the size of the pods of vetch — containing seeds like lentils and separated at regular intervals.

With these things thus set forth, we shall understand that the broom which we give here is monstrous, since the stem is not rush-like but very broad and monstrous, as is shown in Figure VII.

We noted not many years past a not dissimilar plant of the common narcissus growing in the public garden, which put forth a very broad stem with certain leaves joined to the stem; likewise we there observed a Bear's garlic (*Allium ursinum*) with a very broad and white stem; the figures of these plants will be proposed for examination in the general History of plants.

In addition we found a certain species of wallflower (*Leucoium*) to be monstrous in respect of its stem. Moreover it is to be noted, that we may understand the defect of this plant, that wallflower is either bulbous or non-bulbous. We speak at present of the non-bulbous wallflower, which Dioscorides calls *leukoion* (λεύκοιον) — that is, white violet — not on account of the flowers, since every plant of this genus puts forth white flowers, but on account of the leaves, which for the most part are whitish; for the flowers afterwards vary, since some white, purple, and yellow are found, although Pliny knew of violets only white and yellow.

The yellow wallflower is that which produces a yellow flower and is commended by Dioscorides in medicine. This therefore is divided into the garden and the wild. The garden kind is multiple; the first is called *Leucoium luteum vulgare foliis viridibus* by Bauhin, *Leucoium aureum* by Matthiolus, *Leucoium luteum* by Fuchs, *Viola lutea* by Tragus, *Keiri* by Gesner in the *Hortus medicus*, *Viola parva lutea* by Tabernaemontanus. Another species is called *Keiri maximum* and is depicted in the *Hortus Eystettensis*, since this plant is adorned with very ample yellow flowers. Finally *Keiri* with a full flower grows today everywhere in flower-gardens, which Lobel called *Keiri duplici ore*.

Likewise the wild *Keiri* is found double, with narrower leaves and small flowers,

[marginalia: Species of hawkweed — how many / VII / Description of broom / Lib. 3, de mat. med. / Difference of wallflower / Difference of wild Keiri]

VI. Monstrous *Hieracium* (hawkweed)

[Full-page engraving — no further translatable text]

VII. A monstrous Broom-plant.

[Full-page engraving — no further translatable text]

of which two species one is described by Clusius and the other by Tragus, which do not greatly differ from one another in appearance: for from the root they send forth many leaves similar to those of the yellow garden wallflower, green but narrower, among which one — but generally several — stems arise, clad with keeled leaves, bearing four entire petals, yellow, and rivalling but smaller and less fragrant than those of the garden yellow wallflower. After the flowers follow long little horns, as happens with the cultivated wallflower, filled with seeds. It has a long, white root, furnished with many slender fibres.

From the described and enumerated species of wallflower the Reader will easily be able to gather that the monstrous plant which we give here in Figure VIII is to be referred to the genus of wild yellow wallflower; for it was adorned with very narrow leaves and yellow flowers, but small.

Wherefore several stems of this plant appear to have been in some manner joined together, and consequently the flowers, which were wont to issue from the top of each individual stem, being gathered together all at once, rendered this plant monstrous with a broad, flattened, and twisted stem.

The monstrous ugliness of the stem observed in the wild yellow wallflower recalled to mind the monstrous stem of that plant which is called *Tragopogon* by the herbalists.

This plant was named *tragopōgōn* and *komē* (τραγοπώγων καὶ κόμη) by Dioscorides and other Greeks, and by the Latins *Barba Hirci* (Goat's beard), because from the closed apex of the calyx something greyish hangs, imitating the small beard of a goat.

It bursts from the earth with leaves broader and longer than those of the crocus, with a yellow flower not unlike the flower of dandelion, but larger and enclosed in a calyx which splits open in serene weather and closes in cloudy; from the flowers emerges a thistledown head in which an oblong seed is kept. It rests on a long, white root that is pleasing to the taste, for when cooked it is recommended in salads; for this reason we suppose this plant to be known to all; for it grows of its own accord in meadows and stony places.

Six species of this plant are afterwards assigned in the *Phytopinax*, which it would be superfluous to enumerate here, since mention is made only of the first species, which is called *Tragopogon* by Matthiolus, *Tragopogon luteum* by Lobel, *Barba Hirci* by Tragus, *Tragopogon pratense luteum* by Bauhin, and *Sassefrica* by the Tuscans. This plant, since it abounds with copious moisture, not rarely in gardens, with the matter growing luxuriant, puts forth monstrous stems, for which reason it is cultivated there on account of the root that is prized in salads. This is shown in Figure VIII, where the Reader can contemplate the Tragopogon with a very broad stem.

Nor must we commit to oblivion the monstrous defect observed in the stem of Tithymalus. For Tithymalus is a plant known for the abundance of milk which it pours out when wounded. Hence the Greek lexicographers derive this name *tithymalos* (τιθύμαλος) from *tithos* (τίτθος), that is, a breast, since from this herb, lightly cut, milk flows out as from a nipple. Hence Theodore Gaza, following Pliny, rendered Tithymalus as *Lactaria*, Columella called it *Lactuca caprina*, and Celsus named it *Lactuca marina*: the apothecaries however call it *Esula*.

Dioscorides enumerated seven species of Tithymalus. The first is called *charakterias* (καρακίας), by some *amygdaloeides* (ἀιμυγδαλοείδης), and the male Tithymalus. The second species is called the female Tithymalus, *myrtitēs* (μυρτύτης), which others call *karyotēn* and *myrsenitin* (καρυύτην καὶ μυρσενίτην). The third species is called *paralios* (vrapa Auot), which some call *tithymalida* (τιθυμαλίδα). The fourth is *hēlioskopios* (ἡ λιοσκόπιος). The fifth is *kyparissia* (κυπαρίσσιάς). The sixth is *dendrōdēs* (δενδρώδης). The seventh is *platyphyllos* (ἐλατυφυλλος). Theophrastus enumerates more kinds, and today in the *Phytopinax* Bauhin enumerates more than twenty-six species.

Now among so many species of Tithymalus, the fifth with Dioscorides — called *Cyparissias* — presents itself for our consideration. For the Tithymalus cyparissias of Dioscorides is the cypress tithymalus, or ground pine according to Lobel, and the cypress-leaved Esula of some; it rises from the ground into a stem of nine inches or more, somewhat reddish, from which arise leaves rivalling those of pine or cypress, but softer and more slender; whence it draws its name.

It abounds with white juice and is said to be possessed of the same power as the other Tithymali. This species was found to be monstrous toward its tip: for the stem widened, with a multitude of leaves and flowers adhering to the stem; as can be seen in Figure X.

[catchword: Alitur]

[marginalia: VIII / Species of Tragopogon — how many / VIII / Etymology of Tithymalus / Lib. 4, de mat. med. / Species of Tithymalus — how many]

VIII. Wild yellow wallflower (*Leucoium luteum sylvestre*) with a broad, flattened, and twisted stem

[Full-page engraving — no further translatable text]

VIII. *Tragopogon* (goat's-beard) with a very broad stem

[Full-page engraving — no further translatable text]

X. Monstrous cypress spurge (*Tithymalus Cyparissinus*)

[Full-page engraving — no further translatable text]

There is cultivated moreover in flower-gardens, on account of the abundance and pleasantness of its flowers, a certain plant which Matthiolus calls *Medium* and *Viola mariana*, and which grows of its own accord in wooded places, with leaves similar to intubus, with a tall stem, with large flowers imitating the figure of a bell; wherefore Bauhin in the *Phytopinax* referred this plant to the class of those which are called from the shape of the flower *campanulae*, which are afterwards called by the common folk of herbalists the kinds of wild rape. Hence mountain peasants in the district of Bologna call it *rapunculus sylvestris*, and Gesner named it the largest kind of wild rape.

This plant therefore grew with a broad stem in the public garden some years past, as can be observed in Figure XI.

A ridiculous and more admirable monster we beheld in the bugloss (*Anchusa*). For *anchusa* (ἄγχουσα) is so called *para to anchein* (παρὰ τὸ ἄγχειν), because it is possessed of the faculty of suffocating: although others think it was so named from the reddish colour of the root, since *anchein* (ἄγχειν) among the Greeks means to stain with dye. Dioscorides reports three kinds of it; Pliny four; and Bauhin in the *Phytopinax* five, varying in leaves and flowers. It produces for the most part rough leaves like those of bugloss, purplish flowers scattered along the stem, and a root filled with a blood-red colour.

The bugloss, which is the second species in Matthiolus, at one time produced a very thick stem with an abundance of leaves and purplish flowers at the top folded together and arranged in a circle so as to bear the appearance of a winnowing-fan, as appears in Figure XII, where the Reader can observe both the genuine and natural bugloss, B, and then the monstrous one, so that the perfect and imperfect works of Nature may be manifest also in plants.

To these we add another elegantly monstrous bugloss stem observed at another time; for it was oblique and broad, and its top was adorned with small purplish flowers, as is seen in Figure XIII, under number 1; where also under number 2 is seen a monstrous leaf of moly: since Nature had produced a round fruit at its tip.

Moly, or *mōly* (μῶλυ), is a herb so named by the Greeks *apo tou mōleuein tas nosous* (ἀπό τῶν μωλεύνειν τάς νόσες) — that is, from the warding-off of diseases: wherefore it is placed among the amulets. Dioscorides knew only one moly; though our age knows more species: since in the *Phytopinax* four differences are recorded. Therefore among these, the greater moly of Bauhin — or the Homeric moly of Lobel — and the moly bearing a bulb in its leaf of Theophrastus produced that monstrous leaf.

This moly produces leaves similar to those of squill, but longer, and embracing one another, with a very long, thick, hollow stem without leaves, bearing many star-shaped flowers on long stalks, with black seed like the seed of onions. It has a thick, white, round root covered with a black rind, which Theophrastus denies is hard to pull up, as Homer asserted.

Moreover, alongside the stem of this plant, among the leaves there generally issues another flat little stem whose tip bears a kernel like that of garlic; which, committed to the earth, germinates and propagates the offspring of this plant. We therefore judge that the monstrous leaf was produced because the little stem, with the matter growing luxuriant, degenerated into a leaf, whose tip was adorned by Nature with such a kernel or round fruit.

To these monstrous stems of plants, as a crowning piece, we wish to add the most beautiful and admirable stem of the herb Lycopsis — broader than nature allows and most remarkable — which does not greatly depart from the nature of bugloss.

Since Dioscorides, speaking of Lycopsis, declared that it had been called by some *Anchusa*: not unreasonably, since it too, like bugloss, is filled with the florid colour of the root. This monster appears in Figure XIV. Nor is a certain branch of Cotinus to be excluded from the monsters of this genus, which was flat at the top and twisted in the manner of a bishop's crosier; which is preserved dried and depicted in the public Museum, but since it had not been cut open, we were unable for that reason to propose its figure for examination.

Thus far we have spoken of the monstrous stems and branches of plants; it is time that we descend to the monstrous flowers, which are sometimes produced by Nature in various kinds of plants —

[catchword: generibus]

[marginalia: Lib. 4, de mat. med. / XII / XIII / How many differences of moly / XIV / Branch of Cotinus]

XI. *Medium* of Matthioli with a broad and monstrous stem

[Full-page engraving — no further translatable text]

XII. Purple *Anchusa* (alkanet) in the form of a winnowing-fan

[Full-page engraving — no further translatable text]

XIII. *Anchusa* with a monstrous stem and purplish flowers; and a monstrous leaf of *Moly*

[Full-page engraving — no further translatable text]

[...] with a very broad stem

[Full-page engraving — no further translatable text]

of kinds — beginning therefore from the better known, we shall say something of the herbaceous branchlet borne in the centre of a flower.

Theophrastus enumerates very many differences of roses, which vary in the number of their leaves, in their fewness, roughness, smoothness, colour of stem, and fragrance; for the most part however a double kind of rose is assigned: namely the cultivated and the wild. To the cultivated and garden kind is referred that red rose, called by Pliny the less-red one, named *incarnata* by the Italians, in the apothecaries' dispensaries called the common rose and the pale-reddening one. After this comes the white rose with a full flower, held to be the less refined. There is another, saturately red, called *holoferica* by Lobel, the *Damascena* of apothecaries, which puts forth both a simple and a full flower. There is another of this kind, but less saturately red. Another is called *moscatula* from its scent, and grows with a simple and a multiple flower. Another arises without thorns, varying in the size and smallness of the flower. Another finally is similar to the carnate and common garden rose, but with a curled leaf. Then the wild genus of roses comprises many species, of which mention will be made in the History of plants.

Thus, among the garden rose species, that common one named *incarnata* by the Italians, in the year of human salvation sixteen hundred and ninety-two, was born monstrous, with large leaves and a calyx of no great size, from which leafy petals are wont to burst forth; for here large, green, and broad leaves were seen to have grown.

From the centre of the rose — the place called *anthora* — a branchlet a sesquipalm in length and covered with numerous leaves was emerging, without any trace of a miscarried rose, which is sometimes seen in others.

Since Nature, from the principal portion of the calyx, with the flower's matter growing luxuriant, fashions another flower in the midst of a first. But the opposite must be attested in this monster: for, with the herb's matter growing luxuriant, it put forth from the centre of the flower other herbaceous leaves. This monster is shown in Figure XV.

In the same year — namely sixteen hundred and ninety-two — there grew in the public garden that bulbous plant which Matthiolus called *Martagon Chymistorum*, Lobel *Lilium montanum*, and Cesalpino *Lilium sylvestre purpureum*. This plant varies with respect to the colour of the flowers; for some are more, some less red. Others that are white are held in greater esteem. But the red ones are distinguished by certain spots: the flowers of all of them, however, look toward the ground and grow at intervals on the topmost stem, and the leaves of the flowers are reflected at the stalk. The leaves of the plant around the stem are broad, the root is bulbous and filled with a yellow colour. It grows everywhere in wooded places, and for that reason it is believed to be most well known.

This plant therefore grew monstrous and admirable: first on account of the height of the stem, which exceeded six spans in height; then, although the stem near the root was for a span and a half similar to other plants of this kind, nonetheless all the rest of the stem was broad, flattened, and of a herbaceous colour, everywhere invested with small leaves. But since plants of this kind are wont to flower from the bottom to the top, when this plant at the same time was showing fifteen open flowers, it seemed consonant with truth — had the plant not been cut from the crown at the root — that it would without doubt have raised itself to a greater height, and the remaining fifty flowers counted and still closed would have appeared better. This monstrous plant is exhibited for examination in Figure XVI, where only ten open flowers were depicted, so that all the remaining ones, closed in their calyces resembling the form of dates, might be better seen.

It has sometimes fallen to us to see a monstrous flower of the greater daisy (*Bellis maior*). For Matthiolus in his Commentaries on Dioscorides enumerates three kinds of this plant; although Bauhin in the *Phytopinax* enumerated twelve species (it is called *Bellis* from its pretty and beautiful flower); here however mention is made of that species which is called *Bellis maior* and puts forth leaves that, extending from a narrow base to a broad compass, are subrotund and serrated all around after the manner of an oak leaf; but those that grow around the stem are narrower and more oblong, like the leaves of groundsel. From one root it sends forth several cubit-tall, rounded, and sturdy stems, from whose top flowers larger than those of chamomile and feverfew burst forth, golden within and with white petals surrounding the yellow.

In a similar plant observed by us, the flower was so monstrously fashioned that it only —

[marginalia: Differences of roses / Description and monster of the rose / XV / Description of the mountain lily / Species of Bellis — how many / Description of the monstrous daisy / Hist. plant. cap. 6]

XV. A monstrous Rose.

[Full-page engraving — no further translatable text]

XVI. Monstrous *Martagon* (Turk's-cap lily) with fifty [flowers]

[Full-page engraving — no further translatable text]

white petals together compressed without the golden centre were visible; since the calyx of the flower perhaps could not dilate by reason of the hardness of the membrane; wherefore the petals, fused together, represented a monstrous flower, as is seen in Figure XVII.

Nor need we wonder, since this hardness of membrane in the calyces of narcissuses has produced a similar effect; and therefore the keeper of gardens is wont to dilate such a membrane with scissors, lest a monstrous flower burst forth; otherwise, through compression, the petals of the flowers coalesce, and monsters of this kind are produced, while only white petals, glued together without a yellow centre, come to light.

A few years past, monstrous flowers of ranunculus also drew us to admiration. Ranunculus is called by Dioscorides *batrachion* (Βατράχιον), because it delights in moist places after the manner of frogs. Likewise *selinon agrion* (σε λίνον ἄγριον) — that is, wild parsley — because it imitates parsley in the form of its leaves. It is called *Herba scelerata* (the accursed herb), since wicked beggars, to extort alms, excite ulcers in their legs with it. The common people sometimes call this plant crow's-foot, and also cock's-foot, from the form of the leaves. Dioscorides and Pliny mention many kinds of it, but Bauhin in the *Phytopinax* enumerated far more, enumerating more than forty-four species.

That species therefore which is eighth in order in Bauhin — namely *Ranunculus erectus hortensis multiplex*, or *pes Corvi flore pleno* in Brunfels, and *Ranunculus polyanthemus multiflorus* or *Ranunculus oleraceus hortensis primus* of Lobel in the *Observationes*, and *Ranunculus polyanthemus* in the *Icons* in the same author — at one time produced flowers such as are seen in Figure XVIII. For at the top of the stems two and three flowers simultaneously fused together emerged. And this could not arise from any other source than from abundant flowering matter, and from the formative faculty, which was unable to separate the flowers from one another.

In confirmation of what has been asserted, there was once seen at Bologna a narcissus (*Narcissus medioluthus polyanthos*) with two different flowering stems joined and fused together, compacted by luxuriance of nature, of which stems one displayed three, the other four flowers, but on each side a groove was drawn as if about to separate the stems. This twined stem of seven flowers, as of so many rushes, was a pretty and admirable monster.

Another monster observed in the flowers of the columbine (*Aquilegia*) in the year sixteen hundred and ninety-three, around the end of April, we wish to propose for examination as supremely admirable. This is that plant which Costeus wished to be the *Pothon* of the Ancients, Cesalpino judged to be the *Iasione* of Theophrastus, Dalechamp believed to be *Dios anthos* (διὸς ἄνθον) — that is, the flower of Jupiter in Athenaeus — Fabius Columna established it to be the *Isopyron* of Dioscorides, and finally Gesner called it *Leontoston*.

However that may be, today this plant is named *Aquilegia* or *Aquilina*, from the hooked points of the flowers, like the talons of an eagle; in its leaves it agrees in some measure with the greater celandine, though the leaves of the columbine are rounder and softer: for which reason this plant is named wild *C. chelidonia* and *Chelidonia media* by Castor Durante, and by some it is called *Columbina*; in its flowers moreover it is akin to larkspur.

Five differences of this plant are counted in the *Phytopinax*, but far more are observed in the public garden of Bologna, in respect of size, colour, and number of leaves: for its flower is simple and full in colour blue, white, red, variegated, purple, and also white sprinkled with certain purple spots. Indeed it sometimes grows with an inverted, degenerate, and rosy flower.

It seems that Nature wished to combine all the aforesaid varieties into one columbine plant and make it most monstrous, which we present for examination in Figure XIX. For it put forth flowers very varied and admirable in unusual form; since from the same root — indeed from the same stem — it produced some blue, others partly blue and partly of herbaceous colour, and not in the least distinguished from the leaves of the plant. Those that were of green colour imitated the habit of the Rose, with leaves inclined above in a double row; no hollow of the little horns visible above, nor inflected tails appearing below; the stamens of the flowers not yellow but somewhat russet. But what are wont to stand out in the middle of the flower, as it were the husks of a pericarp, passed into the flower altogether without any pericarp —

[marginalia: XVII / Species of ranunculus — how many / XVIII / Pothon veterum — what it is / Various forms of the columbine / Description of the monstrous columbine]

XVII. Greater daisy (*Bellis maior*) with a monstrous flower

[Full-page engraving — no further translatable text]

XVIII. Monstrous many-flowered buttercup (*Ranunculus polyanthemus multiforus*) of Lobel

[Full-page engraving — no further translatable text]

XIX. Most monstrous columbine (*Aquilegia*)

[Full-page engraving — no further translatable text]

XX. Differences of the Amellus

In the last place among plants born with a monstrous flower is set a certain species of Amellus, which is enumerated by Bauhin among the fourteen varieties of Aster Atticusa under the name *Aster Tripolii variegato flore*. It is otherwise called by Lobelius in his *Icones* the lesser Aster of the Narbonnaise with the flower of Tripolium or the flower of Linaria, as is read in the *Adversaria* of Petrus Penna.

Since the flowers of this plant shine forth with a mix of golden and purple colour, there have been some who wished it to be the Aster Atticus of Dioscorides and the Amellus of Virgil. It claimed the name of Aster (*aster*, star) for itself because the leaves of the flower are seen radiating like a star; and took to itself the name Atticus because it grew more frequently in the territory of Athens than elsewhere. It is finally called Amellus because it grew more frequently beside the river Mella in Gaul; for Virgil sang of it in this fashion:

> *Him in the mown valleys*
> *Shepherds gather with the curved hook near the streams of Mella.*

A plant of this kind therefore grew in public gardens from seed sent from Belgium, and for that reason it pleased us to name it the Belgian Amellus; which in the end, on account of soil too richly manured or for some other reason, degenerated into a monster, as appears in figure XX, where the herbaceous matter and the matter destined for producing the flower being confused together generated for us a monstrous flower.

XXI. Etymology and genus of the Dipfacus

We have now arrived at the fruits of plants, which are sometimes produced monstrous by nature. For that reason we shall treat first of the fruits of herbs and thereafter of the fruits of trees, since monsters have at some time been observed in all of them.

First of all there once presented itself to us a monstrous fruit of the Dipfacus. The *δίψακχος* of Dioscorides is of the kind of spiny herbs, having a tall stem bristling with spines, with leaves like spiny lettuce, two leaves at each joint of the stems embracing them, with a hollow sinus in the axils where dew or rain is constantly preserved: whence this plant found the name of Dipfacus — that is, "thirsting" — by antiphrasis. Hence it is afterwards called in Latin *sitibunda* (thirsting), because it makes use of the dew or rain received in the sinus of its axils to ward off the injuries of thirst. At the tops of the stems oblong prickly heads grow as if fruits.

Although Matthiolus and others have designated this plant as *Labrum* or *Lavacrum Veneris*, as Caesalpinus considers, because blemishes or disfigurements of the face are improved by the water found in this herb.

XXII. Difference of beans

Two kinds of it are assigned — namely the cultivated and the wild. The cultivated kind is called Carduus fullonius, since Fullers comb and polish woollen cloths that are as yet rough with the prickly fruit or head of this plant, before they dye them with colour; for which reason it is cultivated with great profit in many regions. It is otherwise called by Lobelius and Tragus the cultivated Carduus Fullonum, and by Bauhin the cultivated Dipfacus with white flower. The fruit or head of this plant was therefore sometimes found not pointed at the summit according to the plant's custom, but almost square, as if about to produce four other heads from it, as appears in figure XXI.

Furthermore the bean, *κύαμος* in Dioscorides — named from fecundity — is a most well-known plant, whose seed among legumes is the largest; and the larger it is, the more it is compressed lengthwise, and the less it is rounded. Beans are enclosed in pods, most often white, and also black, and purplish from a reddish colour. The flowers are either white marked with black streaks, or turning black from purple. There is moreover a cultivated bean and a wild one; again, a larger and a smaller cultivated one.

In the kind of the smaller cultivated one we observed pods glued together by nature, so that one resulted from two, like a twin — as is seen on the upper side of the pod opposite the stalk where the bifid pod adheres, as the reader may observe in figure XXII.

[catchword: d idem]

[marginalia: XX. Differences of the Amellus / XXI. Etymology of Dipfacus / Genus of Dipfacus / XXII. Difference of beans / Bauhin / Lobelius / Petrus Penna / Dioscorides / Matthiolus / Caesalpinus / Lobelius / Tragus / Bauhin]

XX. Monstrous Belgian iris (*Iris Belgica*)

[Full-page engraving — no further translatable text]

XXI. Monstrous fruit of cultivated blessed thistle (*Carduus benedictus sativus*)

[Full-page engraving — no further translatable text]

XXII. Monstrous pod of beans

The same thing also appears to happen in animals, when two fetuses in the maternal womb are for some reason glued together and coalesce into one single fetus alone, which is afterwards born as a twin into the living air, as we set out in the preceding chapter.

Similar to this monster is another, namely a twin fruit which we once observed in melons; of which there are many species, which will be discussed in their proper place. The melon is called *πέπων* from the Greek verb *πέπτω*, I cook, because unless fruits of this kind are cooked and brought to perfect ripeness by the heat of the sun, they cannot gratify the palate at all — in distinction from other fruits, which even if not perfectly ripe nonetheless gain some favour from the palate.

Etymology of the Pepon

Pepones and Melopepones appear to differ in shape and size: for the larger and oblong ones receive the name Pepon among authors, while those which present the rounded shape of an apple are named Melopepones — a name compounded from *malum* (apple) and *pepon*. This kind Palladius called the melon, as it were *μηλοπέπων*, that is, a fruit of apple-and-pepon form — from the shape of apples and pomaceous fruits — which name is today used everywhere.

In this kind, therefore, we present two conjoined Melopepones, as is seen in figure XXIII — they admirably imitate a twin fetus. Again, in figure XXIV humped Melopepones, and ones misshapen by nature, are displayed.

XXIII. XXIV.

[catchword: Nam]

[marginalia: XXII. Monstrous pod of beans / Etymology of Pepon / Palladius / XXIII / XXIV]

XXIII. Twin muskmelon (*Melopepo gemellus*)

[Full-page engraving — no further translatable text]

Humped and misshapen muskmelons (*Melopepones gibbosi et male conformati*)

[Full-page engraving — no further translatable text]

For just as in the womb of animals two fetuses are glued together in many ways — sometimes adhering when the membrane is ruptured and thereafter clinging together as time passes — so too the tender substance of fruits that are too close together coalesces and produces twin fruits.

Indeed, if in the womb of an animal, from the varying position of the infants, the coupling of the births is various, so likewise, from the varying position of the fruits, the mode of their adhesion is different, as we observe in the fruits depicted.

Causes of monstrous fruits

Furthermore, just as in the womb of animals, hump-backed and misshapen births are often produced on account of cramped space or compression caused by neighbouring parts, so by the same reasoning the fruits — whether of herbs or of trees — on account of cramped space in the container, or on account of compression from some branch, grow hump-backed, oblique, and ill-formed. Although it sometimes happens that the part of the fruit that is well-formed is perfectly nourished and consequently grows, while meanwhile another part that is badly constituted, attracting little nourishment, grows hardly at all and the fruit turns out hump-backed, as the reader may meditate upon from the proposed figures of melons.

That cramped space and some compression can render the tender fruits of plants monstrous, we can establish by another observation made in the case of a turnip, in the year of human salvation sixteen hundred and two. For a turnip grew monstrously formed in the territory of Bologna among others, because it represented two turnips joined together. The first turnip, from which the plant stem broke out, was three or four times thicker than the second, which was attached near the lower part of the larger, of a white colour mixed with reddish; from which the root afterwards depended, through which nourishment was communicated from the earth to both.

Cause of the twin turnip

We believe the cause of this twin turnip to have been the root of a certain species of bristle-grass, which had embraced the turnip at the very beginning of its generation, and therefore, pressing and constricting it, caused it to resemble two turnip fetuses. Hence we must gather that compression and cramped space, both in animal fetuses and in the fruits of plants, is the cause of ill conformation and monstrous appearance.

From monstrous fruits of herbs we may ascend to the fruits of trees, in which we have with a curiosity by no means idle contemplated similar monstrous effects and twin fruits. First we shall say something about the twin fruit of the almond.

Description of the Almond

The almond tree is most well-known for the pleasantness of its fruit; it is supported by a very large and robust root, has a tall trunk, with leaves very long like those of the willow and similar to those of the peach tree, to which the whole tree is also likened; it produces flowers most often white, and a fruit shaped like a heart, enclosed in a double shell like a walnut.

Differences

If we consider the differences of the fruits, they will be various in respect of taste, size, and shape. There are sweet and bitter almonds.

There are likewise larger and smaller ones: for some are brought from Asia three times smaller than others; yet they are for the most part oblong and heart-shaped, although round ones are also found. To these we may add the Almond-peach frequent in Alsace, whose bony rind is rough like a peach, and whose kernel is of an agreeable taste smelling of peach.

And so in figure XXV we present not only twin almonds depicted, but also a large heart-shaped almond and a round almond nearly the size of a small peach, of which we shall discourse afterwards, God willing, in the *History of Plants*, since all the aforesaid fruits had been depicted on the same plate.

If we turn ourselves to apples, we shall also be able to propose for inspection similarly monstrous fruits of this kind once observed. The apple tree is called *μηλέα* by the Greeks, and its fruit is called *malum* (apple) — or *mel* — on account of the sweetness of the fruit, and *pomum* by the Latins, because it removes the desire for drink when its juice is consumed.

Differences of the apple

If we inquire into the differences of the apple, Dioscorides wrote that the kinds of apples are: Vulgaria, Cotonea, Persica, Armeniaca, Medica or Citria, Verna, Melimela, Epirotica, and Sylvestria. Pliny enumerates many more, and Tabernaemontanus at last lists nearly innumerable ones, which take their name from their discoverer, from the place of their birth, from taste, from odour, from colour, from size, and from shape; of which we shall treat individually in their proper place.

Among the kinds of cultivated apples, certain round Epirotica are counted, called today in Italy *Mele rose*, perhaps from their rosy colour. The Greeks testify that these apples first came from Epirus, when they designate them as Epirotica —

[catchword: in]

[marginalia: Causes of monstrous fruits / Twin turnip in Bologna / Cause of twin turnip / Description of the almond / Differences of almonds / Amygdalopersica / Differences of apples / Dioscorides lib. 1 de nat. fac. / Plin. lib. 1 fag. 4. 8. / Fag. cap. 14]

XXV. Twinned monstrous almonds (*Amygdalae geminae monstrosae*)

[Full-page engraving — no further translatable text]

XXVI. Twinned Epirote apples (*Mala Epirotica geminata*), with a monstrous paradise apple (*pomum paradisicum*)

[Full-page engraving — no further translatable text]

In this species, then, two twin apples arising from an abundance of matter came forth, joined at no point but only near the stalk. Likewise we have seen two other Epirotic or rosy apples grown together which, although they were twinned, nonetheless represented a single apple, and were twins by reason of the two visible stalks from which they hung — which had been the rudiments and signs of the flowers from which, once the flowers had fallen, the fruits or apples were produced — as is shown in figure XXVI.

There is likewise proposed for inspection in the same figure a monstrous paradise apple which, in the year of human salvation fifteen hundred and ninety-three, in the month of November, the most illustrious Camillus Paleotus, senator of Bologna, brother of the most eminent Cardinal Paleotus the first Archbishop of Bologna, and grandfather of the most illustrious Camillus Paleotus the present senator, a most diligent investigator of natural things, presented to the most eminent Ulysses Aldrovandi. This fruit was a paradise apple, so called in the vernacular because it breathed forth the sweetest fragrance; but near the stalk of the same apple there was attached an appendage of the same substance and colour as the fruit, which resembled the beak of some bird or a finger with a small sheath. But, to confess the truth, it appeared to represent rather the penis of a dog together with its scrotum than the image of anything else; and at the tip of this penis a certain black and sharp point was visible; but this appeared more plainly when this appendage of the apple was turned downward, as the reader may contemplate in the figure.

Since we have fallen into discourse concerning paradise apples, which are called paradise fruits as if sent down from heaven on account of their pleasant fragrance and agreeable taste, it will not be amiss to describe another monster of this kind of apple once observed by the aforesaid most illustrious Camillus Paleotus, in the year fifteen hundred and ninety-four —

XXVII. A monstrous paradise apple

[marginalia: What appendage it resembles / Camillus Paleotus / XXVI / XXVII]

This may be called a *Diorchites*, because it is a twin apple in the shape roughly of two testicles, one of which is longer than the other. The larger apple was of the shape of a pyriform coloquint, while the other imitated the form of a rounder testis. The stalk thereafter was common to both fruits but more closely attached to the larger apple. In both the colour was yellowish inclining to some redness.

At the upper part of each fruit, where the flower is wont to adhere, a navel (*umbilicus*) was visible, and near the navel of the smaller one there was a certain cleft resembling the female pudendum, as if Nature had wished to create another navel there; as may be seen in figure XXVII.

Nature, therefore, frequently erring in plants from its aim, produces monsters, as we have often seen, and especially in apples; for in this year we observed an apple that appeared to resemble an ordinary gourd. For it had the shape of a somewhat rounded vessel with a neck adhering to the upper part, as if a small head sat upon the apple. Hence we gather that Nature wished to produce two apples, but from scarcity of material first brought forth a large and perfect apple, and then another very small one, just as also commonly happens in many other fruits.

Akin to apples are pears, which likewise are not without their monstrous fruits. The pear is a well-known tree, since it grows everywhere in Europe, so named because its fruits resemble a pyramid. The differences are very many in respect of size, shape, taste, odour, colour, and season; so much so that Cordus in his *History* enumerated fifty kinds of pears that grow in orchards, fields, and other cultivated places. Those are called wild which spring of their own accord in uncultivated places and groves. Among the kind of wild ones we once observed a pear that was admirable and monstrous, a branch of which we present for inspection in figure XXVIII. This tree was bristling with thorns of the kind with which wild pears are wont to abound, and had produced pears varying in size, shape, and colour; though afterwards they were insipid and disagreeable to the taste, as the fruits of wild trees of this kind are wont to be. For which reason this tree could not be counted among the *τελεσφόρα δένδρα* — the fruit-bearing trees — since trees of this kind bear fruits that are equal, uniform, and timely.

A little above, when we were treating of the monstrous leaves of plants, we mentioned the citron and the orange, of which we must now speak on the occasion of a certain fruit presented to us that displayed an entirely monstrous form.

There are therefore three kinds of these apples — Citron, Lemon, and Orange — which belong to the same genus. Among these, the oranges deserve some consideration; they may have been named either from Arantium, a town of Achaia, or from the Aranian clan in Persia; unless we wish with others to derive *Arantia* as it were *aurantia* from the golden colour of the fruit, for which reason they were called golden apples by Virgil. Whether indeed these are the Cestian apples in Galen, and the Martian apples in Suetonius in his *Domitian*, and the *Citrangula* of Avicenna and Mesue, is not the place here to dispute.

These afterwards vary in the taste of their juice — acid, sweet, or intermediate. The sweet ones have a smooth rind, the acid a harder and rougher one. Some have a rind that is more green, others more yellowish. Some are found without seeds, while others carry several kinds of seeds in the same apple. The rind of our native ones is bitter, though in some places they grow with a sweet and pleasant rind. They vary also in shape — sometimes round, sometimes elongated — as well as in their rind being more or less rough. But that apple once given to us as a gift was monstrous, whose rind was covered with many elongated tubercles, and when the apple was cut open six triangular sections with seeds appeared in it, as is evident in figure XXVIII.

There too was depicted the image of a whole and sectioned sweet lemon apple, in which nine triangles were visible; at Rome it is called *Limoncello* on account of the appendages it has on its leaves — though it appears to belong rather to the orange than to the lemon, especially since it bears a form and colour similar to it. This apple when sectioned displayed nine triangles, in each of which two seeds were enclosed. But what is worthy of great admiration is that there is no flesh at all, but only a very thin outer rind and a succulent inner part; and accordingly, with regard to its internal parts, it appears to be akin neither to the lemon nor to the orange; except that that —

[marginalia: Differences of pears / Cordus Hist. / Differences of apples / Wild pear tree / Diorchites / XXVII / XXVIII / XXIX / Lemon at Rome called Limoncello / Lib. 1 de nat. fac. c. 131 / Lib. 1 fag. 4. 8. / Fag. cap. 14]

XXVIII. A monstrous wild pear tree.

[Full-page engraving — no further translatable text]

With a sweet whole and sectioned *Limonia* (lime/lemon)

[Full-page engraving — no further translatable text]

part to which the stalk is attached is sharpened in the manner of a top, as is seen in the image proposed; but let these things be said in passing about this fruit, since it was depicted in the same plate together with the monstrous one.

To the rest we add, as a crowning instance of monstrous fruits, the fruit of the *Cerrus*. For the Cerrus is, according to botanists, the fifth kind of oak: the *Aegylops* of the Idaeans and of Dodonaeus, the *Aspris* of the Macedonians and Latins, the Cerrus according to Clusius; by Pliny and Lobelius in his *Icones* it is given the name Cerrus, where two species with larger and smaller acorns are depicted.

It is a tree for the most part unknown in Italy, as Pliny testifies, since it grows only in certain places of Etruria and commonly in the wooded places of Greece; it is tall, with a straight, lofty, and sturdy trunk, long enough to support any buildings whatsoever. It has thick leaves lacerated with broad incisions, not very unlike oak leaves. It is not a sterile tree, as some have incorrectly written, but one that bears acorns. The acorn is in some measure round and protected by a prickly cup, and of so bitter a taste that no animal besides swine will touch it.

Now the material of this fruit, and likewise the material of the cup and of the leaf, being in some measure mixed together and co-operating in the production of the fruit, produced a monstrous acorn; of such a kind as is depicted and shown in figure XXX.

XXX. Monstrous fruit of the Cerrus.

[marginalia: Cerrus described / Acorn not sought by animals / Monstrous acorn / XXX]

ON CELESTIAL MONSTERS

Following the order established at the beginning of this *History*, it is our concern to direct our attention to those things that are generated in the upper regions of the world contrary to the accustomed law of Nature, which for that reason are called celestial monsters, since Heaven is here taken in its broader signification. It must accordingly be noted that there exists a certain higher world, or Nature, consisting of several spheres which move only in a circle, and that next to these are the elements from which this lower world and the sublunary realm are constituted — namely fire, air, water, and earth — whose stations and places are so disposed among themselves that after the celestial nature fire succeeds, after fire air, after air water, and after water earth follows.

Thus from these four elements that constitute this lower world, certain meteorological effects occasionally arise; and because they do not occur frequently, they are called monsters, and because they are generated on high, celestial ones — although this name afterwards also embraces anything new and not previously observed in connection with the heavenly bodies.

Order of the sublunary world

We shall deliberately abstain from the question concerning bodies comprehended between Heaven and Earth, to which Anaxagoras gave occasion, when, after that supreme Heaven which he believed to be of a fiery nature, he judged all remaining bodies down to the earth to be air alone; since it is not the place here to dispute this, as this question has been resolved elsewhere by the philosophers. We ourselves must at present take on, in a manner of speaking, the role of that philosopher whom the Ancients called the meteorologist, whose task is to contemplate those things that are generated in the loftier sublunary part of the world — such as rains, dews, hoarfrost, snows, and hailstones; but these, since they return in a kind of cycle at intervals, are not granted the name of monster, and consequently do not pertain to our subject. We shall therefore ascend higher, to fiery phenomena — namely to Comets, shooting stars, fiery columns, torches, and burning pyramids, as well as other images of living creatures appearing in the air and in the clouds; which, since they do not occur so frequently, are called monsters and portents.

MONSTROUS IMAGES OF LIVING CREATURES OBSERVED IN THE HIGHER SEAT

Since many other things of this kind have been recorded and depicted in the rubric of Portents of the first chapter of this book, those remarkable armies of many outstanding soldiers seen in the air by the inhabitants of many places in Helvetia in the year fourteen hundred and seventy-four after the millennium are admirable to behold, as is preserved in the annals of Basel: in which year the Swiss led out countless forces of infantry and cavalry against the Duke of Milan, and in the month of November won a victory at the river Ticino.

[catchword: Pariter]

[marginalia: Anaxagoras / Order of the sublunary world / Meteorological monsters / Fiery phenomena]

Likewise, proceeding through the years in order, we shall find that in the year fourteen hundred and ninety-nine after the millennium, at Lucerne in Helvetia, in the month of May, a fiery dragon of monstrous form — namely the thickness of a calf and eight cubits in length — was seen to fly to the great wonder of all the inhabitants; and in the following month Maximilian, King of the Romans, attended by a numerous army, broke into Helvetia and devastated Engadine with sword and flame.

Dragon seen flying

Again, in the year fifteen hundred and thirty-five after the millennium, in Lusatia not far from the town of Rüben, in the month of July, two armies of men were seen stretching from south to north, who appeared to be joining battle in fully arrayed cohorts and ranked companies of soldiers.

Armies seen in the air

Likewise in the year fifteen hundred and thirty-eight after the millennium, throughout Germany, men saw armed battle-lines, swords, and carnage everywhere in the air.

Similarly, in the year of human salvation fifteen hundred and forty-five, in the month of July, these images were seen in the air by the inhabitants of Silesia. A lion, attended by companies of soldiers, came to meet a bear leading an army toward the East; and as they fought hand to hand, blood flowed from the wounds inflicted, and bodies fell. During the fighting an eagle was seen to fly from a high forest to the forces of the lion. After the battle the lion shone amid its cohorts, the bear nowhere to be seen. Indeed in the same year among the Poles three crosses of crimson colour appeared in the sky, among which a mail-clad soldier fought with a fiery sword against an army arrayed opposite him, and was thereafter, after his victory, devoured by a horrible dragon.

Crosses seen in the sky

Shortly afterwards an enormous chasm appeared for the space of an hour, then three rainbows, above which a very beautiful image of a winged angel was visible to all, until together with the clouds everything gradually vanished.

In the year of the Lord fifteen hundred and forty-seven, among the Swiss, two armies and two lions were seen fiercely fighting one another in the air, one of which tore off the other's head with its teeth. In the same year on the Kalends of October in Saxony, as the sun rose, there was seen in the sky a funeral mound covered with black cloth, with a red cross placed on top, preceded and followed by many men clad in black garments, with trumpets sounding such a clamour that it was easily heard by the inhabitants.

Likewise in the same year in Italy not far from the City, in the month of December, a cross of reddish colour was seen in the clear sky, where likewise an eagle beating its wings was observed for three days.

Cross with eagle

Again in Saxony in the following year, namely fifteen hundred and forty-eight, at Quedlinburg, two armies were seen fiercely fighting in the air; and in the succeeding year fifteen hundred and forty-nine, certain trustworthy men of Brunswick, travelling, according to the witness of Lycosthenes, observed the moon crowned with that circle which the Greeks call *halos*; they also saw a fiery lion and an eagle piercing its own breast, as appears in figure I.

In the same year in a town of Vortlandia the inhabitants observed in the air the image of a man clad in German dress, of whom we spoke above in the rubric of Portents of the first chapter.

In the following year fifteen hundred and fifty, between Nuremberg, Feuchtwangen, and Ansbach, at the beginning of the month of August, on a clear day, many people saw the sun disfigured with various colours, together with the image of an eagle depicted in various colours, with spread wings and lacking feet, beneath a celestial arch; and next to it a horseman who appeared to be leading a horse with one hand and a hunting dog with the other — of which monstrous image the reader may see the figure in the first chapter of this *History*.

See the figure in the first chapter.

In the same year in Saxony near Trebsen, in the month of June, not far from Wittenberg, that most celebrated emporium of all disciplines, many images appeared in the sky, among which a very beautiful image of a stag was seen, while various battle-lines of soldiers fought on this side and that, whose blood appeared to drip like rain; and this is shown in figure II.

Again in the year of human salvation fifteen hundred and fifty-three, at Herbsleben in the district of Thuringia, according to the authority of Lycosthenes, in the month of July, twin serpents were seen in the sky grappling one another with their teeth, their tails intertwined, in the midst of which a fiery cross shone, as is seen in figure III.

In the same year in a certain village of Thuringia the image of a tall man appeared among the clouds —

[marginalia: Dragon seen flying / Armies seen in the air / Crosses seen in the sky / Lycosthenes / Armies in Silesia / I / II / III]

V. Fiery likenesses of a Lion, and of an Eagle tearing open its own breast

[Full-page engraving — no further translatable text]

II. Apparitions of Stags, and of men fighting, in the Air.

[Full-page engraving — no further translatable text]

III. Likeness of serpents biting each other mutually

[Full-page engraving — no further translatable text]

— from whose limbs blood gradually dripped. In the succeeding year fifteen hundred and fifty-four, in the month of June, as Lycosthenes writes, in the district of Blech five miles distant from Nuremberg, the sun is reported to have been disfigured by a bloody rod, with troops of horsemen that attacked one another in war, preceded by blue standards.

Again in the same year, as Frischius reported in his *Meteorologica*, in the Upper Palatinate on the Rhine toward the Bohemian Forest, two mail-clad warriors appeared in the air, of whom the shorter was overcome by the other in combat and fell at his feet; the victor appeared to threaten him with greater vengeance by a fiery sword, until both vanished. Similarly near Stolpen in the southern quarter of the sky, battle-lines of fighting men clashing with great shouting were seen in the sky; then, after the battle was over, a great ball of flame was seen to burst from the air and fall to the ground.

Finally, in the year fifteen hundred and fifty-six, in the month of December, not far from Augsburg, the inhabitants of the region saw in the air a battle between a lion and a bear.

Sound of arms heard

Apart from which, at various times the crash of arms was heard in the air. Indeed quite recently — namely in the year sixteen hundred and twenty-one — we learned by letters that in France, namely in the city of Dax in Aquitaine, not only was the noise of arms heard in the air, but also battle-lines of soldiers as if about to attack someone in war were seen for the space of three hours.

MONSTROUS VARIETIES OF INANIMATE FIERY THINGS, AND ESPECIALLY OF COMETS

In order that the human intellect may be rendered ready and fit for the knowledge of images of this kind, it is necessary to observe, following the view of the philosophers and especially Aristotle in the books on meteorology, that from terrestrial and aqueous bodies there arises by the power of the sun a double exhalation which is continually carried upward, one of which the philosophers assigned the name of vapour, since it proceeds from the moist parts of the earth, and the other the name of exhalation, since it is thinner and emerges from the drier parts of the earth.

Of these two exhalations, then, the former, being heavier and more moist, occupies the lowest place in the air and that nearest to the earth; the other, being of a warmer and drier substance, seeks the higher seat and the third region of the air. For that which among bodies is hotter and drier we call fire in the first place beneath the celestial spheres. What, however, possesses moisture joined to heat, and rests below fire, is called the aerial element.

***Hypocauma* — what it is**

But that upper part is given the name of fire, because it can be most swiftly burned and transformed into flame; and accordingly it appears to have the greatest affinity with our exhalation, which is why the philosophers and especially Aristotle in the *Meteorica* called it *hypocauma* (*ὑπόκαυμα*) — as it were, something capable of being kindled — from the verb *hypokaiō* (to kindle beneath): whence this material, being supremely prepared, is immediately burned and turned to flame by any slight motion, just as commonly happens in a torch recently extinguished, which if rotated at once is accustomed to catch flame again.

These things being thus established — that is, assuming the combustible matter or hypocauma and the motion of the celestial bodies — we may assert that that warmer spirit, sublimated from the drier parts of the earth and ascending to its destined place, grows hot from the swift motion, and at last catches fire and flame.

But when the aforesaid *hypocaumata* are kindled by a circular motion, many varieties of things —

[catchword: rerum]

[marginalia: Sound of arms heard / Hypocauma what it is / Lycosthenes / Frischius Meteorologica / Aristotle Meteorica]

I. Fiery apparitions in the form of a torch, a beam, leaping goats, and an altar

[Full-page engraving — no further translatable text]

— of things and diverse images appear in the air; of which Lucan afterwards sang in this fashion:

> *Stars unknown were seen on dark nights,*
> *The pole blazing with flames, and comets flying through the heavens,*
> *Torches shooting at an angle through the void, and the terrifying hair*
> *Of a star, and the comet threatening kingdoms on the earth.*

Varieties of fiery impressions

Although far more images of this kind are sometimes observed. For it often happens that what catches flame in the lofty seat of the air acquires equal length and breadth; and then this impression imitates the image of straw blazing in fields. If it resembles the flame of a bright furnace, then authors have called this impression an *Ara* — an altar — since a similar blaze was observed in the altars of the Ancients when sacrifices were kindled. When the length is greater than the breadth of the exhalation, it presents the form of a burning beam. Indeed when it is extended lengthwise with slenderness, it has the figure of a burning spear. And when the kindlings and sparks are not joined together simultaneously, nor placed along a straight line, but scattered and dispersed — so that the first part of the exhalation is kindled, then other portions successively, the former being extinguished but not along a straight line, with a small space between them — then they appear to imitate the tracks of leaping goats.

Causes of fiery impressions

Finally, if the exhalation and consequently the inflammation does not proceed along a straight line but flies hither and thither, it presents the appearance of a falling or flying star, since, as one star is as it were extinguished, the inflammation appears to hasten on to the next particle of the exhalation. The images of some of these are shown in the figure that follows, where appear the forms of the Altar, the Beam, the Spear, and the Leaping Goats.

Since the matter, substance, and nature of shooting stars and of the aforesaid fiery impressions and of Comets are all alike, it seems in accordance with reason that we should speak of Comets as monstrous images of the heavens. Comets are of a warmer and drier nature, since wherever they begin to illuminate a place and region with their light, they forebode that the air there will become warmer and drier.

The philosophers who investigate natural things, in order to explain the generation of Comets, proceed by probable reasoning following the view of Aristotle. First they suppose three things which were previously set down as foundations of this meteorological doctrine. The first is that beneath the celestial bodies there is an exhalation, which they have been accustomed to call either *hypocauma* or fire. The second is that this substance and the air joined with it are agitated by circular motion, and that at last, by reason of this motion, this exhalation is accustomed to be kindled — not however the whole of it, but only that portion which was fitted to receive fire — and that the remaining parts then catch flame, from which so many different kinds of fiery impressions customarily take their origin.

With these things recalled to mind, the true origin of Comets is referred to the fiery force of the heavens or of some star, in conformity with whose motion those exhalations are carried. Comets are thereafter reduced to exhalation as their material cause, which continually ascends from the drier parts of the earth to the higher place day by day; so that when the prior exhalation is consumed, fresh and new material is ready to replace the old, and therefore, since this persists for some time, a Comet will be nothing other than an exhalation kindled and inflamed in a successive manner.

But if an exhalation of this kind, when kindled, should surround a star in the manner of hair and locks, we may rightly call this exhalation a Comet — that is, a hairy star; and further, when the exhalation has been arranged beside a star in the manner of a beard, we may call it a *Pogonia*. For among the Greeks *κομήτης* means long-haired and tressed; indeed this word is used absolutely by Aristotle for the hairy, crinite, and curled star. Since, however, *πωγωνίας* is interpreted as bearded, it is not surprising if others call the comet when thus described a bearded one.

Etymology of Comet

Ptolemy, moreover, called Comets *τὰ φθαρτικὰ ἄστρα* — that is, corruptible and elemental stars.

Corruptible stars

Many authors, and especially Pliny, establish nine differences of comets —

[marginalia: Varieties of fiery impressions / Causes of fiery impressions / Etymology of Comet / When comets are called πωγωνίας / Corruptible stars / Lib. 1 Phars. / Lib. 2 Hist.]

II. Nine varieties of comets: the shield-shaped comet; the long-haired (*crinitus*); the horned (*cornutus*); the bearded (*barbatus*); the javelin-shaped (*iaculiformis*); the casket-shaped (*casiformis*); the solar (*solaris*); the horse-shaped (*equinus*); the lamp-shaped (*lampadiformis*)

[Full-page engraving — no further translatable text]

The first comet depicted in the figure is called *discoides* (δισκοειδής), because it resembles in shape a discus or shield. The second is *comatēs* (κομήτης), that is, long-haired or tressed, and to this one the name properly belongs in the highest degree, since comets of this form appear most frequently. The third is *ceratias* (κερατίας), that is, horned. The fourth is called *pogonias* (πωγωνίας), the bearded comet. The fifth is *acontinias* (ἀκοντίας), having the form of a javelin. The sixth is *xiphias* (ξιφίας), sword-shaped. The seventh is *pitheus* (πίθης), representing the image of a cask — a comet which some afterwards call the solar comet, or the Rose comet. The eighth is *hippeus* (ἱππεύς), a word which among the Greeks generally denotes a horseman, yet Pliny applies it to this comet, as if he had called it the equine comet. The ninth and last is called *lampadias* (λαμπαδίας), because it represents the image of a lighted torch. These species of comets are delineated in Figure II.

Now the Arab authors assigned various names to comets from their appearance and powers, which we judge it unnecessary to bring into this field, since in the figures drawn no such great discrepancy is observed as to prevent various comets from being reduced to and placed within one genus — as for instance the shield-shaped and solar comets. Besides these, other distinctions of comets taken from their figures can be enumerated: for there are comets which bear the form of a trumpet or a comb; others are quadrangular, and some adorned with two or three horns. Although Cornelius Gemma, as regards the fashioning of these figures, greatly doubts whether comets ever appeared clothed in such forms as the Arabs describe, seeing that no monuments of the Ancients attest that any comets have shone upon the world other than those which represented the image of a javelin, a sword, or a pyramid; horned ones they mention only once.

Moreover, if another image of comets, named and described by the Arabs beyond those already mentioned, is found, it must be doubtful whether the Ancients confused the remaining ignited meteors with the legitimate and genuine comets.

Albert the Great performed the most useful service when he reduced all the variety of figures in enumerating comets to two kinds only — namely *comē* and *pogōnia* (κόμη καὶ πωγωνία) — according as their coma extends in length or in breadth. And so the common people today call comets long-haired, bearded, and tailed, although some seem to project their proper light in a sharp form, others in a broad one.

But that nothing be wanting to our History, we have resolved in Figure III to set out for view other distinctions of comets according to their figure: where the first species is called *cerasias*, that is, horned — although in some measure it appears to bear the form of a trumpet. The second is called *xiphias*. The third is *xiphias* the third; the fourth is *tetragonea*, that is, square; the fifth and seventh are called *hippeus* various — that is, varied — because they represent a horse in various ways. Unless we prefer to establish with Albert the Great five distinctions of comets, not by reason of the number of the wandering stars (namely Mercury, Venus, Jupiter, Mars, and Saturn), but according to five distinctions of the material vapour; for every vapour of a comet, though it be in general thick and self-cohering, may nonetheless, according to the demands of its matter, be thick, thin, or intermediate at equal distance between thick and thin — whence three intermediate grades will result, and consequently there will be only five distinctions of comets in respect of matter.

We do not wish to pass over the two figures of comets which Cornelius Gemma proposed for contemplation and called Saturnine comets, from their star or from their colour. Of these, one shone in the year of the Lord after fifteen hundred and fifty-eight, on the seventeenth day of August, at the setting of the Sun, around the twelfth degree of Virgo, and was distant from the tail of the Greater Bear by a space of eight degrees above twenty. It stood in the West with a sad and gloomy aspect — of a Saturnine nature, truly — and stretched its tail toward the eastern region, but was not seen for long; for a rainstorm coming on, it vanished before the seventh day.

Likewise the same Gemma recalls another comet of a Saturnine nature, which shone in the year of human salvation after fifteen hundred and sixty-nine, around the beginning of November, with a tail extending very long toward the east; which around the twentieth day of that month was observed somewhat higher, but shortly afterwards was dissolved by the violence of the winds and by continuous rain. Their images are seen in Figure II.

[catchword: Credi-]

[marginalia: Difference of comets. / Differences of comets according to Albert. / Saturnine comet of 1558. / Saturnine comet of 1569.]

III. Other forms of comets: the *cerathodes*; two sword-shaped (*ensiformis*); a third; the horse-shaped (*equina*); the varied (*varia*)

[Full-page engraving — no further translatable text]

Two varieties of comets of Saturnine nature.

[Full-page engraving — no further translatable text]

But there was no kind of comet of such horror and such amazement as that which appeared in the year of human salvation after fifteen hundred and twenty-seven, on the eleventh day of December, around the setting of the Sun, as many authors — and above all Lycosthenes — recorded, in the territory of the Palatinate. This kind of comet was, by reason of its own figure, sword-shaped and blood-red, yet horrible by reason of the surrounding images: for it was encircled on every side by a terrible cloud, stars, spears, swords, and human heads, as the reader can contemplate in Figure V. Accordingly many, stupefied and terrified by this spectacle alone, are said to have fallen into sickness and swooning.

Thus far we have been occupied with the distinctions and generation of comets, following the opinion of Aristotle and the mind of other philosophers. Now the opinion of others — namely the ancient philosophers — must be set forth; since Anaxagoras and Democritus said that comets are a certain conjunction of five planets beyond the Sun and Moon, and they granted them also the name of planets. For they held the opinion that if those five wandering stars happen by chance to meet and touch one another, they represent the image of but a single star, whose splendour then, spreading more widely, seems to bear something like a coma before it; and furthermore they added that, when comets are dispersed, certain planets are left behind and come into view.

Others following these philosophers added a sixth to the five planets, which they called a comet, and held that it most commonly lurks beneath the rays of the Sun and rarely emerges from them — for which reason a comet appears rarely. They support this opinion with the example of Mercury, who, being himself also a planet, rarely appears, since he recedes from the rays of the Sun by only a small interval. Albert the Great strives to refute the opinion of these philosophers with the most forcible arguments, in order to be able to prove the common opinion of the philosophers concerning the generation of comets — arguments which each person may see for himself in that same author.

We, however, judge that this opinion of the Ancients ought neither to be entirely condemned nor disapproved. It is disapproved in so far as the generation of comets is attributed to planets; but it is approved in so far as comets are held to be formed in the ethereal seats. For Cornelius Gemma establishes that the place of generation of comets is in the nobler part of the Universe, since he does not think they partake of the power of a corruptible meteor. Moreover this was evident in that comet which shone brilliantly in the year after fifteen hundred and seventy-two, in the month of November, in the constellation of Cassiopeia; for it surpassed Jupiter in magnitude and was most like it in form and brilliance, being fixed to the northern border of the Galaxy, so that together with the second, fourth, and twelfth stars of Cassiopeia of the third magnitude it formed an almost perfect Rhombus.

Hence most investigators of celestial phenomena judged that this kind of comet was not in the elemental region — which Aristotle assigned as the seat of comets — but placed it in the ethereal region, because it had absolutely no proper motion, no parallax. This new star gleamed like a lyre, and appeared at its greatest suddenly without any increase, and it scattered no coma, and shone longer than any other comet ever had — namely sixteen months — and then was gradually reduced to nothing. Its brilliance in comparison with other stars was wonderful, for it surpassed Sirius, Procyon, Jupiter, and all other stars both fixed and wandering in splendour and magnitude.

Therefore Democritus and Anaxagoras did not depart far from the truth when they supposed that comets are certain conjunctions of stars. Likewise Nicephorus left in writing that a new star was seen, near which many little stars gathered together as so many bees gather about their leader. Dion also left recorded that a heavenly body was observed from the city over the space of many days, which afterwards was dissolved into many parts. Finally Democritus observed that, after comets were reduced to nothing, certain stars appeared.

For this reason it will be necessary to affirm that numerous luminous corpuscles — like so many small stars hitherto unseen, both fixed and wandering — move in the Heavens, which we have sometimes observed through the telescope. Indeed, any person may, as he wishes, look at some of these in the Pleiades through a duly fashioned telescope. Likewise in the single nebulous star of Cancer, through a suitable instrument, five [...]

[marginalia: Horrible comet. / Opinion of Anaxagoras and Democritus. / New opinion of recent philosophers. / Splendour emitted.]

V. A portentous and terrible comet

[Full-page engraving — no further translatable text]

mounds consisting of dim light, with certain intervening stars, are seen. Moreover a certain cluster of stars is observed beneath the last star of Orion's Belt, where they are heaped together in a small space; and therein among these little stars a whitish light shines like a cloud. Furthermore, a little above the tip of the Archer's arrow, an obscure globe likewise interspersed with small stars is seen.

Besides, it must be conjectured that wandering corpuscles also exist in the Heavens, from certain spots on the Sun which many have observed through an excellent telescope. These corpuscles, therefore — or other luminous bodies which are not seen separately — if they flow together into one, shine forth: just as if a planet were conjoined with another planet, or with a fixed star; for thus the rays of both are so blended that they appear to be but the light of a single star. Wherefore, these things being so established, comets are said to vanish when such corpuscles — which had previously flowed together — disperse again; but since these corpuscles are their own individual vessels of light filled with light somehow confused, they are unable to equal the splendour and brilliance of the other stars — whence many have most diligently observed through optical tubes that comets consist of these corpuscles.

The coma and tail of comets, moreover, will not be flame or a blaze beneath the surface, but perhaps a transmission of the rays of the Sun in that form through the corpuscles less united — in the manner by which the rays of the Sun are admitted through an aperture into some chamber. Furthermore, reflection and refraction emanating from various corpuscles will suffice to account for the various species of comets with comas, beards, and tails.

Now that the appearance of comets presages evils for the world, many authors affirm. For this reason Virgil in the tenth book of the *Aeneid* compares the arms of Aeneas — which by Vulcan's generosity he had earned, since they were fashioned for the destruction of many — to comets and to Sirius, that is, the Dog Star, at whose appearance sicknesses and the deaths of men result. The words of Virgil are these:

> *Not otherwise than when amid the clear sky*
> *Blood-red comets glow in gloomy red, or Sirius' heat —*
> *That star, bringer of thirst and disease to wretched mortals —*
> *Rises, and with baleful light saddens the sky.*

For this reason they report that the Athenians were most diligent in observing the rising of the Dog Star, as Dierius testifies; for from its aspect they knew whether the coming year would be healthy or pestilent. Indeed if that star appeared darker and more murky, they took it as an omen that the sky was thick and dense, and consequently that the year would be oppressive and pestilent; but if it appeared bright and clear, they foretold that the sky would be pure and the year salubrious.

If the Dog Star can bring so many and such great evils upon the human race, we shall be able to derive yet more from comets, as Pliny testifies: since they are said to portend wars, famine, disasters, diseases, the overthrow of cities, changes of kingdoms, the deaths of men, and various destructions. Hence it was not without reason that that old Greek proverb of uncertain author was uttered: *ἀεὶ κομήτας οὐκ ἐκ κακοῦ φέρει* — which a learned man rendered not unpleasingly in hexameters thus:

> *Alas, never has a comet been seen without certain calamity.*

To this is most fittingly consonant that saying of Claudian:

> *And never has a comet been regarded upon earth with impunity.*

Tacitus also in the *Annals* has these words: A comet blazed forth — concerning which it is the opinion of the common people that it portends a change of kingdoms. Therefore Silius Italicus puts it aptly:

> *As with fiery tress the fierce comet terrifies the skies,*
> *Scattering blood-red fire, the blackening torch vomits its redness,*
> *The star with savage light coruscates,*
> *And threatens the uttermost extremes of the earth.*

Persistent indeed is the opinion of men that the appearance of some comet denotes the destruction of princes. Suetonius attests this in the life of Nero, saying: A tressed star, which the common people generally believe to portend destruction to the highest powers. The same author recorded in the life of Claudius: The chief portents of his death were the rising of the tressed star which they call a comet. But amusing was what is recounted in the *History of Vespasian* — when a certain heavenly body [...]

[marginalia: Presages of comets. / Pliny lib. 2 nat. hist. cap. 25. / The opinion of Aristotle excels. / Differences of comets according to Albert.]

— a tressed heavenly body having appeared, and the saying having been applied that it pertained to the King of the Persians, whose hair is more flowing — as if the more abundant locks of that dread star portended this very thing concerning the King of the Persians.

But advancing through the course of years, we shall record more remarkable comets, that we may understand what they foretold. In the year of the world after three thousand five hundred and fifty-three, and four hundred and ten years before the birth of the Mother of God, before the disaster of the Athenians in Sicily — which occurred in the ninety-second Olympiad, when Euclea was Praetor at Athens — a remarkable comet was seen in the northern region. At that time, as Plutarch testifies in the life of Nicias, the Athenians were defeated, and Nicias was slain along with many others. Again, in the year of the world after three thousand six hundred and twenty-one, another comet blazed along the equinoctial circle; the Athenians, persuaded by Demosthenes, met Philip of Macedon and were killed at Chaeronea.

In the year of the world above three thousand seven hundred and eighty, and one hundred and eighty-three years before the birth of Christ, a very great comet blazed forth, which so filled a quarter of the sky that the whole circle of the earth seemed to be burning on every side, and before it was dissolved, it lasted to the eightieth day. This comet is said to have portended the civil wars between Sulla and Marius, the death of Scipio and of Hannibal, and likewise the slaughter of the Celtiberians in Spain.

In the year after the birth of Christ seventy-two, a horrifying and sword-shaped comet hung over the city of Jerusalem during the days of Unleavened Bread for the space of a year; whereupon followed the most wretched destruction of the city, in which eleven hundred thousand Jews perished by famine and the sword, as the Hebrew Josephus wrote most fully in his History.

In the year of the Lord's Incarnation after four hundred and eighteen, a remarkable comet was seen, and in that same year all the Jews were driven from Alexandria. In the year after four hundred and eighty-eight, a dreadful comet appeared; and then Theodoric, King of the Ostrogoths, marching out of Moesia and advancing into Italy, put King Odoacer to flight, and besieged him, enclosed at Pavia, for three years.

In the year after five hundred and eighty-nine, a memorable comet shone for a month; then many princes departed this life, and in the fourth year thereafter Mohammed was born in Arabia, who gave laws to the Saracens.

In the year after seven hundred and twenty-nine, two memorable comets appeared, of which one preceded the rising Sun and the other followed it in its setting; whereupon immense drought prevailed, and remarkable changes were observed. Likewise in the year after nine hundred and fifty-six, a comet of marvellous magnitude was seen in Italy, which foretold a notable scarcity of grain.

In the year after one thousand two hundred and eleven, a very great and horrible comet shone in Poland, and both Sarmatias were afflicted with grievous wars.

Likewise in the year above one thousand three hundred and five, a remarkable comet was seen in Holy Week, and a most dreadful plague ravaged almost the entire circle of the earth. Similarly in the year after one thousand four hundred and seventy-two, a comet with very long tresses looked toward the western region at the beginning of the year, and was situated in the earliest degrees of Libra; its splendour lasted for eighty days; when this was dispersed, another fiery coma appeared beneath the sign of Aries, and in the following year all things were parched with drought. Likewise in the year of the Lord fifteen hundred and four, Augustino Nifo records a comet blazing for two years after the conjunction of the superior planets under the sign of Cancer, and so great a drought prevailed in the world that from the month of January to the month of November the people of the Po valley did not desire a drop of rain.

In the year of human salvation after fifteen hundred and fifty-six, a comet appeared as the herald of calamity for France. There may also be read certain most elegant verses in Cornelius Gemma concerning the prodigious appearance and nature of the comet which blazed in the year fifteen hundred and seventy-seven, in which these later comets are compared and are said to be the harbingers of diseases on earth; the verses run as follows:

Jupiter, looking down upon the earth from heaven's citadel,
Said: "What new frenzy is this in the whole world?
I had believed that so many medicines, recently at hand for our ills,
Had been taken for purging, and were enough.
But the seeds of sickness are scattered over a vast mass of disease —
From the head there is sickness in the arms, legs, and feet;
The heart, from which life thrives — lo, now it is the cause of ruin,
Epirus, in which health was wont to dwell whole.
The ailing part knows not the contagion of its own affliction;
Yet it acts upon the sound parts as it does.
Come then, let the earth now be shaken from its highest summit,
Let the soft backs not fear the rugged crags.
Let a messenger come forth from the gates of Capricorn toward the south,
Who shall bear the terrifying coma with scattered fire.
If Belgian soil, purged of its old dung, shall tend its fields,
Let all Europe submit to its own physician;
While kings let their own funerals decay among the peoples,
Let the common folk know how to submit itself to its own king;
While the rage of war falls cut away from the root,
Let stern love bind up the hatred that has swelled."

[marginalia: Various appearances of comets. / When the great comet appeared. / More remarkable comets. / Great drought among the Po valley people.]

In this place too should be reckoned the comets which Aristotle, Hippocrates, and the most recent age have observed; but to linger long on these is contrary to the purpose of the work. We shall nonetheless endeavour to resolve certain doubts concerning the presages of comets. The first is that it does not appear that any reason can persuade us that comets are able to portend the death of princes more than that of their subjects; for if the cause of these comets be referred to exhalations, these are not raised from the earth of princes more than from that of their subjects. But if it be reduced to a conjunction of stars, these seem to operate no more in the region of kings and the wealthy than in that of the plebeians and the poor, since the face of the lower world is subject to the face of the upper world in the mind of Aristotle in the *Meteorologica*.

Moreover, from the opinion of the Philosopher, comets depend on natural causes, looking to nothing else; wherefore they cannot be referred to the death of any person, or to war. But if they are so referred, they will stand either as a cause, or as an effect, or as a sign; yet none of these is to be affirmed. For the comet is not a cause — since it can be neither the efficient cause, nor the form, nor the end, nor the material cause of these things. Likewise it is not their effect, since neither necessarily follows the other — whereas the efficient cause necessarily accompanies its effect. Finally the comet is not to be considered as a sign either, since it lacks the requisite correspondence; for it is established that the greatest correspondence always falls between a sign and the thing signified.

Furthermore, the five distinctions of comets are most commonly taken from the five wandering stars or planets, but not all planets produce such evil and malignant effects as are said to proceed from comets. For Jupiter signifies good fortune; likewise Venus and Mercury do not indicate misfortune. Hence it is to be gathered that they ought not always to presage and indicate evil — which is always attributed to comets. Moreover Albumasar left in writing, in his book on the conjunctions of planets, that the coming of fires and comets does not depend on any planet except in air, and most particularly when the rays are in earthy or airy signs, or when the Moon does not impede — since the Moon stirs up the watery vapour which can afterwards obstruct the fiery effects; and therefore it is not to be affirmed that five comets are to be considered according to the five planets, since such phenomena are produced only in the conjunction of Mars, and therefore are said to be generated by it as by the primary mover. And so too they sometimes occur in the conjunction of Jupiter and Mars, since from this union sparks, lightnings, and fires running through the air are generated.

As for the first difficulty concerning the portent of the death of kings and princes, it is to be said that exhalation is indeed raised from the earth of great men and the wealthy as much as from that of the poor, and consequently the death of either may be denoted when the altered air infects the blood and disposes it to producing grave affections; nonetheless princes and nobles, being more delicate, incur this danger of death more than common men, who by the robustness of their strength can resist lethal diseases. Moreover [...]

[catchword: quam]

[marginalia: First doubt concerning the presages of comets. / Second doubt. / Third doubt. / Solution of the first difficulty. / Solution of the second difficulty.]

— even if both the poor and the wealthy and the great die alike, nonetheless by reason of their fame and dignity the deaths of princes are regarded and observed more than those of the common people.

But when it was said that comets depend on a natural cause without any reference to the death of a person, the answer is that their proximate cause is indeed referred to the deaths of princes; yet only the first moving cause of them signifies the power of Mars, who is wont to designate death — and especially violent death — and then Mars exercises his dominion in the stirring of the elements. For since he rules over that period, he appears in some way to produce the cause of destruction.

Finally, when it was asked whether a comet is a sign or a cause of death, the answer is that a comet is a sign and not a cause; for the dominion of Mars signifies battles, death, and the strife of peoples: indeed on account of excessive dryness and heat, great motions of anger are conceived; hence peoples are made fierce and prone to fighting. Therefore the signification of the comet regards Mars first, who is said to be the cause of war and of the destruction of peoples.

THE MARVELLOUS VARIETY OF CHASMS

After monstrous comets, many things would also deserve consideration — such as shields, torches, and other burning things of this kind, which are reckoned among the celestial monsters by writers on meteors; but for the present we shall mention chasms, or *chasm*ata, as most worthy of consideration. Among the Greeks *chasma* or *gasmē* signifies a gaping or a yawning, a word derived from the Greek verb *chaō*, *hisco*, "to gape" and "to yawn." Hence *chasmatias* (χασματίας) is read in Aristotle in the books on Heaven and Earth, and denotes an earthquake, since when an earthquake is produced, the earth opens and produces, as it were, a certain gaping; whereupon meteorologists transferred this name to certain celestial phenomena, and especially when the sky seems to gape open and to show certain chasms or gulfs.

For when a denser and more turbid exhalation conceives a certain darkness within, while outwardly, by reason of the proximity of light, it appears rarer and brighter, then according to this diversity the appearance of something deeper is represented in the sky, which seems no different from a chasm or gulf. Then it comes about that the whiteness strikes the sight more violently, and for that reason seems nearer to the eyes; while the darkness of the exhalation, for the opposite reason, seems to lie at a greater distance from the eyes, and as it were to gape somewhat — wherefore the common people, ignorant of these causes, greatly marvel at these chasms of the sky as monstrous things.

Nor are chasms alone, but also many other simulacra of this kind sometimes seen in the same place — such as pits, windows, casks, and other things of this sort, whose cause is the same as that of chasms, the only difference arising from the varying distribution of the dark and bright parts among themselves. For it often happens that the white and black are disposed otherwise than in chasms. Sometimes the white will be placed within and the black outside; sometimes both stand side by side; sometimes they are equal, and sometimes unequal — at great distances from each other.

This so great variety of so many and such great monsters and images of the sky is wont to arise for the same plain reason by which we sometimes observe beneath a chimney the flame mingled with smoke in various ways — whence from this mixture the likenesses of many things result. For in this way the turbid and thick exhalation, mixed with air, represents images not unlike various things.

But as regards chasms, it will not be useless to add to what has been said that from them there sometimes pour forth the images of burning brands, which meteorologists call *effluvia* of chasms, as will be shown in the figures to be placed in their proper location.

[marginalia: Solution of the second difficulty. / Solution of the third difficulty. / Cause of figures. / Effluvia of chasms.]

A chasm (*chasma*) with its various parts. A. The luminous exhalation. B. The horizon. C. The region below the horizon. D. The bond of the exhalation.

[Full-page engraving — no further translatable text]

THE WONDERFUL VARIETY OF CHASMS

The cause of this variety is that the innermost part of those chasms is always pressed upon by the extreme cold of the middle region of the air, in which chasms frequently occur, yet the condensation is diverse and various according to the greater or lesser degree of cold.

And so where the exhalation has been very greatly condensed, it is necessary that that part should grow more heated and pass out in the form of a burning brand. But where the same exhalation has been moderate, the sky will seem to gape without the simulacrum of a brand and without effluvia. Moreover, wherever burning brands appear, this is constant among chasms — that they are never seen by day, but always by night; and this happens by reason of the brilliance of the Sun, which by day overshadows other colours; just as the same happens by night, except in the case of black. For although at that time of night the Sun does not emit its light to darken the clarity of other things, it nonetheless also transmits some light during the night-time toward the stars, whose reflection is an impediment to other colours, preventing them from being able to represent the likenesses of things before described. Indeed the remaining colours, aside from black, are closer to white — and this likeness causes the simulacrum to appear from the chasm at a greater distance, as if at a longer distance.

If we wish to come to particular examples of these phenomena, we encounter first of all Pliny, who reported that in the year of the founding of the city four hundred and three above, a horrible chasm crowned with the greatest outpouring of fire appeared at Medullia. Nor is there need to wander through ancient examples, since in the year after fifteen hundred and sixty-four this occurred, when in the last degrees of Cancer — or, according to the opinion of others, in the first degrees of Leo — the three superior planets, namely Saturn, Jupiter, and Mars, and nearly all the others came together. For such a conjunction was admirable, not only because the force of the conjunction of these planets was prolonged over several years, but also by reason of the continuous course of the Moon, which rolled from the conjunction of one planet to the meeting of another in a continuous series, and in that same year various celestial phenomena were observed.

Among these phenomena two chasms were observed: the first in the month of February, the second in the month of October, of almost the same form — which, as Gemma testifies, inspired great terror in those who beheld them. For, enclosed within a dark border surpassing the clarity of the Moon, a bright cloud, with various effluvia of rays and flames disposed alternately, moved at the simple impulse of the winds; whence, the sky as it were gaping open and as if a vast gulf had been made, they seemed about to swallow up the entire sublunary sphere — as is shown in Figure I.

Again, in the year of human salvation after fifteen hundred and sixty-eight, in the month of September, in the Low Countries, a chasm or gulf of the sky toward the north, as if of blazing spears, burning missiles, and globes of flame, illuminated the entire air through the whole night; and this is said to have occurred, from Cornelius Gemma's account, before the unfortunate irruption of the German soldiers into the Low Countries.

Likewise in the month of September, in the year of human salvation after fifteen hundred and sixty-nine, Cornelius Gemma learned from the Spanish soldiers who were then stationed in the Low Countries and happened to be keeping watch, that on the tenth night of the month the sky had been seen from the Hellespont — as it were suffused with blood — then with a horrible light a reddish and octagonal cross was born, and lastly a white cross of marvellous brightness, so that those who gazed upon it could scarcely endure it; indeed then the sky seemed in some way to be torn apart, with stars as it were running apart and hurling flames — as is shown in Figure II.

But, as Gemma says, if the effusion of blood which followed thereafter be compared to the phenomenon of the most brilliant cross, it must beyond all doubt be concluded that this proceeded not from a natural cause but immediately from the first cause of all. Although also in the year of the Lord after one thousand one hundred and fourteen, in the reign of Henry V, Emperor of the Romans, on the feast day of Easter, the sky torn by a vast chasm emitted a brilliant light for the space of an hour, and then the simulacrum of a cross of golden colour appeared in the middle of the chasm.

Furthermore, in the year after fifteen hundred and seventy-one, likewise in the month of September, in the Low Countries near Louvain, another chasm was seen in that part of the air which faces the north-west — not unlike those already described — which, in Gemma's estimation, foretold another irruption of foreign enemies. And so in the following year, fifteen hundred and seventy-two, various tumults arose among the common people.

[marginalia: Cause of the effluvia of chasms. / Pliny lib. 2 nat. hist. cap. 37. / Admirable conjunction of the planets. / Presages of chasms.]

A chasm (*chasma*) with various effluvia and crosses

[Full-page engraving — no further translatable text]

B. Exhalations bursting forth. C. The horizon. D. The region below the horizon.

[Full-page engraving — no further translatable text]

But when the year after fifteen hundred and seventy-three arrived, on the twenty-seventh day of January, another chasm blazed forth like a burning city — due perhaps also, as Gemma testifies, to the frequency of foreign incursions — signifying assaults from every side, the ruin of cities and peoples, betrayals, conflicts, and disasters. Assaults followed, and various expeditions, and on land and sea unspeakable destruction, which it is contrary to the purpose of the present work to recall. This last chasm is seen in Figure III.

MONSTROUS PHENOMENA AROUND THE SUN, THE MOON, AND THE STARS

The consideration of what is shown to mortals in the celestial region around the Sun, the Moon, and the Stars is most sublime. For these things are distinguished by a triple kind: some are above the order of Nature — such as Eclipses which do not occur at their proper time, and one above all others was that which attended the impending Passion of our Lord and Saviour, which the blessed Dionysius the Areopagite describes in a certain letter to his friend. Likewise the standing still of the Sun, which is recorded in the sacred pages, when Joshua, the leader of the people of Israel after Moses, fighting for Israel, the Sun stood still in the middle of the sky and did not hasten toward the West for the space of a whole day — so that neither before nor after was there so long a day — the Lord obeying the voice of Joshua. Similarly, the rising of the new star which appeared to the Kings of the East at the Nativity of our Lord Jesus Christ.

Others are natural, but are placed among monstrous and prodigious things by reason of their rarity — such as the conjunction of the three superior planets, which is celebrated only over the space of thirty years; or an eclipse of the Sun or Moon in which the entire diameter is obscured, which occurs very rarely. Still others partake of a certain intermediate condition between divine and natural: as when three or more Suns or Moons are seen, or when various circles appear around the stars and luminaries, and especially if these bodies appear, as it were, bereft of light and disfigured by certain colours.

We shall therefore speak of these last things, and shall treat first of monsters around the Sun. And since the face of the Sun is disfigured by various colours, by other simulacra of Suns, and by various circles, we shall speak first of colours and afterwards of other things. For at Privernum, in the year of the world three thousand seven hundred and sixty-six above, according to Lycosthenes, the Sun was disfigured at midday with a blood-red colour. Then Plutarch, in the life of Gaius Caesar, relates that after his death, among the other prodigies which occurred in the year of the world nine hundred and twenty-one and forty-two years before the birth of Christ, the Sun illuminated the annual space beset by a murky colour, so that by reason of its feeble light and slender warmth not only was there an intemperate air, but unripeness of grain also resulted. But Gemma reports that this happened also in our own times — namely in the year after fifteen hundred and sixty-seven; for on the twentieth of September, under a serene sky, he observed the face of the Sun disfigured with a ruddy and almost blood-red colour.

A not dissimilar monstrous appearance of the Sun was seen in Bohemia in the year of the Lord after one thousand and six hundred and twenty-five, as we have learned from the report of men worthy of credit.

Furthermore, a monstrous deformity is observed in the Sun when it is accompanied by other apparitions of suns — which sometimes happens. For from the chronicles, in the year [...]

[marginalia: Triple distinction of celestial monsters. / Things of this kind.]

APPARITIONS ABOUT THE SUN,

the Moon, and the Stars

— in the year of the world three thousand seven hundred and fifty-nine, two white Suns were seen. Moreover, according to Pliny, in the year of the world three thousand eight hundred and forty-seven, three Suns were seen. Likewise in the forty-second year before the birth of Christ, three Suns rose at Rome and gradually came together into the same orb — which simulacrum beyond all doubt portended the worship of the One and Triune God; just as also in the fifty-first year of the reign of Domitian three Suns at once were seen together and forthwith met in the same orb.

Likewise in the year of the Lord after one thousand four hundred and sixty-nine, a triple Sun seen at Rome disturbed the minds of many. Likewise the inhabitants of the Duchy of Wittenberg beheld three Suns at about the third hour of the day. And in the year of the Lord after fifteen hundred and fourteen, on the day before the Ides of January, three Suns appeared, of which the middle one surpassed the others in magnitude, and in all of them blood-red swords were conspicuous. Furthermore in the year after fifteen hundred and fifty-six, according to Lycosthenes, at Santiago, in the month of July, under a clear sky, many saw three Suns. Finally, in the year of human salvation after one thousand six hundred and twenty-nine, from a trustworthy report, we have learned that three Suns appeared near Naples.

But more to be marvelled at is that the Sun, accompanied by other appearances of Suns, was seen to move through the sky crowned with various circles and rainbows. First, in the year of human salvation after fifteen hundred and twenty-eight, around the end of the month of May, at Zürich, the metropolis of the Helvetians, many Suns together encircled by various circles were seen, and in the following year the Zürichers, allied with the peoples of five cantons of the Swiss, made war. Likewise in the year of the Lord after fifteen hundred and fifty-one, around the end of the month of March, Suns appeared with various circles, which the Greeks call *Parelia*.

For Theon, in his commentary on Aratus, reporting from Posidonius, relates that there are frequently round clouds which are irradiated around the Sun and burn not by their own light but by solar light — just as the Moon likewise illuminates similar clouds. Although afterwards in Aristotle *parēlios* (παρήλιος) is explained as a doubled Sun, and in Suidas *parēlios* (παρήλιος) used adjectively denotes a cloud very greatly condensed, illuminated by the Sun. This, according to the philosophers, always inclines toward the sides of the Sun, as is also observed in mock Suns. Cornelius Gemma asserts that this monstrous phenomenon occurred at Middelburg, and not long afterwards, by order of the Emperor Charles, with Dukes Maurice and Albert, the city, besieged for fifteen months, at last obtained peace with unfavourable conditions.

A monstrous thing of a similar kind appeared in the celestial region at Rome in the year of human salvation after one thousand six hundred and twenty-nine, on the twentieth day of March, from the nineteenth hour to the twenty-first, whose schema is shown in Figure I, where five Suns are seen together with a triple circle, as well as with various letters which are explained as follows:

[figure captions: A — Eye of the observer. B — Zenith of the observer. C D — Plane of the vertical, that is, the optical line to the true Sun. Around the true Sun two circles of the rainbow appeared concentric with the Sun. D E F — The smaller Iris of diverse colours, but the circle was not complete. G H I — The circle of the larger Iris, weak, so that it scarcely appeared, and although decorated with its own colours, it was nonetheless invisible. K L M N — The third circle of the Iris, the greatest, of white colour only, with which colour it is wont to be decorated, and sometimes encircling the Moon. In this outer circle two imperfect Suns appeared — namely at the intersections K and N — whose splendour was similar to the Sun itself, and whose outer part was similar to the Iris; indeed the circles were not perfectly round but unequal. The Sun A N was restless and emitted from itself a somewhat flaming tail, which is noted as N O P. L E O — Two other Suns were in the third circle, or Iris, rounder and quieter, and also of silver colour. The Sun S M did not appear clearly, and therefore quickly vanished, since the circle of that part had first vanished. The Sun A N disappeared before the Sun K, and when it disappeared the Sun K became more brilliant, and was the last to be dissolved. Q R — They mark the equinoctial. S T — They indicate the meridian.]

[marginalia: Three Suns. / Swords in the Sun. / Presages. / Parelia. / Pliny lib. 2 nat. hist. cap. 4.]

I. A monstrous configuration of the Sun.

[Full-page engraving — no further translatable text]

[figure captions: A — Eye of the observer. B — Zenith of the observer. C D — The vertical plane, that is, the optical line to the true Sun. Around the true Sun two circles of the rainbow appeared concentric with the Sun. D E F — The smaller Iris of diverse colours; the circle was not complete. G H I — The circle of the larger Iris, faint, so that it scarcely appeared; and although decorated with its own colours, it was nonetheless invisible. K L M N — The third circle of the Iris, the greatest, of white colour only, with which colour it is wont to be decorated, and which sometimes encircles the Moon. In this outer circle two imperfect Suns appeared — namely at the intersections K and N — whose splendour was similar to the Sun itself, and whose outer part was similar to the Iris; indeed the circles were not perfectly round but unequal. The Sun A N was restless and emitted from itself a somewhat flaming tail, which is noted as N O P. L E O — Two other Suns were in the third circle, or Iris, rounder and quieter, and also of silver colour. The Sun S M did not appear clearly, and therefore quickly vanished, since the circle of that part had first vanished. The Sun A N disappeared before the Sun K, and when it disappeared the Sun K became more brilliant, and was the last to be dissolved. Q R — They mark the equinoctial. S T — They indicate the meridian.]

Finally this schema dissolved into white clouds, and while it lasted the true Sun did not shine again with restored brilliance.

Virgil had meditated upon impressions of this kind when he sang:

> *And who would dare to call the Sun a liar?*
> *He often warns us of hidden tumults to come,*
> *of treachery, and of wars secretly brewing.*

Wherefore it is to be recalled that in the year following upon the apparition of the aforesaid solar schema, the siege and assault of Mantua followed, and thereafter a most dreadful plague occupied the whole of Cisalpine Gaul, that is, Lombardy.

Furthermore, the circles that sometimes crown the Sun and Moon may vary according to time and place. For when a complete circle appears around the Sun and Moon, or around other shining stars, whether by night or by day, whether in the hours before noon or in the afternoon hours, it is called a halo (ὅλως) by the Greeks; and although this word among the Greeks properly signifies the threshing-floor on which grain is trodden out, nevertheless in Aristotle's books *On the Heavens and the World* it is taken for the crown and circle of the heavenly bodies, and in the *Meteorologica* it denotes the complete circle appearing around the Sun and Moon — of which we are now speaking.

A halo is formed, therefore, by a refraction made within; for the visual ray is sometimes refracted and not permitted to travel further, by reason of the air and vapours that have gathered into a cloud, and especially into a thin cloud with a flat surface. For when something proceeds from a visible object toward the eye of the beholder, and in the meantime does not reach all the way to the eye, being impeded by the encounter with some object, it is then forced to retreat; and in the retreat it is necessary that it spread out; and for this reason it sometimes produces a round figure — and thus we affirm that the halo is formed. Indeed this crown encircling the Sun is sometimes observed together with parhelia, as may be seen in figure LI.

Such phenomena of this kind have always presaged various upheavals in states and commonwealths. For in the year of the world three thousand eight hundred and twenty-three, at Lavinium, between the third and fifth hour, two circles of different colours surrounded the face of the Sun, one bearing redness and the other whiteness before it; and not long after, Carthage was destroyed.

Likewise in the year of human salvation eight hundred and fifty-one, in the city of Paderborn, two circles were observed around the Sun, and when these vanished the whole city was almost entirely consumed by fire. Moreover in the year of the Lord after one thousand one hundred and fifty-seven, a circle of great breadth, of fiery and blue colour, settled around the Sun, and in Normandy a considerable abundance of rains followed, which, hindering the labours of the farmers, produced a dearness of grain. Likewise in the year of salvation after one thousand three hundred and eighty-seven, in Switzerland a great circle disfigured the Sun, and thereafter famine, wars, and floods brought no ordinary harm to the inhabitants. Also in the year after fifteen hundred and twenty, when Charles V, Emperor of the Romans, was crowned at Aachen, a halo around the Sun was seen together with a rainbow.

Furthermore, in the year after fifteen hundred and seventy-three, on the twenty-ninth day of April, from the twelfth hour until noon, Cornelius Gemma confesses to have observed the Sun, in a clear sky, exceedingly pale, wreathed in a certain circle; which, among the more frequent haloes, was remarkable and brilliant as a most flourishing rainbow, distinguished by the variety of three colours. Indeed he adds that the matter could not be referred to a physical cause, but produced a striking likeness that drew the people into wonder, so that it was thought not unlike some portent. Again Gemma adds that many had observed haloes with a white, light, even, and tranquil cloud spread across the face of the Sun on a calm sky; yet in this case there was no cloud visible, but the circle displayed in a clear sky the exact appearance of a rainbow — from which he afterward presaged the straits of his times.

Yet among all other haloes the most great and wonderful was the circle of the Sun in the reign of Caesar Augustus, according to Pliny; for there appeared a crown adorned as with radiant stars, and then two other circles, as is established from Suetonius and Dio, surrounded the aforesaid: one bearing the most elegant form of a rainbow, the other representing a garland made from ears of wheat —

[marginalia: What a halo is. / The generation of a halo. / Various presages. / Virgil, Georg.]

[catchword: Halonis va-]

[...]

[Full-page engraving — no further translatable text]

— a clear and evident argument of the impending Christian religion, of peace, and of abundance. For this reason we set before the reader the appearance of this remarkable and memorable halo to be viewed in figure II.

What we have explained thus far concerning circles attending the Sun is to be understood in the same way of circles crowning the Moon; for just as a halo appears sometimes near the Sun, so likewise it is borne about the face of the Moon — indeed, what is observed as a parhelion near the Sun is called a paraselene near the Moon. Moreover, if several Suns have sometimes been seen, the Ancients likewise on occasion beheld several Moons: for in the year of the world three thousand seven hundred and twenty-nine the people of Rimini beheld three moons with great admiration, and in that year, according to the report of the historians, the Carthaginians incited the Corsicans and Sardinians against the Romans. In the year of the Lord after one thousand one hundred and eighteen, while Henry I was reigning in England, two moons appeared with full orb, one seeming to illuminate the East and the other the West; and not long after Normandy was laid waste. In the year of human salvation after one thousand one hundred and forty-seven, in the month of September, in a clear sky, three suns were seen, and a few days afterward of the same month three moons were seen, of which the middle one was marked with the sign of the cross. Hence the investigators of natural things presaged difficulty and discord in the election of the Supreme Pontiff, and this was not at all wide of the truth, as is clearly established from the history of Alexander, the Roman Pontiff of that age.

Likewise in the year of human salvation after fifteen hundred and three, the inhabitants of Magdeburg saw three suns, of which the middle one was conspicuous with a plainly luminous colour, but the lateral ones appeared sullied with a red and bloody colour; and as these set, when night was falling, three moons appeared, which seemed far larger to the beholders and inspired fear — since those things that appear by night are wont to seem more terrible. And in the following year, at the beginning of April, at Salfeld, which is three miles distant from the imperial town of Schweinfurt, while night was falling, two paraselenae were observed; and a little after the village perished by a destructive fire.

Furthermore, a halo around the Moon has been seen several times; yet the most notable was that which was observed at Basle of the Rauraci, in the year of the Lord after fifteen hundred and fifty-three, on the twenty-third day of the month of January, around the eighth hour of the night. For a broad and great circle, like a rainbow, encircled the Moon for three hours; and thereafter a frost not inconsiderable followed, which brought the greatest damage to the vines and to all plants.

Sometimes also, beyond doubled moons and a moon attended by circles, other likenesses and images appear in the Moon. For in the year of human salvation after one thousand one hundred and fifty-six, in the month of September, the image of the Cross was conspicuous in the Moon, in the form represented in figure IIII. And at that time, as Lycosthenes records, Albericus, a knight of Beauvais, was crowned with martyrdom for the Christian faith, and Milan was besieged and received into submission by the Emperor Frederick Barbarossa, and in the following year a flooding of the Tiber brought the greatest damage to Rome.

A not dissimilar image in the Moon was observed by men in the year after fifteen hundred and forty-four, in the month of April, in a clear sky, in the city of Wyl in Thurgau; for a white cross shone around the body of the Moon. Nor is it to be wondered at, since the same crimson mark of the cross was seen in the year after fifteen hundred and fifty-four, in the town of Greussen in Thuringia, covering the whole body of the Sun together with many other circles, which it is not necessary to recount at this point.

Now is the opportune time to hasten, through the causes of the aforesaid effects, to the end of this History. For although in examining and describing monsters of the heavens of this kind, some of their causes have been set down, without which such an effect could not be understood; nevertheless at this point we shall endeavour to embrace them all.

Beginning therefore from the general causes, we shall distinguish them into two kinds, of which the one is called celestial and the other elemental. The former produces meteorological effects; the latter receives them. The former seems to accomplish this in two ways: first, because it is the cause of all effects, not only meteorological, yet with motion intervening; and then because it is wont to be the cause of the eternal things of lower and non-eternal things.

[marginalia: When several moons are seen. / Three suns seen. / Halo around the moon. / A cross in the Moon when seen. / Causes of various celestial phenomena.]

A great and wondrous solar halo

[Full-page engraving — no further translatable text]

That superior nature is eternal and is moved through an infinite time; and therefore it possesses the beginning and end of its own motion, while the other bodies are finite and have finite motions, and for that reason are subject to every kind of corruption.

Hence it is to be gathered that that supreme nature is the cause of all other effects, not only meteorological ones, and the effects are thereafter received in elementary matter. And this we think requires no other exposition, since there are no other bodies besides the elements which are able to receive the impressions described. Indeed the elements, in meteorological matters, sustain the role as much of a subject as of matter, since the elements are truly those things which are subjected to meteorological impressions and receive the celestial actions within themselves — unless we wish to call these actions the divine power, which is beyond doubt present in anything whatsoever, or the force of the Sun, to which also the appellation of celestial virtue is fitting by reason of a certain excellence, since it seems to moderate the light and motion of the other stars. On these universal causes, therefore, depend the remaining particular causes of such effects.

Furthermore, the general causes of the aforesaid impressions, which are generated in the uppermost region of the air, can be reduced in turn to two, of which the one is called *hypocauma* — as was also explained above — performing the role of the material cause; the other is the circular motion, which is said to discharge the function of the efficient cause. For when that dryer spirit, raised up from the earth, has ascended there, it is necessary that it grow warm in the manner in which any thing is wont to draw heat from swift motion; and this heating proceeds to the point where it conceives an inflammation.

But if we direct our attention to the causes of impressions that occur without inflammation, these will not differ greatly from the preceding: since gaps, or chasms (*chasmata*), or vortices of the heavens, are formed — as we explained before — when a more turbulent exhalation contracts a certain blackness, which is wont to be the proper colour of a thickened and darkened appearance; but outside, near the vicinity of light, it becomes rarer and more white. For this reason, by virtue of this diversity, what is more inward presents the appearance of a certain depth, which the beholders consider to be not different from a chasm.

Then it comes to pass that the white strikes the vision more violently, and for that reason seems nearer to the eyes; while the black, by the opposite cause, seems to be at a greater interval, and is supposed in a manner to gape open. On account of this, ordinary men, beholding it, consider that there are chasms and gaps in the heavens, and admire them as monstrous things.

Nor do those causes differ greatly from these which generate bloody colours in the sky and around the heavenly bodies. For a more turbulent exhalation, together with a scarcity of celestial light, when they meet together, can produce no other colour than purple, which is nearest to bloody, provided that a certain proportion and equality between these two is preserved.

Otherwise, if the exhalation be so turbulent that it greatly exceeds the splendour of the light, it will appear more black than red, or than any other colour, since the light cannot be diffused alongside it; which is conversely the cause why, when the same light has been copious and has exceeded the density of the exhalation, it produces a white colour. Hence it comes about afresh that, if neither of these has overcome the other, neither also of the aforesaid colours will emerge, but some other colour partaking of the nature of both — which colour will have to be called bloody or purple.

Hence also there can arise the cause on account of which colours of this kind are seen more by night than by day; for the cause of this effect is a scarcity of light, since daylight is always more copious than nocturnal, whence it comes about that all things appear more white in the daytime. But if bloody colours of this kind chance to appear also in the daytime — which is by no means to be denied, as we have demonstrated by the examples mentioned above — then it will have to be asserted that this happens chiefly in summer, at which time, on account of the abundance of heat and of the smoky and turbulent exhalation of fire, the *hypocauma* is more active; and therefore the transparency of the former light is removed, or at least diminished; and for that reason the stars and luminaries are then seen, not white, but as if suffused with a bloody colour.

As to the causes of circles that sometimes seem to surround the Sun, Moon, and any heavenly body, it is to be noted that the cause of these circles — that is, of the halo —

[marginalia: The universal cause. / Causes of chasms. / Variety of colours. / Circles around stars.]

IIII. The marvellous sign of a Cross in the Moon.

[Full-page engraving — no further translatable text]

— is nothing other than vapour and cloud, in which the splendour of the heavenly body is refracted; and this the meteorographers designate a halo. For the rays of the heavenly bodies, while they cannot be carried beyond the visual range, are equally refracted within the cloud itself; but if they encounter an even cloud, an exact circle will result; whereas if they encounter an uneven cloud in their way, then not a complete circle but only a semicircle will appear.

Furthermore, haloes appear more rarely around the Sun and more frequently around the Moon, since the heat of the Sun — which is much greater than the heat of the Moon — more easily dissipates the small clouds that approach it; whereas the Moon, being of weaker heat, admits these clouds more readily and therefore suffers haloes more frequently.

A parhelion, moreover, can be produced neither immediately adjacent to the Sun nor very far from it, since the proximity of the Sun would dissolve the cloud before it could serve as a mirror; for the distance takes away the refraction of the visual ray in such a way that a cloud far distant from the Sun cannot offer the form even of a small mirror. For this reason it is rendered unfit for receiving those whitened appearances and those colours that the appearance of a parhelion demands. Wherefore likenesses of this kind can be formed neither above the Sun, nor near it, nor at a great distance; and therefore it is necessary that they be produced only at the sides of the Sun, yet at a moderate distance, lest the proximity of the Sun by dissolving the small cloud impede their generation, and lest a great distance take away the power of forming a mirror. These are the things which we are able to pronounce concerning the physical causes of the aforesaid effects. But when heavenly monsters of this kind proceed immediately from the hand of the Divine Artificer, the sharpness of human intelligence can neither penetrate nor render account of their causes.

The End of the History of Monsters.

[marginalia: Why haloes appear more frequently around the Moon. / Physical causes.]

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[catchword: Agnus]

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[catchword: Atreus]

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[catchword: bu-]

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[catchword: Gas]

[marginalia: Caufa efficiens monftrorum / Caufa finalis / Caufa formalis]

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[catchword: Rrr a3 Con-]

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[catchword: Homo]

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[catchword: In:]

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[catchword: Hh. Abiaex Nutt: integrata. 80. C.]

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[catchword: Monſtrum figura métule]

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ERRATA TO BE CORRECTED.

Page [blank], line [blank]: *delireare* read *delineare*. Page 3, in margin: *occulorum* read *oculorum*. Page [blank]: *effigiat* read *effigiata*. Ibid.: *anoualle* read *conmalle*. Page 19, e: *Cinnamij* read *Cinaminij*. Ibid., in margin: *Pupili Cinamij* read *populi Cinpaminij*. Page 2[blank]: *illefi* read *illæsi*. Ibid., in margin: *armorur* read *armorum*. Page [blank], e: *vmbelicum* read *vmbilicum*. Page [blank], h: *Syrenes* read *Sirenes*. Page 5[blank], in margin: *Cofmographus* read *Cofmographis*. Page 55, d: *magnitudinis* read *magnitudini*. Ibid.: *quem magnitudinem* read *quâ magnitudinem*. Page 68, d: *Pygmeos* read *Pygmæos*. Page 32, e: *feptenis* read *septenois*. Page 48, a: *Aetgilij* read *Ægidij*. Page [blank], h: *Germagna* read *Germania*. Page 5[blank], g: *Guglielmum* read *Gulielmum*. Ibid.: *Sxao* read *Saxo*. Page [blank], in margin: *periculififfimus* read *periculosiffimus*. Page 70, b: *quam textz* read *quafi sextz*. Page 72, a: *medula* read *medulla*. Page 72[blank], c: *Achilis* read *Achillis*. Page 74, a: *vefcerentur* read *vefcuntur*. Page 81, e: *pyloron* read *pylorus*. Page 84, in margin: *Tribades mulier* read *Tribades mulieres*. Page 97, in margin: *riyophagi* read *rhizophagi*. Ibid.: *Mixicanus* read *Mexicanus*. Page 10[blank], a: *exficcatis* read *exsiccatis*. Page [blank], e: *ncedit* read *incedit*. Ibid.: *erifquetum* read *erisquetu*. Page 119, h: *veflimensorum cultum* read *ob veflimentorum cultum*. Page [blank], b: *crepidos* read *crepidas*. Page 123, g: *lugophthalmia* read *lagophtalmia*. Page 126, a: *refeccauit* read *resecauit*. Page 129, b: *fimiliter in marg.*, *phyfionomiam* read *phyfognomiam*. Page 135, g: *Saxonum* read *Saxorum*. Page 137, f: *Aggripa* read *Agrippa*. Page 147: *craffata* read *graffata*. Page 156, item in margin: *Hippocrita* read *Hypocrita*. Page [blank], d: *Phyfiognonomis* read *Phyfognomis*. Page 171, a: *Syrenarum* read *Sirenarum*. Page 171[blank], a, in margin: *Agial* read *ad aeia*. Page 135, d: *mifericordiz* read *misericordia*. Page 186, a: *Pherontis* read *Phærontis*. Page 187[blank], h: *his* read *is*. Page 193, h: *Syrenes* read *Sirenes*. Page [blank]: *Deolida* read *Deoida*. Page 216, a: *Igitur* read *legitur*. Ibid.: *perficilti* read *perfecti*. Page [blank], d: *gemninantia* read *germinantia*. Page 241, e: *phyfionomiz* read *phyfognomiæ*. Page [blank], f, in margin: *offa* read *offium*. Page [blank], d: *referebatur* read *præferebantur*. Page 326, f: *epar* read *hepar*. Page [blank], f: *embla* read *emblema*. Page 249, h, in versu: *ipfe* read *ipfi*. Page 270, a: *pungitur* read *pingitur*. Page 274, b, in margin: *Afchili* read *Æschili*. Page 274, d, in versu: *draque* read *duraque*. Page 289, g: *oftendiur* read *oftenditur*.

Page 289, b, in margin: *Adromeda* read *Andromeda*. Page [blank], e: *affignat* read *affignant*. Page 315, h: *Lacundæ* read *Lavendas*. Page 315, g, in margin: *fibi facrificant* read *vbi facrificantur*. Page 320, c: *Phxrontis* read *Phaetontis*. Page 3[blank], c: *enez* read *lanea*. Page 349, a: *egre* read *ægro*. Page 380, a: *iffu* read *iuffu*. Page 393, d: *partiantur* read *pauantur*. Page [blank], d: *Septicipitem* read *Septiceps*. Page 425: *polycoras* read *polyceros*. Page 461, h, in margin: *Baccrl* read *Bacchi*. Page 463: *Bracchi* read *Bacchi*. Page 474, c: *fc* read *fed*. Page 475, f: *Iygres vifos* read *Tigres vifas*. Ibid.: *milles* read *miles*. Page 479, e: *penitus* read *penitus*. Page 529, g: *Finzelio* read *Fincelio*. Page 543, h and 546: *Aelurogano* read *Aelurogono*. Page 578, d, in margin: *fetus* read *foetus*. Page 401, g: *fed (Laturam* read *fed de flatura*. Ibid.: *infolitam* read *insolita*. Page 469, a, in margin: *monftrefus* read *monftrofa*. Page 473, g, in margin: *figni* read *lieni*.

[Unprinted leaf — no text in the original]

THE MOST ACCURATE HISTORY OF ALL ANIMALS.

Comprising those things lacking in the volumes of Aldrovandi.

BARTHOLOMAEUS AMBROSINUS

Ordinary Professor of Simple Medicines in the Public Academy of his native Bologna,

Curator of the celebrated Museum of the most Illustrious Senate of Bologna and likewise of the Public Garden, assembled with the greatest labour.

MARCUS ANTONIUS BERNIA of Bologna published it at his own expense for the Republic.

BOLOGNA, from the press of Nicolaus Tebaldinus, 1642.

By permission of the Superiors.

[Unprinted leaf — no text in the original]

TO THE MOST ILLUSTRIOUS GENTLEMEN OF THE BOLOGNESE REPUBLIC

Bartholomaeus Ambrosinus offers his homage.

Although among those many marks of your kindness and beneficence, Most Illustrious Senators, with which you daily favour your servants and ministers above all, I might account last of all that you not only assigned to me — the least skilled of all — the guardianship of your Museum (the φυλακωφυλακία, as it were), but also entrusted to me the care of composing and completing such great Works: yet after I undertook that charge to the best of my ability, how diligently I discharged it, watching over it by day and by night, it is not fitting for me to tell; for I can never consume such solicitude over this work amid the weakness of my powers but that the humanity of so many most Illustrious Fathers will always deserve more. Yet my spirit is refreshed from time to time by this verse:

If strength is wanting, yet the will deserves praise.

So only this much will I say: that the day before yesterday, while I was occupied in your Museum and looking upon the great sea of the history of all living creatures, I noticed many illustrations omitted and nowhere inserted into the histories. Struck by this, both that they might not be buried in perpetual darkness, and that I might continue to show my compliance with your wishes, according to that saying of Virgil:

And with the mindful gratitude for ancient favour doth stand firm.

Having gathered together the illustrations, I have arranged these *Paralipomena* — the most accurate history of all animals — which have been eagerly sought by all students of learning; and I offer them to the same Name to which I offered them to the Divinity, and not without reason: for thus I return to you, now cleared of brambles, opened to cultivation again, and cultivated with many long studies, the field which you once gave me to till — or rather, I reverently present to you to smell, as a kind of posy, the flowers gathered in this pleasant field.

Continue to cherish me under your patronage, me whom you once assigned to this service with such ardour. Farewell, and may you thrive happily.

Bologna, the Kalends of December, in the year 1641.

PARALIPOMENA OF THE ORNITHOLOGY

The Ornithology of the most learned Ulisse Aldrovandi was divided into three parts: in the first were catalogued the birds of prey, both diurnal and nocturnal; in the second, besides grain-eating birds — that is, the gallinaceous kind, doves, peacocks, pheasants, and others of that sort — those also which sustain their life on worms, as well as the omnivorous kind, were numbered; in the third, finally, all those birds that plunge themselves into waters, such as geese and ducks, and those which always frequent the vicinity of waters in search of food, such as herons and the rest of that kind, were placed. We, in the present work, preserving this order, shall add a few things which had not been committed to the press, partly on account of the multitude of illustrations that are preserved in the Museum once belonging to Aldrovandi and now to the most Illustrious Senate of Bologna, and partly because the author had not observed them early enough.

First, we set before the reader to view and consider a talon of some bird of prey, which is still visible in the Museum in transparent form. The reader will contemplate this illustration to decide whether it may belong to the diurnal or the nocturnal birds of this kind.

If this talon pertains to the diurnal birds of prey, we present another illustration belonging to the nocturnal kind: for the reader will have, and may study, a figure of the *Periophthalmion* of the night-owl, or screech-owl, together with its eggs.

Talon of a bird of prey.

[catchword: Nolu-]

The eye-socket of the Little Owl.

The egg of the Little Owl.

[Full-page engraving — no further translatable text]

We do not wish to pass over the illustration of a Hawk with head and tail black but otherwise white — if indeed this creature exists in the natural world, of which we strongly doubt, inasmuch as this illustration was observed in the table of Bembo, depicted above the head of Apollo, on which table many other birds were drawn in monstrous fashion, as we have explained in the *History of Monsters*.

Hawk with black head and tail.

OF EAGLES.

A fine and regal kind of Eagle, ringed about with a black crown or crest, wanders through India; the natives call it *Yzquauhili*. Its beak is yellow at the base and thereafter black; its feet are pale, its talons black, its legs and belly a mixture of black and white, its neck tawny, its back and tail black and dark brown. This Eagle equals the common Ram in size, is endowed with great boldness and ferocity, and attacks men for any slight cause — even when tamed; yet it grows gentle and serves for fowling, in the manner of other Hawks, of which it seems to be a species.

White Eagles, beyond those described by the most learned Aldrovandi, roam the mountains beyond the kingdom of Malabar, a thousand miles distant, in the direction of the kingdom of Morsilin, which pays tribute to no one; and they feed on the serpents that inhabit those valleys. The natives use them in hunting for gems, and especially Diamonds, since many Diamonds are generated in the mountains of that kingdom. After rains, accordingly, many men go out to the streams of water descending from the mountains, and find some Diamonds in the sand. But because the greater number are carried by the currents into inaccessible valleys, in summer men ascend the mountains and throw into those valleys pieces of fresh meat while White Eagles look on; these birds afterwards carry the meat up into the mountains and are found to have some Diamonds adhering to it. The men therefore watch where the birds carry the meat they have taken, and running up with a great clamour drive off the Eagles and collect the little stones adhering to the flesh. If the Eagles have devoured the meat thrown into the valleys, they carefully note the place where the Eagles sleep at night; and in the morning they extract from the droppings such little stones as the birds may have swallowed together with the flesh.

OF THE AURA, OR WIND-BIRDS.

Use in food. — Aura, a certain bird, with description. — Zamuro, Suyunu, Tropillori.

There is a certain bird among the Indians which has earned its name from its resistance to every violence of wind and assault of gales. In maritime places it is called *Zamuro*; in Peru, *Suyunu*; by the Mexicans, *Tropillori*. It seems to be of the corvine kind and exceeds the Eagle in size; it is black in colour, its talon is hooked and black, its crop is in the form of a Parrot's, its forehead is bare and covered with wrinkled skin and surrounded by scattered black hairs. It feeds on carrion, human dung, and other filth.

Birds of this kind pass the night in trees and rocks, but in the morning they fly to the cities and from higher places carefully survey the streets, so that they may take for food whatever is unclean and bloodless. For they are sharp-sighted birds and of marvellous silence; they neither cry out nor sing, but emit a certain faint murmur. Hernández reports that their origin is unknown, since the place where they nest and rear their young is not known; yet in every corner of New Spain they are most abundant. Acosta nevertheless writes that their chicks are white, and that as they grow they acquire a crow-like blackness, and that they have an unpleasant smell. The ash of their feathers checks the growth of hair. Their flesh is eaten against the French disease; their dung drunk in some liquid is good for the melancholic; and the heart dried in the sun breathes a most sweet odour. For this reason, by a law passed in certain provinces, birds of this kind are not killed.

Another bird is called *Cozcacoauhtli* by the Indians, and is said to be the queen of the *Aurae* — that is, of those birds which the Mexicans call *Aurae*, namely the Wind-birds. It is native to the province of Mona[...]

[marginalia: Use in food. / Vespertilio described. / Ch. 80.]

[...] and has claimed this name for itself, because withstanding the winds with great force it remains motionless upon the same perches. In size it equals the Eagle of Gnessia. The whole body, except the neck and breast, is purplish-black. The wings underneath, near their origin, are black; the rest is ash-coloured; from above they are mixed tawny, black, and somewhat tending to purple. The legs are scaly, the talons hooked, the tip of the beak rivalling that of Parrots: white, the rest tinged with reddish colour; the nostril is wide, the eyes black, the iris tawny, the eyelids red. The forehead is suffused with a blood-red colour and adorned with folded wrinkles which it sometimes spreads out like a peacock, together with certain scattered black hairs. The tail is, on the inner side, ash-coloured as in the Eagle; on the outer side, however, black. It feeds, like the other, on carrion and human dung, and also on snakes, lizards, and mice, upon which it preys daily. The Indians apply the feathers of this bird to ulcers, and happily make use of the flesh boiled during that ailment, and also in driving away the French disease.

OF THE PARROT-LIKE BIRDS.

Psittaciform birds.

From the Molucca Islands a certain bird called *Noyra* is brought into India, which excellently imitates the appearance of a Parrot and likewise its song, except that it is clothed in redder feathers and its flesh is sold at a price. Moreover it claims this as its own peculiarity: that with its tongue it diligently wipes the heads, ears, nostrils, and faces of its companions, after the manner of Dogs; so that by these caresses it brings no small amusement to its masters. And beyond this, it far surpasses other Parrots in the varied and pleasing colour of its feathers.

In Chiappa also, certain birds called *river Hawks* are found, which seem in some measure monstrous in their feet, since they have one foot like a goose and the other like an eagle; and indeed, while with one they swim, with the other they seize their prey.

Picus salutifer. — Picus imbrifœtus.

A certain bird was called *Dicus salutifer* from its ability to calm and dispel headache; it is larger than a blackbird, with a long and black beak, but shorter on the lower part; the crown and the entire upper neck are reddish, the lower parts wholly ash-coloured, while the wings and back are black, varied with white transverse lines. It frequents the fields of the province of Totonacapa, and is believed to belong to the Woodpecker kind, since it bores through trees with its beak.

The reddish feathers of its head, applied to the affected part, are reported to relieve headache: whether they derive this property from the signature — since they stand out prominently on the crown of this bird's head — or because they have perceived it by experience.

There is in that region another species of this bird, called *Picus imbrifœtus* (*rain-brood Woodpecker*) in the vernacular tongue *Quatotoni*; it equals the Hoopoe in size and is varied with black and dark-brown colour. The beak with which it bores trees is three fingers long, firm, and gleaming, but shorter on the lower side. The head is small and covered with red feathers, decorated with a reddish crest three inches long and black on its upper part. On either side of the neck a black band descends as far as the breast. The feet and legs are livid. It lives not far from the southern sea, nests in tall trees, feeds on cicadas and worms, and broods over its offspring at the time of rains — whence it has acquired its name.

[marginalia: Use in food. / Description of the western Bat. / Ch. 80. / The bat's head. / Picus salutifer. / Picus imbrifœtus.]

OF NIGHT-OWLS AND BATS.

The night-owl that sings, called *Chicoatli* among the Indians, equals our own in size; it has a long, slender, and dark beak, with yellow oblique bands along either side of each eye. The lower parts of the body are pale, with some black feathers interspersed around the neck. Its eyes are black, the iris yellow. All the rest is a mixture of tawny, dark, and ash colour; it inhabits mountainous places, and when placed in a wicker cage chatters not a little, from which it has acquired its name. It is easily kept, since it feeds on bread, worms, and things of that sort; it is found in hot and cold regions alike, and provides a not unpleasant food. Some call the common night-owl *Chiaquatotel*, since the one bird is no less an augural as the other.

The western Bats are large, so that some of them exceed a foot in length; they are furnished with firm and rather long hairs; their colour is various, for in some it is yellowish ash, in others more dark, and in others bay. The parts of the wings nearest the body are covered with somewhat sparser hairs, and their upper surface more than the lower. The wings are moreover a foot and a half in length and eight inches in breadth, though in some they are shorter and narrower, and in others again broader and longer. The colour of the wings is dark ash; the topmost portion of each wing contains a small bone two inches long, ending in a sharp and curved talon by which they cling to trees; similarly, from the outermost edge of the wing there hangs a smaller talon, barely protruding.

They have two ears, but small in comparison with the size and thickness of the head; narrow at the outer part and ending in a point. The gape of some is observed to be short, almost like the gape of a cat; in others it is more oblong and approaches the style of a little fox.

Finally, in the upper jaw there are six teeth on each side, and in the lower seven; of which the front teeth are longer than the rest and white. The legs are two inches long; the feet small and half an inch long, distributed into five toes each composed of two joints, each toe ending in large, firm, sharp, curved, and black talons, similar to those we have said to be present in the membranous wings, by which they hang from trees.

Gomara, in his *General History*, praises the size of these animals, but does not describe their appearance; he only adds that they are very biting creatures and that the bite is very harmful, and is cured by the application of sea-water and cautery. Then, a little further on, he relates a history not without charm. It happened, he says, that in the province of Chiribibichi a servant of the Dominican monks in the Convent dedicated to Holy Faith was seized with pleurisy; but as a vein could not be found by the Surgeon to relieve the malady, the sick man was abandoned as hopeless; meanwhile, on the following night, a Bat finding the foot of the sick man lying bare bit it near the vein, and having drunk its fill of blood departed, leaving the wound open; and thereupon so much blood flowed out that the patient was freed from the disease, to the great wonder of the monks, who were wont thereafter to proclaim it as a miracle.

In the Eastern region there also live Bats of almost immense bulk, since they are said to equal hens in size; their flesh is pleasant and agreeable to the palate; they are, however, very destructive to fruit, and therefore the fields must be guarded at night. And let this be said of the Birds belonging to the first volume of the Ornithology.

[marginalia: Use in food. / Description of the western Bat. / Ch. 80. / The bat's head.]

OF HENS.

In the region of Mozambique, the flesh of hens is black; indeed their feathers, flesh, and bones are so dark that if they are cooked they appear to have been boiled in ink; yet they are most savoury and are held to be far better than the rest. Illustrations of Indian hens are to be found in the second volume of the Ornithology; but here we give an illustration of the egg of an Indian hen, so that the reader may compare this with the egg of our own domestic hen and contemplate the difference.

Ampliiis [...]

Various forms of hen's eggs

[Full-page engraving — no further translatable text]

Further, there are added here images of the many varieties of hen's eggs which in some measure reflect a monstrous nature, as may be seen in this table.

1. A round hen's egg in the shape of a ball. 2. Another small round hen's egg with a very bright shell. 3. A hen's egg of the size of a dove's egg. 4. A monstrous hen's egg, namely one that is wavy and rough. 5. A monstrous hen's egg, namely one in the shape of a vertical gourd.

Furthermore, the eggs delineated under number six and number seven belong to other animals: for under number six is represented the figure of an egg of the land tortoise, and under number seven the image of an egg of the Noctua owl, both of which had been engraved on the same table.

To the foregoing we add an image of another hen's egg of a yet more monstrous kind; since it has a neck in the form of a flask.

[figure captions: Hen's egg with a neck in the form of a flask.]

Ulisse Aldrovandi dealt with the subject of the greater and lesser grouse — which he called the Greater Tetrao and the Lesser — at greater length than in a minor treatment, in the second volume of his *Ornithology*.

Olaus Magnus, moreover, beyond those already mentioned, wrote that smaller grouse inhabit the northern regions, namely Norway and the neighbouring countries, where they lurk for two or three months under the snow, feeding themselves — perhaps in the manner depicted in the figure above — and are for that reason then easily caught by hunters.

If the reader therefore meditates attentively upon these birds, he will doubtless affirm that they differ from those which the most distinguished Aldrovandi delineated in the place cited.

[catchword: These]

Smaller northern capercaillies (*Urogalli minores Septentrionalis*)

[Full-page engraving — no further translatable text]

These birds, moreover, in the opinion of the ornithologist, will not be unlike those of which the following is recorded in the book of marvels ascribed to Aristotle: In Pontus during winter certain birds are found which neither excrete, nor feel pain when their feathers are plucked out, nor even when they are run through with a spit; but only when they have been warmed by fire. And although some cannot bring themselves to believe this, yet when, further on, mention is made of the bird of epilepsy and its properties are described, this too will beyond doubt be believed.

On the Indian Birds Called Phasiani

The mountain bird Tepetototl is called a pheasant by the Spanish settlers. It is the size of a goose, black and lustrous in colour, with some feathers whitening below around the tail, and likewise at the tips of the wings; the legs and feet are ash-coloured, the beak is short, partly grey and partly yellow, and swollen as it were at the base; it has a folding crest and black eyes. Being tame, it feeds on grain — whether ground into meal or baked into bread — and on other similar foods. Its flesh is edible and pleasing to the palate. This bird is, moreover, very familiar and friendly with men: it therefore often seizes the garment of those in the household by the beak and begs for food, and similarly knocks at a closed house door with its beak, follows a man if free passage is given it, and welcomes him returning home with caresses. Hence the reader ought to note that flattery and familiarity of this kind in no way surpasses that of dogs.

Tartary has birds not unlike these, which they call Scyferach; they rival the pheasant in size and plumage, and frequent a certain plain called Monga. But since in a nearby place called Ciba military companies reside to guard the passage against any enemies, when birds of this kind fly towards them and, forming as it were a single line of battle, take flight, they understand that enemies are approaching and at once gird themselves for arms and for defence.

On Partridges

Partridges in the island of Saint Helena are said to be so large as to equal a hen in girth; they are grey in colour and so tame that they look steadily at men approaching them and do not easily fly away. They are found in great numbers lurking in burrows, so that sometimes twenty or more hide together in a single den.

[marginalia: Birds of winter. / Indian Pheasant birds. / On Partridges.]

Paralipomena of the Natural History

Although these birds are more properly to be referred to the genus of partridges, many kinds are found among the new Spaniards. Some are brown and crested, which they call Quauhtzonecolipi, of middling size. Others are brown but with the head varied with black, and with whitening tips of the wings and back. Feet and beak are black. All these kinds, however, are a very good food for man and are pleasing to the palate, provided they are killed three days before they are set upon the table. Indeed the flesh of these birds is even served to the sick and infirm, and the Indians have no other flesh which, after that of domestic poultry, can be set before this. They sing in the manner of our own birds, though some more sweetly than others; they are kept in wicker cages and fed on maize and our own grain.

Another bird called Coyolcozque is a species of Mexican quail, which resembles ours in size, song, nesting, flight, and habits, but is endowed with a different colour; for on the upper parts the colour is a mixture of tawny and white, while below it is only tawny. Moreover black and white feathers cover the top of the head and neck. The eyes are black, and the legs tawny. It is native and subsists on the same food common to our own birds.

On Indian Quails

There are birds of this kind somewhat resembling our own quails; although some are brown, and crested, and others are smaller and lack crests, while others are the largest of all and tawny.

There is also another species called Acolin, similar in size to a starling, with legs and feet of a pale greenish colour divided into four long toes. The beak is yellow, somewhat elongated in proportion to the body, as well as slender and pointed. The eyes are black, ringed with a tawny iris, yet the body is small. The underparts of the body are white, with the flanks spotted with a brown colour. The upper parts, and the short tail, are tawny, but marked with blackish spots and with white lines bordering every feather. It is a native bird of the Mexican lake, which is accustomed to feed on flies and small creatures fluttering about the water.

On the Feathered Phoenix of India

A certain bird remarkable for the marking on its wings, called Acolchichi on account of its red shoulders, has earned an honourable name among the Spaniards: for birds of this kind they call *Comendadoras*, since the insignia of military knights shining with red around the sides are rivalled by it. They are equal to starlings in size, colour, and form, and range with them wherever they go; although the shoulders at first appear tawny tending toward redness, thereafter in the course of time and of age the redness in the wings degenerates altogether into a tawny colour. They are sometimes kept in cages, for they chatter agreeably and imitate human voices; and even if they are permitted to walk freely about the houses, they are nourished on any food but chiefly on bread and maize. They are found in hot and cold regions alike; they nest in trees not far from human contact, and lay waste the fields in which they happen to alight. Finally, the flesh of these animals provides a flavour that is not unpleasant but by no means very agreeable.

[marginalia: Differences among partridges. / Another species. / Quails. / On the Indian Quails. / The Comendadoras birds, what they are. / Uses.]

On Indian Turtle-Doves

The Indian turtle-dove, or Cocorzin, is somewhat larger than our sparrow, and the whole upper surface of its body is tawny, yet each individual feather is bordered with a black colour. The front parts of the wings are partly black but for the greater part tend to tawny. The tip of the tail is filled with a mixed white and brown colour. The feathers covering the underside of the body are white but edged with dark brown. The under parts of the wings are tawny, grey, and black. The head is small; the beak small and black; the neck short; the legs reddish; and finally the claws are brown and small.

Among the Mexicans these birds take their name from the colour and sound of their wings, and among the Spaniards — who call these birds turtle-doves — their name derives from their murmur, taste, and nutritional value; although they are far smaller than our own turtle-doves. They frequent chiefly the mountains, and are also native to the towns and to the Mexican countryside. It is reported, moreover, that if the flesh of these birds is mixed unknown to a woman into her food, it cures jealousy.

There is besides another kind altogether like the bird just described, but with a tawny and black body and a grey head. Some designate it Tlapalcococui on account of its red colour.

On the Small Birds of India

Among these is the colourful bird called Xochitototl, adorned with many colours in its plumage: for it is pale, turns dark, whitens, is partly also brown, and is found everywhere. It rivals the sparrow nearly in size and form. It feeds on small worms and tiny seeds; it suspends its nest from the branches of trees and broods over its eggs there. It is useful to domestic life and to the palate, since it is tuneful and gratifies the appetite in a wonderful manner.

Perhaps this very bird, or one not differing greatly from it in habits, will be the same as the Chagrin birds, which, guided by natural instinct, build pendulous nests with great skill, so as to be safe from the pilfering of the monkeys that are plentiful along the Chagres river and visit every branch of the trees in order to empty the nests of the birds. And so these birds suspend their nests from creeper-canes. Now these creeper-canes are pliant shoots without leaves, clinging to and climbing the tall trees all the way to their tops, and the Indians use them as ropes.

Furthermore, still smaller birds range in the Peruvian region; for they are so tiny as to seem like flying bees, butterflies, or cicadas. Indeed the flight of these little birds is so swift and headlong that the movement of their wings can no more be seen than that of a hornet; and he who sees such a little bird flying past thinks it is a hornet. The size of the bird corresponds to its nests, which it builds from tufts of cotton that grows there in abundance. The feathers are endowed with elegant colours, namely gold, green, and other kinds of colour. The beak is so slender as to be finer than the needle with which garments are sewn. Upon these little birds the name Tomizeis has been bestowed, since the bird is so light as to weigh only one tomino, that is twelve grains.

Yet these little birds are of different species, one of which the Indians call Hoitzitziltotol; we would call it the parti-coloured bird, because it is clothed in feathers dyed with a variety of colours, which afterwards, being artfully joined and interwoven, the Indian craftsmen elegantly fashion into images of holy figures and of whatever other things they please. These little birds have such a nature that they fly about only so long as the plants and flowers endure green, on whose juice they are nourished; and when winter draws on they flee to pines or other trees and hang themselves from their branches by the beak, as though dead, until with the return of spring —

[marginalia: Name and description of the Indian turtle-dove. / Another species. / Creeper-canes, what they are. / Nature of this bird.]

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— when the fields bloom again and the plants reflower, they revive again, or rather re-awaken, and fly away to the flowery places, there to undergo the same alternation many times over; nor should this seem a fabrication, since it has been established by the testimony of very many men most worthy of trust, who brought a little bird fixed to a twig into their chamber and observed it, after it had lain there as though lifeless through the winter months, reviving at the appointed time fixed by nature, and, once released, flying away to the fields. Furthermore they report that the burnt powder of this bird is of the greatest benefit to epileptics, a fact they learned either from the signature, or from experiment, or from both; and for that reason this bird may not undeservedly be called the bird of epilepsy. Gomara, however, in his *History of the Conquest of the City of Mexico*, seems to name this little bird Vicicili.

On Aquatic Birds, and First on the Hooded Swan

Among aquatic birds we should understand not only those which, swimming in the waves, seek their food, but also those which around rivers, sea-shores, and stagnant waters procure their livelihood. Thus Nature with wonderful craft equips certain birds of the Province of Vera Paz which find food by casting their excrement into streams, to which bait fish rising to the surface are caught.

A certain bird equalling a swan in size was found on the island which the Dutch named Mauritius Island after Prince Maurice, though the Portuguese had earlier perhaps called it the Swan Island from the bird we are now about to discuss, since they themselves believed this bird to be a true swan, although Clusius calls this creature a foreign domestic cock.

This bird, therefore, equals or even surpasses a swan in size; but in form it is very different: for its head is large and covered with a sort of membrane resembling a hood. Then the beak is not flat but thick and oblong, of a yellowish colour at the part nearest the body, with the outermost tip black. The upper part of the beak is hooked and curved; the lower is somewhat blue, and a spot occupying the middle part is between yellow and black. The bird is covered with sparse and short feathers; it lacks wings, in the place of which only four or five very long black quills appear. The hinder part of the body is very fat and thick, on which instead of a tail curled and twisted feathers of a grey colour are seen. Its legs are thick rather than long; the upper part of them as far as the knee is clothed with black feathers; the lower part together with the feet is of a yellowish colour. The feet are divided into four toes, three of the longer of which point forwards, the fourth and shorter one backwards, and all are furnished with black claws. Sailors call this bird in their tongue *Vualegh Vogel*, that is, the nausea-causing bird, because no amount of long boiling makes its flesh tender; rather it remains hard and difficult of digestion. In the stomach of this bird two small stones were found; not that they were generated there, but rather they had been swallowed by the bird from the sea-shore, since birds of this kind frequent the shores of the sea in search of food.

[marginalia: Uses and medicinal properties. / The bird of epilepsy. / Vera Paz birds. / Swan Island. / Foreign cock. / Description. / Stones in the bird's stomach.]

On the Living-Devouring Bird Similar to the Pelican

A certain foreign bird of greedy gullet, named Tlanhquechal, sustains its life on live fish only; for it does not touch dead fish. It resembles a plover, or rather a pelican — that is, an onocrotalus — but the colour of nearly the whole body is crimson and most beautiful; the beak is broad and round toward the tip, and grey; the pupil is black, the crest like that of a peacock; the head is almost bare of feathers and whitening, together with the whole neck and part of the breast; and there is moreover a black and broad band separating the head from the neck. It lives around sea-shores and river banks.

Now that we have fallen into a discussion of the onocrotalus, or pelican, we thought it not foreign to reason to set down in this place the anatomy and skeleton of the onocrotalus, and to present its image for inspection, since in the third volume of the *Ornithology* it had by no means been delineated in its proper place.

[catchword: The]

The Skeleton of the Pelican.

[Full-page engraving — no further translatable text]

The letters inscribed on the skeleton of the onocrotalus are explained thus:

A. The lower jaw, exceeding the upper in the length of a palm, since it takes its origin from the inner part of the head.

B. The crop, that is, the receptacle for fish, of such great capacity that even when dried out it can take a foot thrust into it; for it consists of a double membrane furnished with every kind of fibre, which, contracting, narrow the crop, and, extending themselves, enlarge it.

C. The upper jaw, three fingers wide and two spans long.

D. The curved tip of the beak in the manner of a hook.

E. The upper extremity of the oesophagus, which passes into a fold.

F. A part of the os hyoidis.

G. The cranium.

H. H. H. The vertebrae of the neck.

K. The left jugal bone.

L. The right jugal bone.

M. The left shoulder-blade.

N. The right shoulder-blade.

O. O. O. O. O. The cartilaginous extremities of the sternum, which are joined to the extremities of the ribs.

P. The upper part of the right wing, which is also called the humerus.

Q. The middle part of the wing, in which 9 designates the ulna and the radius.

S. The lower part of the wing, which corresponds to the hand: its first part denotes the carpus, the second the metacarpus, and the third the fingers.

T. T. The sacrum, to whose lateral sides the unnamed bones are joined.

V. V. The uropygium divided into vertebrae.

X. X. The right and left femur, which are called the first parts of the leg.

Y. Y. The second part of the leg with the skin removed.

Z. The third part of the leg, which is called the foot, furnished with its own skin, claws, and an interdigital membrane.

[figure captions: Skeleton of the onocrotalus with labelled parts.]

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On Domestic and Wild Geese

To the ancient history of domestic geese we must add a recent account of the vigilance of these animals, drawn from Juan Eusebio Nieremberg of Madrid, which occurred in the year of human salvation one thousand six hundred and twenty-eight, in Libya, where a certain Black man had stolen an image of the Child Jesus by night; but when he came out with the icon he met a flock of geese, which rushed at the thief in a body, and some of these geese seized the thief's garments with their bites, others flew up to the tower of the monastery and rang the bell, others raised a horrible clamour and roused the inhabitants, who, awakening from sleep at last and running to the scene, caught the thief. It shall not therefore be said henceforth that Rome alone was saved by the night-watch of these birds.

Furthermore, to the wild geese must be added the Magellanic Goose, so called by Clusius because the Dutch found it on the islands of the Magellanic sea; but they named these birds Penguins (*Pinguius*) on account of the great abundance of their fat. This bird is remarkable, of the genus of geese, though unlike them in beak; it lives in the sea and always abounds in a great supply of fat. Its size is that of a large goose; the upper surface is covered with fairly dark feathers, the underside and around the belly with white ones. The neck is thick and short, encircled with whitening feathers like a torque. The skin is thick and dense like that of a pig. It lacks wings, in the place of which two fins, as if made of leather, hang down near either flank like arms, covered on the upper side with short, narrow, and stiff feathers, and on the underside with smaller, stiffer, and white ones, among which black are in some places intermixed; these fins are unsuited to flight but are of the greatest assistance to this animal for swimming, since it lives for the most part in the water and comes ashore only for the sake of its young. For four or five birds of this kind nest in a single burrow, because they dig very wide and deep holes in the shore in the manner of rabbits; indeed sometimes so deep that those walking along the shore frequently fall into them up to the knee. Birds of this kind have a beak larger than a crow's, but not so elevated, and a very short tail, black feet, flat, and in the form of a goose's foot, though not so broad. They walk upright with the head held high, their fins hanging down at their sides like arms, so that to those looking from a distance they seem to be so many little men or pygmies walking about. They indeed rival that monstrous hen which the most illustrious Fulvio Antonio Marescalchi keeps at home, whose image is seen in chapter five of the *History of Monsters*. These birds therefore will perhaps be the geese which Gomara wrote are without feathers, never come out of the sea, and are covered in place of feathers with certain down-like hairs.

Furthermore in the Faroes two different species of wild geese range about; the first is called Helsingegaas, the size of a goose; it has a large head and neck encircled with a whitening torque, a white breast, pale wings, a back of blue colour, and red feet. The other species is called Brandgaas, a little smaller than the wild goose, with a pale head, a neck adorned with a reddish torque, a brown breast, and red wings and feet. These species of wild geese are seen most rarely in the Faroes and do not breed there; from where they come and whither they migrate is still known to no one. Yet from long experience a certain superstition has arisen there: that when birds of this kind appear, a change of magistrates is at hand.

[marginalia: Vigilance of geese. / The Magellanic Goose, what it is like. / Description. / Various differences of this bird.]

On Ducks

A certain species of duck frequents the Mexican swamps, called Xlepapantotl, whose beak ends in a point; Nature denied it no colour, since the variety of its feathers bestowed beauty, and beauty gave it its name, as the bird is commonly called the beautiful bird.

Furthermore, there is a certain bird native to the Mexican region, hoarse-voiced on account of the sound of its call, which some refer to the species of halcyons, others to wild ducks, since its flesh provides a food and taste not unlike that of a wild duck; yet it is somewhat smaller than the wild duck. It has a beak a span long and three fingers wide at the middle, then ending in a point and fit for biting, black on the upper side, ash-coloured below, and pale around the sides. The eyes are black, with the iris red around the pupil, then pale, and finally whitening. From the eyes as far as the base of the beak runs a band of pale green. The legs and feet, divided into toes, are greenish on the outside, tending toward pale on the inside. The colour of the whole body is for the most part white with inserted feathers. But the upper parts are more brown, while the lower parts are white. The lower parts of the wings are grey, black toward the tips above, then reddening from tawny, then growing pale; the tail is short and black. It feeds on fish and is easily tamed. It broods among the rushes on its young; but it is remarkable that it has a neck which, in comparison to the rest of its body, is very long, yet it contracts it frequently into a wonderful brevity.

Finally, in the Faroe Islands, which seem commonly to have received the name *Ferroyer* from the abundance of their feathers, there are many web-footed birds, but among these, many also are to be referred to the wild ducks, and chiefly those which the inhabitants call Landas, Alkas, and Iomuuias, which are preferred to the other birds of these islands both for their abundance and for the use of their feathers. The Landa has a reddish and broad beak, a white breast, a black back, red wings and feet, and in bodily size is inferior to a duck. This is doubtless the bird which Carolus Clusius in his *Exotica* called the arctic duck, which nests in the caverns of lofty crags, lays eggs equal in quality to those of hens, one at a time, and returns to breed; in winter, whither it goes is unknown.

The Alka described above is somewhat larger, with a wide black beak, and the body likewise black, except that it is white below the end of the breast and at the wings. The feet are black, the head likewise brown, and a white line is drawn from either eye to the part nearest the beak. It likewise nests on the highest crags, as does the Landa, and lays eggs spotted with white and black.

The Iomuuia finally is the largest of all, whose whole body is black except the breast, which is white; the feet likewise are black, the beak black, sharp, and oblong. It hatches its eggs equally on the more prominent crags; the eggs are of a blue colour but variegated with lines of various colours.

On Sea-Ravens

Passing over the history of the Indian Raven, which is called Cacalotl and by some is considered to be the same as the European raven, let us turn to the sea-raven of the Mexican region, from the tip of its tail to the tip of its beak four spans in length and of moderate breadth. Its legs are a span and a half long; the beak, curved like a bow, is two palms long and moderately thick; the feet are divided into four toes furnished with the blackest claws; the legs themselves are less dark; and it is clothed with white feathers and varied in a triple colour, and is twice as large as —

[marginalia: Description. / Fishing.]

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— the toes are blackening, the beak is blue, and the head small. The lower feathers are, with red inserted feathers; the upper ones are promiscuously purplish, then blackish, green, and lustrous. The head and neck are covered with brown, white, and green feathers, as well as feathers that are somewhat tawny. The eyes are black with a blood-red iris. From the outer corners of the eyes as far as the beak, over a space of one inch, the skin is bare of feathers and gleams with a colour between white and pale green, lustrous; toward the base above it is violet, then green and filled with a peacock-like colour. It frequents continually the Mexican lakes, since it feeds on fish and raises its young near lake-side places.

Concerning the sea-raven of China, Fra Diego de Mendoza, Augustinian, reports the following. The King of China in all the cities situated beside rivers has certain buildings, in each of which many sea-ravens are kept, through whose labour fishing is carried out in a wonderful manner, above all in those months in which the fish have produced their young. For the servants lead out the aforesaid ravens from those buildings to the river-banks, where fishing boats half-full of water are moored, to each of which they assign the ravens one by one in order.

They then bind the ravens with a long cord under the wings, and with another cord they constrict the crop, so that they cannot swallow the fish they have caught; afterwards they release the birds for the capture of fish, and these so diligently perform their duty as to occasion admiration in all beholders; for with great speed these birds plunge themselves under the surface and remain under the waves until they have filled their crop from the beak to the breast; then emerging with the same velocity they return to the boats again and again, until the boats are full of fish. For then the cord constricting the throat is loosed and they are set free to hunt fish for their own sustenance. They are indeed hungry, because the day preceding the fishing no provisions were supplied to them, that they might be made more eager for the fishing.

But doubt must be entertained, because of the aforesaid crop, since the author makes no mention of the kind or condition of the birds, as to whether such a bird should be referred not to the genus of sea-ravens but rather to that of onocrotaluses.

However that may be, we here propose for the reader's inspection the image of the raven, or cormorant — aquatic, as it is found in the public Museum, concerning which animal treatment was given in the third volume of the *Ornithology*; since this bird is called by Albert both the aquatic cormorant (*Carbo aquaticus*) and the Great Black Merganser (*Mergus Magnus Niger*).

[figure captions: The sea-raven or aquatic cormorant.]

[marginalia: Description. / Fishing of the sea-ravens of China. / The sea-raven of China, the cormorant, the Great Merganser.]

The Skeleton of the Water Coot.

[Full-page engraving — no further translatable text]

[figure captions: [Greek text]]

Among the third volume's subjects, the Arctic merganser sent from Norway and described by Carolus Clusius ought not to be passed over in silence. It is a sea-bird, web-footed, larger than the domestic goose; for the most part from the neck, where it joins the breast, down to the uropygium, it is two feet long, and the girth of the body is two and a half feet. The wings are fourteen inches long, the tail short, scarcely three inches. The neck is nearly eight inches long; the head short, three inches broad. The beak is black, pointed, exceeding four inches in length.

The tongue is nearly three inches long, black, pointed, cartilaginous, and furnished near its upper part, where it issues from the beak, with teeth curving inward; the middle part is rough. Likewise the palate is armed with a row of four small and short teeth looking inward, by which it easily retains and dispatches fish, since the beak itself is without teeth.

The whole body is covered with dense feathers, which on the breast, across the belly, and on the upper surface of the wings are short and white, but on the back and the lower surface of the wings longer, blackish, each one nevertheless distinguished toward the tip with white spots; this variety of feathers around the back and sides represents the variegated colour of the guinea-fowl, or Numidian hen. Furthermore the neck is adorned with a collar of black feathers; the head likewise is covered with similar feathers. And those that surround the beak and the eyes are marked with white spots. Under the throat it also has some small white feathers mingled with black ones. The legs, situated at the very rear of the body, are a little more than three inches long, flat, and black. The feet are four inches long, black, furnished with three toes joined together by a dark membrane all the way to the nails. Moreover on the hinder part of each foot, a little above the joint, a small knuckle is visible, resembling a spur.

Hoierus has left in writing that a bird of this kind was found in the Faroe Islands, situated between Norway and Iceland; that it rears its young in the water, is seen only when autumn draws near, and seldom touches land. Not very unlike this appears to be that sea-merganser which Gesner records in his *Paralipomena*. Equally, the American merganser distinguished by small wings does not degenerate greatly from these birds; this is reported to be a monstrous bird.

[marginalia: Sea merganser of Gesner]

Although in the Summary *On All Animals* only one kind of quail was mentioned, and although Aristotle wrote that a white quail had been observed, he by no means establishes it as a distinct species; the reason why birds in certain places sometimes turn white has been explained in its proper place. Nevertheless we found in Martin Cromer that in Poland there were quails with green feet whose consumption generates convulsions, whereas our native ones lack the greenness of feet. We now add the water quail — not because it is to be referred to the same genus, but solely on account of its size and the swiftness of its feet.

For there is a certain brown bird native to the Mexican lakes, rivalling the quail in size, yet with a long beak curved downward, long legs, and running with great speed along the surface of the waters, since it scarcely ever flies; it feeds on small fish and is called by the inhabitants in their vernacular tongue the water quail.

[marginalia: Description of the quail / Quail of a foreign genus]

[catchword: Cor-]

ON COOT-LIKE BIRDS AND THEIR CONGENERS

In the third volume of the *Ornithology*, following Albert's view, certain birds were mentioned under the name of coots that were more properly to be reduced to the genus of mergansers. Likewise the *Ornithologist* wrote that among the Italians two species of coot were current, namely the larger and the smaller; though he himself thought the larger coot to be Aristotle's water-crow, since in Italy only a single kind of coot is found.

Among the Indians the bird Yachacintli seems to be referred to the coots of recent writers; it has green legs, a head and belly of a cyan colour tending toward purple, wings indiscriminately tawny and black. The beak is three broad fingers long and toward its base inclining to a scarlet colour, the fore-part of the head being bare of feathers. It lives on fish near lakes and rivers; its flesh is edible, though by no means a pleasing food.

The Indians designate by the same name another bird equally resembling the coot, though called by others *quachiltonc*; it is of a purple colour, with black feathers interspersed with whitish ones. The beak is pale at first, reddening in younger birds; there is a baldness near the base of the beak. The legs are yellow inclining to green and terminated by four pale toes. The eyes are black, with a tawny iris; it wanders about marshes, feeding on fish, and its flesh is not unpleasant to the palate, unlike the former. Finally, a bird of this kind imitates the watch and crowing of the domestic cock; for in the dead of night and at the approach of the morning twilight it sings.

[marginalia: Description of the bird / The coot called gallus lacustris / The coot called lacustris]

ON WATER SPARROWS AND EXOTIC ONES

In the Mexican regions there dwells a bird called Acototloquichtli, a water sparrow, because it resembles our common sparrow in size and form; it has a black beak, tawny legs and feet, the underpart of the body for the most part white, the rest tawny varied with some white and black. It is an animal of persistent song, for it sings no less than the sun proceeds, running with an obstinate sound imitating mice. It perches and nests for the most part in reed-beds, and differs entirely from that water sparrow which was mentioned in the second book of the *Ornithology*.

There is another bird in those regions likewise called a water sparrow, to which a remarkable foolishness and simplicity gave the name, because it does not flee from the hands of those who grasp it, but merely stands in wonder, and rests there like a stupid bird; in voice it resembles the jackdaw, in size the magpie, in form the gull. Its beak is slender, three inches long, round and straight, and somewhat curved near the tip; the pupil is black, and the membrane surrounding the eye is ash-coloured at the rim. The legs are black, and the feet are protected by a membrane like those of web-footed animals. It is a sea-bird and feeds on small fish.

Furthermore, birds of this genus, when sailors come to land, perch in trees and approach them without fear; for which reason they are called foolish sparrows. In Bologna, however, by the name of *foolish sparrow* they designate a bird altogether different from these, namely a certain species of wagtail, called by some hunters *magnanima* in the vernacular; and likewise another small bird which in its bodily habit resembles a sparrow, though it is quite different in colour — of which more was said afterward in the second book of the *Ornithology*.

[marginalia: Gull / Galli lacustris note]

[catchword: Voice, of what kind]

28. *Paralipomena of the History*

PARALIPOMENA OF THE HISTORY OF INSECTS

On Wasps

We consider it exceedingly difficult to pursue all the distinctions of wasps, since some are enumerated by the Ancients, others by recent writers. Furthermore, some are classed as legitimate, others as spurious; some as native, others as exotic, and chiefly as Indian. We now add — besides those mentioned in the *History of Insects* — a certain sting-bearing and piercing genus of wasp called Tetlatocba by the Indians, which every single day digs out the earth and carries it elsewhere to prepare itself a chamber, but constructs no combs at all. The wasp is black tending toward blue, except for the wings, which are tawny; likewise the antennae are tinged with a yellow colour. It lives chiefly in the mountains of Tepoatlam.

[marginalia: Indian wasp]

ON BUTTERFLIES

If we enquire into the kinds of butterflies we shall find them almost without number. For some are diurnal, others nocturnal — lovers, that is, of light and of darkness. Some are large, some small, some of middling size. Some are furnished with but one colour, others with two, others with several. Some are spotted, others are not.

Among all these, however, none is found armed with a sting — yet in India several of this genus are born; and there likewise dwells a certain genus of butterflies which the Barbarians call Arauers, of such great size, as Léry testifies. These creatures moreover approach in swarms, like crickets, toward the hearth and toward warmer places, and if they encounter anything edible they immediately consume it; indeed they sometimes gnaw garments made of cloth so that they entirely devour their surface. Then if dressed fowls, or other food, through carelessness are left out uncovered at night, by morning they are found stripped of flesh to the very bones — and this is the calamity which such insects bring upon the inhabitants.

[marginalia: Indian butterfly]

ON BEETLES

These small creatures appear to differ from one another first in colour, since some are black, some green, some marked with any colour except white. They differ in size, in sound, in mode of generation, and finally in the formation of the head: for some have a horned head, like the stag-beetles, others have it without horns.

That genus furnished with horns is reported to have various uses, as was explained in the *History of Insects*; for they are employed with success in relieving pains, and remove contractions of the sinews in a marvellous degree — an affliction that the common people are accustomed to call *Grancio*. Indeed, in such affections, such little creatures are enclosed in gold and silver by way of an amulet; and from the horns of these beasts amulets are prepared against bewitchings and against the terrors of children, though others recommend this remedy in all affections of children. Furthermore many persons hang these horns usefully in driving off quartan fevers,

[marginalia: Uses in medicine]

But, beyond what has already been related in its proper place, it should be known that in the New World horned beetles are generated of this genus, which the inhabitants call Temolin; they shave off their horns, steep them in water, and administer it, professing that it stimulates venery in a marvellous degree.

[marginalia: Horned beetles of the New World]

ON FLIES

In the last book of the *History of Insects*, the river flies of Rondelet were mentioned, which fly above the surface of the waves in summer; they have large eyes for their body's size, a rounded back, a flat belly, six legs, the hindmost larger, which are of great service in propelling the body through water — although when swimming the two wings are also extended, by which means they can not only swim but also fly.

Now in the Mexican region a marsh fly not altogether unlike the aforesaid frequents the waters, called Akkagacatl, because it represents the appearance of water and is very similar to the element in which it constantly dwells. This continuously supplies food to the Mexican common people; for when an abundant mass of these flies comes at certain fixed seasons to the nets, they are ground up and mixed together, and small balls are prepared from them for the supply of the whole year; for the inhabitants wrap them in the membranes of a spike of maize — that is, Indian corn — throw them into nitre-water, and boil them, thus providing a good food not unpleasant to the taste. Furthermore they use these same flies to feed a thousand kinds of small birds, which enclosed in cages modulate various voices to no small delight of their listeners. Finally a larger and a smaller kind of these flies is found.

In addition the Mexican lake affords great abundance of Ahoautli — for so the Indians name the eggs of the aforesaid flies. These resemble the seeds of poppies and are caught by throwing ropes of the thickness of an arm into the lake where the waves are highest; for the eggs adhere to them, and thence the fishermen scrape them off and keep them in vessels for use. From these they afterwards fashion small cakes or discs, and enclose them in the membranous coverings of maize spikes, so that when occasion offers they may prepare them as a dish to be roasted. They smell of fish, and are reported to provide a food that is not wholly bad; indeed they are said to fortify a weak and relaxed stomach.

It has already been explained that some flies are aquatic, others terrestrial; likewise the twofold generation of terrestrial flies was assigned in its proper place, the one proceeding from eggs, the other from putrefaction — though afterwards from the eggs a worm first emerges, which gradually puts forth legs and wings and at last becomes a winged creature, namely a fly.

Since therefore there is a twofold origin of the little worms that give rise to flies — namely the coupling of flies and putrefaction — it should be noted that this putrefaction concerns not only carcasses but also the corruption of fruits. For this reason it has pleased us to exhibit in this place an image of a fly born from the gall-nut of an oak, where the reader will also be able to contemplate the figure of a cockroach following its webs.

[figure captions: A fly emerging from an oak gall, and a cockroach following its webs.]

[marginalia: Mexican marsh fly / Uses of the eggs of flies / Various origins of flies]

[figure captions: A fly emerging from an oak gall, and a cockroach following its webs.]

ON SPIDERS

Very many species of spider are generated among the Indians, of which we have resolved to mention the most notable, since many others have been enumerated in the *History of Insects*. A certain species, exceeding the size of a pigeon's egg, is called Ahoachrocatl; although it is of such great bulk, it is said to be of no venom at all. Again, among the Caribs there are spiders equalling half a citron in size but with small legs, though filled with long and sharp teeth; they elaborate a web sufficiently strong, in which if a small bird should fall it is without doubt entangled. This spider might serve as a hair-net or head-covering for women, most especially because when washed it is rendered white.

Another species is called Hoitztocatl — that is, the spiny spider — which with its bite causes madness; the upper and middle part of the body is black, the rest yellow; its form is prickly and resembles a caltrop, whence among the Indians it acquired its name, since *Hoitztli* means spine.

Atocatl, however, is a spider dwelling near the water; it is variegated with red, gold, and black, and passes its life on the plant called Mctl by the inhabitants; with marvellous skill it makes its web, always rounded as if drawn with a compass — its sting is harmless, or at least very slight.

Finally in those regions there are small spiders, marked with golden and black spots. Their wound is harmful, for the sting leads the sufferers to a kind of madness as it were, and communicates numbness to the parts, not without anxiety and pain; against these the Indians afterwards resist with their own antidotes.

[marginalia: Head-net of the spider / Another species of spider / Third species]

ON WOODLICE AND THEIR DIFFERENCES

The Ancients called three distinct and terrestrial many-legged insects by the name *multipeda* — namely the iulus, the scolopendra, and the oniscus — but it is of the last that we now speak. Aristotle called the woodlice ὄνοι πολύποδες (onoi polypodes), that is, many-footed asses, and not without reason, since the name *asellus* is appropriate among the Greeks to many kinds of animals; for this reason he added *many-footed*, since the ancient Latins too designated these creatures *multipedes* from the number of their feet. Galen called them δύσερκες (dyserkēs), and reported that among his own people they were called κύαμοι (kyamoi); he described them thus: woodlice are animals that roll themselves into a ball, and for this reason they are called *kyamoi*, that is, beans, because they resemble edible beans and may be seen under water-pots. Indeed Galen mentions these woodlice several times and always wrote that they are born and dwell under water-pots.

Marcellus Virgilius, in his *Commentaries on Dioscorides*, called these small creatures ὄνοι (onoi), that is, asses; likewise Galen called them ὀνίσκοι (oniskoi) — small asses — because such creatures are endowed with a livid colour like asses. Add to this their gait, for moving on their many legs they proceed with a slow step like asses. The Italians call them *Porcelleti* from the appearance of their whole body, and the Latins likewise call them *Porcelliones*. Now several species of these are known, which were neither mentioned nor illustrated in the *History of Insects*; wherefore the reader may here contemplate them, since there is observed here the ash-coloured woodlouse, the true dark ash-coloured woodlouse, then another species with white spots marking the middle of the back, and finally the foreign woodlouse, of the sort perhaps depicted by Ambroise Paré where he speaks of various animals excreted through the urine.

1. The ash-coloured woodlouse. 2. The other, dark ash-coloured woodlouse. 3. Another, with white spots marking the back. 4. The foreign woodlouse.

[marginalia: Description of woodlice / Etymology of oniscus]

That there are two kinds of leech or bloodsucker — one living in salt waters, the other in fresh — was already elucidated in the seventh book *On Insects*. We now add to those already described a thin and terrestrial leech belonging to the Indians, which the inhabitants call Lamatech. It is the most troublesome species of leech, living among herbs and mountain trees; it is half a finger's length long and exceedingly thin; it clings tenaciously to those who pass by and enters whatever passages of the human body it finds, even the narrow and foul ones; nor does it depart thence until it has drunk its fill of human blood, at which point it falls off of its own accord, as our native ones do, and it is less troublesome when the sun is strong. The remedy is to pull them off with certain sharp reeds, or to protect oneself by sitting down on rocks in the water, or to drive them off with fire. And so this kind of leech differs in nature from our native ones, in that while roaming among herbs it shuns water.

ON WORMS

The differences of worms are very many. In respect of their body, some are large, some small, and some of middling size; in respect of their parts, some are tailed, some horned, and some hairy; in respect of colour, some are white, some yellow, and some of another colour; in respect of their origin, some arise in living animals and some in dead ones; in respect of their qualities, some are venomous and others lack venom; and finally in respect of their birthplace, some are called native and some exotic.

For the Peruvians have worms from which they prepare deadly poisons. Furthermore, in the province of Huexutla in Pánuco, worms are generated marked with white and blue lines, living among the leaves of certain herbs which they call Tunas. They are of marvellous efficacy in curing madness: for two worms bruised and dissolved in water are taken by mouth, and if the disease is inverate, the medicine is repeated two or three times; thereupon sleep is induced, and the patient, roused after a long sleep, recovers his senses — for worms of this kind are harmless. Hence they are also administered to the same end; indeed they are likewise prescribed with success to paralytics and epileptics.

Another genus of worm dwells in the Mexican fields near mulberry trees and willows; it is called Cuchipilutl, or the worm that brings on sleep, being equal in size and form to a silkworm; for, after the manner of that creature, in the month of October it wraps itself in a firm membrane, and in April emerges transformed into a butterfly. The Indians hang this in the cradles of infants and assert that it induces sleep in them, and from this effect they gave the beast its name. They also reduce it to powder and administer it with a portion of wine to stimulate venery. Such small creatures find their sustenance from the aforesaid trees.

There is also found a certain genus of worms or very thin earthworms called Xcahoitli, which is caught in nets and kept in large vessels to be taken to market. After the dealers have cooked them, they turn to a dark colour and give off a smell not unlike the roe of fish. From them cakes are made, which being dried are kept, since they are said to increase the milk of women in childbed and of nurses.

In the marshes of those regions there also dwell certain worms resembling those harboured by putrid flesh; the Mexicans call them Ocuiliztac; raw they are black, and when roasted they turn white — for these likewise serve the appetite.

Worms adorned with various colours called to mind the marine amphisbaena, whose figure has nowhere been expressed in print, and therefore must not be omitted. This amphisbaena was caught in the English sea, where many others of the same kind were dwelling.

It has

[marginalia: Stars with many feet above, for ten years / Worms of various origin]

Such a beast has two heads adorned with two eyes each. The two heads cannot be distinguished from one another except that one is seen to be larger than the other. Four lines of an amethyst colour adorn the whole body, and these lines appear marked throughout with certain most beautiful small flowers, after the manner of the straps of the *Pseudosycomorus* tree. This is represented in the following figure.

[figure captions: Marine Amphisbaena.]

ON THE SEA FLEA

Pliny makes mention of the sea flea, which is believed to disturb the sleep of fish in the sea at night. Kiranides called this little creature the sea psyllus. Niphus likewise records this animal, but afterwards confuses it with the scolopendra. Rondelet asserts that the sea flea is a small creature covered with a thin shell, which in appearance simulates a little man or an ape, its other parts resembling those of a lobster, with appendages at the tail after the manner of a squill; and he believes this to be the sea flea — namely the ψύλλον θαλάττιον (psyllon thalattión) of which Aristotle speaks when he treats of the sleep of fishes. But, to tell the truth, from this description of Rondelet we can only conjecture that by the sea flea he understands the lesser sea squill; wherefore we here give another figure found in a public museum, differing greatly from the figure of Rondelet, as the reader will be well able to see.

[figure captions: The sea flea depicted from both sides.]

[marginalia: Piscium [reference]]

ON SEA STARS

Four kinds of sea stars are observed. Some grow to an immense bulk; others are content with a middling size; and some remain always small and acquire no increase. Likewise some are spiny, others reticulated, others smooth — though these are rare — others branched, which some call *Epl* [...]bearing, others finally sinuous; and all afterwards vary greatly in colour. Finally some are furnished with only five rays, and others with more.

Among those consisting of five rays is placed the one which Rondelet calls the sea sun, because it somewhat resembles the representation of the Sun; for from the middle trunk of the body, as from a centre, five rays burst forth, by no means rough on the upper surface but as it were composed of scales; on the sides, however, they are stiff with small spines as it were, and taper to the extremity. But the body of the star, round in the middle, has the image of a painted rose expressed upon it, as appears in the figure presented in the *History of Insects*, where only the prone view was shown; here the figure of this sea star is exhibited depicted from both sides.

[figure captions: A star consisting of five rays — the Sea Sun of Rondelet — depicted from both sides.]

[catchword: likewise]

Likewise in the *Historia Insectorum*, twelve differences of marine starfishes adorned with as many rays were observed, delineated, and described by the most eminent Ulisse Aldrovandi; to these we add a remarkable thirteen-rayed star, which Carolus Clusius described at the end of his book *Exotica*. This starfish belonged to the family of spiny sea-stars, with a sufficiently large disc and rays not excessively long, bearing five rows of spines above; the rays numbered thirteen, straight and barely sinuous, yet all of equal and appropriate length. These rays were about the length of a sesquincia, and the diameter of the rounded disc was two inches. Each ray on its underside was furnished with five rows of spines, three occupying the middle and two others the sides, so that each side was defended by ten spines set like the teeth of a comb. This starfish was reddish on the upper side and yellowish on the lower.

Moreover, since many illustrations of insects were found after the printing of the *Historiae*, and since we wished to make them public, we have placed them here as a concluding supplement.

1. A brownish ocellated butterfly, hairy and of middling size, depicted on the upper and lower sides.

2. Likewise a small blue many-eyed butterfly, depicted on the upper side.

3. and 4. Another small butterfly, reddish with black spots, delineated on the upper and lower sides.

5. Another small butterfly, brownish-red, distinguished by an elongated transverse spot.

7. and 8. A butterfly with a thick, brownish, hairy body and large eyes, upper and lower views; perhaps a species of horse-fly.

9. A wood-borer (*Teredo*) found in the bark of a walnut, enclosed in its cocoon.

3. A earwig entirely black.

3. A red and black earwig found among bracket fungi.

4. A small wing-sheathed fly resembling a spider.

5. A large forest bug.

[Full-page engraving — no further translatable text]

1. An insect akin to the tailed Butterfly.
2. An ambiguous insect, two-horned on the back, in bearing like an Owl, in gape like a Toad.
3. A butterfly-like insect.
4. A fly-like insect with very long legs.
5. A four-winged Analytrum with a sharpened beak.

[Full-page engraving — no further translatable text]

1. A forest bug of a pale whitish colour.
2. Another species of forest bug.
3. A forest bug, not fetid, of a light green colour.
4. Another bug, somewhat greenish and somewhat bluish, distinguished by a double row of spots.
5. A bug entirely green.
6. A fetid forest bug, somewhat greenish.
7. A fetid bug varied on the underside only by four rows of spots.
8. A bug of a blackish colour with a reddish head.

1. A grey bug-like insect of oval shape.
2. Another grey bug-like insect.
3. Another insect with a somewhat elongated belly.
4. An insect like a gnat but monstrous, with an oblong belly and a three-forked tail.

[Full-page engraving — no further translatable text]

1. A woodland Fly with golden wings, its belly girt with white lines.
2. An ash-grey Fly with a white head.
3. A Fly resembling a bee.
4. The ox-Fly, commonly called Tavanello.
5. An elongated Fly, its belly variegated alternately with black and yellow bands.
6. A golden Fly with silver wings.
7. A fly-like insect with a pointed abdomen.
8. A very small fly-like insect.
9. A four-winged fly-like insect.
10. A Fly with a long proboscis.

[Full-page engraving — no further translatable text]

1. A gnat-like insect.

2. The eggs of the same, from which it had come forth.

3. A four-winged fly-like insect with a three-pointed tail.

4. An insect ambiguous between a gnat and a fly, with a three-pointed tail.

5. A butterfly-like insect with a forked tail.

6. A gnat-like insect.

7. Another butterfly-like insect.

8. A fly-like insect with an oblong, narrow abdomen.

[Full-page engraving — no further translatable text]

1. A grain worm, called by the Greeks *psōrikhos* [...]

2. The cast skin of the same.

3. The chrysalis of the same.

1. 2. 3. Field lice resembling bed-bugs.

1. An aquatic chrysalis resembling a castor-bean seed or a kidney bean, found on the root of a water-lily.

3. The same small worm depicted on the underside.

4. A nymph, or certain formative stage of a bug-shaped insect.

5. A bug-shaped sheath-winged insect with an elongated body.

5. A small worm transformed from a chrysalis, depicted on the upper side.

1. The cocoon of some caterpillar, uncertain.

2. The shed skin of the same.

PARALIPOMENA OF THE SOFT-BODIED, THE CRUSTACEANS, AND THE TESTACEANS.

ON THE DIFFERENCES OF THE SEA-HARE.

The sea-hare is an animal of the class of soft-bodied creatures, which Aelian compares to a snail stripped of its shell, and not without reason: for Pliny himself also called it a formless, boneless beast — a fleshy mass rather than a fish — since neither fins, nor eyes, nor other distinctly formed members are visible in this kind of animal, as they are in other fishes.

Rondelet described three kinds of this animal, whose illustrations were set forth in the first book on soft-bodied creatures. Beyond these three kinds, three others were depicted by the most learned Ulisse Aldrovandi: the first of these closely resembles the land hare in colour and in the fore-part, but appears shapeless in the hinder part, in accordance with Pliny's account. The second kind differs from the preceding in form and colour, shining with an amethyst hue variegated with white spots. The third kind is more abundantly covered with an ash colour, and then mottled with white and amethyst.

To these, and to the others set forth in the general *Historia*, we add two further differences: in the first of which the sea-hare is of a wholly amethyst colour, and in the second of a purple colour, as may be seen in the illustrations that follow.

[marginalia: Sea-hare. — Description of the sea-hare.]

Two varieties of sea hare (*Lepus Marinus*): one of a wholly amethyst colour, the other of a purple colour

[Full-page engraving — no further translatable text]

To the other species of crabs the Moluccan crab must be added, for it was caught near the Moluccan islands. It was described by Clusius in his *Exotica* in the following manner. It had a smooth and variegated shell in which, when held to the light, colours mixed from blue and red were observed. The shell consisted of two parts, a fore and a hind part, joined to each other by a certain cartilage: the fore part was indeed shorter and narrower, yet three inches long and four inches wide, while the hind part was considerably larger — namely four and a half inches long and seven and a half inches wide. Both parts rose on the back like a vault, the hind part more so than the fore, and was as it were divided into three more prominent ridges filled with short spines. Likewise where it was joined to the fore part it was more prominent and armed with certain short spines, then dividing itself into crescent-shaped horns extending as far as the long spines of the fore part, toothed on both sides and ending in a firm spine, and near the junction covered with certain rough hairs. Near the middle of the shell, along the sides of the back, certain rounded prominences were visible, closely resembling the form of eyes, yet hard and testaceous.

The fore part of the shell, where it was joined to the hind part, was three inches wide, and four inches where it was widest; the extreme edge barely two inches, ending in three short spines at roughly equal distances from each other. Near the middle spine there was attached, not adhering to the outer shell but by a certain articulation beneath the shell itself, a triangular horn seven inches long, narrow, and pointed. The uppermost angle on the under side of the spine was filled with short spines like the teeth of a saw; its upper surface smooth and keeled. The sides of the fore part of the shell were distinguished by seven spines besides the outermost, firm, flat, and an inch long, of a reddish-brown colour.

Clusius viewed the entire body of this animal shrunken with dryness and almost decayed with age; nevertheless he observed that it had ten feet, of which it could not be seen whether the foremost bore claws or not. The hinder feet were followed by small claws composed of three joints; no traces of either a head or a tail being apparent. That part of the shell from which the triangular pointed horn arose was hollow.

A certain hairiness in this crab brought to mind a certain species of the Heraclean crab, whose illustration was placed in the *Historia Crustacea*: for it was called Heraclean from the cities of Heraclea, of which one lies on the Black Sea and the other on the Propontis. This kind of crab is covered with a shell neither very smooth nor very rough. Rondelet named it the sea-cock (*gallus marinus*), for no other reason than that the arms of this animal appear to be formed like a cock's crest, as the reader may see in the illustrations presented and to be presented.

Rondelet likewise compares this animal to the four-footed bear, because it sleeps curled up, with its arms, eyes, and mouth drawn together, after the manner of a bear. But this name belongs to another species which Rondelet did not observe, which rivals the hide of a bear on account of the density of its hair, and indeed surpasses the aforesaid Heraclean crab in strength.

Thus in the second book on crustaceans, in the first place was put the illustration of the smooth Heraclean crab, and then of the hairy one; either, therefore, two species of the hairy kind are given according to the illustrations found, or the illustration of the hairy one here presented was made after the likeness of the smooth one.

Furthermore in the Eastern regions there is such a force and mass of crabs that men fear them; for whatever they seize with their claws they instantly cut in pieces and devour forthwith. This is not to be called into doubt: for trustworthy sailors who recently sailed from India to Portugal affirmed this truth upon oath.

There is also found in Virginia a fish of the testacean kind called Seccanane, akin to crabs by its crustacean tail, furnished as it is with many feet like a crab, with eyes prominent on a stalk, about a foot wide; it frequents stagnant sea-water, and is common in Mexican lakes, resembling in shape, size, and colour — tending from ash-grey to black — the land scarab; it is covered with a shell after the manner of crabs, on account of whose hardness it is called *Atetepitz* by the natives; it is supported on only four feet, with which it likewise leaps. It is eaten by the natives, who in the manner of omnivores spare almost nothing. It provides common food, as do also other species of marsh beetles, which they likewise eat.

[marginalia: Moluccan crab. — Description of the fore part. — Number of the animal's feet. — Heraclean crab. — On the side towards the sea. — Omnivorous peoples.]

The hairy Heraclean crab (*Cancer Heracleoticus hirsutas*), depicted from the front

[Full-page engraving — no further translatable text]

The hairy Heraclean crab (*Cancer Heracleoticus hirsutus*), depicted from the back

[Full-page engraving — no further translatable text]

[...] prominent; about a foot wide, it frequents stagnant sea-waters, and is common in Mexican lakes — an animal resembling land beetles in shape, size, and colour, tending from ash-grey to black; it is covered with a shell after the manner of crabs, on account of whose hardness it is called Atetepitz by the natives; it is supported on only four feet and likewise leaps with the same. It is eaten by the natives, who in the manner of omnivores spare almost nothing. It provides common food, as do also other species of marsh beetles, which they likewise eat.

Likewise the Indians eat the *Atopina*, an animal similar to a beetle, only four inches long and two inches wide when spread out. Its colour is brownish and it is clothed in a crustacean covering after the manner of crabs. This beast makes a crackling sound when it flies, and moves about at night among the rushes of the Mexican lake. It is consumed by the indigenous people, boiled together with other fish and herbs.

ON SHELLS AND SHELLFISH.

There are found in the southern sea of New Spain various kinds of shells. One is called *Xochpalrapachth*, namely a shell of vermilion colour, eared, of moderate size, with transverse semicircles cutting across lines proceeding straight, and of a vermilion red colour [...] another is larger and very similar in its lines, but variegated in white, red, and brown. A third, lastly, near its ears, is furnished with a light reddish and brownish colour, with straight lines only.

The southern sea of the Indies has the *Tapachporcaubqui*, that is, a mossy shell, which acquired this name for itself because moss grows upon it.

Likewise the Province of Panama nurtures a certain venus-shell of unusual form; it is eared but one ear is much smaller than the other. The colour on the outside is black, whence it is called the black shell; on the underside it verges from black to ash-grey and is distinguished by nine striations which, on account of other lines running across them, appear to be cut into certain small circles.

Although the name *conchylium* is sometimes taken for the whole class of testaceans, nevertheless it is used privately among the Ancients for one species only; and when taken in this private sense it signifies not a purple-shell nor a whelk, but a shell different from these and peculiar to itself, namely such as Rondelet exhibited under this name — very unlike the whelk and not surrounded by any blunted spines of the murex; yet it is a species of murex when murex is taken to mean a colour.

And so the *conchylium*, according to Rondelet's understanding, is placed among the larger turbinate shells, being broader at the part that ends in a spiral; lacking spines and other tubercles; and the opening through which the inner flesh is shown is not round as in the whelk and the purple-shell, but appears elongated. For this reason the operculum of this opening is also of the same form. Wherefore Rondelet adds that it is plainly established that the operculum of the purple-shell ought to be called *blattinon* or *blation byzantion* (βλαττίον βυζάντιον); although the *blatta byzantia* of the Arabs is nothing other than the operculum of the *conchylium*. Hence our pharmacists, following the Arab authors and selling mixed opercula of *conchylia* and whelks, call them *blattae byzantiae* and *ungues odorati*: though these are round and those oblong — for this is gathered from the teaching of Serapion and other Arabs.

It will therefore not be unreasonable if at this point the true illustrations of the genuine and of the false *unguis odoratus* are exhibited, by which the reader, weighing them, will be able to distinguish three differences among them.

[marginalia: Omnivorous peoples. — Mexican scarab. — Mossy shell. — Exotic venus-shell. — What conchylium is. — What blatta byzantia is.]

3. and 4. The *unguis odoratus* of the apothecaries.

2. and 5. The false *unguis odoratus*.

3. and 6. The true *unguis odoratus*.

That an exact knowledge of these nail-shells may be had, it must be noted that the true *unguis odoratus* is seldom observed among pharmacists. For that which is depicted in the first place is not wider than half the little finger, and has certain fine markings; the lower part is concave, and has ridges or prominences drawn out from the middle to the extremity, as appears at number 4.

Furthermore, another odorous nail is sometimes found among these same pharmacists, which we may call the narrower *Pseudonichim*, and which has transverse lines, as is seen at numbers 2 and 5.

These aforesaid nails are therefore counterfeit, being the opercula of a certain snail that opens and closes itself; but the genuine *unguis odoratus* is indeed an operculum, yet that of the *conchylium* of which we spoke above, two fingers in width and three in length.

[...] long and three in length. On the outside it has certain prominences and lines, but none in the middle, as may be seen in illustration 3: for in illustration 6 it is painted according to the lower part which adhered to the animal; there is a great concavity there, while in the upper part it has a certain lustrous appendage that appears to imitate a nail of sorts.

Since certain authors add mussels (*Mytuli*) to the shellfish, we are unwilling to pass over in silence a most beautiful species of mussel which the most eminent Clusius called the shell-bearing mussel (*Mytulus conchifer*), observed in the year of human salvation one thousand five hundred and ninety-one. And this shell-bearing mussel was seven inches long and three inches wide at its widest; in form not very unlike the long shell described by Rondelet. The shell was thick and rough, appearing to have been open in its two valves; it was hollow, with an elevated and black back, to which the tubes of small worms adhered, as well as small shrubs six or seven inches long, some of them rather thick, others more slender and very branching, from which small shells depended, not unlike small mussels covered with rough hair-like bristles.

ON TURBAN-SHELLS.

Since a turban-shell is taken for anything having a pointed form below and a broader form at the very base, we cannot deny that this name does not apply to the shellfish now under discussion, since these turbinate shells happen to bear this distinctive shape.

Aristotle therefore, among turban-shells, placed one simply called a turban-shell, and then comprised others under the same name without any regard to difference of size or quality. Rondelet and Ulisse Aldrovandi, however, enumerated almost endless differences among turban-shells, observing some large, some small, some pointed and some blunt, some eared, some covered with tubercles — namely some smooth and some rough, some angular, some thorny, some tessellate-fingered, some five-fingered, and finally some of uniform colour and some of varied colour.

Among so many differences, therefore, illustrated by illustrations from the most eminent men, no illustration had been drawn showing the animal with its flesh; for this reason, for the benefit of learned curiosity, we present for inspection a pointed turban-shell with its snail.

[figure captions: Pointed turban-shell with its snail.]

[marginalia: What univale means. — Many differences of turban-shells.]

ON LIMPETS, OR LEPADES.

Rondelet called limpets (*Patellae*) certain shells spread open in the form of a flat dish, with which they appear to have a great resemblance. Galen in his *Glossae*, where they are called *Lepades* by Hippocrates, rendered it as shells adhering to rocks, and not without reason, since we have in Aristotle that the limpet (*Lepas*) is *monothyron* — that is, univalve. For in Aristotle's teaching there is a univalve kind which adheres to rocks, with its shell turned upward on the back.

Rondelet accordingly assigned two differences to the limpets: of which the one is called simply *Lepas*, the other is called *Lepas agria* and sea-ear. In form they differ from each other, and especially because the simple limpet has its mouth at the upper place and its excretory opening at the lower place opposite the mouth; while the sea-ear has these openings perforated in the shell itself. The name of sea-ear was acquired from its shape, since it represents the human ear very handsomely, as may be seen in the illustrations given in the third book on testaceans in Ulisse Aldrovandi: but since the limpets there were depicted without their flesh, it pleased us to give here for inspection an illustration of the sea-ear with its flesh.

[figure captions: Sea-ear with its flesh.]

[marginalia: What univale is.]

ON PENICILLI.

What *penicilli* are: certain testaceans are called *Penicilli* (paintbrushes) by recent authors, because what is contained within their tubes bears a resemblance to paintbrushes. These, according to Rondelet's opinion, are attached to rocks by a soft and yielding substance, so that they give way and yield to the movements of the water; such that, as the waves of the water cause their frond-like part to go back and forth, what lies hidden within — that is, the fleshy frond-like body — withdraws and advances, through which it is expressed, as shown in Rondelet's illustrations. Though certain others hold that these are tubes in which worms of a different nature dwell, such as are described by other authors, who in the illustrations that follow are finally expressed, and by certain authors these turban-shells are said to be a species of *Dentalis*.

[figure captions: Living among sponges, in the manner of paintbrushes.]

PARA[lipomena...]

Paralipomena of the History of Fish and Cetaceans.

ON FLYING FISHES.

Pliny enumerated three flying fishes, namely the Swallow-fish, the Kite-fish, and the Lantern-fish, which are in our age the best known; but, besides these, many more have been observed that Pliny did not enumerate. For scaled flying fishes, distinct nevertheless from our own flying swallow-fishes, are found in the vicinity of the Cape of Good Hope, and are said to have two enemies: in the waters, the fish called Albicos, and outside the waves, the Crow. For some interval of time these fish sustain their bodies above the water on their wings, then fall back into the sea.

In some respects these fish seem not unlike those of which Johannes Eusebius, a Jesuit, makes mention in his *Natural History*, when he says that at night certain winged fish of a handspan's length are accustomed to fall into the ships of an Indian fleet and be caught; these fish have membranous wings almost like those of bats, and when they spread them they fly over the waves of the sea for a distance of a hundred paces or more, in order to escape from other fish that are pursuing them, though sometimes they run into the talons of rapacious sea-birds. Wherefore they face dangers on every side, and thus they quickly plunge back into the sea again, to withdraw themselves from the peril of those birds. The likenesses of some of these fish are drawn on the map of Africa, as appears here.

[figure captions: Scaled flying fishes.]

[catchword: pariter]

Likewise on the map of the Northern Ocean, in Olaus Magnus, a picture of other flying fishes is to be seen. The first image depicts a fish with a curved tail after the fashion of a dolphin. The second image relates to the fishes of the map of the White Lake, which is the largest and most remote lake toward the North, and belongs partly to the Muscovites, partly to the Swedes, and the peoples subject to them; in that region there is found a flying fish, of the kind delineated in the illustration below.

[figure captions: Flying fish from Olaus Magnus. — Flying fish of Moscow.]

[catchword: Mofcou]

ON DENTICES.

There are many fishes that take their name either from wisdom (*sapientia*) or from some prerogative of their teeth. A certain species of tunny is called *edodous* by reason of the vigour of its teeth; and *synodous*, or *synodos* as the Greeks call it, is the fish that the Latins name the Dentex. But it must be noted that certain fishes — namely the Dentex, the Synagris, and the Gilthead — are confused by authors on account of their distinctive dental features. In this place, therefore, we exhibit drawings of the jaws of the Synodont with the teeth in the palate, and then the old toothed Gilthead, which is sometimes used by authors in place of the Synagris or the Synodont.

[figure captions: Jaws of the Synodont with teeth in the palate. — Gilthead.]

[catchword: Aura-]

An old toothed Gilthead.

[Full-page engraving — no further translatable text]

ON SARGUES.

This fish ought rather to be called *sargos* than *sargus* from *sarx* (flesh), because, in the view of Rondelet, it is, for the size of its body, a thick fish, and has a greater abundance of flesh than the Sparus or other fishes of its kind. Several varieties of this fish, together with illustrations, were given in the *History of Fishes*; in the first of these the Sargue called *orthogonioktenos* is depicted, because it is spotted about the tail-region (*uropygium*); it has all its fins golden, except for the one near the anus, which is black; likewise its stripes, besides the black ones, are numerous and of a golden colour, and the spot near the tail-region is violet, just as the whole head also tends toward a violet hue.

In the second place is depicted the Sargue called *polygammos*, most elegantly adorned with golden lines, and likewise with silver ones, representing a figure. Finally, an illustration of the Sargue is given according to the conception of Gesner, who afterwards, following the opinion of others, portrays a different figure of the Sargue, as may be seen in the *Historia aquatilium*. But he attributes the image of this last fish to Cornelius Sittardus. We exhibit this figure for examination, so that a wider field for investigation may be offered to readers, where the mouth, head, and teeth of the Sargue are reported to be represented.

[figure captions: The last illustration of the Sargue, from Gesner.]

[marginalia: Various species of Sargues.]

ON THE ATHERINA.

The Atherina is a small sea and shore fish, which is also found in marine lagoons. It is similar to the Aphye, of a handspan's length, of the thickness of a little finger, with a thick back, a slightly flattened belly, a small mouth without teeth, and large eyes. Its colour is various: for the belly is silvery, the back is dusky, about the head it is reddish-yellow after the fashion of sardines; it has four fins, two at the gills and two on the belly, and another from the anus, and besides these two others on the back; all are white. The tail consists of two fins, as appears in the illustration of Belon. Along a line in the middle of the body, extending from the gills to the tail, a certain thick substance is shown beneath the skin, which can be described by no other comparison than that of a band. Two illustrations of this fish were therefore placed in the *History of Fishes*; now a third is added, which we found in the public Museum, so that the reader, comparing these illustrations with one another, may select the most fitting.

[figure captions: Another Atherina.]

ON RHOMBUSES.

A twofold genus of Rhombuses is enumerated in the *History of Fishes*: one smooth, and the other spiny. The spiny one has on its upper side many spines, especially about the head, and extending from the head toward the tail, which the other genus entirely lacks; it is otherwise similar, except that it is thinner, with the head — in Belon's view — more elevated and rounded. Both differ also in size; for the Rhombuses caught in the Ocean are larger than the rest. Since, therefore, three illustrations of Rhombuses were exhibited in the cited passage — namely of the spiny Rhombus, the smooth Rhombus, and the true smooth Rhombus — we now add an illustration of a species different from those described, of the colour of the Lamia, with dark spots, which may be called the second smooth Rhombus. Furthermore another illustration of the spiny Rhombus is added; these illustrations are to be examined below.

[marginalia: Description. — Differences between Rhombuses.]

[catchword: RHOM-]

Another smooth rhombus (*Rhombus levis alter*)

[Full-page engraving — no further translatable text]

[...]

[Full-page engraving — no further translatable text]

ON SEA BOARS.

The Boar is described in the *History of Fishes* according to the opinion of Rondelet in the following manner. The Boar is a scaly fish, though it appears covered with a rough and somewhat shaggy skin; its body is nearly round and reddish; it has large eyes, a long and blunt snout like that of a Pig, and no teeth. Immediately from the head, along the length of the back, it has sharp spines, very numerous, straight, yet unequal, emulating the bristles of a Boar.

However, this Boar is of almost no account in comparison with that one which was once seen in the Ocean, having the head of a Boar, with longer canine teeth, incisive and sharp, and with scales arranged by nature in a wondrous order, as appears in the illustration below: for it is thus depicted by Ambroise Paré, though we have learned that this Boar should be referred to the category of amphibious animals. And Gesner called this beast, depicted without a name on the map of Olaus Magnus, the cetacean Boar, in order to distinguish it from the fish of the same name.

We consider it not unreasonable to add to the group of aquatic Boars also marine ones, of which two kinds are said to be found in the Indian Sea. One kind has an acute snout after the fashion of geese; the other, however, has it so blunt that, whenever it rises above the sea, it appears to be altogether a sphere. Some of these are about six feet long, with a broad and forked tail. When the sea begins to be disturbed, they are seen to breathe above the water, and when a storm is imminent they appear green — nay, they render a green image of the sea. Moreover, after the manner of land swine, they grunt loudly; for which reason sailors, when they observe beasts of this kind roaming and breathing, take it as the most certain sign of an approaching storm.

We may add a third kind, which was observed in the region of Mexico, of the size of a calf. This fish is called *Iacoli* by the locals there, but *Hoga* by the Spaniards who conquered that region by arms. Its head is almost pig-like; from its jaws hang five tufts, like bearded appendages, half a foot long. It has flesh that is not unpleasant to eat. It is a viviparous animal, like the Whale. While it swims in the waters, it appears green, yellow, red, and altogether changing colour like a Chameleon. It frequents the shores and feeds on the leaves of a tree called Hoga: whence it has obtained its name. It is toothed like a pig, and kills even other fishes it meets, even larger ones; for which reason fishermen try to slay this beast first.

[marginalia: Aper. — Sea Boars of two kinds. — Differences among sea Boars.]

[catchword: và]

The Cetacean Sea-Boar.

[Full-page engraving — no further translatable text]

The Andura, a Fish of swinish appearance.

[Full-page engraving — no further translatable text]

ON SMOOTH SHARKS AND DOGFISHES.

Authors refer to the long, round, and cartilaginous fishes the Dogfishes, or Smooth Sharks (*Galei*), which are so named not only because they resemble the land weasel in the length of their body, but also on account of certain other features believed to be common to both, as was explained in the appropriate place. These are species of sea dogs, which authors — using indifferently now a Latin, now a Greek name — sometimes call dogfishes (*musteli*) and sometimes smooth sharks (*galei*), and often also call sea-dogs (*canicula*), because, after the fashion of dogs, they do harm with their teeth.

Many differences among these fishes were enumerated in the *History*: namely Aristotle's *kyon*, the common sea-dog Smooth Shark, the larger and smaller Catulus of Salviani, the smooth Dogfish from Gesner, the Star Smooth Shark, as well as the blue Smooth Shark of Rondelet, and finally the Spiny Smooth Shark (*Galeus Acanthias*), or Spinax.

We are, however, able to increase the number of illustrations, by giving first another species of the smooth Smooth Shark, as well as another variety of Dogfish, which is thick, black, and curved; this the common people of Marseilles call *Gautum* or *Auguerum*; Rondelet appears to interpret these words as *Cattus Algarius*.

[figure captions: Dogfish. — Smooth Shark.]

[marginalia: Smooth Sharks and Dogfishes of many kinds. — Cattus Algarius.]

Another smooth *Mustelus* (smooth hound)

[Full-page engraving — no further translatable text]

[figure captions: Cattus Algarius.]

Likewise there is a certain species of Bohemian weasel-fish that must not be passed over in silence; though according to the opinion of others it may seem to belong to the Lampreys. According to Gesner's testimony, this fish is distinguished by most beautiful colours, namely yellow, saffron, white, dusky, and black; the pupil of the eyes is black, and the surrounding part is blue. A few years ago fishes of this kind began to be caught in Bohemia, and the first of them, on account of their beauty, were kept alive for the King in a large vessel full of water.

[figure captions: A species of Bohemian weasel-fish.]

[catchword: Quoniam]

Since among the genus of Smooth Sharks, the Fox-fish and the Sea-ape are enumerated by some authors, it has pleased us in this place to depict a beast of the amphibious class that simulates the appearance of a land fox. It is said to be called by the Arabic name *Brethmechi*, as Gesner indicates. It was captured on the island of Java, in the year of human salvation one thousand five hundred and fifty-one, in the month of April; it was about ten cubits long and two and a half cubits high, ruddy in colour for the greater part, and in certain places blue. The tail, moreover, where it spread out like a horse's tail, inclined to a dilute blue, dotted with red spots. The claws appeared almost leonine, or rather panther-like, as did the tail itself, which seemed to imitate the tail of a Panther in respect of its spots.

[figure captions: Brethmechi.]

[catchword: Breth-]

The Brethmech of the Arabs.

[Full-page engraving — no further translatable text]

ON LAMIAS.

The Lamia (*Lamia*) is named from *laimia* (Greek: λαίμης), that is, from gullet, because it has a large throat — meaning that it is a most voracious animal. Yet, according to Belon's testimony, this fish is unknown to our fishermen; for although Nicander, and Rondelet relying on his words, does not distinguish the Lamia from Aristotle's *canis carcharias*, nonetheless, if we carefully ponder the words of Aristotle, we shall find that the Lamia was placed by the Philosopher among the genus of flat fishes, and not among the Smooth Sharks. Likewise Oppianus distinguished Lamias from Dogs; wherefore, in agreement with Belon, we must conclude that the Lamia is a flat fish. According to the same author, such a fish grows to a very great mass; it is covered with rough skin; it has a mouth in the front part of the head, like the Squatina; and it is marvellous, as he himself says, that its mouth is furnished with approximately two hundred teeth, arranged in four rows in each jaw, broad at the base, tapering to a pyramid, and serrated along the sides.

Wherefore the words of Belon have given many occasion for doubt, because Belon, omitting an illustration of this animal, confounds this beast with the *Canis Carcharias*. For indeed it is hard to persuade oneself that the Lamia, a flat fish, should be furnished with teeth so large; we do not deny that it has many teeth, but they are for the most part small, such as may be seen in the illustration following.

[figure captions: Small teeth found in the mouth of the Lamia. — The cetacean Lamia brought from the shores of Epidaurus.]

[marginalia: Lib. 5. Hist. Animal. cap. 5. — Description of the teeth.]

A Cetacean Lamia from Epidaurus.

[Full-page engraving — no further translatable text]

ON FISHING-FROGS.

The sea-frog, or fishing-frog, so called because it employs great cunning in fishing, has a head far larger than the whole rest of its body, spined, rough, rounded, and depressed; its mouth, for the bulk of its body, is very wide, and armed with many sharp and recurved teeth. It has large eyes, placed more in the crown of the head than at the temples. The tail is round and fleshy; it is covered with skin which, toward the lower part, is whitish, and toward the upper part is dusky-tawny.

We are therefore of the opinion that at present many differences are to be assigned to this fish, on account of the various figures which are shown today. Indeed in the *Historia Piscium* three are observed. In the first figure appears the common fishing-frog; next the fishing-frog of the Author; and finally in third place the lesser fishing-frog is depicted. Now we add other pictures, in the first of which appears the fishing-frog of Georg Fabricius, and at last is given the figure of that frog which our fishermen — or rather, fish-sellers — call the sea-toad, and sailors and fishermen call the sea-devil.

[catchword: Rana]

The Angler-fish of Georg Fabricius.

[Full-page engraving — no further translatable text]

Another fishing-frog, or sea-toad.

ON THE ACIPENSER AND THE ATTILUS.

These are two fish which, on account of their great resemblance to one another, sometimes deceive observers; yet they differ, inasmuch as the acipenser, or sturgeon, is a fish of the open sea, while the attilus dwells in rivers and is familiar to the Po. The acipenser has not rashly been seen to exceed three hundred pounds, whereas Pliny wrote that the attilus sometimes grew to a thousand pounds — a size that is remarkable and rare.

Furthermore, when the attilus has grown to a certain bulk, it sheds its rough scales, which it had borne arranged in five rows along the uppermost spine of the back, doubled on each side; once these are shed, it becomes smooth to the touch.

On the other hand, the sturgeon gratifies the palate wonderfully, while on the contrary the flesh of the attilus is soft and not greatly pleasing to the taste. Its eyes are small for so great a bulk of body. And hereafter the reader will be able to see the various qualities and prerogatives of each in the *Historia Piscium*. Here, then, we give other figures of the attilus and the acipenser.

[catchword: Accipen.]

A figure of the Sturgeon from Poland.

Another figure of the Attilus.

[Full-page engraving — no further translatable text]

ON THE VARIETIES OF GLOBE-FISH.

Various authors inform us that there are many differences among these fish; for although Salviani recognised only one kind of fish of this genus, Belon nevertheless reports that there are two kinds, both round and covered with a hard skin, yet depicts only one of them. Rondelet indicates that there are several kinds, and delineates those brought from the Eastern and Northern regions, of which he calls the first simply the Globe; another the Spotted Globe; and the third and last he calls the Spiny Globe. To these Gesner adds further kinds, though of a body less round. In our *Historia Piscium* the Rhodian Globe and the Starred Globe were exhibited.

Finally Clusius, among the many species of this genus of fish, makes mention of a Globe, or Frog-fish, which was sixteen inches in length, and whose girth exceeded twenty inches in measure. The whole body was dusky, marked with whitish spots. The head was thick, with raised eyebrows, a somewhat broad mouth, and a gaping maw in the manner of a frog, unlike the form of other round fish.

Although Gesner enumerated various differences of the oblong globe, he did not express this species so elegantly as Clusius. Whether afterwards such a fish can be called the sea-hare of Apuleius, as Gesner is of the opinion, this Clusius calls into doubt.

Furthermore the same Clusius in his *Exotica* records an oblong globe with the head of a tortoise, which was covered with a skin of dusky colour and variously marked with unequal tessellations, now round, now in a rhomboid shape, now square, all of them bearing white spots. It had an oblong neck, unlike the nature of other round fish, and on each side near the neck it had a fin of a reddish dusky colour; the fins of the lower back were similar.

At present we have other figures to propose, of which the first is the figure of the gilt Spanish Globe; the second is the picture of a Northern fish delineated in the table of Olaus Magnus, which appears to be to be counted among globe-fish, although in him the fish is named as twelve feet, a measure which Gesner considers should be referred to the length of the fish. In third and last place is set forth the figure of a spiny fish, perhaps of the genus of Globe-fish, communicated by Joachim.

[marginalia: Clus. lib. 6 c. 22 / Other differences of the Globe / Various Globe-fish species]

[catchword: Differentiæ / various Globe]

The toothed Spanish Globefish.

[Full-page engraving — no further translatable text]

A northern fish of the *Dole* [kind], to be classed among the globe-fishes (*orbium*); a spiny fish (*piscis echinatus*), perhaps also of the genus of globe-fishes

[Full-page engraving — no further translatable text]

Furthermore, Carolus Clusius in his *Exotica* exhibits other figures of fish of this genus. The first species was entirely without scales, but was covered with a hard skin, reinforced with spines so firm that it could not be grasped without injury. The spines on the sides were longer and larger; on the breast smaller and shorter. He conjectured that this fish had been brought from the Northern Ocean.

He also presents for inspection the figure of another spiny globe, which was eleven inches long from the extreme mouth to the tail; its girth was filled out by sixteen inches. In colour it was on the back dusky, sprinkled with black spots, and around the belly ashen. It had two fins on the sides; and likewise two others, of which one was situated at the extremity of the back above the tail, the other of a dusky colour.

[figure captions: Description of this fish]

ON THE REMAINING SPINY FISH.

The history of the spiny globe-fish called to mind certain other genera of fish armed with spines. Clusius mentions one under the name of the porcupine-fish. This fish from the extreme mouth to the beginning of the tail was twenty inches long, and twenty-nine inches thick; it lacked scales and was covered with a whitish skin, everywhere set with firm and sharp spines, each of which terminated at its base in two other short spines lurking beneath the skin. The lips were wrinkled, and two bones stood in place of teeth. Its eyes were large, and the eyebrows bristling with four spines. On each side it bore a fin; it was likewise furnished with two others at the end of the back. The shorter spines were an inch long, the longest three inches, the middle ones two inches. The longest armed the sides; the rest the whole body, in a certain regular order, but sparser around the tail. The spines above the head were erect, and those directed toward the mouth were bent forward in the anterior direction. For this reason, by reason of this description, this fish seems in some measure to agree with some species of the spiny globe-fish already delineated by the same Clusius; except that it also seemed to rival the appearance of a porcupine.

Likewise Thevet, as reported by Paré, writes that in the Persian Gulf, toward Arabia, a fish was caught somewhat equal in size to a carp, surrounded with long spines, with which it fights against every kind of fish. If a man be but lightly wounded by these teeth, he dies within the space of twenty-four hours unless remedies are promptly applied; and he appears to call such a creature the sea-hedgehog. It is therefore depicted in this figure, or at least in one not unlike it.

[marginalia: Clus. lib. 6 c. 22 / lib. 6 exot. / Description of this fish / Paré]

[catchword: Herinaceus]

The Sea Urchin.

[Full-page engraving — no further translatable text]

Moreover, if any animal is to be referred to the sea-hedgehogs, it will beyond doubt be that fish which is observed by the Arabs in the Ocean and called by them *Calstol Iaul*, words which suggest to us a fish of ill omen, inasmuch as whenever it frequently appears, something adverse is generally wont to befall. It is depicted by Cornelius the Jew on his map of Asia.

In the first place, it is an animal of horrible aspect, and bears a snout like that of a swine, with interlocked teeth; then, from the beginning of the head to the extremity of the tail, six firm and large spines are visible, suited moreover to fighting and striking; but three near the head are larger than the rest, indeed of the size of small horns, while the others are smaller and equally spaced from one another; the last, near the tail, is somewhat curved. The tail is forked, and the upper part is larger than the lower, with spines at the tip. Around the belly are fins, as he relates, which it uses for swimming. It is depicted in the following figure.

[marginalia: Cornelius the Jew on the map of Asia]

ON THE COPSE, THE BARBOTA, AND THE BOTARISSO.

Authors give the name ichthyocolla — as if overflowing with glue — to a certain fish, just as they likewise designate a similar fish in the Pontus as the *collanus*. The Italians call it the glue-fish, and the common people call it *colabucco*, as Belon attests, who asserts that a similar fish is called the *copse* by the people of Bologna; yet the copse, to us and to the Ferrarese, is the Rhodian galeus of the Ancients, as has been explained in the *Historia Piscium*. It remains now only to show the reader the fish sent under this name from Spain, so that he may weigh a figure that agrees better with this name.

The French in common parlance call a certain fish the barbota — not from *barba* (beard), as Belon attests, but from the fact that they say it stirs up mud and slime with its snout after the manner of geese, whence it is said *barboter*; yet it does not follow from this that the barbota is not distinguished by a straight and short barbel, like a beard, on the lower jaw. We now give another barbota adorned with many barbels, which many assert to be Pliny's *glanis*.

The Insubrians call a certain species of fish the botarisso, which is otherwise called the lake weasel-fish; and the Milanese, according to Cardano, simply call it *botta*, because it resembles a bottle: since among the Milanese the bottle is called *botta*. But it would be more fitting to call it *botta* on account of the resemblance of this fish's head to toads; for toads are called *bottons*; inasmuch as this fish imitates frogs not only in the shape of the head but also in its gape. Here is given another figure which was not placed in the *Historia Piscium*, and which may be called the botarisso, or a kindred species to Belon's marsh weasel-fish.

[marginalia: Copse / Barbota description / Botarisso]

[catchword: Copfus]

The Coplus, from Spain.

[Full-page engraving — no further translatable text]

Another Barbota.

[Full-page engraving — no further translatable text]

Another Botatrissa, or a kindred of Bellon's marsh Weasel-fish.

[Full-page engraving — no further translatable text]

ON THE SMELT.

Rondelet calls a certain fish the *eperlanus*, whose figure is given in the *Historia Piscium*, because by its brightness it resembles a pearl (*unio*, that is, a *perla*); though afterwards Belon and Gesner call it *epelanus*. Gesner describes the epelanus as common in the Seine at Paris, as if it were *excellanus* — from its excellence, by which it surpasses the other fish of its kind. He asserts that it is very like the bleak, differing only in this, that it has reddish roots of the fins, and a lateral line that curves sharply toward the tail; he asserts that it sometimes exceeds five fingers' length, and a thumb's breadth. He then writes that it is called *borbolus* by the Ferrarese, and *ouella* by the people of Rouen, because this fish is always pregnant with eggs. Its form is given in the following figure.

[figure captions: Gesner's smelt.]

ON TROUT.

Trout — named from thrusting back the force of the water — comprises many species; some are riverine, some are lake-dwelling, which are called *salmonata*. Furthermore, among the riverine, some are large and some small, and they likewise differ from one another in colour. Rondelet reports that certain trout are small and those are white, such as live in the rivers of the Saintonge and of the Boiars; that others are larger and tawny. Likewise Gesner writes that he has heard that somewhere in Germany a trout of a yellow colour was caught.

Be that as it may, at present we wish to exhibit the figure of the common trout, which some consider to be a species of weasel-fish, and which they hold to agree with Albert's spinulus. It can also be called the red spinula caught at Bologna in the river Savena.

[figure captions: The common trout, or red spinula, caught in the river Savena.]

[marginalia: Etymology of the smelt. / The smelt of Gesner. / The ouella fish.]

to be larger, and tawny. Likewise Gesner writes that he heard that somewhere in Germany a trout of a yellow colour was taken.

Be that as it may, at present we wish to exhibit the figure of the common trout, which some consider to be a species of weasel-fish, and which they hold to agree with Albert's spinulus.

It can also be called the red spinula caught at Bologna in the river Savena.

[figure captions: The common trout, or red spinula, caught in the river Savena.]

The pike is a fish known to all, named because it shines at night: a creature admirable for this reason, but most of all on account of its head; since the Author *de natura rerum* writes that the pike carries in its brain a stone similar to crystal. We, however, admire the head of this animal because it has a long snout and a very wide gape, compared by Rondelet to the beak of a goose. The lower jaw is longer than the upper, and hollowed out like a spoon. In it are very many teeth arranged in more than one way, and according to Albert of different edges: for in the anterior part of the lower jaw the teeth are small and curved inward toward the mouth; in the upper jaw there are none, since, as it is broader, teeth projecting outside the mouth and not meeting the lower ones would be useless. Therefore, in place of these, nature — as Rondelet testifies — implanted two rows of teeth in the palate. It was thought fitting to explain all this by a figure of the head of this animal, since it was not placed in the *Historia Piscium*. Nay, we also add the remaining internal parts of the pike, carefully delineated and examined anatomically by that most distinguished man Giovanni Antonio Godin, the most celebrated anatomist of our age: as the reader will be able to observe in the figures.

[marginalia: Author de natura rerum]

[catchword: vulgaris]

A.A.A. The rows of teeth in the palate. B.B.B. The rough roughness of the throat, turned outward. C.C.C.C. The gills on each side, toothed and curved inward. D. The mouth of the gullet or oesophagus. E. The teeth of the lower jaw. K. The rough roughness of the palate.

[Full-page engraving — no further translatable text]

A.A. The fins that open the lower part of the thorax. B. The upper angle and topmost part of the thorax. C.C. The breadth of the thorax, where the pleura covers it. E. The liver. F. The heart. G. The gall bladder. H. The spleen. I. The exit of the intestine. K. The terminal stomach. L. The origin of the intestine. M. The anus.

[Full-page engraving — no further translatable text]

B. The pudendum. C. The anus below. E. The orifice of the intestine into which the stomach opens. Y. The spleen. G. The stomach. H. The vein from the gall bladder to the spleen. I. Another vein from the gall bladder to the spleen. K. The gall bladder. L. The liver, inverted. M. The vessel from the liver to the spleen, enveloped in fat.

[Full-page engraving — no further translatable text]

A. The orifice of the swim bladder, through which air enters and exits, by whose aid they swim. D. The anus. E. The gullet.

[Full-page engraving — no further translatable text]

ON CARP.

Although many differences of these fish were recorded in the proper *Historia*, at present we propose the examined internal parts; namely:

A. The inner surface of the bony semicircles of the gills on each side, ciliate; likewise the lower surface of the bony semicircle on each side, villous below as above, indeed marked with villi of a double kind.

C. The socket in which the stone of the carp is contained.

4. The outer part of the stone of the carp.

5. The inner part of the same stone.

AA. An inner tooth of the first order and of the second size.

BB. A tooth of the other order, that is, the middle one, of the first size, and the largest of all.

[...] A tooth likewise of the second order and of the third size.

DD. A tooth likewise of the second order and of the smallest size of all.

EE. A tooth of the third order, which by reason of its papillary shape may be called papillary.

FF. The inner surface of the jaws, facing the belly.

A. The lower swim-bladder facing the tail.

B. The upper swim-bladder terminating in the stomach.

C. The outer tunic of the swim-bladder.

Dissection of the marsh carp (*Cyprinus Palustris*)

[Full-page engraving — no further translatable text]

ON PERCH.

The perch is that fish which we call the Persian fish; many figures of it the reader may observe in the *Historia Piscium*, where larger and smaller ones are delineated, but here we give another not delineated there. Then another fish very like the perch, which Gesner considers the *schedal* of the Danube in Bavaria, because it is caught in the Danube near Vienna, Buda, and elsewhere, and he asserts that it can be called the pike-perch. He writes that it is of low worth, with soft flesh, and without teeth; and that it has barbels below and above, equal in thickness to the steel style which is commonly added to the sheaths of swords, and sometimes also in length. In form it is not much unlike the pike; in the dorsal fins it is spiny; in its gape it resembles the perch; and he thinks that *schedal* is said in the Danube from the harm it inflicts on other fish, for it is said to devour others: inasmuch as *schedel* means a skull, and thus perhaps the name was given to the fish from the largeness of its head.

[marginalia: A new species of perch]

ON CERTAIN OTHER FISHES

of various kinds.

The images of certain fishes of various kinds, which wander under Neptune's dominion and were found in the public museum, we here set forth to be viewed, lest they lie in obscurity. The first is the figure of a certain net-patterned fish caught near the shore of the island of Elba, which, as a wonder, was presented to the Most Serene Francis, Grand Duke of Tuscany.

In the second place is depicted the fish called *Sedacz* among the Poles, which grows to the size of a Bologna ell.

In the third place is pictured a fish dwelling in the Ocean near the magnetic pole, the figure of which Cornelius Judaeus sets out in his map of Asia.

In the fourth place we give the image of the eggs of some fish, which were very black and were clinging to the leaves of certain plants, as is shown in the illustration.

[catchword: pifcis]

[marginalia: Schedel Danubij apud Gesnerum. / Fish net-patterned.]

A netted Fish.

[Full-page engraving — no further translatable text]

A voracious fish; a fish whose image appears as on the Map of Asia

[Full-page engraving — no further translatable text]

The very black fish (*Qui nigerrima Piscis*)

[Full-page engraving — no further translatable text]

ON WHALES AND OTHER AQUATIC CREATURES

of immense bulk.

Although above we made passing mention of certain whales, we have nevertheless now resolved expressly to present the images of certain of them to be viewed, since they were not included in the printed *History of Fishes*. First is shown the image of the hairy or maned whale, the figure of which Olaus Magnus alone traced in his Maps, without offering any explanation; and therefore the truth of the matter remains in doubt.

Cetus capillatus.

[marginalia: Images of whales. / Image of the hairy whale.]

Then in the same place Olaus Magnus pictures another enormous animal, dreadful in aspect as though afire, with a square head, a long beard, and marked with many horns. Gesner wished to call it the bearded whale. The head is rayed with fourteen horns, which on each side begin at the eye and pass over the occiput. Gesner doubts whether this animal was correctly described; for Albertus did not write that certain whales have horns, but rather certain horn-like appendages around the eyes, nearly eight feet long, more or less according to the size of the fish, which taper from broad to pointed.

Among the whales is also numbered the Physeter, or Physalus, an aquatic animal; for according to Aristotle it has a tube through which creatures of this kind shoot out water. Some, as Gesner reports, call it the Physeter because, stirring up whirlpools, the animal overturns the waves of the sea; and although it is an animal of immense bulk, it never approaches the size of the whale. Turner wrote to Gesner that a beast of this kind sometimes pours so great a quantity of water through its tubes into ships that they are easily submerged.

In the maps of the northern regions the Physeter is depicted with a horse-shaped head, without ears, with wide nostrils, a mouth without a tongue, and two prominent tubes; as may be observed in the following figure — but we, together with Gesner, judge this picture to be absurd; for the reader will behold the genuine image of the Physeter drawn in the *History of Fishes or Whales*.

[catchword: Cetus]

[marginalia: Gesner vol. 4. / Cetus barbatus. / Physeter.]

A bearded Whale.

[Full-page engraving — no further translatable text]

The False Sperm-whale.

[Full-page engraving — no further translatable text]

Since dolphins are counted among the whales, and their authentic images have been placed in the proper History, at present we have nothing to set forth but certain small bones of dolphins, as appears in the illustrations.

Bones of the dolphin.

Two varieties of seal, or sea-calf, were recorded in the History of Whales. Here we add a third, which Ambroise Paré calls the monstrous sea-calf, perhaps because it differs from the common sea-calf: it ought not, however, to be called a monster outright, since a beast of this kind is not rarely caught. For Olaus Magnus reports that a similar creature was caught near the shore of Bergen, and recently another similar one was presented to King Charles IX, which lived for a long time in the menagerie of Belleau and would walk from the water onto land. Furthermore, five years ago a live animal of this kind was publicly displayed at Bologna by certain wandering showmen for profit, and was called the old man of the sea, since its aspect excellently simulated the face of an old man, as is seen in the illustration.

Sea-calf.

[marginalia: Monstrous sea-calf. / Olaus Magnus. / Bologna.]

Another species of Sea-calf [seal].

[Full-page engraving — no further translatable text]

A certain beast is numbered among the whales which, as Gesner reports, the Germans call *Rosmarus*, a name he asserts to be formed from the charge and sound of the beast as it is carried through the sea-waves; hence some have wished to designate it in the Latin tongue as *Rosmarus*. But Gesner thinks this beast was given the name from the word meaning Giant in the German tongue, perhaps on account of its size and strength, by which this beast excels all other fishes and whales. This creature is furnished with two elephant-like tusks, by which, as by hooks, it suspends itself from rocks. In the outermost part of Muscovy, or Scythian Hungary, not far from the source of the Tanais river, it is called *Morss*, but Ambroise Paré names it the sea elephant, adding that it is an amphibious animal, and that it suspends itself by its teeth from crags and sleeps thus; whence sailors who observe it head for shore, bind it fast with stout ropes. But the animal, not roused by these bonds, they endeavour to wake with great noise and the throwing of stones, and thus it attempts to leap back into the sea with its accustomed force; but, knotted in the bonds, it grows so tame that it is governed at the sailors' will; wherefore they slaughter it, draw out the fat, and divide the hide into straps, which, being strong and never decaying, are held to be of great value.

There follows another sea beast which, in our judgment, is the same as the foregoing, equalling an elephant in size, which many believe to be the genuine walrus, the figure of which Olaus Magnus drew on his Map, but added no explanation: wherefore Gesner finds fault with the feet in this fish; even though the picture of this animal displayed in the council-chamber at Strasbourg shows feet. Indeed Gesner understood that the head was made to resemble the skeleton of a true head, and the rest of the body drawn by conjecture. Likewise the teeth in this figure point downward, yet the image of Olaus Magnus's Map shows the animal's teeth raised upward. The author who published the Muscovite chorography called this beast *Morss* and similarly drew two protruding teeth descending from the upper jaw.

They add moreover that this beast climbs the coastal hills and feeds on grasses; and likewise, for the sake of sleep, it suspends itself from a crag; hence fishermen, observing the animal asleep, bind it with ropes. From which it may be gathered that this animal is one and the same as the former; even though the differently drawn pictures seem to show various species of the animal, as appears in the illustrations.

Another large, aquatic, terrible, and very fierce animal, nine or ten feet long and broad in proportion to its length, clothed in hide like a crocodile, goes by the name *Orobonis*. The Arabs who inhabit the mountain of Mazouanius, which stretches beside the Red Sea, feed on this fish.

[catchword: Sodinus]

[marginalia: Rosmar. / Another description. / Sleep.]

The Sea Elephant.

[Full-page engraving — no further translatable text]

[figure captions: Rosmarus, a sea-beast; the same as the one above]

[Full-page engraving — no further translatable text]

A representation of the Fish Orobon.

[Full-page engraving — no further translatable text]

To the things said above we add the images of three aquatic animals which are depicted in Cornelius Judaeus's Map of Europe. The first has the snout of a whale and is said to dwell in the Tyrrhenian Sea, near Sardinia; it has a sharp beak and is furnished with large fins, namely two near the head and two others near the beginning of the tail. It carries a tail marked with certain rings and coiled back, the extremity of which is bifid with a tassel, resembling the top of a broom.

A second [figure].

[catchword: Secun]

[marginalia: First description. / Cornelius Judaeus.]

A fin of some whale.

The second animal resembles an ox and is called a walrus; indeed by reason of its front legs it resembles a seal, or sea-calf. At first sight this beast simulates a cat, if it were furnished with hind legs. It ends at last in a finned, triangular tail with the edge of the fins serrated above. It bears certain appendages on its face like little horns, and its feet appear to end in five claws.

The third animal resembles a land pig, and therefore we judge it to be of amphibious nature, since it has four legs with which it uses for swimming in the sea in place of fins, and on land for walking; just as the sea-swallow swims with its wings when in the water, and when it raises itself above the waves, employs them for flying. Moreover this animal has two sharp ears, a snout somewhat blunt and toothless, and a fin extending from the beginning of the head to the end of the tail, which resembles a boar's bristle, while the remaining part of the body appears hairless; the tail, however, is broad and bifid, as is seen in the illustrations.

To these we also wished to add the fin of some whale, which we found drawn thus in the museum.

ON

[catchword: DE]

[marginalia: Description of the second animal. / Description of the third animal.]

This fin must belong to some aquatic animal, since it most closely resembles the form of an oar; for fins, according to the opinion of the philosophers, are said to serve the purpose of navigation, and there are said to be four of them, though sometimes there are two, as in eels. Moreover fins of similar kinds are wont to differ among themselves in substance, size, form, colour, number, excess, and defect. For some consist of solid substance, some are made up of filaments and membranes, some of cartilage alone, and finally others are seen to be composed of cartilage and bone, as may be observed in sea monsters.

Wherefore, as our opinion holds, this fin must belong to some sea monster, since it partakes of a middle nature between cartilage and bone, and moreover rivals ivory in colour. Furthermore, certain fins represent, in a certain proportion, the wings of birds. Likewise this one, measuring one palm's-length and two palms in breadth, and the width of the little finger in thickness, is divided from its middle part to the tip into thin filaments; so that it seems to simulate the branches of a palm tree before the leaves are unfolded: therefore it could with good reason be called the phoenicite fin.

Of what animal it may be, nothing certain can be affirmed in the meantime: for it is possible that this is not a whole fin but a part and fragment of some larger one; likewise it may belong to the number of those which are either on the back, or at the vent, or at the extremity of the tail.

Before we pass to the Paralipomena of the History of Quadrupeds, we have resolved to weigh the matter of the quadruped whale, so that it may serve as an introduction to the examination of the family of terrestrial quadrupeds. This animal was caught not long before the death of Pope Paul III in the middle of the Tyrrhenian Sea, to the great admiration of all, entirely lion-like in form and size, as is shown in the illustration, but with a scaly body and a voice somewhat similar to that of a human being. They report that it was brought to Rome, where it did not live long, being deprived of its natural element and proper nourishment. Philip Forestus committed the history of this animal to writing, as Paré reports.

Wherefore this animal appears to have been of the kind which, as is told, are born in a certain forest in Japan, dog-like in face and size, golden in colour, and with soft fur. For this kind of animal, as Aloysius Almeida reports and many confirm, of its own accord leaves the land and enters the sea, and for that reason is called *Maripeta*; and there little by little it is transformed into a fish. The author attests this to be so true that he affirms it has sometimes come to pass that a fish thus caught still had all the parts of its quadruped body not yet fully transformed. And he adds that this is not fabulous, because the consensus of all those who know the region assents to this truth.

[catchword: Pifcis]

[marginalia: Differences of fins. / Lion-like aquatic animal. / Maripeta.]

The likeness of the Lion Fish.

[Full-page engraving — no further translatable text]

Furthermore, another aquatic and four-footed animal must not be omitted, which lives on one of the Molucca Islands, called *Camphurch*, as Thevet reports, Paré following him. It equals a deer in size, bears on its forehead a movable horn, almost like the crest of the Indian cock, three feet in length and sometimes approaching the thickness of a human arm. Its neck is covered with grey-coloured hair. Its hind feet resemble those of a goose, with which it uses for swimming in both fresh and salt waters. Its front feet, however, are akin to those of a deer. It feeds on fish. A great many have persuaded themselves that this animal is a species of unicorn, and therefore that its horn is efficacious against poisons. The king of the island, as Thevet reports, glories in being distinguished by the name of this wild beast.

Image of the Camphurch.

[marginalia: Camphurch. / Thevet. / Paré.]

PARALIPOMENA OF THE HISTORY

of all Quadrupeds.

ON THE UNICORN.

Concerning the form of this animal, authors vary in their opinions, as was narrated in the *History of Solid-hoofed Quadrupeds*. Since some refer this beast to the genus of solid-hoofed quadrupeds, others to the genus of cloven-hoofed animals, and finally others to the genus of digit-bearing ones, it is no wonder — for it is reported that in some places horned dogs live. Yet it is for the most part enumerated among the solid-hoofed quadrupeds; since they attest that in the West Indies the Barbarians of Veragua assert that among them dwells a large animal in the form of a horse, bearing a thick horn on its forehead. Other authors report other things; nevertheless it is still uncertain what form, character, and qualities that animal possesses which is called the Unicorn *par excellence*. Horns and fragments of horns are indeed exhibited by wandering showmen, which they claim to be those of the unicorn; though they have nothing certain by which they can prove it. We likewise here exhibit drawn several varieties of this horn, which have come to our hands. In the first place is figured the common unicorn; next another unicorn; in the third and fourth place two other varieties are presented; and in the last place two varieties of the unicorn dug from the earth — for it sometimes comes to pass that cetacean fish driven by the sea onto the sands are buried, and after many years bones are dug out from the depths of the earth bearing a resemblance to horns, and wandering showmen persuade credulous spectators that they are unicorn horns.

Whoever wishes to know more of this animal, let him consult its History in the volume on Solid-hoofed Quadrupeds.

1. Common unicorn. 2. Another unicorn. 3. and 4. Two other varieties of unicorn. 5. and 6. Fragments of the unicorn dug from the earth.

[marginalia: Horned dogs. / Veragua. / Varieties of the unicorn's horn.]

[figure captions: We here present the figure of the horn of the Rhinoceros, which some call the horn of the Unicorn (Monoceros); and likewise the figure of a cup made from the horn of the same Rhinoceros, which is likewise held to serve in place of a Unicorn's horn]

[Full-page engraving — no further translatable text]

placed, and in the first position we give the teeth of the Elephant

[figure captions: The teeth, prone and supine; then the same teeth with the prone part of the upper jaw.]

This animal is wonderful for the whiteness and size of its teeth, and its tusk projects beyond the mouth — and therefore in the present illustrations these images of the tusks are given; though afterwards only the ivory is that principal part which projects, as Pliny also taught us.

Furthermore, its ivory is called a tooth, as it were from *barro*, the word by which the inhabitants call the Elephant

[figure captions: Horn of the Rhinoceros, with a cup made from the same.]

[marginalia: Tomo III / Paralipomena Hist.]

[catchword: Paralipomena Hist.]

The upper teeth of an Elephant, seen from below.

[Full-page engraving — no further translatable text]

The teeth of an Elephant, with the front part of the upper jaw.

[Full-page engraving — no further translatable text]

OF CLOVEN-HOOFED ANIMALS.

Certain cloven-hoofed animals acquire various names by reason of age and sex: for the Ox, when in its younger age, is called *Vitulus* — either from its green age, or from *vitulando*, that is, from frisking about, or from *vita* — as is set down in its proper History; but when it has come to adult age before it is castrated, it is called *Taurus*, and after castration it is called *Bos*. Likewise by reason of sex, the female Ox is called *Vacca*. Thus in this place we have nothing else to add but the figure of the tooth of a calf one month old.

Moreover, the Indians have an animal called *Tlachaxolot*, not very unlike the ox but somewhat larger, with a large head, an oblong mouth, broad ears, fierce teeth, a thick neck, hooves like a bull but larger, a thick and long tail, and a dense hide covered with rough hairs. It is an animal dwelling in solitude, feeding on certain mountain herbs, ranging across the plains and fields far and wide, and when these fail it retreats to the foliage of trees. It does not shrink from the sight of man, nor does it readily fall to arrows, because its hide is almost impenetrable. For this reason it is easily caught by digging a pit and covering it from above with the branches of trees, in the same manner as the elephant is trapped among the Indians.

[figure captions: Teeth of a Calf one Month Old.]

[marginalia: Variae nominum mutationes / Taurus Indicus / Dentes Vituli]

[catchword: Binna]

OF GOATS.

Among cloven-hoofed animals the differences of exotic goats are remarkable. Among these is reckoned that kind dwelling in Ethiopia, whose males approach the bulk of a calf and sweep the ground with long hairs — though these hairs are not fine, but rather like the manes of horses, and great in number.

Nor must we omit mention of those goats from whose hair that cloth is woven which they call *cymatilem*, that is, wavy: for their hair is extremely fine and lustrous, and hangs down to the ground, and therefore yields nothing to silk in beauty. The goatherds do not shear them but comb them; the goats, however, are frequently washed in rivers, and feed on the thin and dry grass of those fields — which is certainly known to contribute greatly to the fineness of the wool. For it is well established that goats of this kind, when transported elsewhere, do not produce the same wool, but change with the fodder, and the goats themselves degenerate so thoroughly that they are scarcely recognizable.

Among the Peruvians, certain very peaceful animals which they call Vicuñas are very similar to wild goats, and are perhaps referred to this genus, though they lack horns. They delight in mountain places and therefore love cold and desert regions, and seem to be refreshed by frost and snow; they take pleasure in company and in herds. They are caught by a celebrated hunt: the Barbarians gather to the number of three thousand, and surround a certain mountain, and thus little by little drive these beasts together into a single place — sometimes more than three hundred — and release the females for breeding. They are caught another way when they approach at a convenient interval: ropes are thrown at their feet with lead fastened to the ends, which impede the running of the beasts. They shear these goats for blankets, for they stuff mattresses with their wool, which is said to alleviate inflammations of the kidneys and attacks of gout.

Moreover, the Bezoar stone is generated in the viscera of these animals, which holds second place after the Oriental one. Whoever wishes to know more about this stone should consult the History of Cloven-hoofed Animals in the chapter on the Bezoar Goat.

Before we pass to another History, we present for examination the skeleton of a Goat, and then a Roebuck with a feathery head and two horns together with Cretan Dittany, thence called *Dorcidium*. It must be noted, however, that the two horns of this animal hang from a crest. This roebuck was reared by a certain innkeeper in Swabia, as a certain physician of Augsburg reported to us, who attested that he had seen the animal alive, and affirmed that the prominence on its forehead was composed of a substance intermediate between feathers and hair.

We add further the figure of an animal which has the face of an Ass and the hair and hooves of a Goat, and is depicted together with the third Onopyxos of Dalechamps.

[marginalia: Solar change, what it produces / Fictile animals / Caprinae / Lapis Bezaarticus]

[catchword: Capre]

The skeleton of a Goat.

[Full-page engraving — no further translatable text]

[figure captions: A roe-deer with a plumed head and two horns (Dicornis), together with Cretan dittany (Dictamnus Creticus)]

[Full-page engraving — no further translatable text]

[figure captions: A wild ass (Capriasinus) together with the third Onopyxos (elecampane)]

[Full-page engraving — no further translatable text]

The mention of Goats called to mind what Aristotle recounted in his *History of Animals*: namely that in the island of Lemnos a he-goat, which had two udders situated near the genitals, had poured forth such a quantity of milk that colostrum could be made from it. But there is a more recent case, which the blessed Francis Xavier recounts in the third letter of the second book, as reported by the Jesuit Johannes Eusebius in his *Histories of Nature*. These therefore are the words of the blessed Francis in the original letter written in his own hand in the Spanish tongue, which is preserved in the College of the Society of Jesus in Madrid: *In this Island of Amboina, I saw something incredible and previously unheard of, which perhaps it will be worth while to record: a he-goat — such a one as I have never seen — nourishing small kids with its own milk; for the udder which it has near the genitals, on either side, produced so much milk each day as a dish could hold.* Furthermore, the Jesuit Johannes Eusebius adds in confirmation of this that he himself also with his own eyes saw a sterile mule which nevertheless nourished another small mule — which a certain she-ass had foaled — with abundant milk.

OF THE LAMB.

Much was set down concerning this animal in the Volume on Cloven-hoofed Quadrupeds, to which we refer the reader. Here we shall record only certain matters concerning the entrails of this Animal, which we have learned were once held in delight by the Ancients, as for example in Plautus in the *Pseudolus*. Concerning this we present an image of these organs drawn both prone and supine.

[marginalia: Capri ubera / Mula lactens]

[figure captions: The stomachs depicted from the outside: A. the rumen; C. the omasum; D. the abomasum. The stomachs delineated from the inner side reversed: A. the rumen; B. the reticulum; C. the omasum; D. the abomasum]

[Full-page engraving — no further translatable text]

OF DEER.

The genus of Deer in New Spain is not simple. For some are red, some altogether white; these they call the kings of Deer. In the territories of New Mexico, Deer wander having a very hairy tail. They emit [something]. Some are similar to ours in form, size, and character, and they call them *Aculhuame*. Those smaller than these, *Quauhtlamacame*, are of great spirit, and depart from the timidity proper to deer: for when wounded they grow fierce, attack the Hunters, and often kill them. Of the same size and character are *Tlalhuicamame*, but inferior in spirit. The smallest finally they call *Tamamacame*.

In Duarhe Xapida and other regions of the New World, herds of Deer roam just as Cattle do in our regions. They give birth at home; while the rearing lasts they wander through the forests seeking pasture; in the evening they come back to visit the fawns kept at home, and indeed, after the fawns have fed, they suffer themselves to be milked, for from no other milk is cheese made. The northern peoples yoke Deer to wagons, by which they are conveyed with great speed.

In certain regions of the West, Deer that have been struck by Hunters seek out the herb *Atochielt* (so the Barbarians call it, and it is a kind of pennyroyal); by this they are restored, and having recovered their strength they acquire new swiftness, since this herb serves them more readily than the virtue of Dittany.

In Virginia, Deer are endowed with a longer tail than ours, and bear the tips of their horns curved back onto the dorsum. In America there is a certain species of Deer which is lower than ours, bears smaller horns and long hair in the manner of the Goat, and a long tail in the manner of mules, which they surpass in bulk, and they are said to be of the greatest strength. What if we add the image of that Animal which simulates the appearance of a Deer and the form of a horse, and is therefore called *Hippelaphus*, that is, horse-deer? Indeed we also propose for examination the image of that Animal which has the face of a Deer and a Camel, and is therefore called by Matthiolus in his letters *Blaphocamelus*.

In this place it has pleased us to exhibit the true figure of the bone from the heart of the Deer drawn on both sides, as it appears numbered 7 and 8; since it must not be doubted that in the substance

[marginalia: Ceruorum exoticorum differentia / Ceruorum usus / Alii ceruorum species]

[catchword: stantia]

— of the heart of the deer a certain cartilaginous material is not found, which approaches very closely to bony substance, of a whitish colour and triangular form. For this reason Rinodeus of Paris was writing in his *Observations* that such a little bone is found chiefly in those angles, and that Hunters call it the little bone of the heart of the deer. Indeed many assert that a bone is found also in the hearts of Camels. For Tostatus, in his commentaries on Leviticus, proclaimed that a bone is found in the heart of the camel and in the heart of the Deer; thereafter Dalechamps, in his *Plinian Annotations*, seems to confirm the opinion of Tostatus — although the remaining authors, both Greek and Latin, have denied it. Thus it must be noted that in the hearts of large animals, and especially of ageing ones, the bronchia of the arteries acquire such a hardness that they easily simulate a bony substance; we ought not therefore to be surprised if a bone is sometimes said to be found in the heart of a large ageing animal. Whoever wishes to know more of this kind should consult the History of Cloven-hoofed Animals, where this bone is discussed at length.

[figure captions: Hippelaphus.]

[marginalia: De corde Cerui / Os de corde]

[catchword: Paye]

The Elk-Camel (Giraffe).

[Full-page engraving — no further translatable text]

OF THE ELK, OR GREAT BEAST.

This Beast, according to the opinion of many, has three parts useful for medical purposes, namely the horns, the sinews, and the hooves. Wherefore Menabenus recorded that in Sweden the rasping of the horns is greatly approved, and that the Princes of Prussia have recognised the virtue of the horns in epileptic seizures. For which reason we ought to feel no surprise if from horns of this kind, by great skill, little hearts are fashioned — as is to be seen in the following figure — which are thereafter hung from the neck as a prophylactic against this affection.

[figure captions: Little heart made from the horn of the Elk.]

Furthermore, the hooves of this great Animal are more highly recommended in epilepsy; and what is worthy of great admiration is that this hoof is not only therapeutic but also prophylactic: for it not only cures epilepsy once it has occurred, but also prevents it when it is impending. But whether every hoof of this animal possesses the same faculty, the opinions of authors vary. There are those who attribute more to the left hind hoof than to the others, because the beast by applying it to its ear drives away the disease. We, however, think that the right hoof should be preferred to the left hind one: since if we consider the use of each, the right is more easily applied to the ear than the left; or we pronounce that either small hoof indiscriminately possesses the same faculty, since either can be applied to the ear without difficulty according to the animal's inclination and the convenience of place and position. Nevertheless we now present for examination the genuine image of the right hind hoof.

[marginalia: Alcis usus / De ungue / Alcis unguis]

[catchword: Alcis]

[figure captions: Right hind hoof of the Elk.]

OF THE DIFFERENCES OF THE CAMEL AND THE CAMELOPARD.

Many species of this Animal have been enumerated in the Volume on Cloven-hoofed Quadrupeds, where various illustrations were also given. Here we give other illustrations, of which the first will be the Bactrian Camel, a distinct species. The second will be the Camel common in the Deserts of Libya and Numidia, in which class of Animal the wealth of the Arabs consists. The figure of this Camel is drawn by Cornelius the Jew in his map of Africa; it is indeed different from the image of this animal which we have placed elsewhere.

[marginalia: Cameli differentia]

[catchword: Cameli]

[figure captions: [Animal] with sweet rush (Juncus odoratus)]

[Full-page engraving — no further translatable text]

[figure captions: Another variety of Camel, depicted by Cornelius the Jew in his Map of Africa.]

In the History of Cloven-hoofed Quadrupeds, after the nature of the Camel had been set down, the Camelopard was also treated, where only one illustration of that animal had been offered. Now, for a fuller knowledge of this animal, we present two illustrations for examination — namely of the male and the female — so that the reader may recognise that the face of each differs by reason of sex.

[marginalia: Camelopardalis]

[catchword: Came.]

[figure captions: Camelopardalis, male]

[Full-page engraving — no further translatable text]

[figure captions: Camelopardalis, female]

[Full-page engraving — no further translatable text]

OF INDIAN WILD BOARS.

The Indians call the mountain beast *Coyametl*, others *Quapicotl*, others *Saïassou*, others *Saynum* or *Zainum*. It is similar to our wild boar, though smaller and more misshapen, with a navel on top of the back in the region of the kidneys, from which it pours forth a watery humour. They say, however, that it is not a true navel but a rudiment of a true navel. For this reason the writers of American History report that wild boars of this kind have a hole in the back, as appears in the figure.

[figure captions: American Pig, or Zaino.]

[marginalia: Apri cum foramine / Aper Americanus]

[catchword: Ub.]

The skeleton of our native Pig.

[Full-page engraving — no further translatable text]

The Araundú is an animal. Hunters climb to the tops of trees, and a herd of Zainoes comes running, which bite the trunk of the tree since they cannot wound the man; meanwhile the hunter, safe above, strikes them down with his hunting-spear. There is a remarkable antipathy between this beast and the Tiger; and so a leader is established — this leader of the Zainoes gathers as many of his own kind as he can, three hundred or more, just as a general enlists soldiers. With these forces he attacks the Tiger, which, though it is the most ferocious beast and surpasses the other American wild animals, is nevertheless overcome by the multitude, though not without a grievous slaughter of the Zainoes; for innumerable dead are found slain together with the Tiger.

The flesh is said to be like that of a pig, or of a sow, but harder and less agreeable. The bristles are rough, varied with white and black colour. It feeds on acorns, roots, and other mountain fruits, as well as on worms, earthworms, and other animals of this kind that are born in marshy places.

ON CLOVEN-HOOFED ANIMALS — A TRANSITION TO DIGITIGRADE QUADRUPEDS

Among the Indians of the New World there is a breed of lions more sluggish than others; the Peruvians call them Puma. They are smaller than African ones, timid and harmless unless first injured — altogether degenerate in spirit, in bulk, in mane, and in colour, for they are tawny rather than tawny-gold. For the hunting of these, the Indians assemble and kill them with stones and cudgels, since they eat their flesh, which is white and fat; keeping the fat for medicines and the bones for dances and choral entertainments.

In Chiappa there is an animal resembling a greyhound, black except for the head and neck, which are white; the natives nevertheless call it the white Lion.

Furthermore in Italy there are wild animals akin to the Lion, such as the Miztli — an animal thus called by the Barbarians — which is kindred to our lion but without a mane; while still young it is tawny-brown, but growing larger it becomes tawny, and sometimes red, and sometimes whitish, which may occur owing to the different nature of the region.

Likewise the Quamzti is a beast akin to the Lion, from which it takes its name, but milder and more agile; hence some Spaniards supposed it to be the Panther. To these various distinctions also belongs the beast Machamitzli, which took its name from the Stag and the Lion, since it resembles those animals in certain parts of the body; moreover the Cuitlamiztli, which borrows its name from the Lion and the Wolf in the native tongue, also belongs here. It is a beast stouter than a lion, but milder and smaller, living by hunting stags and sheep; indeed, being satiated, it kills whatever animals it encounters. Once it has filled its hunger, it sleeps for two or three days, abstaining from prey until it grows hungry again.

Furthermore there is the Tlalmiztli, smaller than a cat, but with a leonine face — the expression and ferocity of a beast in so small a body is remarkable. Another animal is called Cacamiztli, which belongs to the genus of small lions, or of cats, and is accustomed to dwell among rushes. It is a quadruped, with a body four spans in length but not very broad, with tawny and somewhat long fur, short ears almost nonexistent, a cat-like head, and a long bushy tail. So fierce is this beast that it commonly attacks stags, and even kills them; whence perhaps it got its name, unless the name derives rather from the cat. For among the Mexicans Mixtli sometimes signifies a cat and sometimes a Lion. The animal lives among the people of Panuco.

[figure captions: Icon of the skeleton of a common piglet, added for the reader's benefit.]

[marginalia: Antipathy. / Vitfsy. / Use of the lion in food. / What the white lion is like. / Animals akin to the lion in kind.]

ON THE TIGER

The Tiger in the New World is not of one kind — whether in size, in ferocity, or in appearance. There is one common to our countrymen that is larger. Similar to this is another, which, because it is smaller, is called by the Indians Tlacoocelotl, that is, the small Tiger; it is variegated with dark and black spots, not pale and gleaming as in others.

The Tigers of Swathe are more ferocious than Lions and eagerly seek out the Indians even in their houses; and unless the doors are kept constantly shut, they enter stealthily and carry off whatever native they have seized in their teeth, just as a cat carries off a mouse. The ferocity of this animal cannot be overcome except by beating the beast about the loins with a cudgel and rendering it loin-broken; for then it grows faint and yields to the conqueror. No other wild animal is more feared by the West Indians; indeed it is heaped with honours, because the Demon most frequently spoke to them in the form of a Tiger; but after the Indians received the true faith in God, the fear and reverence for this beast vanished.

The Tigers of Bengal are most ferocious and of an unyielding hatred, for they pursue a ship that has put to sea — carrying away the person who harmed them — for a space of more than a thousand paces along the shore. Furthermore, they are savage toward all men and beasts they encounter. Nevertheless, nature forestalls this great pest: another small animal accompanies the Tiger, and by continual barking indicates its presence, upon hearing which other wild animals withdraw and men hide.

In Brazil too there is a great multitude of Tigers, which — hungry though possessed of great swiftness and tremendous strength — once sated, are said to be so slothful that they are immediately put to flight even by ordinary dogs.

There seems to be akin to the Tiger an animal called Thanacth, which a certain Heuer says he saw among Indian traders while sailing on the Red Sea. In size and in the conformation of its limbs it was not unlike the Tiger, but with a face almost human, though with a very flat nose. Moreover its forefeet resembled human hands, and its hindfeet those of a Tiger. It lacked a tail and was covered with dark fur. In short, in its head, ears, neck, and mouth it resembled a man; but in its almost black and curly hair it recalled an Ethiopian: the rest was Tiger. Certain students of medicine told us that they had seen a similar animal in Germany in the preceding year, when visiting our public Museum; it was led about by a certain itinerant showman for the sake of profit, as depicted in the following image.

[marginalia: Tiger more ferocious. / Animals that accompany the Tiger. / Animal akin to the Tiger.]

[figure captions: A tiger-like animal (Animal tigride) delineated]

[Full-page engraving — no further translatable text]

In the *History of Digitigrade Quadrupeds* it was set forth, in accordance with the opinion of some, that the bear is said to come forth from its mother's womb formless, and that the mother thereafter appears to lick it into shape with her tongue; nonetheless an anatomical inspection of a pregnant bear that had been killed demonstrated the contrary: for in the womb the bear-cub was found with its limbs distinct, in the form that may be seen in the following image. Hence it is plain that many opinions are false which adhere principally to report, such as the opinion concerning the excision of the beaver's testicles, concerning the birth of the viper, and likewise concerning the formless birth of the bear — since in the uterus of the bear the foetus is not imperfect, without distinction of limbs, which are said to be perfected and given form after birth by the mother's tongue; for anatomical examination demonstrates the contrary. Hence Pliny must be corrected, who falsely advanced this opinion.

We likewise give here a figure of the nail of a bear, which carries the likeness of that stone drawn from the bowels of the earth, called by the Greeks Rhincolīthos (ῥύγχος λίθος), since it resembles the beak of a bird of prey.

[figure captions: Bear-cub taken from its mother's womb alive.]

ON WOLVES

The warmer regions of New Spain harbour a Wolf which the Indians call Cuedachtli; it resembles our native wolf, but is larger in the size of its head. It attacks bulls and sometimes oxen. Some wolves of the region of Bamba are exceedingly fond of palm oil.

The oil pressed from palm fruits is thick and ductile like butter; it is received in vessels made of gourd-rinds and preserved with great care. But it is remarkable how deftly these wolves steal it: they seize the vessels in their teeth and throw them over their shoulders, as our native wolves do with a stolen sheep, so that their course may be all the more unimpeded and they may escape the blows of their pursuers.

ON THE HIPPOPOTAMUS

Since it truly has its hooves divided into four parts like toes, we have placed here the images of the male and female Hippopotamus, and in addition a figure of the head of the Hippopotamus, in which the teeth are better seen.

Before the eyes of the reader we present a picture of the anterior part of a female Hippopotamus, in which the wide nostrils may be better observed.

Furthermore we do not wish to pass over in silence the picture of a certain beast congener with or akin to the Hippopotamus, which was delineated among the Hieroglyphics in the Tablet of Bembo. There this animal is depicted as if present in some field, digitigrade and very stout, with a tail likewise thick and short. Before this animal stands an Egyptian priest, who seems to be approaching the beast, as is permitted to see in the image as proposed.

[marginalia: Wolves' habits. / Hippopotamus.]

[figure captions: The skull of a hippopotamus, showing the nostrils and spine more clearly; anterior portion]

[Full-page engraving — no further translatable text]

ON THE FOXES OF THE INDIES

The animal which some Spaniards call a Fox and others an Opossum, and the Indians call Coyotl or by others Atoc, is unknown to the Old World. It has a wolf-like head, bright, small, and sharp ears, a long, black, not very thick snout, sinewy legs, hooked claws, a very hairy and thick tail, and a harmful bite; for it approaches closely the form of our native Fox, to the genus of which it may perhaps belong. Of an intermediate size between the Fox and the Wolf, it attacks not only pigs and similar animals, but also stags and sometimes men. It is covered promiscuously with long, dusky, and white fur.

It is of dual behaviour, and so persistent a revenger of injury and so mindful of the prey snatched from it that after some days it recognises the robber, pursues him whenever met, and attacks him; indeed, having identified his dwelling, kills whatever domestic animals it finds there, and avenges the injury. Conversely, toward benefactors the beast is companionable and grateful, and leaving the poultry-yard birds untouched, gives proof of its goodwill. It inhabits principally the warmer regions of New Spain. It feeds on the flesh of weaker animals, on maize and other grains, and likewise on sugar-canes when it happens upon them. It is caught in traps and snares and killed with arrows.

To this genus belongs another animal, also called Coyotl by the Indians and endowed with the same disposition; it haunts the burrows of ants, from which it has claimed its name. At night it howls and emits varied cries; the same does another animal called Hal-coyotl, which frequents the environs of towns and for the most part lives by plundering poultry-yard birds.

Similarly the animal called Ilpemaxtla is a species of Fox clothed in white, black, and tawny fur, with a small head, small ears, a slender body about four digits in length, and a long, thin snout; but in its diet and habits it is fox-like.

Another small fox, whose colour vies with that of toasted maize, is called by the Indians Yzauiepotl; in its tricks and artifices it resembles our native Fox. It is almost two palms in length and slim, with a thin snout, small ears, and a grey and black body darker about the rump; its tail is long and clothed in black and white fur, as is also the whole of the back. Its legs are short and black, with hooked claws. It lives in dens among rocks, where it rears its young. It feeds on beetles and worms; it also kills poultry-yard birds, but takes only their blood and devours it. When it passes wind it emits a most foul breath. Its urine and excrement are likewise most fetid, so that nothing so pestilential is to be found in the whole earth. Hence it comes about that, placed in extreme danger, by voiding its urine and dropping its faeces, it protects itself from every avenger of injury at an interval of eight or more paces. The flesh of this animal is nonetheless eaten, as is its excrement by those who suffer from the Spanish or Indian pox. From this animal is also prepared a fox oil no less efficacious than that prepared from our native Fox. Finally Chiappa harbours small foxes that lie in wait for small birds among trees. Lastly it is to be noted concerning the parts of the Fox that its genital organ is bony, as Aristotle reported; for we explained this in the *History of Digitigrade Quadrupeds*; but since its image was not then to hand we could not satisfy the reader, and therefore we exhibit its likeness in the present place.

[figure captions: Bony genital organ of the Fox.]

[marginalia: Foxes of the Indies in general. / Foxes resembling the native fox. / Foxes similar. / Use in Medicine. / Oil of the fox, what it is like.]

[figure captions: Bony genital organ of the Fox.]

Great is the industry of the Eastern hunters, who by a wonderful art fabricate stones from monkeys which they then sell as Bezoar. At a certain time of year they go out for the hunting of monkeys — not to kill them, but merely to wound them lightly with arrows; having bloodied them, they do not thereafter pursue them. Meanwhile from the blood a certain stone is generated within their bodies; for each individual produces as many stones as the wounds inflicted by arrows that it has sustained. When the hunters judge that the little stones are mature, they go out again to capture those same monkeys, and kill them.

There are those who refer to the genus of monkeys, or of cercopithecuses, that animal which the Indians call Mapach. Nor are there lacking those who reduce it to the native small foxes. It goes by various names among the Indians: by some it is called Tllamaton or Old Woman; by others Maxile, or cotton-girdle; by others Cioatlamacazqui, or Priestess. It is an animal somewhat larger than a Maltese dog; low-bodied, round, smooth-furred, varied promiscuously in black and white colour; with a large head, small ears, the snout of a hunting-dog, single white bands proceeding in a straight line near the eyes, a long tail, and hands and feet almost human, with which it seems to handle everything. When tamed and kept in a house it is easily domesticated and feeds on whatever is offered to it. It lies near its masters, rolls on the ground, and plays and frolics in a thousand ways, imitating the manners and habits of the small fox. Like a cat it washes its face with its hands, and with the same — in the manner of a monkey — brings food to its mouth. To strangers and newcomers it shows itself as a fierce beast, yet toward familiars it is fawning.

[marginalia: Names of the beast. / Behaviour of the beast.]

ON SLOTH, AND THE SLUGGISH ANIMAL

Of the names, nature, habits, and food of this animal we have spoken at length in the *History of Digitigrade Animals*. It remains now only to add the words of Paré and to set before the reader an image that was not then available. Paré says, therefore, that this animal is called Haut, the size of a cercopithecus, and in its head and face resembling a child. When captured it draws deep sighs from its breast, in the manner of an anxious and grieving man; its feet are furnished with three—

[figure caption: Sloth, or the Haut, the sluggish Animal.]

[catchword: bus]

Its feet are furnished with claws; it climbs trees and dwells among them more frequently than on the ground. It walks so slowly that in the extension of its limbs it seems to touch the earth with its belly. It does not complete the space of a stone's throw in fifteen days, and in climbing a tree it consumes two days; nor is its gait accelerated by threats, or blows, or menaces. On this account Johannes Eusebius the Jesuit, comparing the nature of this animal to a slothful man, once made sport with this octastich:

Nature mocks thee, Sluggard: the Brasilian Tempe
Is trod by a beast destined to ill omen.
Slow of step it creeps, lifting not its useless foot aloft,
But with its fat belly it licks the ground at a slow pace.
In fifteen days it hastens to the distance of a little stone's throw,
And after two days it seeks its leafy resting-place weary.
Neither threats, nor blows, nor the belly's goading make it yield:
Nor does the torpor arise from any inflicted wound.

ON THE TAXO OF THE MOUNTAINS

The Indians of New Spain call the mountain cat Quauhtepecotli. It is an animal about two palms in length or less, with a long, thin snout curved upward toward the top, a long tail, and long fur — whitish about the belly, the rest tawny or black and gleaming, but about the back black — with dark feet and curved claws. It is easily tamed, is voracious, and spares no food offered to it; yet its flesh is not edible. It is a placid animal, for it fawns and plays in a remarkable manner, yet is harmful to strangers. It seems nonetheless to belong to the genus of the Badger, on account of which some have been accustomed to call it Texon.

ON OTTERS

To the genus of the Otter seems to belong that animal called Ahoitzotl by the Indians, the size of a Maltese dog, varied in black and dusky colour. Akin to this is another beast called the Water-Lion, three spans in length, with reddish and dark fur about the back, long and soft, a thin and long snout, a hooked claw, short legs and ears, and a tail two palms long. It lives on fish and dwells not far from the southern shore; only its pelt is put to use. Near to these beasts seems to be another called Cattiuare, an amphibious animal; it feeds on a certain species of rush growing on the banks of fresh waters. If it is seized by any fear, it flees into the water down to the bottom. It is the largest of these; its head is almost that of a hare, but thicker and less eared; its tail blunt and short; its legs higher than those of the Otter; for it flees by a swift course on land from one river to another. Its fur is blackish and its feet furnished with three toes. Its flesh, to one who eats it, tastes of pork.

[catchword: DE]

[marginalia: Habits of the sloth. / Water-lion.]

ON PORCUPINES

In Malacca a species of Porcupine lives, in whose gall a stone is generated, which they call the Malacca stone, and which they prefer to every other species of Bezoar. So great is its esteem among the inhabitants that, as Garcias writes, of the two that were found in his time, one was sent as the highest gift to him who governed India in the name of the King of Portugal, even though the Bezoar stone is frequently found there; nonetheless the inhabitants prefer this Porcupine stone to all other alexipharmics. Garcias reports that he saw only one, whose colour appeared that of a lighter purple, bitter in taste, slippery to the touch, like French soap. Clusius adds that in the year of human salvation 1603 he saw a similar small flat stone not exceeding the size of a human fingernail, smooth, of an ashen-white colour, but sprinkled with certain small rusty spots; it was greatly commended against poisons. They reported it had recently been brought from the East Indies and said it was a porcine stone. From these notes Clusius conjectured that it might be the Malacca stone already described, which is sometimes found in the gall of the Porcupine.

Fernando Lopez himself also mentions a certain stone, to which he attributes no lesser virtue than to the Bezoar or the Malacca stone, since it resists all poisons in a remarkable manner. It is the size of a hazelnut, very rare. It is said to be produced in the head of an animal which the Indians call Bulgoldai.

The rest of the matters pertaining to our native Porcupine were set down in the *History of Digitigrade Animals*, where not only the image of the Porcupine but also its skin is to be seen, in which the outer skin of the Porcupine's back, tail, and rump, as well as the inner skin, the forefoot, and the hindfoot are visible. Now we add other parts of this animal, as may be seen in the image.

Moreover, here is also depicted the figure of a tooth of this animal, or one very similar to its front teeth, which was once communicated to us. This tooth had membranes attached along its sides; and where it curved, it was thin, and marked by a cleft running through the middle, but not so deep as is usually seen in the teeth of the Porcupine — for the tooth of this animal is accustomed to simulate the form of two teeth joined together. Hence we do not affirm with certainty that this tooth belongs to the Porcupine: unless perhaps Nature has produced a monstrous tooth, which indeed happens in animals.

[figure captions: Tooth similar to the front tooth of the Porcupine.]

[marginalia: Characteristics of the Porcupine stones. / Malacca stone. / Lit. T. hist. / Description of the tooth of the Porcupine.]

[figure captions: Various parts of the porcupine (Hystrix): A. the upper jaw; B. the lower jaw; C. the fulcrum detached and removed from its place; D. the organ of hearing; E. the tongue; F. the caecum; G. the tympanic membrane; H. the small bone supporting the tympanum; I. the vault, or bony cavity]

[Full-page engraving — no further translatable text]

ON THE DOGS OF THE INDIES

In the New World the canine genus varies beyond the differences already known to the Old World. The first kind the Barbarians call Xoloitzeuintli; it exceeds the common size, for it is usually above three cubits; it is covered with no fur but only with soft skin, sprinkled with tawny and blue spots.

The second kind they call Itzeuintepotztli, and it comes from the homeland whence it arrived, kept as a pet and most highly prized; it is almost without a neck, with a kind of ugly hump rising above the shoulders.

The third kind the Barbarians call Techichi; otherwise similar to ours, except that its appearance is mournful. It is eaten by the Indians. They raise these dogs for eating, just as the Spaniards raise rabbits destined for the table; they castrate them so that they fatten quickly; they keep an abundance of females for breeding; from the males they extract a set number.

Furthermore, the Barbarians call a certain breed of very small dogs Alco; they are delighted by their company in a remarkable manner, and accordingly deny themselves food in order to feed them. When they travel, they carry these dogs with them, either on their shoulders or in their laps. When they are ill, they are refreshed by the inseparable companionship and intimacy of these puppies.

There also lives among the Indians a mute dog, fox-faced. The island of Cozuamella harbours these. Indeed, when struck, they utter neither a groan nor a cry.

The mountain dog the Indians call Tepeytzceuintli — an animal of medium size but most bold, for it attacks stags and sometimes kills them. The entire body is black, but the head, chest, and neck are white. It has long fur, a long tail, and a dog's head; when tamed, it feeds on egg-yolks and bread dissolved in hot water.

Lastly it is to be noted that common dogs transported from Spain to Hispaniola, having increased in number and size, began to roam through the forests in packs, like most harmful wolves; and therefore such a reward was established for those who killed them as among us for those who hunt wolves.

ON WILD CATS

A certain genus of wild cat, or rather of weasel, the Indians call Depemaxtlaton. It is similar to a cat in size, but with a long snout, small ears, short legs, and a tail adorned with transverse bands of black and white. It is clothed in black fur mixed with white. The dust of this animal is said to benefit the feverish.

Another genus of wild cats or weasels the Indians call Quauhtentzon. It lives in the warm regions of Xonotla; it is assimilated in some way to the small fox; it has a very long tail, tawny and very soft fur marked with black spots. It is a most gentle animal, for it approaches those who know it and those of the household. From its pelt, garments are made at a high price, both for ornament and for defending against the injuries of cold.

[marginalia: Large dogs. / Mountain dogs. / Use in Medicine. / Use of the pelt.]

PARALIPOMENA TO THE HISTORY OF FROGS AND TOADS.

ON FROGS AND TOADS.

We have now arrived at four-footed, digitigrade, oviparous creatures.

[marginalia: Where tadpoles are eaten.]

It should be known that, although Europe recoils from eating tailed frogs — which authors call Gyrini — the Indian palate is nonetheless delighted by such fare, for it spares neither tadpoles, nor ants, nor locusts. They call these tailed frogs *Atolocatl*, and they not only eat them but also bring them for sale to markets as an article of trade.

They have moreover frogs of one pound's weight, which they call *malulas*, and these are pleasant and agreeable to the palate. Furthermore the lake of Mexico nourishes toads both small and large; the small ones are called *Tamacoli*, and the great ones — of immense bulk — are called *Aquaque*. The slime discharged from the hind part of these is poisonous.

[marginalia: Poison of toads.]

ON THE INDIAN SKINK.

There is found in the lake-dwelling places of the Indies a certain kind of animal called *Axolotl*, covered with soft skin and going on four legs after the manner of lizards, a hand's-breadth in length and a thumb's-breadth in thickness. It has a womb very like that of a woman, and its belly is marked with dusky spots; it has a long tail which tapers gradually and little by little. In place of a tongue, a short and broad cartilage is observed. It swims on four feet, which are divided into as many toes; the head is depressed and, in proportion to the rest of the body, large. The jaws gape wide and the colour is dark. It has been frequently observed that this animal has a monthly discharge at each month in the manner of women; for which reason the animal is reputed to stimulate desire in the manner of the skink, which some call the land crocodile, to the genus of which this animal perhaps belongs. It furnishes pleasant food not unlike the flesh of eels; and for this reason it is commonly prepared in many ways. It is roasted and boiled; but most often the Spaniards prepare it with honeyed vinegar, with pepper, cloves, and Indian capsicum added. The Mexicans, however, season it with capsicum alone, that condiment most familiar and welcome to them.

[marginalia: Virtues of the Indian skink.]

ON THE SEA TURTLE.

[marginalia: Various kinds of turtle.]

All things pertaining to this animal were set down in the *Historia of Oviparous Quadrupeds*, where many illustrations are to be found. The first illustration was of the sea turtle drawn in the prone position; the second illustration was of the same turtle drawn supine; the third illustration was of the skull of the sea turtle with the mouth closed. Now a fourth illustration is added, namely of the skull of the sea turtle with the mouth open, as appears in the following illustration.

[catchword: ut]

[figure captions: Skull of a tortoise with the mouth open: B. the nasal openings; C. the palate; D. the lower jaw]

[Full-page engraving — no further translatable text]

PARALIPOMENA TO THE HISTORY OF SERPENTS AND DRAGONS.

ON EXOTIC VIPERS.

[marginalia: Variety of vipers.]

Chiappa nurtures a great kind of viper that breathes forth a pestilential vapour from the openings of its nostrils. Moreover there are also certain other vipers scattered here and there that kill a horse with a single bite; others are variegated, others black and long, and these kill whomsoever they bite: they grow mild with the waxing moon and are provoked with the waning. Others are marked with pale-coloured lines, varied with white spots; the flesh falls away in pieces from those who have been bitten. In others so much venom is present that if they are touched with a stick the poison travels all the way to the hands. Others are of such a nature that if they bite in the morning the bitten person perishes vomiting blood; but if it happen in the evening, the bite is not lethal.

There is another kind of serpent related to vipers, which the Indians call *Teuhtlacocauhqui*, or Lady of Serpents; the Spaniards call it Viper, either on account of its similarity of head or of venom. This snake has the head of a viper, its belly whitish-pale, its flanks covered with gleaming scales though with dusky bands interspersed at intervals; the back is dusky with yellow lines crossing one another along the spine. It travels over rocks with a swift course, for which reason some Mexicans have given it a name from the wind, calling it *Hoacoatl*. Its eyes are black, of moderate size. It has two curved canine teeth in the upper jaw, by which it pours out its venom. Many report that those who keep this serpent at home find it endures a full year without food or drink, and that the severed head moves for a space of ten days or more. One bitten by this serpent perishes after the space of a natural day unless remedies are quickly applied.

[marginalia: Lady of Serpents.]

[marginalia: Remedies for venoms.]

A remedy has been devised of burying the bitten parts in human urine and leaving them there until the pain has entirely ceased and the disease is at the stage of a curable remedy, with a successful outcome in most cases. The Mexican physicians keep the canine teeth of this animal and prick the neck and cervix with them to relieve headache. They then anoint the loins with the fat of this animal, almost those most learned in medicine, to remedy pain in the loins, and likewise they rub other parts of the body afflicted with pain. The Indians eat the flesh of these animals and testify that it is superior to the flesh of yard fowl.

[catchword: DE]

ON THE INDIAN HAEMORRHOUS.

The New World has its Haemorrhous, called *Ahucyaatl*. It is larger than that Haemorrhous of which we treated in the *Historia of Serpents*; yet of the same venom, for those bitten by this serpent pour blood through every pore of the body.

[marginalia: Antidote to its venom.]

Equally in the fields of Yucatan there is found a serpent related to our Haemorrhous, four hands'-breadths long, of dusky colour but sprinkled with blue and reddish spots. The bite of this animal is so pestilent that within the space of one hour it brings a man to vomiting blood, and after the space of a natural day it pours blood from every part of the body. They report the antidote to be the juice of capsicum mixed with a liquid of tobacco. It inhabits the hollows of rocks and rears its young there. When it goes out from its den, if it hears a noise, it attacks anyone in its path.

ON THE JACULUS AND KINDRED SERPENTS.

Besides the species of Jaculus described in the *Historia of Serpents*, a certain itinerant showman exhibited another variety in recent years. The animal was four and a half hand-breadths in length; it had a gape of mouth one finger's breadth in width; its snout was pointed and covered with large and oblong scales, somewhat quadrangular in shape, though the scales of the back were somewhat larger than those which covered the belly.

[marginalia: Description of the Jaculus.]

[marginalia: Body and description.]

Towards the tail it tapered, after the manner of other serpents. Near the gape there was observed a slit on either side of the body which it used as a kind of wing or appendage for leaping. This appendage or wing terminated at the genital region. This beast was a species of Jaculus, but was commonly called *Crepacul* by showmen. Another species of Jaculus is found among the Indians named *Texminani*, or the eye-seeking serpent, because it first attacks the eyes; and for this reason it is by others called the eye-seeking serpent. It is a very long and slender serpent, with a livid belly and dusky back; some of the Indians call it *Micoatl*, inasmuch as it resembles an arrow. It hurls itself from trees upon men, and especially upon human eyes; for this reason it is reckoned a species of Jaculus. For though it falls short of the Jaculus in thickness of body, yet in its property and nature it is related to them.

[catchword: DE]

ON OTHER INDIAN SERPENTS.

[marginalia: Where the impudent serpent is found.]

[marginalia: An Indian serpent of unusual habits to be observed.]

[marginalia: Various remarkable serpents.]

In the year of human salvation one thousand six hundred and twenty-eight, it was learned from letters of Father Joseph, a Jesuit of the faith, that not far from Tuna Pin in India, in a certain grove there dwelt a serpent nearly as thick as a bull, of a length proportionate to its bulk, whose food was tortoises and sleeping deer. Wherever it passed, it scorched the herbage. Mules smelled the serpent from afar and refused to advance despite any spurs applied to them. The same happened with dogs, which fled, as soon as they drew in the serpent's excrement through their nostrils. There were heaps of bones of animals devoured by the serpent, which did not stink but rather breathed forth the sweet odour of musk.

[marginalia: Lib. x. Hist.]

Another serpent the Indians call *Tzicarlinan*, or mother of ants, because it lives in the galleries of ants and follows them at fixed seasons of the year when they come out. This snake is the most beautiful of all and harmful to no one; it equals the thickness of the little finger and a length of two hand-breadths; it is marked with white and red transverse bands alternating. The Indians apply it to medical use, namely for dispersing preternatural tumours, when they apply it bruised to the swelling.

A very small snake called *Attaligatus* is found among the Indians, which does not exceed the thickness and length of a goose quill. Hundreds of these serpents, or more, are always found together, never at any time separated from one another. They are so destructive in their venom that if they assail a sleeping person, should they chance upon one, they cannot be torn away by any art, until at last, dealing blows here and there, they have killed the man and devoured him whole.

It has pleased me to add some remedies against serpent venoms, which, not in accordance with ordinary means, but beyond the power of nature, exterminate venomous beasts. First, dust collected around the tomb of Saint Remi puts serpents to flight, as Hodoard writes concerning a certain tenant of the estate of the Bishop of Reims, who lived beside the river Saone in a marshy place and was troubled by serpents in a marvellous degree. He therefore scattered the dust collected from the pavement of the church of Saint Remi through the fields, and thereafter no serpent appeared. It has also been ascertained that in all the churches of Saint Remi, as well as in the adjoining courts and cemeteries, no serpent is customarily found; yea, even if one be brought there, it does not by any means survive. Thus far Hodoard, as reported by Johannes Buschi, a Jesuit.

Moreover the soil of Ireland is held to be deadly to serpents after that admirable blessing which Ireland received from Saint Patrick; and thence through his staff to all venomous reptiles. For Giraldus writes remarkable things concerning the staff with which Saint Patrick drove the venomous creatures from that island. Likewise Saint Bernard makes mention of the same staff in the life of Saint Malachy. And so Giraldus narrates, as reported by Johannes Buschi the Jesuit, that among all the kinds of reptiles Ireland is afflicted only by harmless ones; for it lacks serpents, toads, frogs, scorpions, and dragons. It does indeed have spiders, leeches, and lizards, but these are altogether without venom; indeed if venomous beasts are brought there from elsewhere, they immediately perish. For it is read in the ancient writings of the saints of that land that serpents were sometimes carried in bronze vessels for the purpose of doing harm; but as soon as they had crossed the middle of the Irish sea they were found lifeless. Furthermore, when ships of Cou had several times unloaded in an Irish port, they found toads by chance enclosed in the bottom of the ships; and when they cast them alive upon the land, they immediately died before the eyes of all. It also came to pass in our own age, as Giraldus writes, in the northern borders of England, that a young man could by no remedy be freed from a serpent which had entered his mouth while he slept. He, having wandered through the shrines of the Saints throughout England, at last, upon sounder counsel —

[catchword: in]

— was conveyed to Ireland, and as soon as he drank the waters of that land, he expelled the lethal enemy, dead, through his lower parts. What befell through the merits of Saint Patrick for Ireland, we must equally attest to have been granted to the island of Malta through the merits of Blessed Paul:

[marginalia: On dragons.]

[marginalia: Land of Malta its virtue.]

for the soil of Malta is successfully employed against all venomous beasts whatsoever.

Concerning dragons, many varieties were assigned in the proper *Historia*, and especially with regard to their habitat, since some frequent the mountains, others the plains, in warmer regions. Moreover it should be noted that there are also aquatic ones, distinct from those described in the *Historia of Fishes*. For at one time a marine dragon was given as a gift to the most illustrious Ulisse Aldrovandi by the most illustrious and reverend Bovio, Bishop of Ostia. This dragon was green, two-footed, distinguished by only a single eye, with the snout of a dolphin, furnished with serrated teeth, and protected with scales; and it was caught in the Adriatic Sea near Ostium, as is seen in the following illustration.

[marginalia: Aquatic dragon description.]

Lastly, since we have found an illustration of a serpent's egg, in order to oblige our readers we exhibit it for viewing in this place.

[figure captions: Egg of a Serpent.]

[catchword: DRA]

A two-footed one-eyed Sea Dragon.

[Full-page engraving — no further translatable text]

Paralipomena to the Natural History

Rubric of the Denominated

We have already given in its place the figure of a certain root bearing the rudiments of human form — indeed the figure of it drawn both prone and supine — and therefore we here present for inspection another of the same kind, which was to have been placed at folio 135; moreover, in that same plate there is depicted a serpentine branch, which was to have been placed at folio 672.

[figure captions: An anthropomorphic root (Radix anthropomorphos), and a serpentine branch (ramus serpentinus)]

[Full-page engraving — no further translatable text]

It was related in the *Historia of Monsters*, chapter two, that things exiting the female womb are either effluxions, or moles, or abortions, or perfect foetuses, or finally imperfect and monstrous ones. Illustrations of all of these were exhibited, except the figure of the effluxions, which we give here to be placed at page 530. Here also is depicted another anthropomorphous mole, which was wanting in that same place. And although the depicted effluxions issue from a woman's womb, it does not for that reason fail to happen that some also proceed from the womb of brute animals; since Andreas Taurellus of Dijon, a jurist and public professor in the University of Bologna, and a man most devoted to refined studies, reported to us that he, during his recent sojourn in France, had observed a discharge not greatly unlike the aforesaid, which had issued from a mare's womb; and indeed a man curious and diligent in investigating such matters is not to be numbered among common curious men: for in such curiosity a sharp-sightedness (*οξυπεινος*) is greatly to be commended, since from it one is able to probe natural causes.

Finally, to the first chapter of the *Historia of Monsters*, where the subject is hairy humans, the following account of a monstrously bearded woman from Giraldus is to be referred. He left it written in his *Topographia of Ireland* that the King of Limerick had a woman who was bearded to the navel; yea more, who wore a crest, like a year-old chick's, of hair clothing her from neck to back. She was not a hermaphrodite, and she steadily frequented the court amid the laughter and astonishment of those who beheld her.

[figure captions: Anthropomorphous mole, second type.]

[marginalia: Various]

[figure captions: Figures of the vital and non-vital organs: A]

[Full-page engraving — no further translatable text]

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[catchword: Capitis]

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[catchword: Vituli]

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END OF THE INDEX.

ERRATA TO BE CORRECTED.

Page 5 E. *Ornitologia* read *Ornithologia*. Page 7, *axplica uimus* read *explicauimus*. Page 10 G, *qui inesse* read *quos inesse retulimus*. Page 18 C, *vellata* read *velata*. Page 23 G, *Anatz* read *Anate*. Page 26 D, *vtrimq* read *vtrinq*. Page 28 B, *predito* read *praditi*. Page 30 C, *in qua* read *in quam*. Page 32 C, in the margin all is to be deleted. Page 35 F, *appareat* read *apparet*. Page 40, *Cimiforme* read *Cimiciforme*. Page 43, *cimiformis* read *Cimiciformis*. Page 44, *in alis* read *in alijs*. Page 81 E, *firmmi* read *firmi*. Page 109 B, *umitatis* read *summitatis*. Page 111 E, *conspicitur* read *conspiciuntur pinnarum differentie*. Page 111 E, *Pinna phenicites que* 111 F. Page 150 D, *huius animalis* read *illius animalis*. Page 136, *Camelopardali diffzcentijs* read *Camelopardalis differentijs*. Page 138 A, *tigres* read *tigres*. Page 153 E, *hemorthoo* read *haemorrhoo*.

[figure captions: Signature register — all gatherings are ternions, except ψ, which is a duernion, and NΣ, which is a quaternion]

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