

ARISTOTLE'S
MASTER-PIECE.

ILLUSTRATED.



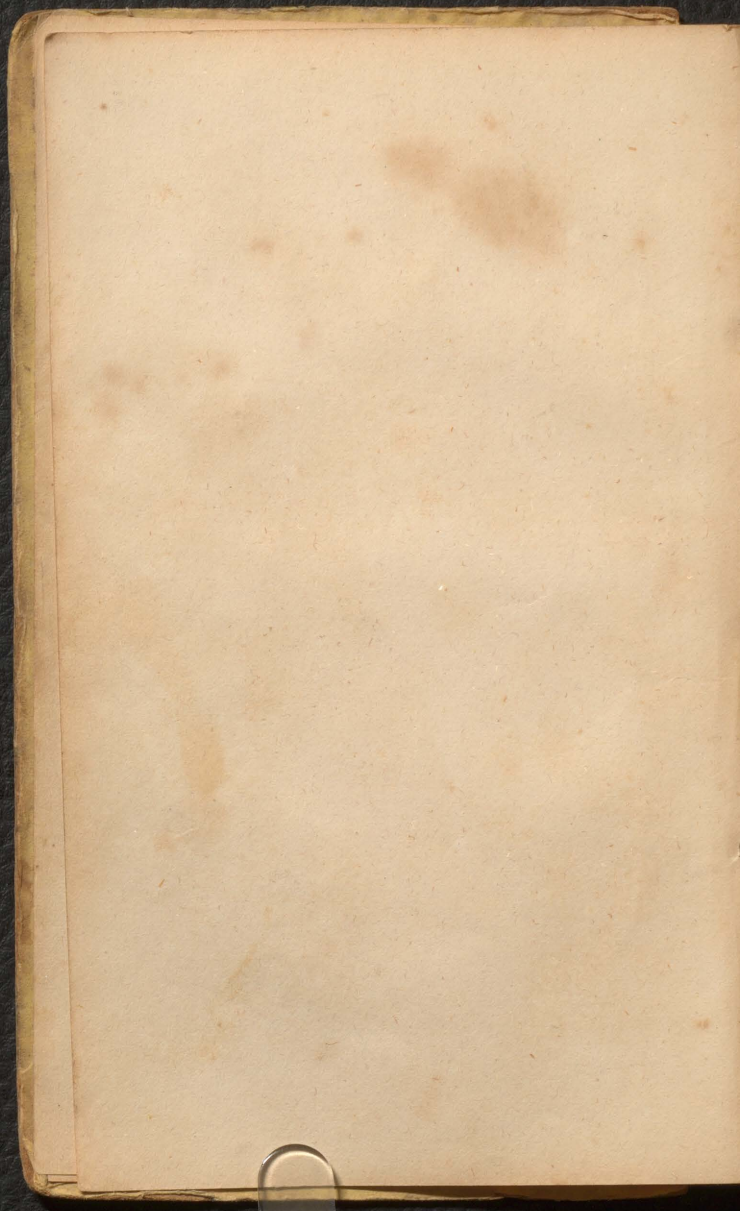
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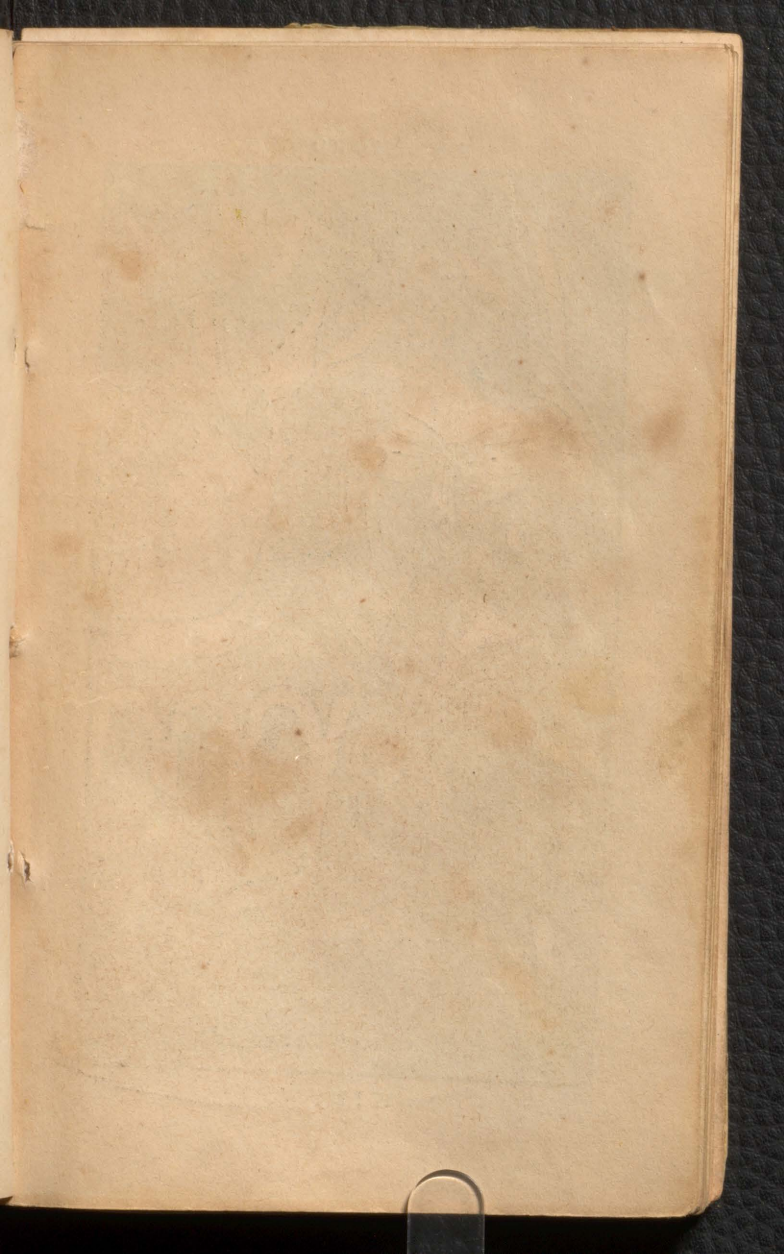
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AN AMOROUS



WIDOW

ARISTOTLE'S
MASTER-PIECE,

COMPLETED

IN TWO PARTS.

*The First containing the Secrets of GENERATION,
in all the Parts thereof.*

Treating of the benefit of Marriage, and the prejudice of unequal matches. Signs of insufficiency in men or women. Of the infusion of the soul. Of the Likeness of children to parents. Of Monstrous Births. The cause and cure of the Green Sickness. A discourse of Virginitie. Directions and cautions for Midwives. Of the Organs of Generation in women, and the fabric of the Womb. The use and action of the Genitals. Signs of Conception, and whether a male or female, with a Word of Advice to both sexes in the act of Copulation. And the Pictures of several Monstrous Births, &c.

The Second Part being a Private

LOOKING GLASS FOR THE FEMALE SEX.

Treating of various Maladies of the Womb, and of all other distempers incident to women of all ages, with proper remedies for the cure of each.

*The whole being more correct than any thing of
the kind hitherto published.*

LONDON:
PUBLISHED BY G. DAVIE.

AMSTOTIA
IN TWO PARTS
CONTAINING

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LONDON
Printed by R. DODD, in Pall-mall.

INTRODUCTION.

IF one of the meanest capacity were asked "What was the wonder of the world?" I think the most proper answer would be, MAN: he being the little world, to whom all things are subordinate; agreeing in the genius with sensitive things; all being animals, but differing in the species. For man alone is endowed with reason.

And therefore the Deity, at man's creation (as the inspired penman tell us,) said, "Let us make man in our own image, that he may be (as a creature may be) like us, [and the same in his likeness, may be our image." Some of the fathers do distinguish as if by the image, the Lord doth plant the reasonable powers of the soul, reason, will and memory, and by likeness the qualities of the mind, charity, justice, patience, &c.—But Moses confounded this distinction (if you compare these texts of scripture) Gen. i. 17. and v. I Coloss. x Eph. v. 14. And the apostles, where he saith, "He was created after the image of God, knowledge, and the same in righteousness and holiness." The Greeks therefore represented him as one turning his eyes upwards towards him whose image and superscription he bears.

*See how the heaven's high architect
Hath fram'd him in this wise,
To stand, to go, to look erect,
With body face and eyes.*

And Cicero says, like Moses, all creatures were made to rot on the earth, except man, to whom was given an upright frame, to contemplate his Maker, and behold the mansion prepared for him above.

Now, to the end, that so noble and glorious a creature might not quite perish, it pleased God to give unto woman the field of generation for a receptacle of human seed where by that natural and vegetable soul, which lies potentially in the seed, may by the plastic power, be reduced into act; that man, who is a mortal creature, by leaving his offspring behind him, may become immortal, and survive in his prosperity.

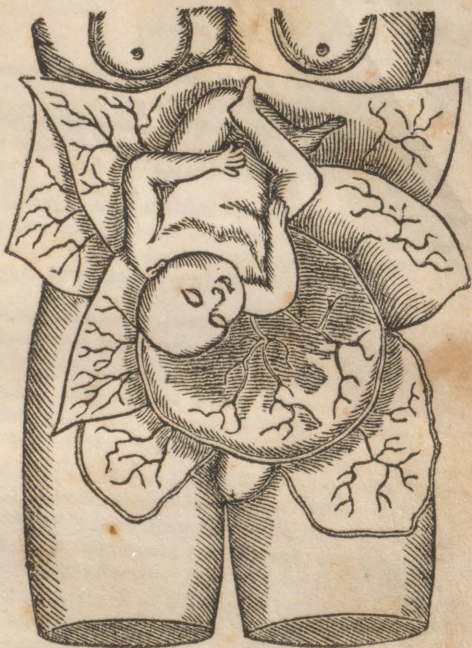
And because this field of generation, the womb is the place where this excellent creature is formed, and that in so wonderful a manner, that the Royal Psalmist (having meditated thereon) cries out as one in extasy, 'I am fearfully and

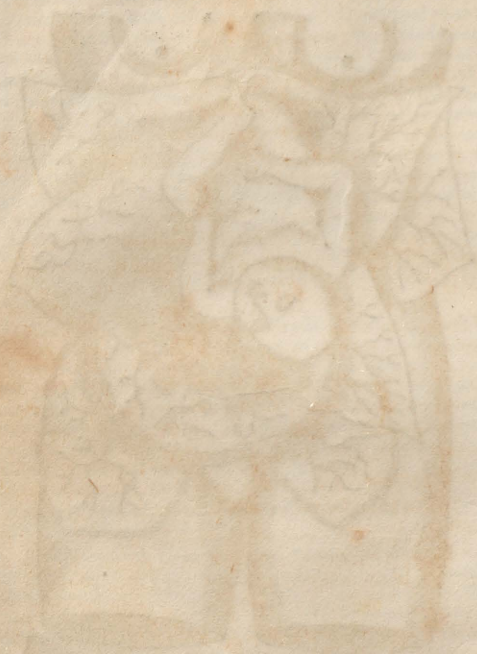
wonderfully made.' It will be necessary to treat largely thereon in this book, which, to that end, is divided into two parts—the first whereof treats of the manner and parts of generation in both sexes; for, from the mutual desire they have to each other, which nature has implanted into them to that end, that delight which they take in the act of copulation does the whole race of mankind proceed; and a particular account of what things are previous to that act, and also what are consequential of it and how each member concerned in it is adapted and fitted to that work, to which nature has designed it. And though in uttering of those things, something may be said which those that are unclean may make bad use of it as a motive to stir up their bestial appetites: yet, such may know, that this was never intended for them, nor do I know any reason that those sober persons for whose use this was meant, should want the help hereby designed them, because vain, loose persons will be ready to abuse it.

The second part of this treatise is wholly designed for the female sex, and does largely, not only treat of the distempers of the womb, and the various causes, but also gives you proper remedies for the cure of them; for such is the ignorance of most women, that when, by any distemper, those parts are afflicted they neither know from whence it proceeds, nor how to apply a remedy; and such is their modesty, also, that they are unwilling to ask, that they may be informed; and for the help of such this is designed: for having my being from a woman, I thought none had more right to the grapes than she that planted the vine.

And therefore, observing that among all diseases incident to the body, there are none more frequent and perilous than those that do arise from the ill state of the womb; for, through the evil quality thereof, the heart, the liver and the brain are affected from whence the actions, vital, animal and natural are hurt, and the virtues concoctive, sanguinificative, distributive, attractive, expulsive, retentive, with the rest, are all weakened; so that from the womb come convulsions, epilepsies, apoplexies, palsies and fevers, dropsies, malignant ulcers, &c. And there is no disease so bad, but may grow worse from the evil quality of it.

How necessary, therefore, is the knowledge of these things, let every unprejudiced reader judge; for, that many woman labour under them, thro' their ignorance and modesty (as I said before,) woful experience makes manifest: here, therefore, (as in a minor.) they may be acquainted with their own distempers, and have suitable remedies, without applying themselves to physicans, against which they have so great reluctance.





ARISTOTLE'S MASTER-PIECE,

COMPLETED.

PART FIRST.

CHAP. I.

Of Marriage, and at what age young men and virgins are capable of it; and why they so much desire it. Also, how long men and women are capable of having children.

THERE are very few, except some professed debauchees, but what will readily agree, that marriage is honourable to all, being ordained by heaven in Paradise, and without which no man or woman can be in a capacity honestly to yield obedience to the first law of the creation—*increase and multiply*, and since it is natural in young people to desire these mutual embraces, proper to the marriage bed, it behoves parents to look after their children, and when they find them inclinable to marriage, not violently to restrain their affections, and oppose their inclinations (which, instead of allaying them, makes them but the more impetuous,) but rather provide such suitable matches for them, as may make their lives comfortable, lest the crossing of their inclinations should precipitate them to commit those follies that may bring an indelible stain upon their families.

The inclinations of maids to marriage, is to be known by many symptoms; for when they arrive at puberty, which is about the fourteenth or fifteenth year of their age, then the natural purgations begin to flow, and the blood which is no longer taken to augment their bodies, abounding, stirs up their minds to venery: External causes also may incite

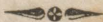
them to it, for their spirits being brisk and inflamed when they arrive at this age, if they eat hard salt things, and spices, the body becomes more and more heated, whereby the desire to venereal embraces is very great, sometimes almost insuperable. And the use of this so much desired employment being denied to virgins, many times is followed by dismal consequences, as a green wesel colour, short breathings, trembling of the heart, &c. But when they are married, and their venereal desires satisfied by the enjoyment of their husbands, those distempers vanish, and they become more gay and lively than before; also their eager staring at men, and affecting their company, shows that nature pushes them upon coition, and their parents neglecting to get them husbands, they break through modesty to satisfy themselves in unlawful embraces; it is the same in brisk widows who cannot be satisfied without the benevolence which their husbands used to give them.

At the age of fourteen, the menses in girls begin to flow, when they are capable of conceiving, and continue generally to forty-four, when they cease bearing, unless their bodies are strong and healthful, which sometimes enables them to bear at fifty-five. But many times the menses proceed from some violence offered to nature, or some morbid matter, which often proves fatal to the party, and therefore those men who are desirous of issue, must marry a woman within the age aforesaid, or blame themselves if they meet with disappointments; though if an old man, not worn out by diseases and incontinency, marry a brisk lively lass, there is hopes of his having children to three score and ten, nay sometimes till near four-score.

Hippocrates holds, that a youth of fifteen years or between that and seventeen, having much vital strength, is capable of getting children; and, also, that the force of procreating matter increases till forty-five, fifty, and fifty-five, and then begins to

flag, the seed by degrees becoming unfruitful, the natural spirits being extinguished, and the humours dried up. Thus, in general; but, as to particulars, it often falls out otherwise; nay, it is reported by a credible author, that in Sweden, a man was married at one hundred years, to a bride of thirty, and had many children by her, but his countenance was so fresh, that those that knew him not, took him not to exceed fifty. And in Campania, where the air is clear and temperate, men of 80 years old married young virgins, and had children by them; showing that age in them hinders not procreation, unless they be exhausted in their youth, and their yards shrivelled up.

If any would know why a woman is sooner barren than a man, they may be assured, that the natural heat, which is the cause of generation, is more predominant in the latter than in the former: for, since a woman is truly more moist than a man, as her monthly purgations demonstrate, as also the softness of her body, it is also apparent, that he doth not exceed her in natural heat, which is the chief thing that concocts the humours into proper aliment, which the woman wanting, grows fat; when a man, through his native heat, melts his fat by degrees and his humours are dissolved, and by the benefit thereof are elaborated into seed. And this may also be added, that women generally are not so strong as men, nor so wise nor prudent, nor have so much reason and ingenuity in ordering affairs, which shows that thereby their faculties are hindered operations.



CHAP II.

How to get a male or female child, and of the embryo and perfect birth, and the fittest time for copulation

WHEN a young couple is married, they naturally desire children, and therefore use those means

that nature has appointed to that end ; but, notwithstanding their endeavours, they must know that the success of all depends on a blessing of the Lord ; not only so, but the sex, whether male or female, is from his disposal so ; though it cannot be denied, but secondary causes have influence therein, especially two—First the genital humour, which is brought by the arteria præ paraentes to the testes in form of blood, and there elaborated into seed by the seminifical faculty residing in them ; to which may be added, the desire of coition, which fires the imagination with unusual fancies, and by the sight of brisk charming beauty, may soon inflame the appetite ; but if nature be enfeebled, such meats must be eaten as will conduce to the affording such aliment as makes the seed abound, and restores the decays of nature, that the faculties may freely operate, and remove impediments obstructing the procreation of children.

Then since diet alters the evil state of the body to a better, those who are subject to barrenness must eat such meats as are of good juice, that nourish well, making the body lively and full of sap, of which faculty are all hot moist meats : for, according to Galen, seed is made of pure concocted and windy superfluity of blood whence we may conclude there is a power in many things to accumulate seed, also to augment it, and other of force to cause erection, as hens-eggs, pheasants, wood-cocks, gnatsnappers, thrushes, blackbirds, young pigeons, sparrows, partridges, capons, almonds, pine-nuts, raisans, currants, all strong wines taken sparingly especially those made of the grapes of Italy ; but erection is chiefly caused by scuram, eringoes, cresses-crymson, parsnips, artichokes, turnips, rapes, asparagus, candied ginger, galings' acorns bruised to powder drank in muscadel, scallions sea shell-fish, &c. but these must have time to perform their operations, and must use them for a considerable time, or you will reap but little benefit by them. The act of coition

being over, let the woman repose herself on her right side with her head lying low, and her body declining, that by sleeping in that posture the cawl on the right side of the matrix may prove the place of the conception, for therein is the greatest generative heat, which is the chief procuring cause of male children, and rarely fails the expectation of those that experience it, especially if they do but keep warm, without much motion, leaning to the right, and drinking a little spirit of saffron and juice of hysop in a glass of Malaga of Alicant, when they lie down and rise, for the space of a week.

For a female child, let a woman lie on the left side, strongly fancying female in the time of procreation, drinking the decoction of female mercury four days from the first day of purgation—the male; mercury having the like operation in case of male for this concoction purges the right and left side of the womb, opens the receptacles, and makes way for the seminary of generation to beget a female, the best time is when the moon is in the wane, in Libra, or Aquarrius. Advicene says, “when the menses are spent, and the womb cleansed, which is commonly in five or seven days at most, if a man lie with his wife from the first day she is purged to the fifth, she will conceive a male; but from the fifth to the eighth a female; and from the eighth to the twelfth a male again; but after that perhaps neither distinctly but both in a hermaphrodite.” In a word they that would be happy in the fruits of their labour, must observe to use copulation in due distance of time, not too seldom, for both are alike hurtful; and to use it immediately weakens and wastes their spirits, and spoils the seed; and thus much for the particular. The second is to let the reader know, how the child is formed in the womb, what accidents it is liable to there, and how nourished and brought forth.

There are various opinions concerning this mat-

ter, therefore, I will show what the learned say about it. Man consists of an egg, which is impregnated into the testicles of the woman by the more subtle part of the man's seed ; but the forming faculty and virtue in the seed is a divine gift, it being abundantly endued with a vital spirit, which gives sap and form to the embryo ; so that all parts and bulk of the body, which is made up in a few months, and gradually formed into the lovely figure of a man, consist in, and are adumbrated thereby, which is incomparably expressed in the cxxxviii psalm, "I will praise thee O Lord, because I am wonderfully made, &c." And the physicians have slighted four different times wherein a man is framed and perfected in the first week, if no flux happens which sometimes falls out, through the slipperiness of the matrix of the head thereof, that shifts over like a rose bud, and opens on a sudden by means of forming, is assigned to be when nature makes manifest mutation in the conception, so that all the substance seems congealed flesh and blood, which happens twelve or fourteen days after copulation. And though this fleshy mass abounds with fleshy blood, yet it remains undistinguishable, without form or figure and may be called an embryo, and compared to seed sown in the ground, which, through heat and moisture, grows by degrees, into a perfect form, either in plant or grain. The third time assigned to make up this fabric, is when the principal parts show themselves as plain, as the heart, whence proceed the arteries. The brain from which the nerves, like small threads, run through the whole body ; and the liver that divides the chyle from the blood brought to it by the veny ports, the two first are fountains of life, that nourish every part of the body, in framing which the faculty of the womb is buried from the time of conception to the eighth day of the first month.

Lastly, about the thirtieth day, the outward parts

are seen finely wrought, and distinguished by joints, when the child begins to grow, from which time, by reason the limbs are divided and the whole frame is perfect, it is no longer an embryo, but a perfect child. Most males are perfect by the thirtieth day, but females seldom to the forty-second or forty-fifth day, because the heat of the womb is greater in producing the male than the female; and for the same reason, a woman going with a male child quickens in three months, but going with a female rarely under four, at which time also its hair and nails come forth, and the child begins to stir, kick and move in the womb, and then women are troubled with loathing of their meat, and greedy longing for things contrary to nutriment, as coals, rubbish, chalk, &c. which desire often occasions abortion and miscarriage. Some women have been so extravagant as to long for hob-nails, leather, men's flesh, horse-flesh, and other unnatural as well as unwholesome food, for want of which things they have either miscarried or the child has continued dead in the womb for several days to the imminent hazard of their lives.

But I shall now proceed to show by what real means the infant is sustained in the womb, and what posture it there remains in.

Various are the opinions about nourishing the *fœtus* in the womb; some say by blood only from the umbilical vein; others by the chyle, taken in the mouth; but it is nourished diversely according to the several degrees of perfection that an egg passes from a conception to *fœtus* ready for birth. But, first let us explain the meaning of ovum or the egg: In the generation of the *fœtus* there are two principals, active and passive—the active is the man's seed elaborated in the testicles, out of arterial blood and animal spirits—the passive is an egg impregnated by the man's seed. And the nature of conception is thus: the most spirituous part of the man's seed in the act of generation, reaching up to the testicles

of woman, which contain, diverse eggs impregnates one of them, which being conveyed by the oviducts to the bottom of the womb, presently begins to swell bigger and bigger, and drinks in the moisture that is plentifully sent thither, as seed sucks moisture in the ground to make them sprout out, when the parts of the embryo begins to be a little more perfect, and at the same time the chorion is very thick, that the liquor cannot soak through it, the umbilical vessels begin to be formed and to extend the side of the amnion which they pass through the aliantreides and chorion, and are implanted in the placenta, which gathering upon the chorion, joins to the uterus. And now the arteries that before sent out the nourishment into the cavity of the womb, opened by the orifice into the placenta, where they deposite the said juice, which is drank up by the umbilical vein, and conveyed by it, first to the liver of the foetus, and then to the heart, where its more thin and spiritous part is turned into blood, while the grosser part descending by the aorta, enters the umbilical arteries, and is discharged into its cavity by those branches that run through the amnion.

As soon as the mouth, stomach, gullet, &c. are formed so perfectly, that the foetus can swallow, it sucks in some of the grosser nutritious juice that is deposited in the amnion by the umbilical arteries, which descending into the stomach and intestines, is received by the lacteal veins, as in adult persons.

The foetus being perfected, at the time before specified, in all its parts, it lies equally balanced in the womb, has the centre on his head, and being long turned oval, so that the head a little inclines, and it lays its chin upon its breast, its heels and ancles upon its buttocks, its hand on its cheeks, and its thumbs to its eye; but its legs and thighs are carried upwards, with its hams bending, so that they touch the bottom of its belly. The former and that part of the body which is over against us, as the forehead, nose and face, are towards the mother's

back, and the head inclining downwards, towards the rump bone that joins to the os sacrum, which bone, together with the os pubis, in the time of birth part is loosed, whence it is, that the male children commonly come with their faces downwards, or with the head turned somewhat oblique, that their faces may be seen, but the female children with their faces upwards; though sometimes it happens that births do not follow according to nature's order, but children come forth with their feet standing, their necks bowed, and their heads lying oblique, with their hands stretched out, which greatly endangers themselves and the mother giving the midwife great trouble to bring them into the world; but when all things proceed in nature's order, the child when the time of birth is accomplished, is desirous to come forth of the womb, and by inclining itself it rolls downwards, for it can no more be obscured in those hidden places, and the heat of the heart cannot subsist without external respiration, whereof being grown more and more desirous of nutriment and light, when covering the ætherial air, by struggling to obtain it, breaks the membranes and coverings, whereby it was restrained and fenced against attrition, and for the most part, with bitter pangs of the mother, issueth forth into the world commonly in the ninth month. For the matrix being divided and the os-pubis loosened, the woman strives to cast out her burthen, and the child does the like to get forth, by the help of its inbred strength, and so the birth comes to be perfect; but if the child be dead, the more dangerous the delivery, though nature often helps the woman's weakness herein: but the child that is quick and lively, labours no less than the woman. Now, there are births at seven or eight months; but of these, and the reason of them, I shall speak more largely in another place.

CHAP. III.

The reason why children are like their parents, and that the mother's imagination contributes thereto, and whether the man or woman is the cause of the male or female child.

LACTANTIUS is of opinion, that when a man's seed falls on the left side of the womb, it may procure a male child ; but, because it is the proper place for a female, there will be something in it that resembles a woman ; that is, it will be fairer, whiter and smoother, not very subject to have hair on the body or chin ; it will have lank hair on the head, the voice small and sharp, and the carriage feeble, and on the contrary, that a female may chance to be gotten if the seed fall on the right side ; but then through the abundance of the heat, she shall be big-boned, full of courage, having a masculine voice, and chin and bosom hairy, not being so clear as others of the sex, and subject to quarrel with her husband for superiority.

In case of similitude, nothing is more powerful than the imagination of the mother ; for if she fasten her eyes upon any object, and imprint it on her mind, it often times so happen, that the child, in some part or other of its body, has a representation thereof, and if in the act of copulation, the woman earnestly look upon the man, and fix her mind upon him, the child will resemble its father. Nay, though a woman in unlawful copulation, yet if she fix her mind upon her husband, the child will resemble him though he never got it. The same effect of imagination causes warts, stains, mole-spots, dastes, though indeed they sometimes happen through frights or extravagant longing ; many women being with child, seeing a hare cross them, will through the force of imagination, bring forth a child with a hare-lip.

Some children are born with flat noses, wry

mouths, great blubber lips, and ill-shaped bodies ; and must ascribe the reason to the imagination of the mother, who hath cast her eyes and mind upon some ill-shaped creature—Therefore, it behoves all women with child, if possible, to avoid such sights, or at least, not regard them. But though the mother's imagination may contribute much to the features of the child, yet in manners, wit and propension of the mind, experience tells us that children are commonly of the condition with the parents, and same tempers. But the vigour or disability of persons in the act of copulation, many times causes it to be otherwise—For children got through the heat and strength of desire, must needs partake more of the nature and inclination of their parents, than those that are begotten with desires more weak: and therefore, the children begotten by men in their old age, are generally weaker than those begotten by them in their youth.

As to the share which each of the parents has in begetting the child, we will give the opinion of the ancients about it.

Though it is apparent (say they) that the man's seed is the chief efficient beginning of action, motion, and generation: yet, that the woman affords seed, and effectually contributes in that point to the procreation of the child, is evinced by strong reasons.

In the first place, seminary vessels have been given her in vain, and genial testicles invented, if the woman wanted seminal excrescence; for nature doth nothing in vain; therefore, we must grant they were made for the use of seed and, procreation, and fixed in their proper place, both the testicles and receptacles of seed, whose nature is to operate and afford virtue to the seed. And to prove this, there needs no stronger argument (say they) than, that if a woman do not use copulation, to eject her seed, she often falls into strange diseases, as appears by young women and virgins. A second reason they urge, is, that

although the society of a lawful bed consists not altogether in these things, yet it is apparent, the female sex are never better pleased, nor appear more blithe and jocund than when they are satisfied this way; which is an inducement to believe, they have more pleasure and titillation therein than men; for, since nature causes much delight to accompany ejection, by the breaking forth of the swelling spirits and the sweetness of the nerves, in which case the operation on the woman's part is double, she having an enjoyment both by ejection and reception, by which she is more delighted in the act.

Hence it is (say they) that the child more frequently resembles the mother than the father because the mother contributes more towards it.

And they think it may be further instanced, from the endeared affection they bear to them; for that besides contributing seminal matter, they feed and nourish the child with the purest fountain of blood, until its birth. Which opinion Galen affirms, by allowing children to participate most of the mother, and ascribes the difference of sex to the operation of the menstrual blood; but the reason of the likeness, he refers to the power of the seed; for as plants receive more nourishment from fruitful ground than from the industry of the husbandman, so that infant receives in more abundance from the mother than the father.

For, first, the seed of both is cherished in the womb, and there grows to perfection, being nourished with blood: and for this reason it is, (say they) that children for the most part, love their mother best, because they receive most of their substance from their mother: for about nine months she nourishes her child in her womb, with her purest blood; then her love towards it, newly born, and its likeness do clearly show, that the woman affordeth seed and contributes more towards making the child than the man.

But in all this the ancients are very erroneous, for

the testicles (so called in woman) afford not any seed, but are two eggs, like those of fowls and other creatures; neither have they any office as those of men but are indeed ovaria, wherein the eggs are nourished by the sanguinary vessels dispersed through them; and from hence one or more (as they are fecundated by the man's seed) is separated, and conveyed into the womb by the oviducts. The truth of this is my plan, for, if you boil them, their liquor will be the same colour, taste, and consistency, with the taste of bird's eggs. If any object, they have no taste, that signifies nothing; for the eggs of fowls while they are in the ovary, nay, after they are fastened to the uterus, have no shell: and though, when they are laid, they have one, yet that is no more than a defence which nature has provided them against any outward injury, while they are hatched without the body; whereas those, of the woman being hatched within the body, need no other defence than the womb, by which they are sufficiently secured.

And this is enough, I hope for the clearing of this point. As to the third thing proposed, as whence grows the kind and whether the man or woman is the cause of the male or female infant.

The primary cause we may ascribe to God, as is, most justly his due who is the ruler and disposer of all things, yet he suffers many things, to proceed according to the rules of nature, which proceed by their inbred motion, according to usual and natural courses without variation. Though indeed by favour from on high, Sarah conceived Isaac—Hannah, Samuel—and Elizabeth, John the Baptist:—But these are all very extraordinary things, brought to pass by a Divine Power, above the course of nature; nor have such instances been wanting in latter days, therefore I shall wave them and proceed to speak of things natural. The ancient physicians and philosophers say, that since there are two principals out of which the body of man is made, and which ren-

ders the child like his parents, and by one or the other sex, viz. seed, common to both sexes, and menstrual blood, proper to the woman only, the similitude (say they) must needs consist in the force of virtue of the male or female, so that it proves like the one or the other according to the plenty afforded by either; but that the difference of the sex is not referred to the seed, but to the menstrual blood, which is proper to the woman, is apparent. For were that force altogether retained in the seed, the male seed being of the hottest quality male children would abound and a few of the females be propagated; wherefore, the sex is attributed to the temperament of the active qualities, which consist in the heat and cold and the nature of the matter under them; that is the flowing of the menstrous blood; but now the seed (say they) affords both force to procreate and form the child, and matter for its generation, and in the menstrual blood there is both matter and force; for, as the seed most helps the material principal, so also does the menstrual blood the potential seed; which is (says Galen) blood well concocted by the vessels that contain it. So that blood is not only the matter for generating the child, but all seed in possibility that menstrual blood hath both principals.

The ancients further say that the seed is the strongest efficient; the matter of it being very little in quality, but the potential quality of it is very strong; whereof, if these principals of generation, according to which the sex is made, were only (say they) in the menstrual blood then would the children be all mostly females; as, where the efficient force in the seed, they would be all males; but since both have operation in menstrual blood, matter predominates in quantity; and in the seed, force and virtue, and therefore Galen thinks the child receives its sex rather from the mother than from the father; for, though his seed contributes a little to the material

principal yet it is more weakly. But for likeness, it is referred rather to the father than to the mother.

Yet the womb's seed receiving strength from the menstrual blood, for the space of nine months, overpowers the man's as to that particular; for, the menstrual blood flowing in the vessels rather cherishes the one than the other; from which it is plain, the woman affords both matter to make, and force and virtue to perfect the conception; though the female's seed be fit nutriment for the male's by reason of the thinness of it, being more adapted to make up conception thereby. For as of soft wax and moist clay, the artificer can frame what he intends, so (say they) the man's seed mixing with the woman's, and also with the menstrual blood, helps to form and perfect part of man.

But with all imaginable deference to the wisdom of our fathers, give me leave to say, that their ignorance in the anatomy of man's body, has lead them into the paths of error, and run them into great mistakes; their hypothesis of the formation of the embryo; from the coto-mixture of seed, and the nourishment of it too, in the menstruous blood, being wholly false, their opinion, in this case, must of necessity, be so also.

I shall, therefore, conclude this chapter, and only say, that, although a strong imagination of the mother may often determine the sex, yet the main agent in this case is the plastic and formative principal, which is the efficient in giving form to the child, which gives this or that sex, according to those laws and rules given to us by the wise creator of all things, who both makes and fashions it, and therein determines the sex, according to the counsel of his own will.

CHAP. IV.

A discourse of Man's Soul, that it is not propagated by the parents ; but is infused by the Creator, and can neither die nor corrupt. At what time it is infused. Of its immortality, and certainty of the resurrection.

MAN'S soul is of so divine a nature and excellency, that man himself cannot, in any wise, comprehend it, it being the infused breath of the Almighty, of an immortal nature, and not to be comprehended but by him that gave it. For, Moses, by holy inspiration, relating the original of man, tells us "that God breathed into his nostrils the breath of life, and that he became a living soul."

Now as for all other creatures, at his word they were made, and had life, but the creature God had appointed to set over his works, was the peculiar workmanship of the Almighty, forming him out of the dust of the earth and condescending to breathe into his nostrils the breath of life, which seems to denote more care and (if we may so term it) labour used about man, that above all other creatures, he only partaking and participating of the blessed divine nature, bearing God's image in innocence and purity, whilst he stood firm ; and when, by his fall, that lively image was defaced, yet such was the love of his Creator towards him ; the only begotten Son of the Eternal Father coming into the world to destroy the works of the devil, and to raise up man from that low condition to which his sin and fall had reduced him, to a state above that of angels.

If, therefore, man would understand the excellency of his soul, let him turn his eyes inwardly and look into himself, and search diligently his own mind, and there he shall see many admirable gifts and excellent ornaments that must needs possess him with wonder and amazement, as reason, understanding,

freedom of will, &c. that plainly shows the soul to be descended from a heavenly original, and that, therefore it is of infinite duration, and not subject to annihilation. Yet, for its many offices and operations whilst in the body, it goes under several denominations: For, when it enlivens the body, it is called the soul; when it gives knowledge, the judgment or mind; and when it recalls things past, the memory, whilst it discourses and discerns, reason; whilst it contemplates the spirit; whilst it is the sensitive parts, the senses. And these are the principal offices, whereby the soul declares its power, and performs its action; for being seated in the highest parts of the body, it diffuseth its force into every member; not propagated from the parents, nor mixed with gross matters, but the infused breath of God immediately proceeding from him, not passing from one to another, as was the opinion of Pythagoras, who held a transmigration of the soul, but that the soul is given to every infant by infusion, is the most received and orthodox opinion; and the learned do likewise agree, that this is done when the infant is perfected in the womb, which happens about the twenty-fourth day after conception, especially for males, who are generally born at the end of the nine months; but in females who are not so soon formed and perfected, through defect of heat not till the fiftieth day. And though this day in all cases, cannot be truly set down, yet Hypocrates has given his opinion, when the child has its perfect form, when it begins to move, and when born, if in due season.

In his book of the nature of infants, he says, if it be a male, and be perfect on the thirtieth day, and move on the ninetieth day, it will be born on the seventh month; but if it be perfectly formed on the thirty-fifth day, he will move on the seventieth and be born on the eighth month; again if he be perfectly formed on the fifty-fifth day, he will move on the ninetieth, and be born on the ninth month. Now

from those passing of days and months it plainly appears, that the day of forming being doubled, makes up the day of moving, and that day three times reckoned, makes up the day of birth.

As thus, when thirty-five perfects the form, if you double it, it makes seventy, the day of motion, and three times seventy makes two hundred and ten days, which, allowing thirty days to a month, makes seven months; and so you must consider the rest. But, to a female, the case is different; for, it is longer perfecting in the womb, the mother ever going longer with a boy than a girl, which makes the account differ; for, a female formed in thirty days, moves not till the seventieth day, and is born in the eighth month; when she is formed on the fortieth, she moves not till the eightieth, and is born on the eighth month; but, if she be perfectly formed on the fifty-fifth day, she moves on the ninetieth, and is born on the ninth month; but, if she that is formed on the sixtieth day, moves the hundred and tenth, and will be born on the tenth month. I treat the more largely hereof, that the reader may know, the reasonable soul is not propagated by the parents; but is infused by the Almighty, when the child hath its perfect form, and is exactly distinguished in its lineaments.

Now, as the life of every other creature, as Moses shows is in the blood, so the life of man consisteth in the soul, which, although subject to passion, by reason of the gross composures of the body, in which it has a temporary confinement, yet it is immortal and cannot in itself corrupt or suffer change, it being a spark of the divine mind; and that every man has a peculiar soul, plainly appears by the difference between the will, judgment, opinion, manners and affections in men. And, this David observes, saying, "God hath formed the hearts and minds of all men and hath given to every one his own being and a soul of its own nature." Hence,

Solomon rejoiced that God had given him a nappy soul and a body agreeable to it. It has been disputed among the learned in what part of the body the soul resides; and some are of opinion, its residence is in the middle of the heart, and from thence communicates itself to every part, which Solomon in Proverbs iv. seems to affirm, when he says, "Keep thy heart with all diligence, for out of it are the issues of life." But many curious physicians, searching the works of nature in man's anatomy, do affirm that its chief seat is in the brain, from whence proceeds the senses, faculties and actions, diffusing the operation of the soul through all the parts of the body whereby it is enlightened with heat and force to the heart, by the arteries, cordites, or sleepy arteries, which part upon the throat, the which, if they happen to be broken or cut, they cause barrenness; and if stopped, an apoplexy; for there must necessarily be ways through which the spirits, animal and vital, may have intercourse, and convey native heat from the soul. For, though the soul hath its chief seat in one place, it operates in every part, exercising every member which are the souls instruments by which she discovers her power.

But if it happens that any of the organical parts are out of tune, its whole work is confused, as appears in ideots and madmen, though in some of them the soul, by vigorously exerting its power recovers its innate strength, and they become right after a long despondency in mind, but in others it is not recovered again in this life. For as a fire under ashes, or the sun obscured from our sight by thick clouds, afford not their full lustre, so the soul overwhelmed in moist or morbid matter, is darkened, and reason overclouded; and though reason shines less in children than in such as are arrived to maturity, yet no man must imagine that the soul of an infant grows up with the child, for then would it again decay; but it suits itself to natures weak-

ness, and the imbecility of the body wherein it is placed that it may operate the better. And as the body is more and more capable of receiving its influence, so the soul does more and more exert its faculties, having force and endowments at the time it enters the form of a child in the womb, for its substance can receive nothing less. And thus much to prove the soul comes not from the parents but is infused by God. I shall next prove its immortality, and so demonstrate the certainty of our resurrection.

That the soul of man is a divine ray, infused by the sovereign creator, I have already proved; and now come to show that whatever immediately proceeds from him, and participates of his nature, must be as immortal as its origin; for though all other creatures are endowed with life and motion, yet they want a reasonable soul, and from thence it is concluded, that their life is in their blood, and that being corruptable they perish and are no more, but man being endowed with a reasonable soul, and stamped with the divine image, is of a different nature; and though his body be corruptable, yet his soul being of an immortal nature, cannot perish, but must, at the dissolution of his body, return to God who gave it, either to receive reward, or punishment. Now, that the body can sin of itself is impossible; because wanting the soul, which is the principal of life, it cannot act, nor proceed to any thing either good or evil; for, could it do so, it might sin even in the grave; but it is plain, that after death there is a cessation; for, as death leaves us, so judgment will find us.

Now, reason having evidently demonstrated the soul's immortality, the holy scriptures do abundantly give testimony to the truth of the resurrection, as the reader may see by perusing the 9th and 14th chap. of Job, and the 5th of St. John, I shall, therefore, leave the further discoursing of this matter to

divines, whose proper province it is, and return to treat of the works of nature

CHAP. V.

Of Monsters, and Monstrous Births.

MONSTERS are properly depraved conceptions, and are deemed by the ancients to be excursions of nature, and are always vicious, either in figure, situation, magnitude or number.

They are vicious in figure, when a man bears the character of a beast; they are vicious in magnitude, when the parts are not equal, or that one part is bigger than the other; and this is a thing very common, by reason of some excrescence. They are vicious in situation many ways, as if the ears were on the face, or the eyes on the breasts or on the legs, as was seen in a monster born at Ravenna in Italy, in the year 1570. And, lastly, they are vicious in number, when a man hath two heads, four hands, and two bodies joined, which was the case of the monster, born at Zazara in the year 1550.

As to the cause of their generation, it is either divine or natural. The divine cause proceeds from the permissive will of the great author of our being, suffering parents to bring forth such depraved monsters, as a punishment for their filthy and corrupt affections, which are let loose unto wickedness like brute beasts that have no understanding; for which reason the ancient Romans enacted, that those who were deformed should not be put into religious houses.

And St Jerome, in his time grieved to see the deformed and lame offered up to God in religious houses; and Kecherman, by way of inference, excluded all that were misshapen, because outward deformity of body is often a sign of the pollution of the heart, being a curse laid upon the child for the incontinence of the parents.

Yet there are many born deformed, which deformity ought not to be ascribed to the parents.

Let us therefore search out the natural cause of their generation, which, according to the ancients who have dived into the secrets of nature, is either in the matter of the agent, in the seed, or in the womb. The matter may be in fault two ways, either by defect or excess; by defect, when the child hath but one arm or one leg, &c. by excess, when it has three hands or two heads. Some monsters are also begotten by woman's beastial and unnatural coition, &c. The agent or womb may be in fault three ways; first, in the forming faculty, which may be too strong or too weak; by which a depraved figure is sometimes produced. Secondly, the instrument or place of conception; the evil conformation or evil disposition whereof, will cause a monstrous birth. And thirdly, the imaginative power at the time of conception, which is of such force that it stamps a character of the thing imagined upon the child: so that the child or the children of an adulteress, by the mother's imaginative power, may have the nearest resemblance to her own husband, though begotten by any other man. And through this power or imaginative faculty it was, that a woman, at the time of conception, beholding the picture of a blackmoor, conceived and brought forth a child, resembling an Ethiopian. And that this power of imagination was well enough known to the ancients, is evident by the example of Jacob, the father of the twelve tribes of Israel, who having agreed with his father-in-law to have all the spotted sheep for the keeping of his flock, to increase his wages, took hazel rods, peeling them before the sheep when they came to drink, and they coupled together, while they beheld the rods, conceived and brought forth spotted young. Nor does the imagination work on the child at the time of conception only, but afterward also; as was seen

in the example of a worthy gentlewoman, who being big with child, and passing by a butcher killing meat, a drop of blood sprinkled on her face; whereupon she presently said that the child would have some blemish on its face, which proved true, for at the birth it was found marked with a red spot.

But besides the way already mentioned, monsters are sometimes produced by other means to wit, by the undue coition of a man and his wife when her monthly courses are upon her; which being a thing against nature, no wonder that it should produce an unnatural issue. If, therefore, a man's desire be ever so great for coition, (as sometimes it is after long absence,) yet if a woman knows the custom of women is upon her, she ought not to admit of any embraces, which at that time, are both unclean and unnatural. The issue of these unclean embraces proving often monstrous, as a just punishment for such a turpidinous action. Or if they should not always produce monstrous births, yet are the children thus begotten for the most part dull, heavy, sluggish, and defective in the understanding, wanting the vivacity and liveliness which those children who are begotten, when women are free from their courses, are endued with.

There has been some contending among authors, to know whether those who are born monsters have reasonable souls, some affirming, and others denying it, the result of both at last coming to this, that those, who according to the order of nature, are descended from our first parents, by the coition of a man and a woman, though their outward shape be deformed and monstrous, have notwithstanding reasonable souls; but those monsters that are not begotten by a man, but are the product of a woman's unnatural lust, and copulating with other creatures, shall perish as the brute beasts, by whom they were begotten, not having a reasonable soul: the

same being also true of imperfect and abortive births.

There are some of opinion, that monsters may be engendered by infernal spirits; but notwithstanding *Ægidius Facious* pretended to believe it with respect to a deformed monster, born at *Gracovia*; and *Hieronimus* writeth of a maid that was got with child by the devil: but he being a wicked spirit, and not capable of having human seed, how is it possible he should beget a human creature? if they say the devil may assume to himself a dead body, and enliven the faculties of it, and thereby make it able to generate; I answer, that though we suppose this could be done, which I believe not, yet that body must bear the image of the devil; and it borders upon blasphemy to think, that the allwise and good Being would so far give way to the worst of spirits, as to suffer him to raise up his diabolical offspring; for in the school of nature we are taught the contrary, viz. that like begets like, whence it flows, that a man cannot be begotten of a devil.

The first I shall present is a most frightful monster indeed, representing a hairy child. It was covered over with hair like a beast. But what rendered it yet more frightful was, that its navel was in the place where its nose should stand, and its eyes placed where its mouth should have been, and its mouth was in the chin. It was of the male kind, and born in France, in the year 1597, of which the following is a figure.



A boy was born in Germany, with one head and one body, but having four ears, four arms, four thighs, four legs, and four feet. This birth, the learned who beheld it, judged to proceed from the redundance of the seed: but there not being enough for twins, nature formed what she could, and so made the most of it. This child lived some years and though it had four feet, it knew not how to go by which we may see the wisdom of nature, or rather the goodness of nature, and of nature's God, in the formation of the body of man. See the annexed figure.



Heaven in our first formation did provide
 Two arms, two legs : but what we have beside
 Renders us monstrous and misshapen too,
 Nor have we any work for them to do ;
 'Two arms, two legs are all that we can use,
 And to have more there's no wise man will choose.

In the reign of king Henry III, a woman was delivered of a child, having two heads and four arms and the rest was a twin under the navel ; and then beneath all the rest was single, as appears in the plate following. The heads were so placed that they looked contrary ways, and each had two distinct arms and hands : they would both laugh, speak, cry, eat and be hungry together. Sometimes the one would speak, and the other keep silence, and sometimes both would speak together. It was of the female sex, and though it had two mouths, and did eat with both, yet there was but one fundament to disburden nature. It lived several years, but the

one out lived the other three years, carrying the dead one (for there was no parting them) till the other fainted with the burden, and more with the stink of the dead carcase.



A child was born in Flanders, which had two heads and four arms, seeming like two girls joined together, having two of their arms lifted up between and above their heads; the thighs being placed as it were across one another, according to the figure in the following plate. How long they lived had no account of.



Nature to us do sometimes monsters show,
 That we by them may our mercies know ;
 And thereby sin's deformity may see,
 Than which there's nothing can more monstrous be.

CHAP. VI.

A discourse of the happy state of Matrimony, as it is appointed of God, and the true felicity that redounds thereby to either sex, and to what end it is ordered.

WITHOUT doubt, the uniting of hearts in holy wedlock, is of all conditions the happiest, for then a man has a second self, to whom he can unravel his thoughts, as well as a sweet companion in his labour ; he has one in whose breast, as in a safe cab

met, he may repose his inmost secrets, especially where reciprocal love and inviolate faith is settled, for there no care, fear, jealousy or hatred, can ever interpose. For what man ever hated his own flesh, and truly a wife, if rightly considered. as our grand father observed, is or ought to be esteemed of every honest man, bone of his bone and flesh of his flesh, &c. Nor was it the least care of the Almighty to ordain so near an union, and that for two causes, the first for increase of posterity, the second to bridle and bind wandering desires and affections; nay, that they may be yet happier when God hath joined them together, he blessed them as it is in the ii. of Genesis. Calmly contemplating this happy state, tells out of the Economy of Xenophon, that the marriage bed is not only the most pleasant, but profitable course of life, that may be entered on for the preservation and increase of posterity, wherefore since marriage is the most safe, sure, and delightful station of mankind, who is exceeding prone by the dictates of nature, to propagate his like, he does in no way provide amiss for his own tranquility who enters into it, especially when he comes to maturity of years, for there are many abuses in marriage, contrary to what is ordained, which in the ensuing chapter I shall expose to view.

But to proceed, seeing our blessed Saviour, and his holy apostles, detested unlawful lust, and pronounced those to be excluded the kingdom of heaven, that polluted themselves with adultery and whoring, I cannot conceive what face persons can have to colour their impieties, who hating matrimony, make it their study how they may live licentious-ly; but in so doing, they rather seek to themselves torment, anxiety and disquietudes, than certain pleasure, besides the hazard of their immortal soul; for certain it is, mercenary love, or (as the wise man calls them) harlots smiles, cannot be true and sincere, and therefore not pleasant, but rather

a net laid to betray such as trust in them into all mischief as Solomon observes, by the young man void of understanding, who turned aside to the harlot's house. As a bird to the snare of the fowler, or an ox to the slaughter, till the dart be struck through the liver. Nor in this case can they have children, those endearing pledges of conjugal affection; or if they have, they will rather redound to their shame than comfort, bearing the odious brand of bastards: harlots, likewise, are like swallows flying in the summer season of prosperity, but the black stormy weather of adversity coming, they take wings and fly into other regions; that is seek themselves other lovers, but a virtuous chaste wife, fixing her entire love upon her husband, and submitting to him as her head and king, by whose directions she ought to steer in all lawful courses, will, like a faithful companion, share patiently with him in adversities, run with cheerfulness through all difficulties and dangers, though ever so hazardous, to preserve or assist him in poverty, sickness; or whatever other misfortune may befall him; acting according to her duty in all things; but a proud, imperious harlot will do no more than she lists in the sun-shine of prosperity; and, like a horse-leech, ever craving and never satisfied, still seeming displeas'd, if all her extravagant cravings be not answered, not regarding the ruin and misery she brings upon him by those means though she seems to dote upon him, using to confirm her hypocrisy with crocodile's tears, vows and swoonings, when her cully is to depart a while, or seems but to deny her immoderate desires; yet this lasts no longer than she can gratify her appetite, and prey upon his fortune. Remarkable is the story, that Cornelius Gosmer tells us of a young man travelling from Athens, to Thebes, who met by the way a beautiful lady; as to appearance she seem'd adorned with all perfection of beauty, glittering with gold

and precious stones. This seemed fair one saluted him, and invited him to her house, not far off, pretending to be exceedingly enamoured with him, and declared she had a long time waited for an opportunity to find him alone, that she might reveal her passion to him. The young spark went with her, and when he came to her house he found it to appearance built very stately, and very well furnished; which so far wrought upon his covetous inclination, that he resolved to put off his intended journey, and yield to her enticements; but whilst she was leading him to see the pleasant places adjoining to the house, came up a holy pilgrim, who seeing in what danger the youth was, resolved to set him in his right senses and show what he imagined real, was quite otherwise; so that by powerful prayer the mist was taken from before his eyes, who then beheld his lady ugly, deformed, and monstrous, and that whatever had appeared glorious and beautiful, was only trash. Then he made her confess what she was, and her design upon the young man, which she said, saying, she was one of the Lamice or Faries and that she had thus enchanted him on purpose to get him into her power, that she might devour him.

This passage may be fully alluded to harlots, who draw those who follow their misguiding lights into the place of danger, till they have caused them to shipwreck their fortune, and then leave them to struggle with the storms of adversity which they have raised. Now on the contrary, a loving, chaste, and even tempered wife, seeks what she may to prevent such dangers, and in every condition does all to make him easy. And in a word, as there is no content in the embraces of a harlot, so there is no greater joy, than in the reciprocal affection, and endearing embraces of a loving, obedient, and chaste wife. Nor is that the principal end, for which matrimony was ordained, but that the man might follow the law of his creation, by the increasing of his kind,

and replenish the earth, for this was the injunction laid upon him in paradise before his fall. To conclude, a virtuous wife is a crown, and ornament, to her husband, and her price is above rubies' but the ways of a harlot are deceitful.

CHAP. VII.

Errors in marriage, why they are, and the prejudices of them.

By errors in marriage, I mean the unfitness of the persons marrying to enter into this state, and that both with respect to age, and the constitution of their bodies; and therefore, those that design to enter into that condition, ought to observe their ability, and not run themselves upon inconveniences; for those that marry too young, may be said to marry unseasonably, not considering their inability, nor examining the force of nature; for though some, before they are ripe for the consummation of so weighty a matter; who either rashly of their own accord, or by the instigation of procurers of marriage brokers, or else forced thereto by their parents, who covet a large dowry, take upon them this yoke to their prejudice, by which some, before the expiration of a year, have been so enfeebled, that all their vital moisture has been exhausted, which hath not been restored again, without great trouble, and the use of medicines. Wherefore my advice is, that it is no way convenient to suffer children, or such as are not of age, to marry or get children; but he that proposes to marry, must observe to choose a wife of an honest stock, descended of temperate parents, being chaste, well bred, and of good manners. For, if a woman have good conditions, she hath portion enough. That of Almenian in Plutus, is much to the purpose, where he brings in a young woman speaking;

“I take not that to be my dowry, which
 The vulgar sort do wealth and honour call,
 But all my wishes terminate in this,
 To obey my husband and be chaste withal;
 To have God's fear and beauty on my mind;
 To do those good who're virtuously inclined.”

And I think she was in the right of it, for such a wife is more precious than rubies.

It is certainly the duty of parents to be careful in bringing up their children in the ways of virtue, and to have regard to their honour and reputation, and especially of virgins, when grown to be marriageable. For, as has been before noted, if through the too much severity of parents, they may be crossed in their love, many of them throw themselves into the unchaste arms of the next alluring tempter that comes in the way, being, through the softness and flexibility of their natures, and the strong desire they have after what nature strongly incites them to, easily induced to believe man's false vows of promised marriage, to cover their shame, and then too late their parents repent of their severity, which has brought an indelible stain upon their families.

Another error in marriage is, the inequality of years in the parties married; such as for a young man, who to advance his fortune, marries a woman old enough to be his grandmother, between whom, for the most part, strife, jealousies, and discontent, are all the blessings which crown the genial bed, it being impossible for such to have any children. The like may be said, tho' with less excuse, when an old doating fellow marries a virgin in the prime of youth and vigor, who, while he strives to please her, is wedded to his grave. For, as in green youth it is unfit and unseasonable to think of marriage, so to marry in old age is altogether the same; for they that enter upon it are too soon exhausted, and fall into consumptions and divers other diseases, and those that procrastinate and marry unseemly, fall into the like inconveniences; on the other side,

having only this honour, of old men, they become young cuckolds, especially if their wives have not been trained up in the paths of virtue, and lie too much open to the importunity and temptation of lewd, and debauched men. And thus for the errors of rash, and inconsiderate marriages.

CHAP. VIII.

The Opinion of the Learned, concerning children, conceived and born within Seven months, with arguments upon the Subject, to prevent suspicion of Incontinency, and bitter contests on that account: to which are added. Rules to know the disposition of Man's Body by the Genital parts.

Many bitter quarrels happen between men and their wives, upon the man's supposition that his child came too soon, and by consequence that he could not be the father; whereas it was through want of understanding the secrets of nature, that brought the man into that error; and which had he known, might have cured him of his suspicion and jealousy; to remove which, I shall endeavour to prove, that it is possible, for a child to be born at seven months. The cases of this nature that have happened, have made work for lawyers, who have left it to physicians to judge by viewing the child, whether it be a child in seven, eight, or ten months.—Paul the counsellor has this passage, in the 19th book of pleading, viz: “It is now a received truth that a perfect child may be born in the seventh month, by the authority of the learned Hypocrites, and therefore we must believe that a child born at the end of the seventh month in lawful matrimony, may be lawfully begotten. Galen is of opinion, that there is no certain time set for bearing of children: and that from Pliny's authority, who makes mention of a woman that went thirteen months with child,

But as to what concerns the seventh month, a learned author said—I know several married people in Holland that had twins born in the seventh month, who lived to old age, having lusty bodies and lively mind. Wherefore their opinion is absurd, who assert, that a child at seven months cannot be perfect and long lived; and that he cannot, in all parts be perfect till the tenth month, thereupon this author proceeds to tell a passage from his own knowledge, viz. Of late, says he, there happened a great disturbance among us, which ended not without blood shed, and was occasioned by a virgin, whose chastity had been violated, descended of a noted family of unspotted fame. Now several charged the fact upon the judge, who was president of a city in Flanders, who stily denied it, saying, he was ready to take his oath he never had any carnal copulation with her, that he would not father that which was none of his. And further argued, that he verily believed that it was a child born in seven months, himself being many miles distant from the mother of it, when it was conceived, whereupon the judges decreed that the child should be viewed by able physicians, and experienced women, and that they should make their report; who having made diligent enquiry, all of them of one mind, concluded the child (without concluding who was the father) was born within the space of seven months, and that it was carried in the mother's womb but twenty-seven weeks and odd days; but if she should have gone full nine months, the child's parts and limbs would have been more firm and strong, and the structure of the body mere compact, for the skin was very loose and the breast-bone that defends the heart, and the gristle that lays over the stomach laid higher than it naturally should; not plain but crooked and sharp ridged, or pointed like those of a young chicken, hatched in the beginning of spring. And being a female infant, it wanted nails upon the joints of the

fingers, upon which from the musculous, or cartilaginous matter of the skin, nails that are very smooth to come, and by degrees harden, she had instead of nails a thin skin or film. As for her toes, there was no sign of nails upon them, wanting the heat which was expanded to the fingers, from the nearness of the heart. All this being considered, and above all, one gentlewoman of quality that assisted, affirmed that she had been the mother of nineteen children, and that divers of them had been born and lived at seven months: they without favour to any party, made their report, that the infant was a child of seven months, though within the seventh month, for in such cases, the revolution of the moon ought to be observed, which perfects itself in four bare weeks, or some-what less than twenty-eight days, in which space of the revolution, the blood being agitated by the force of the moon, ought the courses of the woman to flow from them, which being spent and the matrix being cleansed from the menstruous blood, which happens on the fourth day, then if a man on the seventh day he with his wife, the copulation is most natural, and then is the conception best, and the child thus begotten may be born in the seventh month, and prove very healthful: so that upon this report, the supposed father was pronounced innocent, upon proof that he was one hundred miles distant all that month in which the child was begotten; and as for the mother, she strongly denied that she knew the father, being forced in the dark, and thro' fear and surprise was left in ignorance.

As for coition, it ought not to be had unless the parties are in health, lest it turn to the disadvantage of the children so begotten, creating in them through the abundance of ill humours, divers languishing diseases, wherefore health is no ways better to be disserved than by the genitals of the men. For which reason midwives, and other skilful women, were formerly wont to see the testicles of

children, thereby to conjecture their temperature and state of the body; and young men may know thereby the signs or symptoms of death; for if the cases of the testicles be loose and feeble, and the cods fall down, it denotes that the vital spirits, which are the props of life, are fallen; but if the secret part be wrinkled and raised up, it is a sign all is well; but that the event may exactly answer the prediction, it is necessary to consider what part of the body the disease posseseth; for if it chance to be the upper part that is afflicted, as the head or stomach, then it will not so well appear by the members which are unconcerned with such grievances; but the lower part of the body sympathizing with them their liveliness on the contrary makes it apparent: for nature's force, and the spirits that have their intercourse, first manifest themselves therein, which occasions midwives to feel the genitals of children, to know in what part the grief resides, and whether life or death be portended thereby, the symptoms being strongly communicated by the vessels that have their intercourse with the principal seat of life.

CHAP. IX.

Of the Green, Sickness in Virgins with its causes, Signs and Cures; together with the chief occasion of Barrenness of Woman, and the means to remove the Cause, and render them Fruitful.

The green Sickness is so common a distemper in Virgins especially those of phlegmatick complexion, that it is easily discerned, shewing itself by discolouring the face, making it look green, pale and of a dusty colour; proceeding from raw and indigested humours; nor doth it only appear to the eye, but sensibly afflicts the person, with difficulties of breathing, pains in the head, palpitations of the

heart, with unusual breathings, and small throbbings of the arteries in the temples, neck, and back, which often casts them into fevers, when the humour is over vicious; also loathing of meat and the distension of the hypochondiacan part by reason of the inordinant effluction of the menstruous blood to the greater vessels; and, from the abundance of humours, the whole body is often troubled with swelling, or at least the thighs, legs, and ancles, all above the heels. There is also a great weariness of the body, with out any reason for it.

The Galenical physicians affirm, that this distemper proceeds from the womb, occasioned by the abundance of gross, vicious, and crude humours, arising from several inward causes; but there are also, outward causes, which have a share in the production of it, as taking cold in the feet, drinking of water, intemperance of diet, eating of things contrary to nature, viz, raw or burned flesh, ashes, coals, old shoes, chalk, wax, nut-shells, mortar, lime. oat-meal tobacco-pipes, &c. which occasion both a suppression of the menses, and obstructions through the whole body; therefore, the first thing necessary to vindicate the cause, is matrimonial conjunction, and such copulation as may prove satisfactory to her that is afflicted; for then the menses will begin to flow, according to their natural and due course, and the humours being dispersed, will soon waste themselves; and then no more matter being admitted to increase them, they will vanish, and a good temperament of body will return; but in case this best remedy cannot be had soon enough, then bleed her in the ancles; and if she be about the age of sixteen, you may likewise do it in the arm, but let her blood but sparingly, especially if the blood be good. If the disease be of any continuence, then it is to be eradicated by purging, preparation of the humour first considered, which may be done by the virgin's drinking decoct of guaiacum with dittany of Creete but the best purge in this case ought to be made of

aloes, agric senna, rhubarb ; and for strengthening the bowles and opening obstructions, chaybeat medicines are chiefly to be used. The diet must be moderate, and sharp things by all means avoided.

And for finding the humours, take prepared steel, bezoar stone, the root of conzonera, oil of chrystal in small wine, and let the diet be moderated, but in no wise let vinegar be used there-with, not upon any occasion. And in so observing, the humours will be dilated and dispersed, whereby the complexion will return, and the body be lively, and full of vigour.

And now, since barrenness daily creates discontent, and that discontent breeds difference between man and wife, or by immoderate grief, frequently casts the woman into one, or other distemper. I shall in the next place treat thereof.

OF BARRENNESS.

Formerly, before women came to the marriage bed, they were first searched by the midwives, and those only that they allowed of as fruitful were admitted. I hope, therefore, it will not be amiss to show you, how they may prove themselves, and turn the barren ground into a fruitful soil. Barrenness is a deprivation of life and power, which ought to be in seed, to procreate and propagate— for which end men, and women, were made.

Causes of Barrenness.—It is caused by overmuch cold or heat, drying up the seed, and corrupting it, which extinguishes the life of the seed, making it watery, and unfit for generation. It may be caused also by not flowing, or overflowing of the courses, by swelling, ulcers, and inflammations of the womd, by an excrescence of flesh growing about the matrix, by the mouth of the womb being turned to the back or side, by fatness of the body, whereby the mouth of the matrix is closed up, being pressed with the omentum or cawl, and the matter of the seed is turned to fat ; or, if she be of a lean and

dry body to the world, she proves barren; because though she doth conceive, yet the fruit of her body wil wither before it comes to perfection, for want of nourishment.—Silvius ascribes one cause of barrenness to compelled copulation: as when parents orce their daughters to have husbands contrary to their liking, therein marrying there bodies and not their hearts' and where their is a want of love, there for the most part, is no conception, as very often appears in women who are deflowerd against their wills. Another main cause of this barrenness is attributed to want of convenient, moderating quality, which the woman ought to have with the man; as if he be hot, she must be cold; if he be dry she must be moist; but if they be both dry, or both moist of constitution, they cannot propagate; and yet, simply considered of themselves, they are no barren fig-trees, but being joined to apt constitutions become as the fruitful vine. And that a man and woman being every way of like constitutions, cannot procreate, I will bring nature itself for a testimony who had made man of the better constitution than woman, that the quality of the one, may moderate the quality of the other.

SIGNS OF BARRENNESS.

If barrenness doth proceed from over-much heat, she is of a dry body, subject to anger, hath black hair, quick pulse, her purgations flow but little, and that with pain, she loves to play in the courts of Venus. But if it comes by cold, then are the signs contrary to those even now recited. If through the evil quality of the womb, make a suffumigation of red storax, myrh, cassia wood, nut-meg, and cinnamon, and leather, receive the fume of it into the womb, covering her very close, and if the odour so received, passeth through the body, up into the mouth, and nostrils, of herself she is fruitful; but if she seals not the fume in her mouth, and nose, it at

gues barrenness one of these ways, that the spirit of the seed is either through cold extinguished, or through heat dissipated; if any woman be suspected to be unfruitful, cast natural brimstone, such as is digged out of the mine, in her urine and if worms breed therein, of herself she is not barren.

PROGNOSTICS.

Barrenness makes women look young, because they are free from those pains and sorrows which other women are accustomed to bring forth withall. Yet they have not the full perfection of health which fruitful women do enjoy; because they are not rightly purged of the menstruous blood, and superfluous seed, which two are the principal causes of most uterine diseases.

CURE.

First the cause must be removed, and the womb strengthened and the spirits of the seed enlivened.

If the womb be over hot, take sirup of succory with rhubarb, sirup of violets, endive, roses, cassia, and purslain. Take of endive, water-lillies, borage flowers, of each a handful; rhubarb, mirobalan, of each three drams; with water make a decoction, and to the straining of the sirup, electuary of violets one ounce, sirup of cassia half an ounce, manna three drams; make a potion. Take of sirup of mugwort one ounce, sirup of maiden-hair two ounces; puly elect, trainsand one dram, make a julep.

Take pru salut, elect, ros, measure of each three, drams, rhubarb one scruple, and make a bolus, apply to the reins and privities, fomentations of the juice of lettuce, violet roses, mallows, vine-leaves and nightshade; anoint the secret parts with the cooling unguent of Galen.

If the power of the seed be extinguished by cold take every morning two spoonfuls of cinnamon water, with one scruple of mithridate: Take syrups

of calamint, mugwort, betony, of each one ounce; water of penny-royal, feverfew, hysop, sage, of each two ounces, make a julep: Take oil of anniseed two scruples and a half, diaciminia, diacliathi, diamosci, diagloorage, of each one ounce, sugar, four ounces of water of cinnamon, make lozenges, and take of them a dram and a half twice a day, two hours before meals; fasten cupping glasses to the hips and belly. Take of styrax of calimint, one ounce; mastic cinnamon, light, aloes, and frankincense, of each half an ounce, musk ten grains, amber-grease half a scruple, with rose water make a confection, divide it into four equal parts, of one part make a pomum oderatum to smell on, if she be not hysterical; of the second make a mass of pills and let her take three every night; of the third make a pessary dip it in the oil of spikenard, and put it up, of the fourth make a suffumigation for the womb.

If the faculties of the womb be weakened, and the life of the seed suffocated, by over much humidity flowing to these parts, take of betony marjoram, mugwort, penny-royal, balm, of each a handful, roots of alum, fennel, of each two drams, anniseed, cumming, of each one dram, with sugar and water a sufficient quantity, make a syrop, and take three ounces every morning.

If barrenness proceeds from dryness, consuming the matter of the seed—take every day almond milk, and goat's milk extracted with honey. But often of the root satyran candied, and of the electuary of diasyrion. Take three wedder's heads, boil them until the flesh comes from the bones, then take melioes, violets, camomile, mercury, orchis with their roots, of each a handful, feenigreek, linseed, vale rian roots, of each one pound let those be decocted in the aforesaid broth, and let the woman sit in the decoction, up to the navel.

If barrenness be caused by any proper effect of the womb, the cure is set down in the second part

sometimes the womb proves barren, when there is no impediment on either side, except only the manner of the act as when in the emission of the seed, the man is quick, and the woman too slow, whereby there is not any emission of both seeds at the same instant as the rules of conception require; before the act of coition, foment the private parts with the decoction of betony, sage, hysop, and calamint; and anoint the mouth and neck of the womb with musk and civet.

The cause of barrenness being removed, let the womb be corroborated as follows:

Take of bay-berries, mastic, nutmeg, frankincense, nuts, laudanum, gaipunum, of each one dram, syrasis liquid, two scruples, cloves half a scruple, ambergrease two grains, then with oil of spikenard make a pessary.

The aptest time for conception is instantly after the menses are ceased, because then the womb is thirsty and dry, apt to draw the seed, and retain it by the roughness of the inward superficies. And beside in some the mouth of the womb, is turned into the back or side, and is not placed right until the day of the courses.

Excess in all things is to be avoided: lay aside all passion of the mind, shun study and care, as things that are enemies to conception; for if a woman conceives under such circumstances, how wise soever the parents are, the children at best will be but foolish, because the animal faculties of the parents, viz, the understanding, and the rest (from whence the child derives its reason) are, as it were confused, through the multiplicity of care, and cogitations; examples whereof we have in learned men, who after great study and care, instantly accompany with their wives, often beget very foolish children. A hot moist air is convenient, as appears by the women of Egypt, who usually bring forth 3 or 4 children at one time.

CHAP. X.

Virginity, what it is, in what it consists, and how violated; together with the Opinion of the Learned about the Mutation of the Sex in the Womb, during the Operation of nature in forming the body.

THERE are many ignorant people that boast of their skill in their knowledge of virginity, and some virgins have undergone hard censures, through their ignorant determinations; and therefore, I thought highly necessary to clear this point, that the towering imaginations of conceited ignorance, may be brought down, and the fair sex (whose virtues are so illustriously bright, that they both excite our wonder; and command our imitation) may be freed from the calumnies, and detractions, of ignorance, and envy, and so their honours may continue as unspotted, as they have kept their persons uncontaminated, and free from defilement.

Virginity, in a strict sense, does signify the prime, the chief, the best of any thing, which makes men so desirous of marrying virgins, imagining some secret pleasure to be enjoyed in their embraces, more than in those of widows, or such as before hath been laid withal, though not many years ago, a very great personage was of another mind, and to use his own expressions, "that the getting of a maidenhead was such a piece of drudgery, as was more proper for a porter, than a prince." But this was only his opinion, for most men, I am sure have other sentiments. But to our purpose.

The curious enquirers into nature's secrets, have observed, that in a young maid, in the *sinu pudoris*, or in that place which is called the neck of the womb, is that pondreous production, vulgarly called the hymen, but more rightly the *clustrura virginale* and in the French, "bouton de rose" or rose bud

because it resembles the bud of a rose expanded, of a convex gilly-flower. From hence is derived the word *destoro*, or *deflower*. And hence taking away virginity, is called *deflowering a virgin*.

Most being of opinion, that the virginity is altogether lost, when this duplication is fractured, and dissipated by violence; and when it is found perfect and entire, no penetration has been made, and it is the opinion of some learned physicians, that there is not either hymen, or skin, expanded, containing blood in it, which divers think in the first copulation, flows from the fractured expanse.

Now, this *clustrum virginally*, or *flowers*, is composed of four carbuncles, or little buds, like myrtle-berries, which in virgins are full and plump, but in women flag, and hang loose; and these are placed in the four angles of the *sinus pudoris*, joined together by little membranes, and ligatures, like fibres, each of them situated in the testicles, or spaces between each carbuncle, with which, in a manner they are proportionably distended, which membranes being once delacerated, denote *devirgination*; and many inquisitive, and yet ignorant persons, finding their wives defective therein the first night of their marriage, have thereupon suspected their chastity, and concluded another had been there before them. Now to undeceive such, I do affirm, that such fractures happen divers accidental ways, as well as by copulation with men, viz. by violent straining, coughing, sneezing, stopping of urine, and violent motion of the vessels forcibly sending down the humours, which pressing for passage, break the ligatures or membrane; so that the intireness of fracture, of that which is commonly taken for their virginity or maiden-head, is not an absolute sign of dishonesty; though certain it is, that it more frequently breaks in copulation than by any other means.

I have heard, that at an assize held at Rutland, a young man was tried for a rape in forcing a virgin;

when after divers questions asked, and the maid swearing positively to the matter, naming the time, place, and manner of the action; it was upon mature deliberation, resolved, that she should be searched by a skilful surgeon, and two midwives, who were to make their report upon their oaths; which after due examination, they accordingly did, affirming that the membrane were entire and not lacerated; and that it was their opinion, for that reason, that her body had not been penetrated. Which so far wrought with the jury, that the prisoner was acquitted; and the maid afterwards confessed, she swore against him out of revenge, he having promised to marry her, and afterwards declined it. And this much shall suffice to be spoken concerning virginity.

I shall now proceed to something of nature's operation in mutation of sexes in the womb.

This point is of much necessity, by reason of the different opinions of men relating to it, therefore before any thing positively can be asserted, it will be altogether convenient, to recite what has been delivered, as well in the negative as affirmative.

And, first, Severus Plinius, who argues for the negative, writes thus: The genital parts of both sexes are so unlike others in substance, composition, situation, figure, action and use, that nothing is more unlike; and by how much all parts of the body (the breasts excepted, which in all women swell more, because nature ordained them for suckling the infant) have exact resemblance: so much more do the genital part of the one sex compared with the other differ—and if their figure be thus different, much more in their use. The venereal appetite also proceeds from different causes: for in man it proceeds from a desire of emission, and in woman from a desire of reception: in women also, the chief of those parts are concave, and apt to receive: but in men they are more porous.

These things considered, I cannot but wonder

(added he) how any one can imagine, that the genital members of the female, should be changed into those that belong to males, since by those parts only the distinction of sexes is vulgar error to any thing, but the mistake of unexpert midwives, who have been deceived by the evil conformation of the parts, which in some male births may have happened to have some small protrusions, not to have been discerned: as appears by the example of a child christened at Paris. by the name of Joal as a girl, which afterwards proved a boy; and, on the contrary, the over far extension of the clytoris in female births, may have occasioned the like mistakes. Thus far Pliny proceeds in the negative: and yet notwithstanding what he has said, there are divers learned physicians that have asserted the affirmative, of which number Galen is one. A man (saith he) is different from a woman in nothing else but having his genital members without the body; but a woman hath them within. It is certain, that if nature having formed, should convert him into a woman; she hath no other task to perform, but to turn his genital members inward, and so turn a woman into a man by the contrary operation, but this is to be understood of the child when it is in the womb, and not perfectly formed; for, divers times nature hath made a female, and it hath so remained in the womb of the mother, for near a month or two, and afterwards, plenty of heat increasing in the genital members, they have issued forth, and the child has become a male, yet retaining some certain gestures, unbefitting the masculine sex; as female actions, a shrill voice, and a more effeminate temper than ordinary; contrariwise, nature having often made a male, and cold humours flowing to it, the genitals being inverted, yet still retaining a masculine air both in voice, and gestures. Now, though both these opinions are supported by several reasons, yet I esteem the latter more agreeable to truth; for, there is not that vast difference between the genitals

of the two sexes, as Pliny would have us to believe there is; for a woman has in a manner, the same members with a man, though they appear not outward, but are inverted, for the conveniency of generation; the chief difference being that the one is solid and the other porous; and the principal reason for changing sexes is, and must be attributed to heat or cold, suddenly and slowly contracted, which operates according to its greater or lesser force.

CHAP. XI.

Directions and Cautions for Midwives, and how first a Midwife ought to be qualified.

A MIDWIFE that would acquit herself well in her employment, ought by no means to enter upon it rashly or unadvisedly, but with great caution, considering that she is accountable for all the mischief that befalls, through her wilful ignorance, or neglect; therefore let none take upon them the office barely upon pretence of maturity of years, and child bearing for in such, for the most part, there are divers things wanting that ought to be observed, which is the occasion so many women and children are lost. Now, for a midwife, in relation to her person, these things ought to be observed, viz. She must neither be too young, nor too old, neither extraordinary fat, nor weakened by leanness; but in a good habit of body; not subject to diseases, fears, nor sudden frights; her body well shaped, and neat in her attire; her hands smooth, and small; her nails ever pared short, not suffering any rings to be upon her finger, during the time she is doing her office, nor any thing upon her wrists that may obstruct. And to these, ought to be added activity, and a convenient strength, with much cautiousness, and diligence; not subject to drowsiness, nor apt to be impatient

As for her manners, she ought to be courteous, affable, sober, chaste, and not subject to passion, bountiful and compassionate to the poor, and not covetous when she attends upon the rich.

Her temper chearful and pleasant, that she may the better comfort her patient, in the dolorous labours; nor must she at any time, make too much haste, though her business should require her in another case, lest she thereby endanger the mother of the child.

Of spirit, she ought to be wary, prudent, and cunning; but above all, the fear of God, ought to have the ascendant in her soul, which will give her both knowledge and discretion, as the wise man tells us.

CHAP. XII.

Further Directions for midwives, teaching them what they ought to do, and what to avoid.

Since the office of a midwife has so great an influence on the well, or ill-doing of women, and children,—in the first place, let her be advantageous to her practice, never thinking herself so perfect, but that she may add to her knowledge, by study, and experience; yet, never let her make an experiment, at her patient's cost, nor apply any experiment in that case, unless she has tried them, or knows they will do no harm; practising neither upon poor, nor rich, but speaking freely what she knows, and by no means prescribing such medicines as will cause abortion, though desired; which is a high degree of wickedness, and may be termed murder. If she be sent for to them she knows not, let her be very cautious were she goes, lest by laying an infectious woman, she endanger the spoiling of others, as sometimes it happens; neither must she make her house a receptacle for great bellied wo-

ment, to discharge their burdens in, lest her house get an ill name, and she thereby lose her practice.

In laying of women, if the birth happen to be large and difficult, she must not seem to be concerned, but must cheer up the woman, and do what she can to make her labour easy. For which she may find directions in the second part of this book.

She must never think of any thing but doing well, causing all things to be in readiness that are proper for the work, and the strengthening of the woman, and receiving the child; and above all let her take care to keep the woman from being unruly when her throes are coming upon her, lest she thereby endanger her own life and the child's.

She must also take care she be not too hasty in her business, but wait God's leisure for the birth; and by no means let her suffer herself to be disordered by fear, though things should not go well, lest it should make her incapable of giving that assistance which the labouring woman stands in need of; for, when we are most at a loss, then there is most need of prudence to set things right.

And now, because she never can be a skilful midwife, that knows nothing, but what is to be seen outwardly, I shall not think it amiss, but on the contrary, highly necessary, with modesty to describe the generative parts of women, as they have been anatomized by the learned, and show the use of such vessels as contribute to generation.

CHAP. XIII

Of the Genitals of Women, external and internal, to the Vessels of the Womb.

If it were not for public benefit especially of the practitioners and professors, of the art of midwifery, I would forbear to treat of the secrets of nature, because they may be turned, by some lascivious, and

lewd persons into ridicule. But they being absolutely necessary to be known in order to public good, I will not omit them, because some may make a wrong use of them.—Those parts that offer themselves to view at the bottom of the belly, are the *fissura magna*, or great chink, with its labia or lips, the *mons veneris*, and the hair; these are called by the general name *pubenda*, from shamefacedness, because when they are bare, they bring pudor or shame upon a woman. The *fissura magna* reaches from the lower part of the *os pubis* to within an inch of the anus, but it is lesser and closer in maids than in those that have borne children; and has two lips, which, towards the *pupis*, grow thicker and more full; and meeting upon the middle of the *os pubis*, makes that rising hill that is called *mons veneris*, or the hill of Venus.

The next thing that offers are, the *nympha* and *clitoris*, the former of which is of a membrany and flabby substance, spungy, soft, and partly fleshy, and of a red colour, in the shape of wings, two in number; though, from their rise, they are placed in an acute angle, producing there a fleshy substance, which clothe the *clitoris*; and sometimes they spread so far, that incision is required to make way for the man's instrument of generation.

The *clitoris* is a substance in the upper part of the division where the two wings concur, and is the seat of venereal pleasure, being like a yard in situation, substance, composition and erection; growing sometimes out of the body two inches, but that never happens unless thro' extreme lust, or extraordinary accidents. This *clitoris* consists of two spungy and skinny bodies, containing a distinct original from the *os pubis*, the head of it being covered with a tender skin, having a hole or passage like the penis or yard of a man; though not quite thro', in which, and the bigness, it only differs from it.

The next things are fleshy knobs, and the great neck of the womb; and these knobs are behind the wings, being four in number, and resemble myrtle berries, being placed quadrangular, one against the other; and in this place inserted to the orifice of the bladder, which opens itself into the fissures, to evacuate the urine; for securing of which from the cold, or the like inconveniency one of these knobs is placed before it, and shuts up the passage.

The lips of the womb, that next appear, being separated, disclose the neck thereof, and in the two things are to be observed, which is the neck itself, and the hymen, but more properly the claustrum virginalæ, of which before I have discoursed. By the neck of the womb is to be understood the channel that is between the aforesaid knobs and the inner bone of the womb, which receives the penis like a sheath; and that it may the better be dilated for the pleasure of procreation, the substance of it is sinewy, and a little spongy; and in this concavity are divers folds, or obicular plaits made up of tunicles, wrinkled like an expanded rose. In virgins they plainly appear, but in women that have often used copulation, they are extinguished; so that the inner side of the womb's neck appears smooth, and in old women it appears more hard and gristled. But though this channel be sometimes wreathed and crooked, sinking down, yet, in the time of copulation, labour, or the monthly purgations, it is erected and extended, which over-extensions occasions the pains of child-birth.

The hymen, or claustrum virginalæ, is that which closes the neck of the womb, being, as I have fore-cited in the chapter relating to virginity, broken in the first copulation, its use being rather to stay the untimely courses in virgins, than to any other end; and commonly, when broken in copu-

lation, or by any other accident, a small quantity of blood flows from it, attended with some little pain. From whence some observe, that between the duplicity of the two tunicles, which constitute the neck of the womb, there are many veins and arteries running along and arising from the vessels on both sides of the thigh, and so passing into the neck of the womb, being very large, and the reason thereof is, for that the neck of the bladder requires to be filled with abundance of spirits, thereby to be dilated for its better taking hold of the penis, there being great heat required in such motions, which become more intense by the act of friction, and consumes a considerable quantity of moisture, in the supply of which large vessels are altogether necessary.

Another cause of the longness of these vessels is, by reason the menses make their way through them, which often occasions women with child to continue their purgation, for tho' the womb be shut up, yet the passage in the neck of the womb through which the vessels pass, are open: In this case there is further to be observed, that as soon as you penetrate the pudendum, there appear two little pits or holes wherein is contained a humour, which being expunged in the time of copulation, greatly delights the women.

CHAP- XIV.

*A description of the Womb's Fabric, the preparing
essels, and Testicles in Women: as also of the
Difference and ejaculatory Vessels.*

In the lower part of the hypogastrium, where the lips are widest and broadest, they being greater and broader thereabout than those of men, for which reason they have likewise broader buttocks

than men, the womb is joined to its neck and is placed between the bladder and strait gut, which keeps it from swaying or rolling, yet gives it liberty to stretch and dilate itself, again to contract, nature in that case disposing it. Its figure is in a manner round, and not unlike a gourd, lessening a little and growing more acute towards one end, being knit together by its proper ligaments; its neck is likewise joined by its own substance and contain membranes that fasten into the os sacrum, and the share bone. As to its largeness that much differs in women, especially the difference is great between such as have borne children, and those that have borne none. In substance it is so thick that it exceeds a thimble breadth, which after copulation is so far from decreasing, that it augments to a greater proportion, and the more to strengthen it, it is interwoven with fibres overthwart which are both straight and winding, and its proper vessels are veins, arteries and nerves, and among these there are two little veins which pass from the spermatick vessels to the bottom of the womb, and two larger from the hypostratic, which touch both the bottom of the neck, the mouth of these veins, piercing as far as the inward cavity.

The womb hath two arteries on both sides the spermatick vessels and the hypostratic, which will accompany the veins; and besides there are divers little nerves, that are knit and twined in the form of a net, which are also extended throughout, even from the bottom of the pudenda, themselves being placed chiefly for sense and pleasure, moving in sympathy between the head and the womb.

Now it is to be further noted, that by reason of the two ligaments that hang on either side the womb from the share bone, piercing through the peritonem, and joined to the bone itself, the womb is moveable upon sundry occasions, often falling

low or raising high. As for the neck of the womb, it is of an exquisite feeling, so that if it be at any time out of order, being troubled at any time with a scirrhoty, over-fatness, moisture, & relaxation the womb is subjected thereby to barrenness; in those that are with child there frequently stays a glutinous matter in the entrance, to facilitate the birth; for at the time of delivery, the mouth of the womb is opened to such a wideness as is conformable to the bigness of the child, suffering an equal dilation from the bottom to the top.

As for the preparatory or spermatic vessels in women, they consist in two veins and two arteries not differing from those of men, but only of their largeness and manner of insertion, for the number of veins and arteries is the same as in men, the right vein issuing from the trunk of the hollow vein descending, and on the side of them are two arteries, which grow from the aorta.

As to the length and breadth of these vessels, they are narrower and shorter in women than in men: only observe, they are more wreathed than in men, as shrinking together by reason of their shortness, that they may, by their looseness, be better stretched out when occasion requires it; and those vessels in women are carried with an indirect course thro' the lesser guts, the testicles, but are in midway divided into two branches, the greater goes to the stones, constituting a various or winding body, and wonderfully inosculating, the lesser branch ending in the womb, in the inside of which it disperseth itself, and especially at the higher part of the bottom of the womb for its nourishment, and that part of the courses may purge through the vessels; and seeing the testicles of women are seated near the womb, for that cause these vessels fall not from the peritoneum, neither make they much passage as in men, nor extending themselves in the share bone.

The stones in women commonly called testicles, perform not the same action as in men, they are also different in their location, bigness, temperature, substance, form and covering. As for the place of their seat, it is in the hollowness of the abdomen: neither are they pendulous, but rest upon the muscles of the loins, so that they may, by contracting the greater heat, be more fruitful, their office being to contain the ova or eggs, one of which being impregnated by the man's seed engenders man, yet they differ from those of men in figure, by reason of their smallness or flatness at each end, not being so round or oval. The external superficies being likewise more unequal, appearing like the composition of a great many knobs and kernels mixt together. There is a difference also in their substance, they being much more soft and pliable, loose, and not so well compacted.

Their bigness and temperature being likewise different, for they are much colder and lesser than those in men. As for their covering and inclosure, it differs extremely; for as men's are wrapped in divers tunicles, by reason they are extremely pendulous, and subject to divers injuries, unless so fenced by nature; so women's stones being internal, and less subject to casualty, are covered with one tunicle or membrane, which though it closely cleave to them, yet they are likewise half covered with peritoneum.

The ejaculatory vessels are two obscure passages, one on each side, nothing differing from the spermatic veins in substance. They do rise on one part from the bottom of the womb, not reaching from the other extremity, either to the stones, or to any part, but shut up and unpassable, adhering to the womb as the colon does to the blind gut, and winding half way about: though the testicles are remote to them, and touch them

not, yet they are tied to them by certain membranes resembling the wing of a bat, through which certain veins and arteries passing through the end of the testicles, may be turned here to have their passages proceeding from the corner of the womb to the testicles, and are accounted proper ligaments, by which the testicles and the womb are united, and strongly knit together; and those ligaments in women are the cremasters in men: of which I shall speak more largely, when I come to describe the masculine parts conducing to generation.

CHAP. XV.

A description of the use and action of several parts in Women, appointed in Generation.

The externals, commonly called the pendenda, are designed to cover the great orifice, and that are to receive the penis or yard, in the act of coition, and give passage to the birth and urine. The use of the wings and knobs like myrtle berries, are for the security of the internal parts, shutting the orifice and neck of the bladder, and by their swelling up, cause titulation and delight in those parts, and also to obstruct the voluntary passage of the urine.

The action of the clytoris in women, is like that of a penis in man, viz. the erection, and its outer end like that of the glans of the penis, and has the same name. And as the glans of man is the seat of the greatest pleasure in conception, so is this in women.

The action and use of the neck of the womb equal with that of the penis, viz. erection, occasioned divers ways, first in copulation it is erected and made strait for the passage of the penis in the womb—secondly, whilst the passage is repleted

with spirit and vital blood, it becomes more strait for embracing the penis: and as for the conveniency of erection, it is two fold—First, because if the neck of the womb was not erected, the yard could have no convenient passage to the womb; Secondly, it hinders any hurt or damage that might ensue thro' the violent concussion of the yard, during the time of copulation.

As for the veins that pass thro' the neck of the womb, their use is to replenish it with blood and spirit, that still as the moisture consumes by the heat contracted in copulation, it may by these vessels, be renewed; but their chief business is to convey nutriment to the womb.

The womb has many properties attributed to it. At first, retention of the feccundated egg, and this is properly called conception. Secondly to cherish and nourish it till nature has framed the child, and brought it to perfection, and then it strongly operates in sending forth the birth, when the time of its remaining there is expired, dilating itself in a wonderful manner, and so aptly removed from the senses, that nothing of injury can proceed from thence; retaining to itself a power and strength to operate and cast forth the birth, unless by accident it be rendered deficient, and then to strengthen and enable it, remedies must be applied by skilful hands, directions for the applying of which shall be given in the second part.

The use of the preparing vessel is this, the arteries convey the blood of the testicles; part whereof is put in nourishment of them, and the production of those little bladders (in all things resembling eggs) through which the vasa preparentia runs, and are obliterated in them; and as for the veins their office is to bring back what blood remains from the use aforesaid.

The vessels of this kind are much shorter in women than in men, by reason of their nearness

to the stones, which defects is yet made good by the many intricate windings to which those vessels are subject; for in the middle way they divide themselves into two branches, tho' different in magnitude, for one being greater than the other passes to the stones.

The stones in women are very useful, for where they are defective, generation work is at an end, for altho' these bladders which are on their outward superficies contain nothing of seed, as the followers of Galen and Hippocrates did erroneously imagine yet they contain several eggs, generally twenty (in which testicle) one of each being impregnated by the spirituous part of the man's seed in the act of coition descends through the oviducts in the womb and from hence in the process of time becomes a living child.

CHAP. XVI.

Of the Organs of Generation of Man.

Having given you a description of the organs of generation in woman, with the anatomy of the fabric of the womb; I shall now (to complete the first part of this treatise) describe the organs of generation in man; and how they are fitted to the use for which nature designed them.

The instrument of generation in man (commonly called the yard; and in latin, penis a pendendo, because it hangs without the belly) is an organical part, which consists of skin, tendons, veins, arteries, sinews and great ligaments, and is long and round, and on the upper side flatish, seated under the ossa pubis, and ordained by nature partly by evacuation of urine, and partly for conveying the seed into the matrix; for which end it is full of small pores thro' which the seed

passes into it, thro' the vesicula seminalis, and also the neck of the vesicula urinalis which pours out the urine when they make water; besides the common parts as cuticula, the skin and the membrana carnos it hath these proper internal parts viz. The two nervous bodies, the septum, the urethra, the glans, four muscles, and the vessels. The nervous bodies (so called) are surrounded with a thick white previous membrane, but their inmost substance is spongy, consisting chiefly of veins, arteries and nervous fibres interwoven together like a net; and when the nerves are filled with animal spirits, and the arteries with hot and spiritous blood, then the penis is distended and become erect; but when the influx of dead spirits cease, then the blood and remaining spirits limber and grow flaggy; below these nervous bodies is the uthera, and whenever the nervous bodies swell, it swells also. The muscles of the penis are four, two shorter rising from the coxendix, and serving its erection, and for that reason are called erec-tors; two large proceeding from the spinter of the anc and serve to dilate the uretra ejaculation of seed; and are called dilatantes, or winding. At the end of the penis is the glands covered with a very thin membrane; by means of which and its nervous substance, it becomes more exquisitely sensible, and is the principal seat of pleasure in copulation. The utmost covering of the glans is called proputium a perputondo from being cut off, being that which the Jews cut off in circumcision, and it is tied by the lower part of it to the glands of the foetus.—The penis is also stocked with veins, arteries, and nerves.

The testiculi or stones (so called) because testifying one to be a man; elaborate the blood brought to them by the spermatic arteries into seed. They have coats of two sorts, proper and common; the common are two and invest both the testes. The

outermost of the common coats consists of the cuticula, or true skin; and is called the scrotum, hanging out of the abdomen like a purse, the innermost is the membrana carnea; the proper coats are also two, the outer called eliotrodes or virginals; the inner albugidia, into the outer is inserted the cremaster; the upper parts of the testes is fixed; epidimides, or pastata, from whence arise the vassa differentia, or ejaculatory which when they come near the neck of the bladder, deposit the seed into the vesicule feminales, the sevesicule feminales, are too, each like a bunch of grapes, and emit the seed into the urethera, is the act of copulation.

Near them are the prostrate, about the bigness of a walnut and join to the neck of the bladder. Authors cannot agree about the use of them; but most are of opinion, that they afford an oily, sloppy, and fat humour; to besmear the urethera, whereby to defend the same from the acrimony of the seed and urine. But the vessels which the seed is made arartriae spermaticae, and are also two. The veins which carry out the remaining blood are two, and have the name of venae spermaticae.

CHAP. XVII.

A word of Advice to both Sexes: being several Directions respecting Copulation.

Since nature has implanted in every creature a mutual desire of copulation, for the encrease and propagation of its kind; and more especially in man the lord of the creation, and in ster-piece of nature; that so noble a piece of divine workmanship might not perish, something ought to be said concerning that, it being the found

we have been hitherto treating of: since without copulation there can be no generation. Seeing therefore it depends so much upon it, I thought it necessary, before I conclude the first part, to give such directions to both sexes, for the performing of that act, as may appear efficacious to the end of which nature designed it. But it will be done with that precaution, as not to offend the chastest ear, nor put the fair sex to the trouble of a blush in reading it. Therefore, when a married couple, from a desire of having children, are about to make use of those means that nature ordained to that purpose, it would be very proper to cherish the body with generous restoratives, so that it may be brisk and vigorous: and if their imaginations were charmed with sweet and melodious airs, and cares and thoughts of business drowned in a glass of racy wine, that their spirits may be raised to the highest pitch of ardor and joy, it would not be amiss. For any thing of sadness, trouble and sorrow, are enemies to delights of Venus. And if at such times of coition, there should be conception, it would have a malevolent effect upon children. But though generous restoratives may be used for invigorating nature, yet all excess is carefully to be avoided, for it will allay the briskness of the spirits, and render them dull and languid, and also hinders digestion, and so must needs be an enemy to copulation. For if food moderately taken that is well digested, creates good spirits, and enables a man with vigour and activity to perform the dictates of nature. It is also highly necessary, that in their natural embraces, they meet each other with an equal ardor. For if the spirits flag on either side they will fall short of what nature requires: and women either miss of conception, or else the children prove weak in their bodies, or defective in their understanding: and therefore I do advice them before

they begin their conjugal embraces, to invigorate their mutual desires, and make their flame burn with a fierce ardor, by those endearing ways, that love can better teach than I can write

When they have done what nature requires, a man must have a care he does not part too soon from the embraces of his wife, lest some sudden interposing cold should strike into the womb, and occasion miscarriage and thereby deprive them of the fruit of their labour.

And when after some small convenient time the man hath withdrawn himself, let the woman gently betake herself to rest with all imaginable serenity and composure of mind, from all anxious and disturbing thoughts, or any other kind of perturbation: And let her, as much as she can forbear turning herself from that side on which she first reposed; and by all means let her avoid coughing or sneezing, which by its violent concussion of the body, is a great enemy to conception, if it happens soon after the act of coition.

End of the First Book.

A
PRIVATE LOOKING-GLASS.

FOR THE
FEMALE SEX.

PART SECOND.

*Treating of several maladies incident to the womb
with proper remedies for the cure of each.*

CHAP. I.

Of the Womb in general.

Although in the first part I have spoken something of the fabric of the womb, yet being in the second part to treat more particularly hereof, and of the various distempers and maladies, it is subject to; I shall not think it tautology, to give you, by way of instruction, a general description both of its situation and parts, but rather think this second part would be imperfect without it, can by no means be omitted, especially since in it I am to speak of the menstruous blood.

First.—Touching the Womb: Of the Grecian it is called Metra, the mother; Adelphos saith Priscian, because it makes us all brothers.

It is placed in hypogastrum, or lower part of the body, in the cavity called pelvis, having the strait gut on one side, to keep it from the other side of the back bone, and the bladder on the other side to defend it from blows.—The form or figure of it is like a virile member, only this excepted; the manhood is outward, and womanhood within.

It is divided into the neck and the body.—The

neck consists of a hard fleshy substance, much like a cartilage, at the end thereof there is a membrane transversely placed called hymen, or engion; near unto the neck there is a prominent pinnacle, which is called of Montanus, the door of the womb, because it preserveth the matrix from the cold and dust. Of the Grecians it is called clytoris, of the Latins perputium muliebre, because the Jewish women did abuse those parts to their own mutual lusts, as St. Paul speaks, Rom. i. 20.

The body of the womb is that wherein the child is conceived. And this is not altogether round, but dilates itself into two angles: the outward part of it is nervous and full of sinews, which are the cause of its motion, but inwardly it is fleshy. It is fabulously reported, that in the cavity of the womb there are seven divided cells, or receptacles for human seed. But those that have seen anatomies, do know there are but two; and likewise, that these two are not divided by a partition, but only by a line, running through the midst of it. In the right side of the cavity, by reason of the left side, by the coldness of the spleen females are begotten.

And this do most of our moderns hold for an infallible truth, yet Hippocrates holds it but in the general: For in whom, saith he, the spermatic vessels on the right side come from the veins, and the spermatic vessels on the left side from the hollow veins, in them males are conceived in the left side, and the females in the right. Well, therefore I conclude with the saying of Epidocles—such sometimes is the power of the seed, that a male may be conceived in the left side as well as in the right. In the bottom of the cavity there are little holes called the cotilendons, which are the end of certain veins and arteries, serving in breeding women to convey substance to the child which is received by the umbilical veins; and others to carry the courses into the matrix.

Now touching the menstruels—they are defined to be a monthly flux of excrementious and unprofitable blood.

In which we are to note, that the matter flowing forth is excrementious; which is to be understood of the superplus or redundance of it, for it is an excrement in quality, its quality being pure and incorrupt, like unto the blood in the veins.

And that the menstruous blood is pure and subtile of itself, all in one quality with that in the veins, is proved two ways; First, from the final cause of the blood, which is the propagation and conservation of mankind; that man might be conceived, and being begotten, he might be comforted and preserved both in the womb and out of the womb. And all will grant it for a truth, that a child while it is in the matrix, is nourished with the blood; and it is true, that being out of the womb it is still nourished with the same, for the milk is nothing but the menstruous blood made white in the breast; and I am sure women's milk is not thought to be venomous, but of a putritive quality, answerable to the tender nature of the infant: Secondly, it is proved to be true from the generation of it, it being the superfluity of the last aliment of the fleshy part.

It may be objected—If the body be not of a hurtful quality how can it cause such venomous effects? As if the same fall upon trees and herbs, it maketh the one barren, and mortifieth the other. Averves writes—that if a man accompany with any menstruous woman, if she conceive she shall bring forth a leper. I answer—this malignity is contracted in the womb; for that wanting native heat to digest this superfluity, sends it to the matrix, where seating itself until the mouth of the womb be dilated it becomes corrupt and venomous, which may easily be, considering the heat and moisture of the place. This blood, therefore

being out of its vessels, it offends in quality. In this sense let us understand Pliny, Cornelius Florns, and the rest of that torrent. But if frigidty be the cause why women cannot digest all their last nourishments, and consequently that they have these purgations, it remains to give a reason why they are of so cold a constitution more than a man which is this.

The natural end of man and woman's being is to propagate; and this injunction was imposed upon them by God at their first creation, and again after the deluge. Now in the act of conception there must be an agent and patient, for if they be both every way of one constitution, they cannot propagate; man therefore, is hot and dry, women cold and moist; he is the agent, she the patient, or weaker vessel, that she should be subject to the office of the man. It is necessary the woman should be of a cold constitution, because in her is required a redundancy of nature for the infant depending on her; for otherwise, if there were not a superflux of nourishment for the child, more than is convenient for the mother, then would the infant detract and weaken the principal parts of the mother, and like unto the viper, the generation of the infant, would be the destruction of the parent.

The monthly purgations continue from the fifteenth year to the forty-sixth or fiftieth. Yet often there happens a suppression, which is either natural or morbifical, they are naturally suppress'd in breeding-women, and such as are sick. The morbifical suppression falls into our method to be spoken of.

CHAP. II.

Of the Retention of the Courses.

The suppression of the terms is an interruption of that customary evacuation of blood, which, every month, should come from the matrix, proceed from the instrument or matter vitiated, the part affected is the womb, and that of itself or by consent.

Cause.]—The cause of this suppression is either external or internal. The external cause may be heat or dryness of the air, immoderate watching, great labour, vehement motion, &c. whereby the matter is confused, and the body so exhausted, that there is not a superplus remaining to be expelled, as is recorded of the Amazons, who being active and always in motion, had their fluxations very little, or not at all. Or, it may be caused by cold, which is most frequent, making the blood vicious and gross, condensing and binding up the passages that it cannot flow forth.

The internal cause is either instrumental or material, in the womb, or in the blood.

In the womb it may be divers ways; by a post humes, humours, ulcers, by the narrowness of the veins and passages, or by the omentum or kell in fat bodies pressing the neck of the matrix; but then they must have hernia zirthis; for in mankind the kell reacheth not so low. By over much cold or heat, the one vitiating the action, and the other consuming the matter by an evil composition of the uterine parts, by the neck of the womb being turned aside, and sometimes, though rarely, by a membrane or excrescence of the flesh growing about the mouth or neck of the womb. The blood may be in fault two ways, in quantity or quality. In quantity, when it is so consumed that there is not a superplus left as in virgins or sterile women, who, through their heat and strength

of nature, digest and consume all in their last nourishment.

Signs.]—Signs manifesting the disease, are pains in the head, neck, back and loins, weakness of the whole body, but especially of the hips and legs, by reason of a confinity which the matrix hath with these parts, trembling of the heart—particular signs are these: if the suppression proceed from cold, she is heavy, sluggish, of a pale colour, and has a slow pulse; Venu's combats are neglected, the urine crudle, waterish, and much in quantity, the excrements of the guts usually are retained. If of that, the signs are contrary to those now recited. If the retention natural, and come of conception, this may be known by drinking of hydromel, that is, water and honey, after supper, going to bed, and by the effect which it worketh; for, after taking it, she feels a beating pain upon the navel, and lower part of the belly, it is a sign she hath conceived, and that the suppression is natural: if not, then it is vicious, and ought medicinally to be taken away.

Prognostics.]—With the evil quality of the womb the whole body stands charged, but especially the heart, the liver, and the brain; and setwixt the womb and these three principal parts, there is a singular concert.—First, the womb communicates to the heart, by the mediation of those arteries which come from the aorta. Hence, the terms being supprest, will ensue faintings, intermission of pulse, and cessation of breath. Secondly, it communicates to the liver, by the veins derived from the hollow vein. Then will follow obstructions, cahexies, jaundice, dropsies, hardness of spleen. Thirdly, it communicates to the brain, by the nerves and membrane of the back; hence will arises epilepsies, frenzies, melancholy, passion, pain in the after-part of the

head, fearfulness, inability of speaking. Well, therefore, may I conclude with Hipocrates—if the months be suppress, many dangerous diseases will follow.

Cure.]—In the cure of this, and of all other following effects, I will observe this order. The cure must be taken from chirurgical, pharmacentical and diuretical means. This suppression is a plethoric effect, and must be taken away by evacuation. And therefore we will first begin with phlebotomy. In the midst of the menstrual period, open the liver vein, and for the reversion of the humour, two days before the wonted evacuation, open the saphena on both feet; if the repletion be not great, apply cupping-glasses to the legs and thighs, although there be no hope to remove the suppression.

After the humour hath been purged, proceed to make proper and suitable remedies. Take of trochisk of myrrh one drach and a half, parsley-seed, castor rhinds, or cassia, of each one scruple; and of the extract of mugwort one scruple and an half; musk ten grains with the juice of smallage, make twelve pills; take six every morning, or after supper, going to bed.

If the retention comes from repletion or fulness, let the air be hot and dry, use moderate exercise before meals, and your meat and drink attenuating; seethe, with your meat, garden savory, thyme, origane, and cyche peason; if of emptiness, or defect of matter, let the air be moist and moderate hot, shun exercise and watchings, let your meat be nourishing, and of a light digestion, as rare eggs, lamb, chickens, almonds, milk, and the like.

CHAP. III.

Of the Overflowing of the Courses.

The learned say, by comparing of contraries, truth is made manifest. Having, therefore spoken of the suppression of terms, order requires, now that I should insist on the overflowing of them, an effect no less dangerous than the former, and this immoderate flux if the month is defined to be a sanguineous excrement proceeding from the womb, exceeding in both quantity and time—First, it is said to be sanguineous, the matter of the flux being only blood wherein it differs from that which is commonly called the false courses or whites, of which I shall speak hereafter—Secondly, it is said to proceed from the womb, for there are two ways by which the blood flows forth, the one way is by the internal veins in the body of the womb, and this is properly called the monthly flux. The other is by those veins which are terminated in the neck of the womb—Lastly, it is said to exceed both in quantity and time. In quantity, saith Hipocrates, when they flow about eighteen ounces; in time, when they flow above three days; but we take this for a certain character of their inordinate flowing, when the faculties of the body are thereby weakened; in bodies abounding with gross humours, this immoderate flux sometimes unburthens nature of her load, and ought not be stayed without the consent of a physician.

Cause.]—The cause of this affair is internal or external: the internal cause is threefold, in the matter, instrument, or faculty. The matter, which is in the blood, may be vicious two ways, First, by the heat of constitution, climate or season heating the blood, whereby the passages are dilated, and the faculty weakened, that it cannot contain

the blood—Secondly, by falls, blows, violent motion, breaking of the veins, &c.

The external cause may be calidity of the air lifting, carrying of heavy burdens, unnatural child birth, &c.

Signs.]—In this inordinate flux, the appetite is decayed, the conception deprived, and all the actions weakened, the feet are swelled, the colour of the face is changed, and a general feebleness possesseth the whole body. If the flux comes by the breaking of a vein, the body is sometimes cold, the blood flows forth on heaps, and that suddenly, with great pains. If it comes through heat, the orifice of the vein being dilated, then there is little or no pain; yet the blood flows faster than it doth in an erosion, and not so fast as it doth in a rupture. If by erosion, or shapness of blood, she feels a great heat scalding the passage, it differs from the other two, in that flows not so suddenly, nor so copiously as they do: If by weakness of the womb, she abhorreth the use of Venus—Lastly, if it proceed from an evil quality of the blood, drop some of it on a cloth, and when it is dry, you may judge of the quality of the colour. If it be choleric, it will be yellow, if melancholy, black; if phlegmatic, waterish and whitish.

Prognostics.]—If with the flux be joined a convulsion, it is dangerous, because it imitates the more noble parts are vitiated, and a convulsion caused by emptiness is deadly; if it continues long, it will be cured with great difficulty, for it was one of the miracles that our Saviour Christ wrought, to cure this disease, when it had continued twelve years. To conclude—if the flux be inordinate, many diseases will ensue, and without remedy, the blood, together with the native heat, be consumed, either cachectical, hydropical, or paralytical diseases will follow.

Cure.]—The cure consisteth in three particulars—First, in repelling and carrying away the blood—Secondly, in correcting and taking away the fluxability of the matter—Thirdly, in corroborating the veins and faculties: For the first, to cause a regression of the blood, open a vein in the arm, and draw out so much blood as the strength of the patient will permit, and that not together, but at several times, for thereby the spirits are less weakened, and the refraction so much the greater.

Apply cupping-glasses to the breasts, and also the liver, that the reversion may be in the fountain.

To correct the fluxability of the matter, cathartical means, moderated with the astringencies, may be used.

If it be caused by erosion, or sharpness of blood, consider whether the erosion be by salt phlegm, or adust choler; if with salt phlegm, prepare with syrup of violets, wormwood, roses, citron-peel, succory, &c. Then take this purgation following: Mirobulano Chebol half an ounce, trochilks of agaric one dram, with plaintain water make a decoction, add thereunto fir, roseat, lax three ounces, and make a potion.

If by adust choler, prepare the body with syrup of roses, myrtle, sorrel, purslain, mix with water of plaintain, knot-grass and endiva; then purge with this potion—Take rhind of mirobulana, rhubarb, of each one dram, cinnamon fifteen grains, infuse them one night in endive water; and to the straining pulp of a tamarind, cassia, of each half an ounce, syrup of roses an ounce, make a portion. If the blood be waterish or unconcoct, as it is in the hydropical bodies, and flow forth by reason of the tenuity or thinness to draw off the water, it will be profitable to purge with agaric elaterium, coloquintida. Sweating is *triper r*.

this case, for thereby the matter offending is taken away, and the motion of the blood carried to the outward parts. To procure sweat, use carduus water, with mythridate, or the decoction of sarsaparilla. The gum of guaiacum also greatly promotes sweat: pill of sarsaparilla taken every night going to bed, are worthily commended. If the blood flows forth through the opening or breaking of a vein, without any evil quality of itself, then ought only corroboratives to be applied, which is the last thing to be done in this inordinate flux.

The air must be cold and dry; all motion of the body is forbidden; let her meat be pheasant, partridge, mountain-birds, coneys, calves feet, &c. And let her beer be mixed with the juice of pomegranates and quinces

CHAP. IV.

Of the weeping of the Womb.

The weeping of the womb is a flux of blood, unnatural, coming from thence in drops, after the manner of tears, causing violent pains in the same, keeping neither period nor time.—By some it is referred unto the immoderate evacuation of the course, yet they are distinguished in the quantity and manner of over-flowing, in that they flow copiously and free in this continually, though by little and little, and that with great pain and difficulty, wherefore, it is likened unto the strangury.

The cause is in the faculty, instrument or matter. In the faculty, by being enfeebled, that it cannot expel the blood, and the blood resting there, makes the part of the womb grow hard and stretching the vessels, from whence proceedeth the pain of the womb. In the instrument, by the narrowness of the passages. Lastly, it may be

the matter of the blood, which may offend in too great a quantity, or in an evil quality, it being gross and thick, that it cannot flow forth as it ought to do, but by drops. The signs will best appear by the relation of the patient: Hereupon will issue pains in the head, stomach, and back, with inflammations in the head, stomach, and back; with inflammation, suffocations, and excoriations of the matrix. If the strength of the patient will permit, first open a vein in the arm, rub the upper parts, and let her arm be corded. that the force of the blood may be carried backwards; then apply such things as may laxate and mollify the strengthening the womb, and assuage the sharpness of the blood, as cataplasms made of brand, lintseed, fenugreek, meliot, mallows, mercury and artiplex: if the blood be vicious and gross, add thereto mugwort, calamint, dictain and betony; and let her take of Venice treacle the quantity of a nutmeg, the syrup of mugwort every morning, make injections of the decoctions of mallows, mercury, lintseed, grounsel, mugwort, fenugreek, with oil of sweet almonds.

Sometimes it is caused by wind, and then phlebotomy is to be omitted, and in the stead thereof take syrup of feverfew an ounce, honey, roses, syrup of flæchus, of each half an ounce. Water of calamint, mugwort, betony, hysop, of each an ounce, make a julep: if the pain continues, take this purgation—take specheiac one dram, diacatholicon half an ounce, syrup of laxaivets one ounce, with the decoction of mugwort, and the four cordial flowers, make a potion. If it comes through the weakness of the faculty, let that be corroborated; If through the grossness and sharpness of the blood, let the quality of it be altered, as I have shown in the foregoing chapter. Lastly, if the excrements of the guts be retained, provoke

them by glyster of the decoction of camomile betony, feverfew, mallows, lintseed, juniper-berries, common seed, anniseed, meliote, adding thereto diacatholican half an ounce, salt-peter a dram and a half. The patient must abstain from salt, sharp and windy meat

CHAP. V.

The false Courses, or Whites.

From the womb proceeds not only menstuous blood, but, accidentally, many other excrements, which by the ancients, are comprehended under the title of robus, gunakois, which is a distillation of a variety of corrupt humours through the womb flowing from the whole body, or part of the same, keeping neither course nor colour, but varying in both.

Course.]—The cause is either promiscuously in the whole body, by a cacochymia, or weakness of the same, or in some of the parts, as in the liver, which by the inability of the sanguificative faculty, causeth a generation of corrupt blood; and the matter is reddish, sometimes the gall being sluggish in its office, not drawing away those choleric superfluities engendered in the liver; and the matter is yellowish, sometimes in the spleen, not descending and cleansing the blood of the dregs of excrementious parts. And then, the matter flowing forth is blackish: It may also come from the catarrhs in the head, or from any other putrefied or corrupted member; but if the matter of the flux be white, the cause is either in the stomach or reins. In the stomach, by a plegmatical and crude matter there contracted and variated, through grief, melancholy, and other disempers; for, otherwise, if the matter were only

pernical, crude phlegm, and no ways corrupt. being taken into the liver, it might be converted into blood; for, phlegm in the ventricle is called nourishments half digested; but being corrupt, though sent into the liver, yet it cannot be turned into nutriment; for the second decoction cannot corrupt that which the first hath corrupted; and therefore the liver, sends it to the womb, which can neither digest nor repel it, and so it is voided out with the same colour it had in the ventricle. The cause also may be in the reins being overheated, whereby the spermatical matter, by reason of its thinness flows forth. The causes may be moistness of the air, eating of corrupt meats, anger, grief, slothfulness, immoderate sleeping, costiveness in the body.

The signs are exturbation of the body, shortness and stinking of the breath, loathing of meat, pain in the heart, swelling in the eyes and feet, melancholy; humidity flows from the womb of divers colours, as red, black, green, yellow, and white. It differs from the flowing and overflowing of the courses, in that it keeps no certain period, and is of many colours, all which do generate from blood.

Prognostics.]—If the flux be phlegmatical, it will continue long, and difficult to cure; yet if admitting, for diarrhae happeneth, diverts the humour, it cures the disease. If it be choleric, it is not so permanent, yet more perilous, for it will cause a cliff in the neck of the womb, and sometimes make an excoriation of the matrix; in melancholic it must be dangerous contamacious yet the flux of the hemerhoids administers cure.

If the matter flowing forth be reddish, open a vein in the arm; if not apply ligatures to the arms and shoulders; Galen glories of himself, how he cured the wife of Brutus labouring of this disease, by rubbing her upper part with crude honey.

If it is caused by distillation from the brain take syrup of betony, stochas and marjoram, purge with pilloch, fine quibus de agarico; make nasalialia of the juice of sage, hysop, betony, nigella, with one drop of the oil of elect, dianth, aromat, rofat, diambrae, diomeseth, dulcis, of each one dram, nutmeg, half a dram; with sugar and betony water, make lozenges, to be taken every morning and evening. Huri Alexandrina half a dram, at night going to bed. If these things help not use the suffumigation and plaister, as they are prescribed.

If it proceeds from crudities in the stomach, or from a cold distempered liver, take every morning of the decoction of liguom sanctum; purge with peell de agarico de hermodact, de hiera, diacolinid, foetid, agrigatio, take elect, aromat, rosces, two drams; citron peell dried, nutmeg, long peper, of each one scruple, with mint water and make lozenges of it. Take of them before meals; if the frigidity of the liver there be joined a repletion of the stomach, purging by vomit is commendable; for which take three drams of the electuary diasara Galen allows diuretical means as absum, ptrosolinan.

If the matter of the flux be choleric, prepare the humour with syrup of roses, violets, endive, succory; purge with mirobolans, manna, rhubarb, cassia. Take of rhubarb two drams, anniseed one dram, cinnamon a scruple and an half, infuse them in six ounces prune broth; add to the straining of manna an ounce, and take in the morning according to art. Take spicerum, diatonlanton, diocorant, prig diarthod, abbaris, diacydomes, of each one dram, sugar four ounces, with plaintain water, make lozenges. If the slyster of the gall be sluggish, and do not stir up the faculty of the gut, give glysters, with the decoction of four mollifying herbs, with honey of roses and alloes.

If the flux be melancholous, prepare with syrup of maiden hair, epithymium, polipody, borragé buglos, fumitary, harts, tongue, and syrupus bisatius, which must be made without vinegar, otherwise it will rather animate the disease than nature; for melancholy, by the use of vinegar, is increased, and both by Hippocrates, Sylvius, and Avenzoar, it is disallowed of as an enemy to the womb, and therefore not to be used inwardly in all uterine diseases.

Lastly—Let the womb be cleansed from the corrupt matter, and then corroborated; for the purifying thereof make injections of the decoction of betony, feverfew, spikenard, bistrof, mercury, sage, adding thereto, sugar, oil of sweet almonds, of each two ounces; pessaries also may be made of silk, cotton, modified in the juice of the afore-mentioned herbs.

CHAP. VI.

Of the Suffocation of the Mother.

The effect (which if simply considered) is none but the cause of an effect, is called in English the suffocation of the mother; not because the womb is strangled, but for that it causeth the womb to be choaked. It is a retraction of the womb towards the midriff and stomach, which presseth and crusheth up the same, that the instrumental cause of respiration, the midriff is suffocated—and consenting with the brain, causing the animating faculty, the efficient cause of respiration, also to be intercepted, where the body being refrigerated and the action depraved, she falls to the ground as one being dead.

In these hysterical passions some continue longer some shorter: Rabbi Moses writes of some who

lay in the paroxysm of the fit for two days. Rufus makes mention of one who continued in the same passion three days and three nights, and at the third days end she revived. That we may learn by other men's harms to beware, I will tell you an example, Paræus writeth of a woman in Spain who suddenly fell into an uterine suffocation, and appeared to men's judgment as dead; her friends wondering at this her sudden change, for their better satisfaction sent for a surgeon to have her dissected, who beginning to make an incision, the woman began to move, and with great clamour returned to herself again, to the horror and admiration of all the spectators.

That you may distinguish the living from the dead, the ancients prescribe three experiments: The first is to lay a light feather to the mouth, and by its motion you may judge whether the patient be living or dead. The second is—to place a glass of water on the breast, and if you perceive it to move, it betokeneth life. The third is—hold a pure looking-glass to the mouth and nose, and if the glass appears thick with a little dew upon it, it betokeneth life. And these three experiments are good, yet with this caution, that you ought not to depend on them too much, for though the feather and the water do not move, and the glass continue pure and clear, yet it is not a necessary consequence that she is destitute of life; for the motion of the lungs, by which the respiration is made, may be taken away that she cannot breathe, yet the internal transportation of the heat may remain, which is not manifest by the motion of the breast or lungs, but lies occult in the heart and inward arteries; examples thereof we have in the fly and swallow, which in the cold of winter seem dead, and breathe not at all; yet they live by the transpiration of that heat which is reserved in the heart and inward arteries;

therefore when the summer approacheth, the internal heat being revocated to the inward part, they are then again revived out of their sleepy extacy.

Those women therefore that seem to die sudden, and upon no evident cause, let them not be committed to the earth until the end of three days lest the living be buried for the dead.

Cause.]—The part affected in the womb, of which there are a two-fold motion, natural and symptomatical. The natural motion is, when the womb attracteth the human seed, or excludeth the infant or secundine. The symptomatical motion of which we are to speak, is a convulsive drawing of the womb.

Signs.]—At the approaching of the suffocation, there is a paleness of the face, weakness of the legs, shortness of breath, frigidity of the whole body, with a working up into the throat, and then she falls down at once void both of sense and motion; the mouth of the womb is closed up, and being touched with the finger it feels hard, the paroxium of the fit once part, she openeth her eyes, and feeling her stomach opprest, she offers to vomit.

Prognostics.]—If the disease hath its being from the corruption of the seed, it foretells more danger than if it proceeded from the suppression of the courses, because the seed is concocted and of a purer quality than the menstruous blood: and the more pure being corrupted, becomes the more foul and filthy, as appears in eggs, the purest nourishment which vitiated, will yield the noisomest flavour. If it be accompanied with a syncope, it shows nature is but weak, and that the spirits are almost exhausted; but if sneezing follows, it shows the heat that was almost extinct, doth now begin to return, and nature will subdue the disease.

Cure.]—In the cure of this effect, two things

must be observed; First, That during the time of the paroxism, nature be provoked to expel those malignant vapors which bind up the senses, that she may be recalled out of the sleepy ecstasy. Secondly, That in the intermission of the fit, proper medicines be applied to take away the cause.

To stir up nature, fasten cupping-glasses to the hips and navel, applying ligatures unto the thighs; rub the extreme parts with salt, vinegar, provoke her to sneeze by flowing up into her nostrils the powder of castor, white pepper, politory of Spain, and hellebore. Hold under her nose partridge feathers, hair and old shoes, burnt, and all other stinking things, for evil odours are enemies to nature; hence the animal spirits do so contest and strive against them that the natural heat is thereby restored. The brain is so oppressed sometimes, that we are compelled to burn the outward skin of the head with hot oil, or with a hot iron. Sharp clysters and suppositories are available. Take of sage, calamint, harehound, feverfew, marjoram, betyon, hyssop, of each one handful; anniseed half an ounce; coloquotinda, white hellebore, saligem of each two drachms; boil these in two pounds of water to the half; add to the straining oil of castor two ounces; hicra piora two drachms, and make a glyster of it.

If it be caused by the retention and corruption of the seed, at the instant of the paroxism, let the midwife take oil of lilies, maragoram and bays, dissolving in the same two grains of civet; add as much musk; let her dip her finger therein, and put into the neck of the womb, tickling and rubbing the same.

The fit being over, proceed to the curing of the cause. If from the retention of the seed, a good husband will administer a cure, but those who cannot honestly purchase that cure, must use such

things as well dry up and diminish the seed; as dicuminua, diacalaminthes, &c. Amongst banomics, the seed of *augus castus*, is well esteemed of whether taken inwardly, applied outwardly, or receive a suffumigation. It was held in great honour amongst the Athenians, for by it they did remain as pure vessels, and preserved their chastity by only strowing it on the bed whereon they lay, and hence the name of *augus castus* given it, as denoting its effects. Make an issue in the inside of each leg, an hand breadth below the knee. Make trochisks of *agric* two scruples, wild carrot-seed, ling aloes, of each half a scruple; washed turpentine, three drachms, with conserve of *anthos* make a bolus; castor is of excellent use in this case, eight drachms of it taken in white wine, or you may make pills of it with *mithridite*, and take them going to bed. Take of the white priony root dried, and after the manner of carrots, one ounce; put into a draught of wine, placing it by the fire, and when it is warm drink it; take *myrrh*, castor, *assofætida*, of each one scruple; saffron and rue seed, of each four grains; make eight pills, and take two every night going to bed.

Galen, by his own example, commends unto us *agarc* pulverized, of which he frequently gave one scruple in white wine; lay to the naval at bed time a head of garlic bruised, fastening it with a swithing band; make a girdle of *galbacum* for the waist, and also a plaster for the belly, placing in one part of it *civet* and musk, which must be laid upon the navel. Take *pulveris benedict*, trochisk of *agarc*, of each two drachms, *mithridite* a sufficient quantity, and so make two passeries, and it will purge the matrix of wind and phlegm, foment the natural part with salad oil, in which has been boiled rue, feverfew and camomile

CHAP. VII.

Of descending or falling of the Mother

The falling down of the womb is relaxation of the ligatures, whereby the matrix is carried backward, and in some hangs out in the bigness of an egg. Of these are two kinds, distinguished by a descending and precipitation. The descending of the womb is, when it sinks down to the entrance of the privates, and appears to the eye either not at all or very little. The precipitation is, when the womb, like a purse is turned inside outward, and hangs betwixt the thighs in the bigness of a cupping-glass.

Cause.]—The cause is external or internal: The external is difficult child-birth, violent pulling away the secundine, rashness and inexperience in drawing away the child, violent coughing, sneezing, falls, blows, and carrying heavy burthens. The internal cause, in general, is overmuch humidity flowing into these parts, hindering the operation of the womb, whereby the liraments by which the womb is supported is relaxed.

The cause, in particular, is referred to be in the retension of the seed, or in the suppression of the monthly courses.

Signs.]—The a—e, gut and bladder often-times are so crushed that the passage of both excrements are hindered; if the urine flows forth white and thick, and the midriff is molested, the loins are grieved, the privates pained, and the womb sinks down to the private parts, or else comes clean out.

Prognostics.]—This grief possessing an old woman is cured with great difficulty, because it weakens the faculty of the womb, and therefore though it be reduced into its proper place, yet upon every little illness or indisposition it is subject to return; and so it also is with the younger

sort, if the disease be inveterate. If it be caused by a putrefaction in the nerves it is incurable.

Cure.]—The womb being naturally placed between the strait gut and the bladder, and now fallen down ought to be put up again, until the faculty both of the gut and bladder be stirred up; nature being unloaded of her burden, let the woman be laid on her back in such sort, that her legs may be higher than her head; let her feet be drawn up to her hinder parts, with her knees spread abroad: then molify the swelling with oil of lillies and sweet almonds, or with the decoction of mallows, beets, fenugrek, and linseed: When the inflammation is dissipated, let the midwife anoint her hand with oil of mastic, and reduce the womb into its place.

CHAP. VIII.

Of the Inflammation of the Womb.

The phlegmon, or inflammation of the matrix, is a humour possessing the whole womb, accompanied with unnatural heat, by obstruction and gathering together of corrupt blood.

* *Cause.*]—The cause of this effect is suppression of the menses, repletion of the whole body, immoderate use of Venus, often handling genitals, difficult child-birth, vehement agitation of the body, falls, blows; to which also may be added, the use of sharp pessaries whereby not seldom the womb is inflamed; cupping-glasses also fastened to the pupis and hypogastrium, draw the humours to the womb.

Signs.]—The signs are anguish, humours, pain in the head and stomach, vomiting, coldness of the knees, convulsions of the neck, doating, trembling of the heart; often there is a straitness

of breath, by reason of the heat which is communicated to the midriff, the breasts sympathizing with the womb, pointed and swelled. Further, if the fore-part of the matrix be inflamed, the privities are grieved, the urine is supprest, or flows forth with difficulty. If the after-part, the loins and back suffer, the excrements are retained; if the right side, the right hip suffers, the right leg is heavy, slow to motion, insomuch that sometimes she seems to halt. And so, if the left side of the womb be inflamed, the left hip is pained, and the left leg is weaker than the right. If the neck of the womb be refreshed, the midwife putting up her finger, shall feel the mouth of it retracted, and closed up with hardness about it.

Prognostics.]—All inflammations of the womb are dangerous, if not deadly; and especially if the total substance of the matrix be inflamed; yet, they are perilous if in the neck of the womb. A flux of the belly foretells health, if it be natural; for, nature works best by the use of her own instruments.

Cure.]—In the cure first let humours flowing to the womb be repelled; for effecting of which, after the belly has been loosened by cooling clysters, phlebotomy will be needful; open therefore, a vein in the arm, and (if she be not with child) the day after, strike saphena on both feet, fasten ligatures and cupping-glasses to the arm, and rub the upper part. Purge lightly with cassia, rhubarb, senna, morobolans. Take of senna two drachms, anniseed one scruple, morobolans, half an ounce, barley-water a sufficient quantity, make a decoction: dissolve in it syrup of succory, with rhubarb, two ounces, pulp of cassia half an ounce, oil of anniseed two drops, and make a potion.

The air must be cold, all motion of the body, especially of the lower parts, is forbidden; vigilance is commended: for, by sleep the humours

are carried inward, by which the inflammation is increased, eat sparingly, let your drink be barley-water, clarified whey; and your meat be chickens and chicken-broth, boiled with endive, succory, sorrel, buglows and mallows.

CHAP. IX.

Of the Scirrosity or Hardness of the Womb.

Of phlegmon neglected, or not perfectly, is generated a schirrus of the matrix; which is a hard unnatural swelling, insensibly hindering the operations of the womb, and disposing the whole body to slothfulness.

Cause.]—One cause of this disease may be ascribed to want of judgment in the physician, as many empirics, administering to an inflammation of the womb, do overmuch refrigerate and affringe the humor that it can neither pass backward nor forward—hence, the matter being condensed, degenerates into a lapidious hard substance. Other causes may be, suppression of the menstuous retention of the lochia, commonly called the after-purgings, eating of corrupt meat, as in the disordinate longing called pica, to which breeding women are so often subject. It may proceed also from obstructions and ulcers in the matrix, or from the evil effects of the liver and spleen.

Signs.]—If the bottom of the womb be affected, she feels, as it were, a heavy burden, representing a mole, yet differing, in that the breasts are attenuated, and the whole body waxeth less. If the neck of the womb be affected, no outward humours will appear; the mouth of it is retracted, and being touched with the finger, feels hard, nor can she have the company of a man without great pains and prickings.

Prognostics.]—A schirrus confirmed is incu-

rable, and will burn into a cancer or incurable dropsy, and ending in a cancer proves deadly, because the native heat in those parts being almost smothered, can hardly again be restored.

Cure.]—Where there is a repletion, phlebotomy is advisable; wherefore, opening the modina on both arms, and the saphena on both feet, more especially if the menses be suppressed.

The air must be temperate; gross, vicious, and salt meats are forbidden, as pork, bull's beef, fish, old cheese, &c

CHAP. X.

Of the Dropsy of the Womb.

The uterine dropsy is an unnatural swelling, elevated by the gathering together of wind or phlegm in the cavity, membranes or substance in the womb, by reason of the debility of the native heat and aliment received, and so it turns into an excrement.

The causes are, overmuch cold or moistness of the melt and liver, immoderate drinking, eating of crude meats, all which causing a repletion, do suffocate the natural heat. It may be caused likewise by the overflowing of the courses, or by any other immoderate evacuation. To these may be added, abortives, phlegmons and schirrosities of the womb.

Signs.]—The signs of this effect are those, the lower parts of the belly, with the genitals, are puffed up and pained, the feet swell, the natural colour of the face decays, the appetite is depraved, and the heaviness of the whole body concurs. If she turns herself, in the bed, from one side to the other, a noise like the overflowing of water, is heard. Water sometimes come from the matrix. If the swelling be caused by wind, the belly being

not, it sounds like a drum; the guts rumble, and the wind breaks through the neck of the womb with a murmuring noise; this effect may be distinguished from a true conception many ways, as will appear by the chapter of conception.

Prognostics.]—This effect foretell the sad ruin of the natural functions by that singular consent the womb hath with the liver; that, therefore, the chacevy, or general dropsy, will follow.

Cure.]—In the cure of this disease, imitate the practice of Hippocrates: First, mitigate the pain with fomentation of meliote, mercury, mallows, linseed, camomile, althea. Then let the womb be prepared with syrup of hyssop, caliment and mugwort. In diseases which have their rise from moistness, purge with pills. In effect which are caused by emptiness, or dryness, purge with a potion.—Fasten a cupping-glass to the belly, with a great flem, and also the navel, especially if the swelling be flatulent: Make an issue on the inside of each leg, a hand breadth below the knee.

The air may be hot and dry, moderate exercise is allowed; much sleep is forbidden; she may eat the flesh of partridges, larks, chickens, mountain birds, hares, conies, &c. Let her drink be thin wine.

CHAP. XI.

Of Moles and false Conceptions.

This disease is called by the Greeks, mole, and the cause of this denomination is taken from the load or heavy weight, it being a mole, or great lump of hard flesh burdening the womb.

It is defined to be an inarticulate piece of flesh without form, begotten in the matrix, as if it were a true conception. In which definition we are to

note two things : First, in that a mole is said to be articulate, and without form ; it differs from monsters, which are both formate and articulate. Secondly, it is said to be, as it were a true conception, which puts a difference between a true conception and a mole : which difference holds good three ways : First, in the genus, in that a mole cannot be said to be an animal. Secondly, in the species, because it hath no human figure, and bears not the character of man.—Thirdly, in the individuum, for it hath no affinity with the parent, either in the whole body, or any particular of the same.

Cause.]—About the cause of this effect, amongst learned authors, I find a variety of judgments. Some are of opinion, that if the woman's seed goes into the womb, and not the man's, therefore is the mole produced : others there'be that affirm, that it is gendered or the menstruous blood. But if these two were granted, then maids, by having their courses, or thro' nocturnal pollutions, might be subject to the same, which never yet any were. The true cause of this fleshy mole, proceeds both from the man and the woman, from corrupt and barren seed in man, and from the menstruous blood in woman, both mixed together in the cavity of the womb, where nature finding herself weak, yet desirous of maintaining the perpetuity of her species, labours to bring forth a vicious conception, rather than none ; and so, instead of a living creature, generates a lump of flesh.

Signs.]—The signs of a mole are these : The months are suppressed, the appetite depraved, the breasts swell, the belly is suddenly puffed up, and waxeth hard. Thus far the signs of a breeding-woman, and one that beareth a mole are all one. I shall show how they differ : the first sign of difference is taken from the motion of the mole, it may be felt to move in the womb before the

third month, which the infant cannot; yet the motion cannot be understood of an intelligent power in the mole, but the faculty of the womb and the seminal spirits diffused through the substance of the mole, for, it lives not a live animal, but a vegetative, in the manner of a plant. And secondly, in a mole, the belly is suddenly puffed up; but in a true conception, the belly is first retracted, and then raiseth up by degrees. Thirdly, the belly being pressed with the hand, the mole gives way; and the hand being taken away, it returns to the place again; but a child in the womb, though pressed with the hand moves not presently, and being removed, returns slowly, or not at all.—Lastly, the children continue in the womb not above eleven months; but a mole continues sometimes four or five years, more or less, according as it is fastened in the matrix. I have known when a mole hath fallen away in four or five months.

If it remain until the eleventh month, the legs wax feeble, and the whole body consumes, only the swelling of the belly still increases; which makes some think they are dropsical, though there be little reason for it. For, in the dropsy, legs swell and grow big, but in the mole they consume and wither.

Prognostics.]—If at the delivery of a mole the flux of the blood be great, it shows the more danger, because the parts of the nutrition having been violated by the flowing back of the superfluous humours, where the natural heat is consumed: and then parting with so much blood, the woman thereby is weakened in all her faculties, that she cannot subsist without difficulty.

Cure.]—We are taught in the school of Hippocrates, that phlebotomy causeth abortion, by taking all that nourishment which should preserve the life of the child. Wherefore, that this vicious

conception may be deprived of that vegetive sap by which it lives, open the liver vein and the saphena in both the feet, fasten cupping-glasses to the loins and sides of the belly, which done let the uterine parts be first mollified, and then the expulsive quality be provoked to the burthen.

To laxate the ligature of the mole, take mallows, with the roots three handfuls—camomile, meliolet, pollitory of the wall, violet leaves, mercury, roots of fennel, parsley of each two handfuls; linseed, fenugreek, each one pound; boil them in water, and let her sit therein up to her navel. At the going out of the bath, anoint the privates and reins with this unguent following—Take of camomile, lillies, sweet almonds, each one ounce, with the oil of linseed make an unguent.

The air must be tolerably hot and dry, and dry diet, such as do mollify and attenuate; she may drind white wine.

CHAP. XII.

Of the sign of Conception.

Ignorance makes women become murderers of the fruit of their own bodies, many having conceived, and thereupon finding themselves out of order, and not knowing rightly the cause, do either run to the shop of their own conceit, and take what they think fit: or else, as the custom is, they send to the physician for a cure; and he not perceiving the cause of their grief, feeling no certain judgment can be given by the urine, prescribes what he thinks best, perhaps some strong diuertic or cathartic potion, whereby the conception is destroyed. Wherefore Hippocrates says, there is a necessity that women should be instructed in the knowledge of conception, that the parents as well as the child might be saved from danger,

I will, therefore, give some instructions by which every one may know whether she be with child or not. The signs of conception shall be taken from the woman, from the urine, from the infant, and from experience.

Signs taken from the woman are these.—The first day after the conception she feels a light quivering or chillness running through the whole body; a tickling in the womb, a little pain in the lower part of the belly. Ten or twelve days after, the head is affected with giddiness, the eyes with dimness of sight: then follows red pimples in the face, with a blue circle about the eyes, the breast swell and grow hard, with some pain and prickling in them, the belly soon sinketh, and riseth again by degrees, with a hardness about the navel. The nipples of the breast grow red, the heart beats inordinately, the natural appetite is dejected, yet she has a longing desire after meats; the neck of the womb is retracted, that it can hardly be felt with the finger being put up; and this is an infallible sign. She is suddenly merry and soon melancholy, the monthly courses are stayed without any evident cause; the excrements of the guts are unaccustomedly retarded by the womb pressing the great guts, and her desire to Venus is abated.

The surest signs taken from the infant, which begin to move in the womb the third or fourth month; and that not in the manner of a mole from one side to another, rustling like a stone, but so softly as may be perceived by applying the hand hot upon the belly.

Signs taken from the urine.—The best writers do affirm that the urine of a woman with child is white, and hath little mites like those in the sun-beams, ascending and descending in it, a cloud swimming aloft, in an opal colour, the sediments being divided, by shaking the urine, appears like

carded wool, the middle of her time the urine turneth yellow, next red, and lastly black, with a red cloud. Signs taken from experience—At night going to bed let her drink water and honey, afterwards, if she feels a beating pain in her belly and about her navel, she hath conceived. Or let her take the juice of cardus, and if she vomiteth it up, it is a sign of conception. Cast a clean needle into the woman's urine, put it into a basin, let it stand all night, and in the morning if it be coloured with red spots she hath conceived, but if black or rusty, she hath not.

Signs taken from the sex, to show whether it be male or female. Being with child of a male the right breast swells first, the right eye is more lively than the left, her face well coloured, because such as the blood is, such is the colour; and the male is conceived in purer blood, and more perfect seed than the female; red motes in the urine setting down the sediments, foretell that a male is conceived, but if they be white a female. Put the woman's urine which is with child into a glass bottle, let it stand close stopped three days, then strain it through fine cloth, and you will find little living creatures. If they be red it is a male, if white it is a female. To conclude, the most certain sign to give credit unto, is the motion of the infant, for the male moves in the third month, and female in the fourth.

CHAP. XIII.

Of untimely births.

When the fruit of the womb comes forth before the seventh month (that is before it come to maturity) it is said to be abortive, and in effect the children prove abortive (I mean not alive) if it be

born in the eighth month. And why children born in the seventh or ninth month may live, and not in the eighth month, may seem strange, yet it is true: the cause thereof by some is ascribed unto the planet under which the child is born; for every month, from the conception to the birth, is governed by its proper planet. And in the eighth month Saturn doth predominate, which is cold and dry: Coldness being an utter enemy to life, destroys the nature of the child. Hippocrates gives a better reason, viz. The infant being every way perfect and complete in the seventh month, desires more air and nutriment than it had before; which, because he cannot obtain, he labours for a passage to get out; and if his spirits become weak and faint, and have no strength sufficient to break the membranes and come forth as is decreed by nature, that he should continue in the womb till the ninth month, that in that time his wearied spirits might again be strengthened and refreshed: but if he returns to strive again the eighth month, and be born, he cannot live because the day of his birth is either past or to come. For in the eighth month (saith Aven) he is weak and infirm; and therefore being cast into the cold air, his spirits cannot be supported.

Cause.]—Untimely birth may be caused by cold for as it maketh the fruit of the tree to wither and to fall down before it be ripe, so doth it nip the fruit of the womb, before it comes to full perfection, and makes it to be abortive; sometimes by humidity, weakening the faculty that the fruit cannot be restrained till the due time. By dryness or emptiness, defrauding the child of its nourishment. By one the alvine and fluxes of phie-botomy and other evacuations: by inflammations of the womb and other sharp diseases. Sometimes it is caused by joy, laughter, anger, and especially fear: for in that the heat forsakes the womb, and

runs to the heart for help there, so the cold strikes in the matrix, whereby the ligaments are relaxed, and so abortion follows; wherefore Plato, in his time, commanded that the women should shun all temptations of immoderate joy and grief. Abortion also may be caused by the corruption of the air, by filthy odours, and especially by the smell of the snuff of a candle; also by falls, blows, violent exercise, leaping, dancing, &c.

Signs.]—Signs of future abortion are extenuation of the breasts, with a flux or watery milk, pain in the womb, heaviness in the head, unusual weariness in the hips and thighs, flowing of the courses. Signs foreshewing the fruit to be dead in the womb, are hallowness of the eyes, pain in the head, anguish, horrors, paleness of the face and lips, gnawing of the stomach, no motion of the infant, coldness and looseness of the mouth of the womb, and thickness of the belly, which was above is fallen down, watery and bloody excrements come from the matrix

CHAP. XIV

Directions for Breeding Women.

The prevention of untimely birth consists in taking away the aforementioned causes which must be affected before and after the conception.

Before the conception, if the body be over hot, cold, dry, or moist, correct it with the contraries; if cacochimical, purge it; if plethriocal, open the liver vein; if too gross extenuate it; if too lean, corroborate and nourish it. All diseases of the womb must be removed as I have shown.

After conception the air must be temperate, sleep not over much, avoid watching, exercise of body, passions of mind, loud clamours, and filthy

smells; sweet odours are also to be rejected of those that are hysterical. Abstain from all things that provoke either the urine or courses also from salt, sharp and windy meats; a moderate diet should be observed.

The cough is another accident which accompanieth breeding women, and puts them in great danger of miscarrying, by a continual distillation falling from the brain. To prevent which, shave away the hair from the cornal and satial coissures, and apply thereon this plaster. Take resinæ half an ounce; laudanum one drachm; strachis liquidæ and fecæ sufficient quantity; dissolve the gums in vinegar, and make a plaster at night going to bed, let her take the fume of these trochisks cast upon the coals.

In breeding women there is a corrupted matter generated, which flowing to the ventricle, defecteth the appetite, and causeth vomiting. And the stozach being weak not able to digest this matter, sometimes sends it to the guts, whereby is caused a flux in the belly, which greatly stirreth up the faculty of the womb.—To prevent all these dangers, the stomach must be corroborated as follows: Take lign aloes, nutmeg of each one drachm; mace, clove, laudanum, of each other two scruples, oil of spike an ounce; musk two grains; oil of mastic, quinces, wormwood, of each half an ounce: make an unguen: for the stomach, to be applied before meals. Another accident which perplexeth a woman with child is swelling of the legs, which happens the first three months by superfluous humours falling down the stomach and liver; for the cure whereof, take oil of roses two drachms; salt vinegar, of each one drachm; shake them together until the salt be dissolved, and anoint the legs hot therewith, chaffing it with the hand: By pursuing it more properly, if it may be done without danger, as it may be in the fourth,

fifth, or sixth month of purgation, for the child in the womb is compared to an apple on the tree: the first three months it is weak and tender, subject with the apple to fall away; but afterwards the membranes being strengthened, the fruit remains fastened to the womb, not apt to mischances, and so continues all the seventh month, till growing nearer the time of its maturity, the ligaments are again relaxed (like an apple that is almost ripe) and grows looser every day until the fixed time of delivery. If, therefore, the body is in real need of purging, she may do it without danger, in the fourth, fifth or sixth month, but not before nor after, unless in some sharp diseases, in which the mother and child both are like to perish.

Apply it to the reins in the winter time and remove it every twenty-four hours, lest the reins be ever hot therewith. In the interim anoint the privities and reins with unguent consitissæ; but if it be summer time, and the reins be hot, this plaister following is more proper: Take of red roses one lb. mastic red sanders, of each two drachms, pomegranat peel, prepared coriander, of each two drachms and a half; barberies two scruples, oil of mastic and quinces, of each one oz.; juice of plaintain two drachms; with pitch make a plaister, anoint the reins also with unguentum sandal

CHAP. XV.

Directions to be observed by women at the time of their falling in Labour, in order to their safe delivery, with directions for midwives.

And thus having given necessary directions for child-bearing women, how to govern themselves during the time of their pregnancy, I shall add

what is necessary for them to observe, in order to their delivery.

The time of birth drawing near let the woman send for a skilful midwife, and that rather too soon than too late; and against which time let her prepare a pallet, bed, or couch near the fire that the midwife and her assistants may pass round and help on every side, as occasion requires, having a change of linen ready, and a small stool to rest her feet against, she having more force when they are bowed, than when they are otherwise.

Having thus provided, when the woman feels her pain come, and weather not cold, let her walk about the room, resting herself by turns upon the bed, and so expect the coming down of her water, which is a humour contracted in one of the outward membranes and flows thence when it is broken by the struggling of the child, there being no direct time fixed for the efflux, tho' generally it flows not above two hours before the birth; motion will likewise cause the womb to open and dilate itself, when lying long in bed will be uneasy, yet if she be very weak, she may take some gentle cordial to refresh herself, if her pain will permit.

If her travail be tedious, she may revive her spirits with taking chicken or mutton-broth, or she may take a poached fig, but must take heed of eating to excess.

As for the postures women are delivered in, they are many, some lying in their bed, sitting in their bed, or chair; some again, on their knees, being supported upon their arms; but the most safe and commodious way is in the bed, and then the midwife ought to mind the following rules. Let her lay the woman upon her back, her head a little raised with a pillow to support her reins and buttocks, and that her rump may lay high, for if she lies low she cannot be well delivered. Let her keep her knees and thighs as far distance as

she can, her legs bowed together and her buttocks, the soles of her feet and heels being placed on a little log of timber, placed for that purpose, that she may strain the stronger. And then, to facilitate it let, a woman stroke or press the upper part of the belly gently, and by degrees: nor must the woman herself be faint-hearted, but of good courage, forcing herself by straining and holding her breath,

In case of delivery, the midwife must wait with patience till the child, or other members, burst the membrane; for, if, thro' ignorance, or haste to go to other women, as some have done, the midwife tears the membranes with her nails, she endangers both the woman and the child; for, its laying dry, and wanting that slipperiness that should make it easy, it comes forth with great pain.

Where the head appears, the midwife must gently hold it between her hands, and draw the child at such times as the woman's pains are upon her, and at no other; slipping by degrees her fore-fingers under its arm-pits, not using a rough hand in drawing it forth, lest by that means, the tender infant receive any deformity of body. As soon as the child is taken forth, which is, for the most part, with its face downward, let it be laid on its back, that it may more freely receive external respiration, then cut the navel-string, about three inches from the body, tying that end which adheres to the belly with a silken string, as near as you can, then cover the head and stomach of the child well, suffering nothing to come upon the face.

The child being thus brought forth, and if, healthy, lay it by, and let the midwife regard the patient in drawing forth the secundines; and this she may do by wagging and stirring the mup and down, and afterwards with a gentle hand drawing them forth: And, if the work be difficult, let the woman hold salt in her hands and thereby she

will know whether the membranes be broke or not. It may be also known by causing her to strain or vomit, by putting her finger down her throat, or by straining or moving her lower parts, but let all be done of one hand. If this fail, let her take a draught of raw elder-water, or yolk of a new-laid egg, and smell to a piece of assafœtida, especially if she is troubled with a windy cholic. If she happen to take cold, it is a great obstruction to the coming down of the secundine, and in such cases, the woman ought to chafe the woman's belly gentle, not only to break the wind, but oblige the secundine to come down. But these proving ineffectual, the midwife must chafe with her hand the extra or orifice of the womb, and gently draw it forth.

CHAP. VI.

In Cases of extremity, what ought to be observed especially in women, who, in their travail, are attended with a flux of blood, convulsions, and fits of the wind.

If the woman's labour be hard and difficult, greater regard must then be had than at other times, and first of all, the situation of the womb, and posture of lying, must be across the bed, being held by strong persons, to prevent her slipping down or moving herself in the operation of the surgeon. Her thighs must be put asunder, as far distant as may be, and so held; whilst her head must lean upon a bolster, and the reins of her back supported in the same manner; her rump and buttocks being lifted up, observing to cover her stomach, belly and thighs with warm linen, to keep them from the cold.

The woman being in this posture, let the ope-

rator put up his hand, if he find the neck of the womb dilated, and remove the contracted blood that stops the passage of the birth; and having by degrees, gently made way, let him tenderly move the infant, his hand being first annointed with sweet butter, or a harmless pomatum. And if the waters be not come down, then without difficulty, may they be let forth: when, if the infant should attempt to break out with its head foremost, or cross, he may gently turn it to find the feet; which having done, let him draw forth the one and fasten it to a ribbon, then put it up again and by degrees find the other, bringing them as close and even as may be, and between whiles, let the woman breath, urging her to strain to help nature to perfect the birth, that he may draw it forth; and the readier to do it, that his hold may be the surer, he must wrap a linen cloth about the child's thighs, observing to bring it into the world with its face downwards.

In case of a flux of blood, if the neck of the womb be open, it must be considered whether the infant or secundine comes first, which the latter sometimes happening to do, stops the mouth of the womb and hinders the birth, endangering both the woman and the child; but, in this case, the secundine must be removed by a swift turn, and indeed they have by their so coming down deceived many, who feeling their softness, supposed the womb was not dilated, and by this means the woman and the child, or at least the latter, has been lost. The secundine moved, the child must be sought for, and drawn forth, as has been directed; and if in such a case the woman or child die, the midwife or surgeon is blameless, because they did their true endeavour.

If it appears upon inquiry, that the secundine come first, let the woman be delivered with all convenient expedition, because a great flux of

blood will follow, for the veins are opened, and upon this account two things are to be considered.

First, the manner of the secundines advancing, whether it be much or little; if the former, and the head of the child appear first, it may be guided and directed towards the neck of the womb, as in the case of natural birth; but, if there appear any difficulty in the delivery, the best way is to search for the fact, and thereby draw it forth; but if the latter, the secundine may be put back with a gentle hand, and the child first taken forth.

But if the secundine be far advanced, so that it cannot be put back, and the child follow it close, then are the secundines to be taken forth with much care as swift as may be, and laid without cutting the entrail that is fastened to them, for thereby you may be guided to the infant, which, whether alive or dead, must be drawn forth by the feet, in all haste, though it is not to be acted unless in any great necessity, for in other cases the secundines ought to come last.

And in drawing forth a dead child, let these directions be carefully observed by the surgeon, viz. if the child be found dead, its head foremost, delivery will be the more difficult; for it is an apparent sign the woman's strength begin to fail her, and that the child being dead, and wanting its natural force, can be noways assisting to its delivery, wherefore the most certain and safe way for the surgeon is to put up his left hand, sliding it as hollow in the palm as he can, into the neck of the womb, and into lower part thereof towards the feet, and then between the head of the infant and the neck of the matrix, when having a hook in the right hand, couch it close and slip it above the left hand, between the head of the child and the flat of the hand, fixing it in the bars of the temple towards the eye; for want of convenient coming at these in the occipital bone, observe

still to keep the left hand in its place and with it gently moving and stirring the head; and so, with the right hand and hook, draw the child forward, admonishing the woman to put forth her utmost strength, still drawing when the woman's pangs are upon her; the head being drawn out, with all speed he must slip his hand up under the armpits of the child, and take it quite out, giving these things to the woman.—A toast of fine wheaten bread in a quarter of an ounce of ipecrass wine.

If it so happen that any inflammation, swelling, congealed blood be contracted in the matrix, under the film of these tumours, either before or after the birth, where the matter appears thinner, then let the midwife, with a pen-knife or incision instrument launch it, and press out the corruption, healing it with a pessary dipped in oil of red roses.

If at any time, through cold or some violence, the child happen to be swelled in any part, or hath contracted a watery humour, if it remain alive, such means must be used as are least injurious to the child and the mother; but if it be dead, that humour must be let out by incision, to facilitate the birth.

If (as it often happens) that the child comes with its feet foremost and the hands dilating themselves from the hips; in such cases the midwife must be prepared with necessary ointment, to stroke and anoint the infant with, to help its coming forth, lest it turn again into the womb, holding, at the same time, both the arms of the infant close to the hips, that so it may issue forth after its manner; but if it proves too big, the womb must be well anointed. The woman may also take sneezing-powder, to make her strain: Those who attend may gently stroke her belly, to make the birth descent, and keep the birth from retiring back.

And sometimes it falls out that the child coming with the feet foremost, has its arms extended above its head; but the midwife must not receive it so, but put it back again into the womb, unless the passage be extraordinary wide, and then she must anoint the child and the womb; nor is it safe to draw it forth, which may be done in this manner—the woman must lie on her back, with her head depressed, and her buttocks raised; and the midwife, with a gentle hand, must compress the belly of the woman towards the midwife, by that means to put back the infant, observing to turn the face of the child towards the back of its mother, raising up its thighs and buttocks towards her naval, so that the birth may be more natural.

If a child happens to come forth with one foot, the arm being extended along the side, and the other foot turned backward, then must the woman be instantly brought to her bed, and laid in the posture above mentioned, at which time the midwife must carefully put back the foot so appearing, and the woman rocking herself from one side to the other, till she find the child is turned, but must not alter her posture, nor turn upon her face. After which she may expect her pains, and must have great assistance and cordials to revive and support her spirits.

At other times it happens that the child lie across in the womb, and falls upon its side; in this case the woman must not be urged in her labour: neither can any expect the birth in such a manner—therefore the midwife, when she finds it so must use great diligence to reduce it to its right form, or at least to such a form in the womb, as may make the delivery possible and more easy, by moving the buttocks, and guiding the head to the passage; and if she be successful herein, let her

again try by rocking herself to and fro, and wait with patience till it alters its manner of lying.

Sometimes the child hastens the birth, by expanding its legs and arms; in which as in the former the woman rock herself, but not with violence, till she finds those parts fall to their proper stations, or it may be done by a gentle compression of the womb, but if neither of them prevail, the midwife with her hand must close the legs of the infant, and if she come at them, do the like to the arms and so draw it forth; but if it can be reduced of itself, to the posture of a natural birth it is better.

If the infant comes forward with both knees foremost and the hands hanging down upon the thighs, then must the midwife put both knees upward, till the feet appear; taking hold of which with her left hand, let her keep her right hand on the side of the child, and in that posture endeavour to bring it forth.

But if she cannot do that, then also most the woman rock herself till the child is in a convenient posture for delivery.

Sometimes it happens, that the child passes forward with one arm stretched on its thighs, and the other raised over its head, and the feet stretched out length in the womb; in such a case the midwife must not attempt to receive the child in that posture, but must lay the woman on the bed, in the manner aforesaid, making a soft and gentle compression on her belly, to oblige the child to retire, which if it does not, then must the midwife thrust it back by the shoulder, and bring the arm that was stretched above the head, to its right station; for there is more danger in these extremities, therefore the midwife must anoint her hands first, and the womb of the woman with sweet butter, of a proper pomatum thrusting her hand as

near as she can, to the arm of the infant, and bring it to the side.

But if this cannot be done, let the woman be laid on her bed to rest awhile, in which time, perhaps the child may be reduced to a better posture, which the midwife finding, she must draw tenderly the arms close to the hips, and so receive it.

If an infant come with its buttocks foremost and almost double, then the midwife anointing her hand must thrust it up, and greatly heaving up the buttocks and back, strive to turn the head to the passage, but not too hastily, lest the infant's retiring would shape it worse, and therefore it cannot be turned with the hand; the woman must rock herself on the bed, taking some comfortable things as may support her spirits, till she perceives the child to turn.

If the child's neck be bowed, and it come forward with its shoulders, as sometimes it doth, with the hand and feet stretched upwards, the midwife must gently move the shoulders, that she may direct the head to the passage: and the better to effect it, the woman must rock herself as aforesaid.

These, and other the like methods are to be observed, in case a woman hath twins, or three children at a birth, as sometimes happens. For the single birth has but one natural way, and many unnatural forms; even so it may be in double or treble births.

Wherefore, in all such cases, the midwife must take care to receive the first which is nearest the passage, but not letting the other go, lest by retiring it should change the form. And when one is born, she must be speedy in bringing forth the other—and this birth, if it be in the natural way, is more easy, because the children are commonly less than these of single birth, and so require a less-

er passage. But if this birth come unnaturally, it is far more dangerous than the other.

In the birth of twins, let the midwife be very careful that the secundine, be naturally brought forth, lest the womb being delivered of its burthen fall, and so the secundine continue longer than is consistent with the woman's safety.

But if one of the twins happen to come with the head, and the other with the feet foremost, then let the midwife deliver the natural birth first, and if she cannot turn the other out, draw it out in the posture it presseth forward, but if that with its feet downward be foremost, she may deliver that first, turning the other aside.

But in this case, the midwife must carefully see that it be not a monstrous birth instead of twins, a body with two heads, or two bodies joined together, which you may soon see if both the heads come foremost, by putting up her hand between them as high as she can, and then if she find they are twins, she may gently put one of them aside to make way for the other, taking the first which is most advanced, leaving the other, that she do not change its situation.

And for the safety of the first child, as soon as it comes forth out of the womb, the midwife must tie the navel-string, as has been before directed, and also bind it with a large and long silet, that part of the navel that is fastened to the secundine the more ready to find them.

The second infant being born, let the midwife carefully examine whether there be not two secundines, for sometimes it falls out, that by the shortness of the ligaments, it retires back to the prejudice of the woman. Wherefore lest the womb should close, it is most expedient to hasten them forth with all convenient speed.

If two infants are joined together by the body, as sometimes it monstrously falls out, then though

the heads should come foremost, yet it is convenient if possible to turn them, and draw them forth by the feet, observing that when they come to the hips to draw them out as soon as may be.

And here great care ought to be used in anointing and widening the passage. But these sort of births rarely happen.

CHAP. XVII.

How Child bearing Women are ordered after delivery.

If a woman has had very hard labour, it is necessary she should be wrapped up in sheep's skin taken off before it is cold, applying the fleshy side to her reins and belly. Or, for want of this the skin of a hare or coney, flead off as soon as killed, may be applied to the same parts

Let the woman afterwards be swathed with fine linen cloth, about a quarter of a yard in breadth, chaffing her belly before it is swathed with oil of St. John's wort; after that, raise up the matrix with a linen cloth many times folded, then with a little pillow, or quilt over her flanks and place the swathe somewhat above the haunches, winding it pretty stiff, apply at the same time a warm cloth to her nipples, and not presently applying the remedies to keep back the milk, by reason of the body at such a time is out of frame for there is neither vein nor artery which does not strongly bend, and remedies to drive back the milk being of a dissolving nature, it is improper to apply them to the breasts during such disorder, lest by so doing, evil humours be contracted in the breasts, wherefore twelve hours at least ought to be allowed for the circulation and settlement of the ~~time~~

and what was cast upon the lungs by the vehement agitation during the labour, to retire to its proper receptacles.

She must by no means sleep presently after delivery, but about four hours after she may take broth cadle, or such liquid victuals as are nourishing; and if she is disposed to sleep, she may be very easily permitted. And this is as much (in case of a natural birth) as ought immediately to be done.

If the mother intend to nurse her child, now she may take something more than ordinary to increase the milk by degrees, which must be of no continuance, but drawn by the child otherwise. In this case likewise observe, to let her have corriander or fennel-seed, boiled in her barley broth, and if no fever trouble her, she may drink now and then a small quantity of white wine or claret.

And after the fear of a fever or contradiction of humour in the breasts is over, she may be nourished more plentifully with the broth of pullets or or veal, &c. which must not be till after eight days from the time of her delivery, at which time the womb unless some accident hinder, hath purged itself. It, then may be expected to give cold meat, but let it be sparing, that so she may the better gather strength. And let her, during the time, rest quietly and free from disturbance, not sleeping in the daytime if she can avoid it.

CHAP. XIII

How to expel the Colic from Women in Child-birth.

These pains frequently afflict the women no less than in pains of her labour, and are by the

ignorant taken many times the one for the other, and sometimes they happen both at the same instant, which is occasioned by a raw crude and watery matter in the stomach, contracted thro' ill digested, while such pain continues the woman's travail is retarded.

Therefore, to expel such fits of the colic, take two ounces of oil of sweet almonds, and an ounce of cinnamon water, with three or four drops of spirit of ginger, then let the woman drink it off.

If the pain prove the griping of the guts, and long after delivery, then take the root of a great comfery one drachm, nutmeg and peach kernels, of each two scruples, and give them to the woman as she is laid down, in two or three spoon fulls of white wine; but if she be feverish, then let it be in as much of warm broth.

THE
FAMILY PHYSICIAN;

Being choice and approved remedies for several disorders incident to human bodies, &c.

For Apeplexy.

TAKE man's skull prepared, powder of the root of male prony, of each an ounce and a half; contrayera, bastard dittany, angelica, zedoary, of each two drachms, mix and make a powder, whereof you may take half a drachm or a drachm.

A Powder for the Epilepsy, or Falling Sickness.

Take an opoponax, crude antimony, dragon's-blood, castor penny-seed, of each an equal quantity, make a subtile powder. The dose, from half a drachm in black-cherry water. Before you take it, the stomach must be cleansed with some proper vomit, as that of Nysinct's emetic tartar, from four grains to six. If for children, salts of vitroil, from a scruple to half a drachm.

A Vomit for Swimming in the Head.

Take cream of tartar half a scruple, castor two grains, mix all together for a vomit, to be taken at

four o'clock in the afternoon. At night going to bed, it will be very proper to take a dose of opostolic powder.

For an Head-Ache of long standing.

Take the juice of powder, or distilled water of noglice, and continue the use of it.

For Spitting of Blood

Take of conserve of comfrey, and of hips, each one ounce and a half; conserve of red roses three ounces, dragon's blood a drachm, species of hyscynth two scruples, red coral a drachm, mix, and with syrup of red poppies make a soft electuary. Take the quantity of a walnut night and morning.

A Powder against Vomiting

Take crab's eyes, red coral, ivory, of each two drachms, burnt: hartshorn one drachm, cinnamon and resanders of each one drachm, make a subtil powder, and take half a drachm.

For the Bloody Flux.

First take a drachm of powder of rhubarb in a sufficient quantity of the conserve of red roses, early in the morning; then at night, take of fortified or roasted rhubarb half a drachm, diascordium a drachm and a half, liquid laudanum cydoniated a scruple, mix and make a bolus.

For Inflammation in the Lungs.

Take curious water ten ounces, water of red poppies three ounces, syrup of poppies an ounce, pearl prepared a drachm, make a julip, and take six spoonfuls every fourth hour.

For weakness in Women.

After a gentle purge or two, take the following decoction, viz. a quarter of a pound lignumvitæ, sassafras two ounces; boil the whole in six quarts of water to a gallon; strain and keep it for use: Take half a pint first in the morning, fasting for two hours after; another at four o'clock in the afternoon, and a third at going to bed.

For Worms in children.

Take wormseed half a drachm, flower of sulphur a drachm, sulprunella half a drachm; mix and make powder; give as much as will lie upon a silver threepence night and morning, in treacle or honey. For grown persons add a small quantity of aloes rosatum, and so make them up into pills, three or four of which may be taken every morning

For a looseness.

Take of Venice treacle and diascordium, of each half a drachm, in warm ale, water gruel, &c. at night going to bed.

For fevers in children.

Take of crabs eyes one drachm, cream of tartar half a drachm, white sugar candy finely powdered, the weight of both; mix them well together, and give as much as will lie upon a silver threepence, in a spoonful of barley water or sack whey.

For stinking Gums without Rottenness.

Take powder of best myrrh one ounce: claret wine a pint; after two or three days infusion, wash your gums and mouth with it.

The Midwives Vade Mecum: Containing particular directions for Midwives, Nurses, &c.

Those who take upon them the office of a midwife ought to take care to fit themselves for that employment, with the knowledge of those things that are necessary for the faithful discharge thereof. And such persons ought to be of the middle age, neither too young nor too old, and of a good habit of body, nor subject to diseases, fears or sudden fright, nor are the qualifications assigned for a good surgeon improper for a midwife, viz. a lady's caution and diligence, not subject to drowsiness, hand, a hawk's eye, and a lion's heart; to which may be added, activity of body, and convenient nor apt to be impatient. She ought strength, with also to be sober, affable, courteous, chaste; not covetous, nor subject to passion, but bountiful and compassionate. And above all, she ought to be qualified as the Egyptian midwives of old, that is, to have the fear of God, which is the principal thing in every state and condition, and will furnish her on all occasions, both with knowledge and discretion.

When the time of birth draws near, and the good woman finds her travailing pains begin to come upon her, let her send for her midwife in time; better too soon than too late, and get those things ready which are proper upon such occasions. When the midwife comes, let her first find whether the true time of the birth be come, for want of observing this hath spoiled many a child, and endangered the life of the mother, or at least put her to twice as much pain as she needed. For unskilful midwives not minding this, have given things to force down the child, and thereby disturbing the natural course of her labour; whereas nature works best in her own time and way. I do confess, it is somewhat difficult to know the true time of some women's labour, they being troubled

with pains so long before their true labour, comes in some, weeks before, the reason of which I conceive to be the heat of the reins, and this may be known by the swelling of their legs; and therefore when women with child find their legs to swell much, they may be assured that their reins are too hot. For the cure thereof, let them cool the reins before the time of their labour, with oil of poppies, and oil of violets, or water lilies, by anointing the reins of their back with them; for such women whose reins are over hot have usually hard labour. But in this case, above all the remedies that I know, I prefer the decoction of plantain leaves and roots; you may make a strong decoction of them in water, and then having strained and clarified it with the white of an egg, boil it into a syrup with its equal weight in sugar, and keep it for your use.

There are two skins that compass the child in the womb, the one is the amnios, and this is the inner skin; the other is the alantois, and this is the skin that holds the urine of the child during the time that it abides in the womb; both those skins, by the violent stirring of the child near the time of the birth, are broken; and then the urine and sweat of the child contained in them fall down to the neck of the womb; and this is that which midwives call the water; and this is an infallible sign that the birth is near; so the child is no longer able to subsist in the womb, when those skins are broken, than a naked man is in the cold air. These waters, if the child comes presently after them, facilitate the labour, by making their passage slippery; and therefore the midwife must have a care that she force not her water away, for nature knows better the true time of the birth than she and usually retains the water till that time.

Several medicines to cause speedy delivery.

A loadstone held in her left hand, take wild tansy and bruise it, and apply it to the woman's nostrils. Take date stones and beat them to powder, and let her take half a drachm of them in white wine at a time.

Take parsley, bruise it and press out the juice, and put it up, being so dipped, into the mouth of the womb, and it will presently cause the child to come away, though it be dead and after burden also; besides, it cleanseth the womb, and also the child in the womb of all gross humours.

Let no midwife ever force away a child, unless she be sure it is dead, I once was where a woman was in labour, which being very hard, her midwife sent for another midwife to assist her, which midwife sending the first down stairs, and designing to have the honour herself, forced away the body of the child, and left the head behind, of which the woman was forced afterwards to be delivered by a man midwife.

After the child is born, great care is to be taken by the midwives in cutting the child's navel string, which though by some is accounted but a trifle, yet it requires none of the least skill of a midwife to do it with that prudence and judgment that it ought. And that it may be done so, you must consider as soon as the child is freed from its mother, whether it be weak or strong, for both the vital and natural spirits are communicated by the mother of the child by the navel string, if the child be weak, put back gently part of the vital and natural blood in the body of the child by its navel, for that recruits a weak child; but, if the child be strong you may forbear.

As to the manner of cutting the child's navel string, let the ligature or binding be very strong, and be sure do not cut it off very near the binding

lest the binding unclose. You need not fear to bind the navel string very hard, because it is void of sense and the part of the navel string which you leave on, falls off of senses of its own accord in a few days, the whole course of nature being now changed into the child, it having another way ordained to nourish it. It is no matter with what instrument you cut it off if it be sharp, and you do it cleverly. The piece of the navel string that falls be sure you keep from touching the ground; remember what I have before told you; and if you keep it by you it may be of use. The navel string being cut off, apply a little cotton or lint to the place, to keep it warm, lest the cold enter into the body of the child, which it will be apt to do if it be not bound hard enough.

The next thing to be done, is to bring away the after birth or secundine, else it will be very dangerous for the woman. But this must be done by gentle means, and without any delays, for in this case especially, delays are dangerous; and whatever I have set down before, as good to cause speedy delivery, and bring away the birth, is good also to bring away the after birth.

And after the birth and after birth are brought away, if the woman's body be weak, keep her not too hot; for extremity of heat weakens nature and dissolves the strength, but whether she be weak or strong let no cold air come near her at first; for cold is an enemy to the spermatic parts. If cold get into the womb, it increases the after pains, causes swellings in the womb, and hurts the nerves.

If what I have written be carefully observed among midwives, and such nurses as keep women in their lying in, by God's blessing, the child bed women may do very well, and both midwife and nurse gain credit and reputation.

For though these directions may in some things thwart the common practice, yet they are ground-

ed upon experience, and will infallibly answer the end

But there are several accidents that lying in women are subject unto which must be provided against, and these I shall speak of next.

The first I shall mention are the after pains, about the cause of which authors very much differ, some think they are caused by thinness, some by the thickness, some by the sliminess and some by the sharpness of the blood; but my own opinion is it proceeds from cold and water. But whatever the cause may be, the observing of the foregoing directions will very much abate them, if not quite take them away. But in case they do happen, boil an egg, and pour out the yolk of it, with which mix a spoonful of cinnamon water, and let her drink of it; and if you mix two grains of ambergrease with it, it will be better.

The second accident lying in women are subject to, is excoriations in the lower part of the womb. To help this, use oil of sweet almonds, or rather oil of St. John's wort, with which anoint the parts.

Another accident is, that sometimes through very hard labour and great straining to bring the child into the world, the lying in woman comes to be troubled with the hemorrhoids or piles; to cure this let her use polypodium bruised and boiled in her meats and drinks.

A fourth thing that often follows, is the retention of the menses, this is very dangerous, and, if not remedied, proves mortal.

But for this, let her take such medicines as strongly provoke the terms; and such are piony roots, dittany, juniper berries, betony, centuary, savory, pennyroyal, sage, feverfew.

The last thing I shall mention is the overflowing of the menses. This happens not so often as the foregoing, but yet sometimes it does, and in such cases take the shepherd's purse, either boiled

in a convenient liquor, or dried and beaten to powder, and you will find it very good to stop them.

Having thus finished my *Vade Mecum* for midwives, before I conclude I will add something of the choice and qualifications of a good nurse, that those who have occasion for them may know how to order themselves for the good of their children which they nurse.

First, then, if you would choose a good nurse, choose one of a sanguine complexion, not only because that complexion is generally accounted best, but also, because all children in their minority have their complexion predominant. And that you may know such a woman, take the following description of her.

Her stature of the middle size, her body fleshy, but not fat, and of a merry, pleasant and cheerful countenance; a fresh ruddy colour, and her skin so very clear that you may see her veins through it. She is one that loves company, and never cares to be alone; never given to anger, but mightily to playing and singing; and which makes her the fittest part for a nurse, she very much delights in children. In choosing such a one you can hardly do amiss; only let me give you this caution, if you cannot get one exactly of this description, which you will find very difficult, get one as near as you can to it. And let these rules further guide you in your choice. 1. Let her age be between twenty and thirty, for then she is in her prime. 2. Let her be in health, for sickness infects her milk, and her milk the child. 3. Let her be a prudent woman, for such a one will be careful of her child. 4. Let her not be too poor, for if she wants, the child must want too. 5. Let her be well bred, for ill bred nurses corrupt good nature. 6. If it be a boy that is to be nursed, be such a one whose last child was a boy, and so it will be more agreeable, but if it be a girl let the nurse be one whose

last child was a girl. 7. If the nurse has a husband, see that he be a good likely man, and not given to debauchery, for that may have an influence upon the child. 8. In the last place, let the nurse take care she be not with child herself; for if so, she must of necessity either spoil her own child, or yours, or perhaps both. To a nurse thus qualified, you may put your child without danger. And let such a nurse observe the following directions, for the better governing and ordering herself in that station.

Directions for Nurses.

1. Let her use her body to exercise; if she hath nothing else to do, let her exercise herself by dancing the child; for moderate exercise causeth good digestion; and I am sure good blood must needs make good milk, and good milk cannot fail of making a thriving child. 2. Let her live in good air; there is no one thing more material than this. The want of this makes so many children die in London; and even these few that live, are none of the wisest; for gross and thick air makes unwieldy bodies, and dull wit; and let none wonder at this, for the operation of the air to the body of man is as great as meat and drink, for it helps to engender the vital and animal spirits; and this is the cause of sickness and health, of life and death. 3. Let her be careful of her diet, and avoid all salt meats, garlic, leeks, onions, and mustard, excessive drinking of wine, strong beer or ale, for they trouble the child's body with choler; cheese, both new and old, afflicts it with melancholy, and all filth with phlegm. Let her never deny herself sleep when she is sleepy, for by that means she will be more wakeful when the child cries. Let her avoid all disquiets of mind, anger, vexation, sorrow and grief, for these things very much disorder a woman, and

therefore must be hurtful to the milk. If the nurse's milk happens to be corrupted by any accident, as sometimes it may be, by being either too hot or too cold, in such cases let her diet be good, and let her observe the cautions already given her. If her milk be too hot, let her cool it with endive, succory, lettuce, sorerel, purslain, and plaintain; if it be too cold, let her use beverage, vervain, bugloss, mother of thyme, and cinnamon; and let her observe this general rule, whatsoever strengthens the child in the womb, the same attends the milk. If the nurse wants milk, the thistle, commonly called our lady thistle, is excellent for her breeding of milk; there being few things growing, if any, that breed more and better milk than that doth; also, the hoof of the fore feet of a cow, dried and beaten to powder, and a drachm of the powder, taken every morning in any convenient liquor, increases the milk.

Remedies for increasing Milk

If a nurse be given too much fretting, it makes her lean and hinders digestion, and she can never have a store of milk, nor what she has be good. Bad meats and drinks also hinder the increase of milk, and therefore ought to be foreborn, and therefore women that would increase their milk should eat good meat, that is if they can get it, and let her drink milk wherein fennel seed hath been steeped. Let her drink barley water, burrage and spinnage; also, goat's milk, and lamb sodden with verjuice; let her also comfort the stomach with confection of aniseed, caraway and cummin seeds, and also use those seeds sodden in water; also take barley water, and boil therein fennel and dill, and sweeten it with sugar, and drink it at your pleasure.

Hot fomentations open the breast and attack the blood, as the decoction of fennel, smallage, or stamp mint applied, or.

Take fennel and parsley green, each a handful, boil and stamp them, and barley meal half an ounce, with seed a drachm, storax, calamint two drachms, oil of lilies two ounces, and make a poultice.

Lastly, take half an ounce of deer's suet and as much parsley roots, with the herbs, an ounce and a half of barley meal, three drachms of red storax, three ounces of oil of sweet almonds; boil the root and herbs well, and beat them to a pap, and then mingle the other amongst them, and put it warm to the nipples, and it will increase the milk.

And thus courteous reader, I have at length finished what I designed and promised, and can truly affirm that thou hast here those receipts, and remedies, and directions given unto thee, with respect to child bearing women, midwives, and nurses, that they are worth their weight in gold, and will assuredly, with the blessing of God, answer the end, whenever thou hast occasion to make use of them, they being things taken not on trust from tradition or hearsay, but the result and dictates of sound reason and long experience.

THE PROBLEMS OF ALAX. APHRODISEUS.

Why doth the sun make men black; and make dirt white; and make wax soft, and dirt hard?

By reason of the disposition of the substance that doth suffer. All humours, phlegm excepted, when they are heated above measure, do seem black about the skin, but dirt being either full of saltpetre or salt liquor, when the sun hath consumed its dregs, and filth, doth become white again:

when the sun hath drawn and stirred up the humidity of the wax, it is softened; but in dirt the sun doth consume the humidity which is very much, and so doth dry it and make it hard.

Why doth black choler, coming into the paps, cause a corrosion or gnawing; and in those who are melancholy, it doth not, but flies into the brain?

Because there are many great veins in the paps by reason of engendering milk, and therefore store of that humour doth run thither. But in the brain because it is above, and also because it hath very small veins, small store of choler doth ascend, and which hath only power and force to prick and not to gnaw and eat. Moreover, the brain is hard and moist, whereby it is, after a sort contrary to the disposition of black choler, which doth mortify it; that therefore which is properly called black choler doth breed an eating and gnawing canker in the paps. In the brain it doth breed a man fierce and melancholy, but that which is not properly black choler, but melancholy humour, causeth swelling only, which is like a cancer but doth not gnaw and eat, and doth also breed a quiet and peaceable melancholy.

For what reason will not the water run out of the bottom of a watering pot, when we put our finger on the mouth of it and the finger being taken away it runneth presently?

Because when the finger is taken away from the mouth of the pot, the air entering in doth thrust down the water, which of its own nature doth go downward, and so goeth out at the bottom. And this is the reason of all mechanical engines and instruments made to go by air, as clocks, and hour glasses made by water.

Why doth wine and water given out of season, to the sick of an ague, cause a distemper of the brain, when the water is cold and the wine is hot?

The wine being apt to ascend, doth burn the brain at the time it is disturbed and distempered with the ague. And we see also many who are in health, if they use much wine so be scarce well in their wits. But water doth stop the passages of the body, by which the spirits are dissolved, and so causes them to become thick and gross, and more corrupt and putrefied, by the ague, becometh its nourishment; as we see in a smiths forge, where a little water doth kindle the fire, and make it burn fiercer.

Why have women, children, and gelded men shrill and loud voices?

Because that through the abundance of humidity their artery is not stretched wide; and therefore, as a small flute or pipe giveth a small slender sound, so does the artery in them that is straight and narrow; for it is the property of heat to make wide and loosen, but eunuchs and women are cold.

Why are children stricken with the planet in the summer time?

They are sick of a weak and lingering ague, and their eyes sink hollow in their head, and they become weak and feeble, and sleep very little; and some of them have a flux because children are tender and so easily suffer; and having great store of phlegm in the head, and that phlegm being overmuch heated, and also putrefied, doth inflame the ague, whereupon the gristles of the brain are set on fire, and therefore they sleep little; and that fire descending by the arteries of the heart, and setting on fire the lively spirits, doth kindle an ague; and seeing that much choler arises of an ague, thereby it falleth out, that the choler gnaweth and eateth the belly. It is plain, that the cause of that alteration is in the brain, because that cooling medicines are applied unto the head, and such as are good to quench that fire. Some of riper years are sick of the same disease, *i. e.* such

as have phlegm and choler heaped up in their head, which putrefies by the very breathing thereof, and after a manner, the spirits are set on fire by a fiery air.

Why are round ulcers hard to be cured?

Because they are bred of sharp choler, which eats and gnaws, and because it doth run, for which reason it requires drying medicines as physicians assert. Natural philosophers say it comes to pass because there is beginning where the mischievous imposthume doth begin, for in a circle there is neither beginning nor end. When they are burned by physicians they assume an other kind of shape.

Why is honey sweet to all men, and yet seemeth bitter to such as have the jaundice?

Because they have much bitter choler all over their bodies, but it abounds with the tongue, whence it happens when they eat honey the humours are stirred, and the taste itself, when it hath found the bitterness of choler, causes an imagination that the honey is bitter.

Why have angry men fiery eyes?

Because the blood about the heart is fervent, and the spirits hot, and so being very subtle and pure, and carried upwards, and by the eyes, which are clear they do shine, and have bloody vapours that ascend with them, which makes the face red, which Homer not being ignorant of, says "*And his eyes were like a burning flame.*"

Why doth water cast upon serpents, cause them to fly from us?

Because they are cold and dry by nature, having but little blood, and therefore fly from excessive coldness. And that they be of this quality is plain, because they seek for dens and secret places in the earth, as being warm. At sunset they shun the air, as being cold; and again in summer, be-

cause the bowels of the earth are cold, they find out the warmest places.

Why doth an egg break if it be roasted, and not if boiled?

The reason is, when moisture comes near the fire, it heats it too much and so breeds much wind, which being pent up in a little, forceth its way out, and so breaks the shell. The like happens in tubs, or earthen vessels, when new wine is put into them. Much phlegm breaks the shell of an egg in roasting, the which doth happen in earthen pots too much heated; wherefore the common people wet an egg when they intend to roast it. Hot water, through its softness, doth separate its humidity by little and little, and so dissolves it through the passages that are in the shells.

Why do men, in the act of carnal copulation, in a manner wink, and find a like alteration in all senses?

Because that being overcome with the effect of that pleasure, they do comprehend it better, winking as it were with their eyes. They are not lifted up, nor do carry the wind abroad into the air with the senses, whereby they would discern those corporeal affections.

Why have some medicines of one kind contrary force, as experience doth teach, mastic doth expel, dissolve, and so knit; vinegar both cools and heats?

Because there are some small invisible bodies of them, not by confusion but by interposition; as sand moistened doth clog together, and seems to be but one body, though indeed there are many small bodies in sand. Since this is so, it is not absurd that contrary qualities and virtues should be hidden in mastic, and nature hath given the law to these bodies.

Why do our privates swell when we hurt one of our toes?

Nature caring for those things which belong to the body, hasten to assist the part grieved, and because she hath the most profitable and nourishing of all the humours, it is requisite when she doth descend to the toe with the blood, that those veins be filled which are about the privy members.

Why doth not nature give birds a bladder, or a receptacle for urine?

Because they do want much moisture to give the matter for feathers to grow, and that they do consume with the exercise of flying; neither do they piss at all, and, when they drink they void very much dung.

Why have children gravel breeding in their bladder, and old men in their kidneys, and reins of the kidneys?

Because children have straight passages in the kidneys, and an earthy thick humour is thrust with violence by the urine from the fashion of the moon, even to the bladder, which hath wide conduits or passages that give room for the urine and humour, whereof gravel is engendered, to wax thick and seat itself, as the custom of it is. In old men it is the reverse, for they have wide passages of the reins, back and kidneys, that the urine may pass away, and the earthy humour congeal and sink down; the colour of the gravel shows the humour whereof the stones come.

Why, if the stone do congeal and wax hard through heat, (children are hot, and by the same reason it is done in old men, for there is not so much cold to be granted as there is in ice or snow, through which extreme cold the kidneys would perish) yet we use not contrary things to dissolve coldness, but light things, as parsley, fennel, and such like?

They say it falleth out that by excessive heat and scorching, the stones do crumble into sand, as in earthen vessels, which when they are over-

heated or roasted, become sand. And by this means it happens that small stones are voided together with sand in making water. Sometimes cold drinks thrust out the stones, the kidneys being stretched, and casting out by a greater task, and easing the belly of its burden. Besides it often happens, that an immoderate heat of the kidneys or of the reins of the back (through which the stone doth grow) is quenched with coldness.

Why is the cureing an ulcer or bile in the kidneys or bladder very hard?

Because the urine being very sharp, doth exulcerate the wound while good and fit medicaments would cover the skin. Ulcers are harder to cure in the bladder than in the kidneys, because urine stays in the former, but runs away from the latter.

What is the reason that in bathing vessels, the hot water, when it is stirred, seems the hotter to us, almost burning our bodies?

Because, when we enter those sorts of baths, the water itself doth suffer, that is, when the water heats our bodies, it is made colder by us. We have learned that whatever works in generation of corruption, the same, without all doubt, doth suffer; the water then being in some sort cooled, doth not heat alike, and we being accustomed to it, do not feel the heat as we did in the beginning, because it is diminished. If, by stirring the water, more heat is added, which neither hath yet wrought or suffered any thing of the body which is in it, that will seem very hot and scalding, in regard that it suffers by something, and so by degrees looses its heat, as the first did.

How is it that whatsoever is moved, is hotter for it, especially in summer, when the heat of the sun is most violent?

This seems a contradiction to the other; for hot water did not seem hotter to us by moving. Therefore, it is a common thing for what is most and

principal in any thing, either in quantity or quality, to overcome and change that which is less and weaker; and that which is strong doth somewhat suffer again in doing. Wherefore the hot water, when it is very hot, sticking to the hot body cools, and does not retain the same quality. The air then, which doth compass us about, being hot in summer, like the water compassing our bodies, is somewhat heated by us, who are hot through the season it heats us as linen garments do, which being first cold, and then stirred, that air which was before heated by us, is driven away, and another, not heated, succeeds and seems cold to us.

Why do those sores which breed in the ball of the eyes, seem white, when they have less growing, and are cold, and others do not seem so that grow out of the ball?

Because through the ball of the eye the sight proceedeth, which is bright and clear, therefore in the white of the eye, when the wound doth make thick that part of the covering which is like a horn, the spirit of the sight cannot issue out; hence it comes to pass, much of it being got together, it makes the wound light and clear, showing it white; and because of the quietness of the sight, the spirit cannot go out, it causes blindness.

Why doth chaff and straw keep water hot, and snow cold, which are seemingly contraries?

Because the nature of chaff wants a manifest quality; seeing therefore, that of their nature, they can easily be mingled, and consumed with that which they are annexed unto, they easily also take the same nature unto them; and therefore being put into hot things, they are easily hot, and do heat again, and keep hot; and, on the contrary, being made cold of the snow, and making the snow cold, do keep in its coldness. So wax and oil will easily be consumed, and made one with another thing, and do help the quality

which is mingled with them, as being made one with them.

Why do the stars and heaven seem clearest in the bright winter time?

Because the air, either which doth compass us, or that which is highest, is made thin and purged with winds and showers of rain, and by that means our sight doth see both further and clearer. The like is manifestly seen in running rivers; for such things as are in them are far better seen than in the thick standing puddle of water, where, either nothing is seen, or confusedly.

Why have we oftentimes a pain in making water?

Because that sharp choler issuing out and pricking the bladder of the urine, doth provoke and stir up the whole body to ease the part offended, and to expel the humour moderately. This doth happen mostly to children, because they have most excrements, by reason of their often filling.

Why do nurses rock and move their children when they would have them sleep?

To the end that the humours, being scattered by moving, may move the brains; but those of more years cannot endure this.

Why do some drunkards see double?

Because the muscles of the sight being more or less filled, and by the selfsame means weak and feeble, do draw one eye upward, and the other downward, and by that means the beams do not look that way at once, but towards divers places and bodies; and therefore, each of the eyes using a private office and duty of seeing, doth cause a double sight.

Why are boys apt to change their voices about fourteen years of age?

Because that then nature doth cause a great and sudden change of age; experience proveth this to be true, for, at that time we may see that

women's paps do grow great to hold and gather milk, and also those places that are above the hips, in which the young fruit should remain. Likewise men's breast and shoulders, which bear them great and heavy burdens. Also their stones in which their seed may increase and abide, and their privy members, to let out the seed with ease. Further, all the whole body is made larger and dilated, as the alteration and change of every part of the body do testify, and the harshness of the voice hoarseness; for the rough artery, the wind pipe, being made wide in the beginning, and the exterior and outward part within equal to the throat, the air going out at the rough, unequal and uneven pipe, doth become unequal and sharp, and after a sort hoarse like unto the voice of a goat, wherefore it has its name *Bronchus*. The same doth happen to them unto whose rough artery distillation doth flow. It happens by reason of the drooping humidity that a light small skin filled unequally causes the uneven going forth of the spirit and air. Understand that the windpipe of goats is such by reason of the abundance of humidity. The like doth happen unto all such as nature hath given a rough artery, as unto cranes. After the years of fourteen, they leave off that voice, because the artery is made wider, and reacheth its natural evenness. and quality.

Why is fortune painted with a double forehead, one side bald, and the other hairy?

The baldness signifies adversity, and hairiness prosperity, which we enjoy when it pleases her.

Why have some commended flattery?

Because flattery setteth forth before our eyes, what we ought to be, though not what we are.

Wherefore should virtue be painted girded?

To show that ivrtuous men should not be slothful, but diligent and always in action.

Why did the ancients say it was better to fall into the hands of a raven, than a flatterer?

Because the ravens do not eat us until we be dead, but flatterers devour us alive.

Why have choleric men beards before others?

Because they are hot, and their pores large and wide.

How comes it that such as have the hickup do ease themselves by holding their breath?

The breath retained doth heat the interior parts of the body, and the hickup proceeds from nothing but cold.

How comes it that old men remember well that which they have seen and done in their youth, and forget things that they see and do in their age?

Things learned in youth have taken root and habituate in the person, but those learnt in age are forgotten, because the senses are weakened in them.

What kind of covetousness is best?

That of time, when it is employed as it ought to be.

Why is our life compared to a stage play.

Because the dishonest do occupy the place of the honest, and the worst sort the room of the good.

Why do dolphins, when they appear above the water denote some storm or tempest approaching?

Because that, at the beginning of the tempest, there do arise from the bottom of the sea certain hot exhalations and vapours, which heat the dolphins, causing them to rise up and seek for cold.

Why are things more quiet in the night than in the day?

The motion of the air, and the coldness of the night, is the cause thereof, which coldness continues and hinders the motions.

How come the Romans to call Fabius Maximus the target of the people, and Marcellus the sword?

Because the one adapted himself to the service of the commonwealth, and the other was very eager to revenge the injuries of his country; and yet they were in the senate joined together, because the gravity of the one would moderate the courage and brevity of the other.

Why does the shining of the moon hurt the head?

Because it moves the humours of the brain, and cannot afterwards resolve them.

If water do nourish, why do not men drink it?

Water causes the nutriment to spread through the body.

Why is sneezing good?

It purgeth the brain, as milk is purged by the cough.

Where is the seat of the affections of the body?

Joy dwelleth in the spleen, anger in the gall, fear in the heart, and lechery in liver.

Why is hot water lighter than cold?

Because the boiling water has less ventosity, and is more light and subtle, the earthy and heavy substance being separated from it.

How comes marsh and pond water to be evil?

By reason they are phlegmatic, and do corrupt in summer time, the fineness of the water is turned into vapours, and the earthiness doth remain.

Why are studious and learned men soonest bald?

It proceeds from a weakness of the spirits, or because warmth of digestion causes phlegm to abound in them.

Why doth much watching make the brain feeble?

Because it increase choler, which dries and extenuates the body.

Why are steel glasses better for the sight than others?

Steel is hard, and doth present unto us more substantially the air which receiveth the light.

How doth love show its greatest force, by making the fool to become wise, or the wise become a fool.

It attributes wisdom to him that hath it not; for it is harder to build than to pull down, and ordinarily love and folly are but an alteration of the mind.

How comes to much labour to be bad for the sight?

Because it dries the blood too much.

Why is goat's milk counted best for the stomach?

Because it is thick, not slimy, and they feed upon boughs and wood rather than grass.

Why do grief and vexation bring gray hairs?

Because it dries, and age is nothing else.

How is he the most merry that hath the thickest blood?

The blood when it is fat and thick makes the spirits firm and constant, wherein consists the force of all creatures.

In your opinion, which is hardest, to obtain the love of a person, or to keep it when obtained?

To keep it, by reason of the inconstancy of man, who is quickly angry, and soon weary of a thing; hard to be got, and slippery to keep.

Why do serpents shun the herb rue

Because they are cold, dry, and full of sinews, but the herb rue is of a contrary nature.

How comes a capon better to eat than cock?

The capon loses not his moisture, because he does not tread the hens, and therefore is better.

Why do we smell a thing less in winter than in the summer?

Because the air is thick, and less moveable.

How comes hair to burn so quick as it does?

Because the hair is dry and cold.

Why is love compared to a labyrinth.

Because the entry and coming in is easy, and the going out impossible, or very hard.

M. ANTON. ZIMARAS SANCTIPERTIAS'
PROBLEMS.

Why is it esteemed in the judgement of the most wise the hardest thing to know a man's self?

It is because nothing can be known; its form and perfection cannot be found; to know the form and perfection of a man's self, as it cometh unto the philosopher, is a matter hard enough; and a man, by the authority of Plato, either is nothing, or if he be any thing, he is nothing but his soul. Or is it because it cannot be done by a reflected action, and to reflect and look unto himself as a token that he is separated by the flesh; for he who would know himself should be drawn from sensible affections; and how hard this is, no because a man liveth by understanding: but the man is ignorant of. Or, is it understanding, a man cannot conceive of himself, but after the understanding of senses, which is very hard.

Why was Socrates esteemed the wisest of all Grece by Apollo, seeing that, by the opinion of Aristotle, he was conversant and busied only about morality, and nothing about nature?

Whether it is because it is more expedient for the commodity, and use of men to live well and contemplate; or because it seemeth to Plato that he was usually professed of him every where, I know one thing that I know nothing.

Why do men especially strive and contend in things of wit?

It is because they think that other things which are called goods are the power of another; as the gifts of the body are nature's and external, and worldly goods are subject unto the rule of fortune, whereof it cometh to pass, that every man may easily suffer himself to be overcome in such things, as things not happening through his fault or oc-

caston, but they think wit to be in their own power. Or, it is because they think that the goods of the mind do excel all other goods, and therefore do think it a thing most natural to contend for that which is most excellent. Or it is because it is a common disease of all men, as it seemeth unto a certain wise man, that every man doth think himself more learned than he is, and therefore doth desire to perform that which he believeth, without study and labour

Why do men say that philosophy is naked?

It is because truth is naked, and that there needs no colour of words when we handle a matter of truth; for, it belongeth to sophists to dispute of terms when the sincere truth is sought. Or, it is because they do not play the philosopher well, who seek philosophy for gain and ambition and not for herself. Or, it is because he should be void from all worldly affections who desires to endear himself in the study of philosophy; for Aristotle doth say, the soul is made wise by rest and quietness. And it were easy for philosophers to become rich, if they would, as it appeareth by the example of Thales.

Why do men desire to be had in memory after their death, and therefore some make pyramids, statues, images, and divers other tokens and monuments which they build and leave behind them?

It is because all things, as seems unto Aristotle, do desire to participate of some perpetuity and divine being as much as they can; and therefore, if they cannot remain in nature and being, yet they endeavour at least to continue in the opinion and conceit of men. Or else custom hath brought it in so, to stir up such as comes after, to the end they should not degenerate, from their parents.

What is the cause why men's desires grow without measure about fortune's goods?

It is because natural desires, as Seneca sa

have an end, and such desires, as proceed of false opinion have no where to end.

Why do poets always assign and appoint some wise men to be familiar with princes; as, Homer doth Nestor with Agamemnon; Euripides, Tiresius with Creon; Hesiodus, Prometheus with Jupiter; and, Maro, Achates and Æneas?

It is because that by the law of nature, as Plato doth say wisdom and power do direct our actions to one end, and to effect the same thing, love it and seek it.

Why doth Homer when he makes mention of Ambassadors, talk always of the embassy of a commander in bare words?

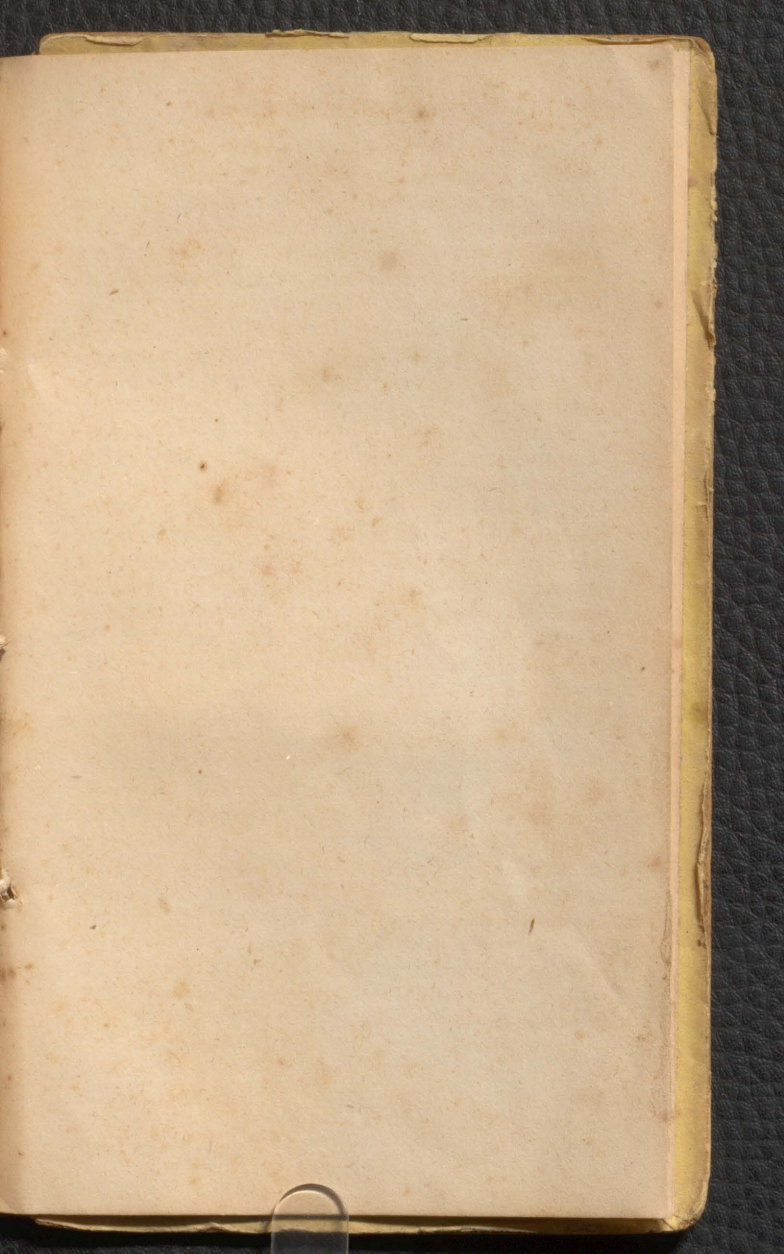
It is because it is the duty of ambassadors, to declare the bare will of the commander, and put his sentence in execution; and therefore, it is certain, he should add nothing; or else, it is because the commandment of him who doth rule that is, of a wise man, is put into good order and is presumed to be most perfect. And therefore there should be nothing changed; but his decrees and constitutions are to be judged absolute and perfect.

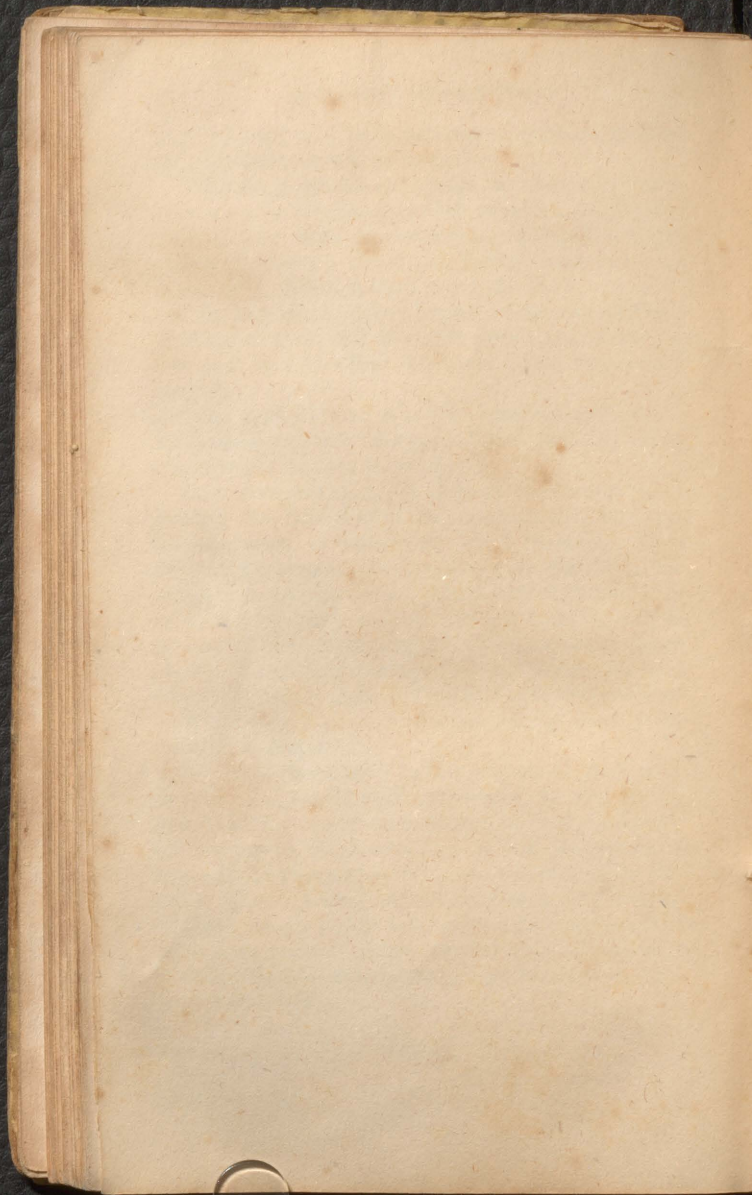
Why does Aristotle use exceeding brevity in most hard matters?

Whether because it is the custom of wise men to load their words with sentences, or else to the end that he would be obscure, to fear and keep off rude wits from reading of his works, as it seemeth in the expositors; or, whether it is because that in a hard matter, and in a hard matter of truth, many words are suspected, because that truth doth consist in few words; or it is because it seemeth to wise men, in many words there is error often committed.

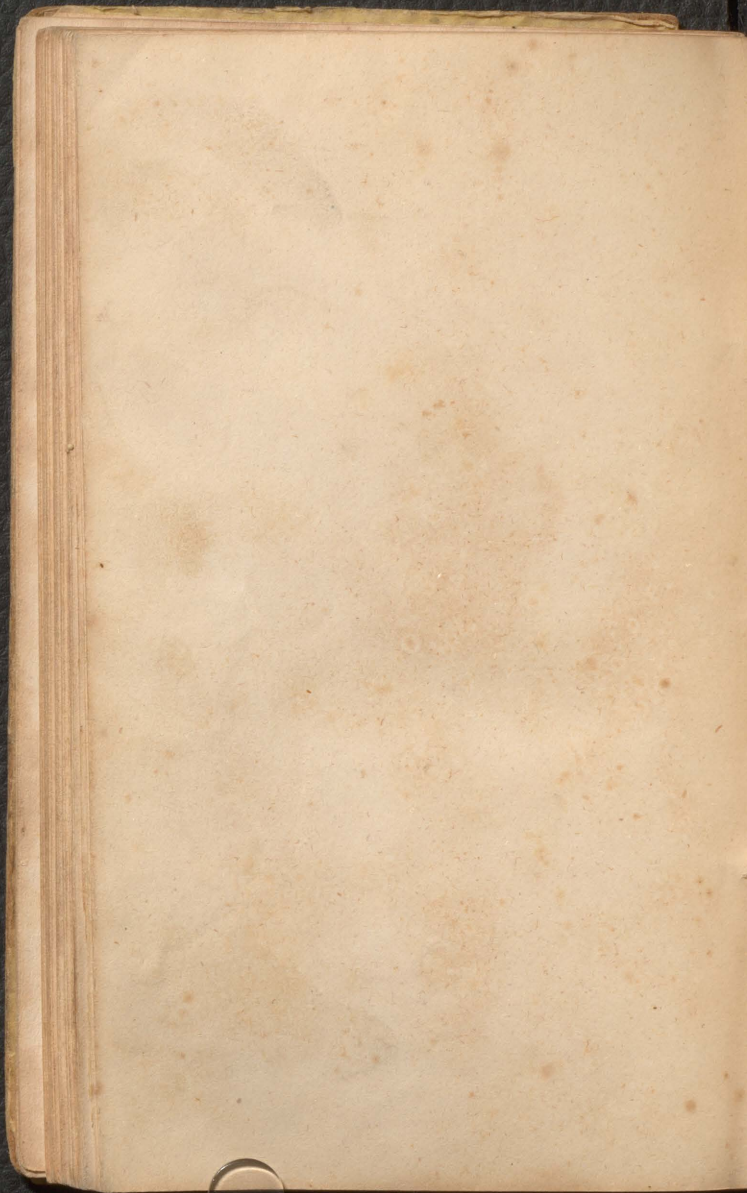
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