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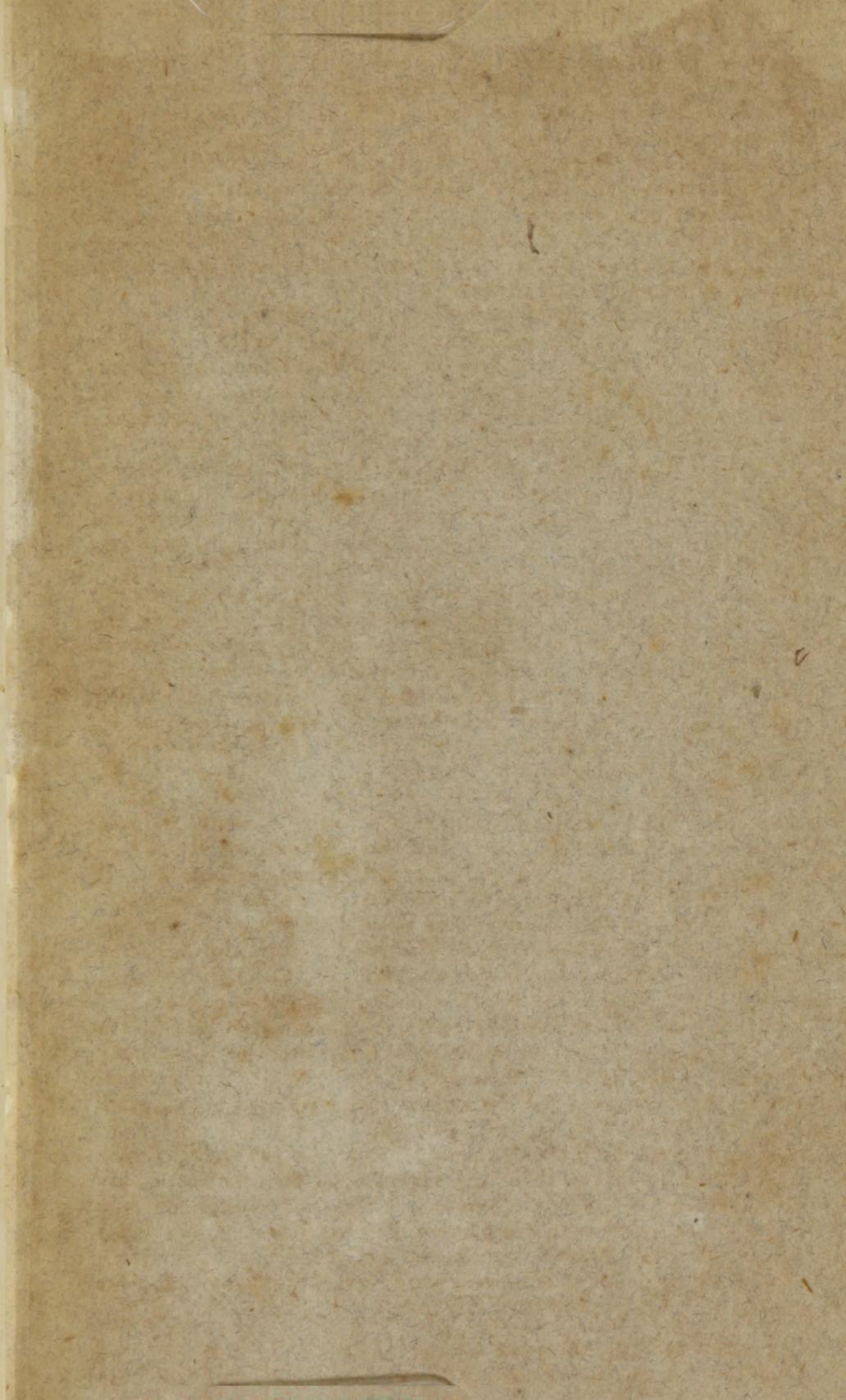
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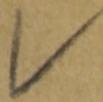
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T H E



# Experienced Midwife:

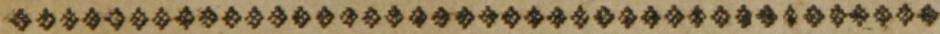
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T H E  
EXPERIENCED MIDWIFE.

P A R T I.

A GUIDE FOR CHILD-BEARING WOMEN.

*Introduction.*

I HAVE given this book the title of *The Complete and Experienced Midwife*, both because it is chiefly designed for those that profess midwifery, and contains whatever is necessary for them to know in the practice thereof, and also because it is the result of many years experience, and that in the most difficult cases, and is therefore the more to be depended upon. A midwife is the most necessary & honorable office, being indeed a helper of nature; which therefore makes it necessary for her to be well acquainted with all the operations of nature in the work of generation, and instruments with which she works; for she that knows not the operations of nature, nor with what tools she works, she must needs be at a loss how to assist therein. And seeing the instruments of operation both in men and women are those things by which mankind is produced, it is very necessary that all midwives should be well acquainted with them, that they may the better understand their business, and assist nature as there shall be occasion. The first thing then necessary, as introductory to this treatise is, an *Anatomical Description* of the several parts of generation both in men and women; and having designed throughout to comprehend much in a little room, I shall avoid all unnecessary and impertinent matters with which books of this nature are for the most part too much clogged, and which are more curious than needful. And though I should be necessitated to speak plainly, that so I may be understood, yet I shall do it with that modesty that none shall have need to blush, unless it be from something in themselves, rather than from what they shall find here, having the motto of the royal garter for my defence, which is, "*Honi sofit qui maly pense;*" or, Evil to him that evil thinks.

C H A P. I.

*An Anatomical Description of the instruments of Generation in Man and Woman.*

SECTION I. *Of the parts of Generation in Man.*

AS the generation of mankind is procured by the coition of both sexes, it necessarily follows that the instruments of generation are of two sorts, to wit, male and female; the operation of which are

by action and passion, and herein the agent is the seed, and the patient blood; whence we may easily collect, that the body of man being generated by action and passion, he must needs be subject thereunto during his life. Now since the instruments of generation are male and female, it will be necessary to treat of them both distinctly, that the discreet midwife may be well acquainted with their several parts, and their various operations, as they contribute to the work of generation. And in doing this, I shall give the honor of precedence to my own sex, and speak first of the parts of generation in man, which shall be comprehended under six particulars, viz. The preparing vessels, the corpus varicosum, the testicles, or stones, the vasa deferentia, the seminal vessels, and the yard, of each of which in their order.

1 The first are the vasa preparentia, or preparing vessels, which are in number four, two veins, and as many arteries; and they are called preparing vessels from their office, which is to prepare that matter or substance which the stones turn into seed to fit it for the work. Whence you may note, that the liver is the original blood, and distributes it through the body by the veins, and not the heart, as some have taught. As to the original of these veins, the right vein proceedeth from the vena cava, or great vein, which receives the blood from the liver, and distributes it by its branches to all the body; the left is from the emulgent vein, which is one of the two main branches of the hollow vein passing to the reins. As to the arteries they both arise from the great artery, which the Greeks call that which is the great trunk and original of all the arteries. But I will not trouble you with Greek derivations of words, affecting more to teach you the knowledge of things than words.

2 The next thing to be spoken of is the corpus varicosum, and this is an interweaving of the veins and arteries which carry the vital and natural blood to the stones to make seed of. These, though at their first descension they keep at a small distance the one from the other, yet before they enter the stones they make an admirable intermixture of twisting the one from the other, so that sometimes the veins go into the arteries, and sometimes the arteries into the veins; the substance of which is very hard and long, not much unlike a pyramid in form without and sensible hollowness: The use is to make one body of the blood and vital spirits, which they both mix and change the colour of, from red to white, so that the stones may both have a fit matter to work upon, and do their work more easily, for which reason, the interweaving reacheth down to the very stones, and pierceth in their substance.

3. The stones are the third thing to be spoken of, called also testicles; in Latin, *testes*, that is, witnesses, because they witness one

to be a man. As to these I need not tell you their number, nor where nature has placed them, for that is obvious to the eye. Their substance is soft, white and spongy, full of small veins and arteries, which is the reason they swell to such a bigness upon the flowing down of the humour in them. Their form is oval, but most authors are of opinion that their bigness is not equal, but that the right is the biggest, the hottest, and breeds the best and strongest seed. Each of these stones hath a muscle, called, *cremaster*, which signifies to hold up, because they pull up the stones in the act of coition, that so the vessels being slackened may the better void the seed. These muscles are weakened both by age and sickness; and the stones then hang down lower than in youth and health. These stones are of great use, for they convert the blood and vital spirits into seed for the procreation of man: but this must not be understood as if they converted all the blood that comes into them into seed, for they keep some for their own nourishment. But besides this, they add strength and courage to the body; which is evident from this, that eunuchs are never so hot, strong nor valiant, as other men, nor is an ox so hot or valiant as a bull.

4. The next in order are the *vasa deferentia*, which are the vessels that carry the seed from the stones to the seminal vessels, which is kept there till its expulsion. These are in number two, in colour white, and in substance nervous or sinewy; and from a certain hollowness which they have in them are also called spermatic pores, they rise not far from the preparing vessels; and when they come into the cavity of the belly they turn back again and pass into the backside of the bladder, between it and the right gut; and when they come near the neck of the bladder they are joined to the seminal galls, which somewhat resembles the cells of an honey comb; which cells contains an oily substance, for they draw the fatty substance from the seed which they empty into the urial passage, which is done for the most part in the act of copulation, that so the thin internal skin of the yard suffers not through the acrimony or sharpness of the seed. And when the *vasa deferentia* has passed as before declared, they fall into the *glandula postata* which are the vessels ordained to keep the seed, and which are next to be spoken of.

5. The seminal vessels, called *glandulum seminale*, are certain kernels placed between the neck of the bladder, and the right gut, compassing about the *vasa deferentia*, the urethra, or common passage for seed and urine, passing through the midst of it, and may properly enough be called the conduit of the yard. At the mouth of the urethra, where it meets with the *vasa deferentia*, there is a thick skin, whose office is to hinder the seminal vessels, which are of spongy nature, from shedding their seed against their will; the skin

is very full of pores, and through the heat of the act of copulation the pores open, and so give passage to the seed, which being of a very subtil spirit, and especially being moved will pass thro' the caruncle or skin as quicksilver through leather; and yet the pores of this skin are not discernable unless in the anotomy of a man, who had some violent running in the reins when he died, and then they are conspicuous, those vessels being the proper seat of that disease.

6. The last of the parts of generation in man to be spoken of, is the yard, which has a principal share in the work of generation; and is called *Penis*, from its hanging without the belly; and it consists of skin, tendons, veins, arteries, sinews and great ligaments, and is long and round, being ordained by nature both for the passage of the urine, and for the conveyance of seed into the matrix. It hath some parts common with it to the rest of the body, as the skin, or the *Membrana Carnosa* and some parts it has peculiar to itself, as the two nervous bodies, the Septum, the Urethra, the Glans, the four muscles, and the vessels. The skin, which the Latins called *Cutis*, is full of pores, through which the sweat and fuliginous or sooty black vapours of the third concoction (which concocts the blood into flesh) pass out; these pores are very many and thick but hardly visible to the eye; and when the yard stands not, it is flabby; but when it stands, it is stiff: The skin is very sensible, because the nerves concur to make up its being; for the brain gives sense to the body by the nerves. As to the *Carnus Membrana*, or fleshy skin, it is so called, not because its body is fleshy skin, but because it lies between the flesh, and passeth into other parts of the body underneath the fat, and sticks close to the muscles: but in the yard there is no fat at all, only a few superficial veins and arteries pass between the former skin and this, which when the yard stands are visible to the eye; These are the parts common both to the yard and the rest of the body. I will now speak of those parts of the yard which are peculiar to itself, and to no other part of the body: and those are likewise six, as has been already said, of which it will also be necessary to speak particularly. And

1. Of the Nervous bodies: These are two, tho' joined together, and are hard, long and sinewy, they are spongy within and full of black blood; the spongy substance of the inward part of it seems to be woven together like a net, consisting of innumerable twigs of veins and arteries. The black blood contained therein is very full of spirits, and the delights or desire of Venus, add heat to these, which cause the yard to stand; and that is the reason that both venereal sight, and tales will do it. Nor need it be strange to any, that Venus, being a planet cold and moist, should add heat to those parts, since by night; as the Psalmist testifies, Psal. cxxi. 6. Now

this hollow, spongy intermixture or weaving was so ordered by nature, on purpose to contain the spirit of venereal heat, that the yard may not fall before it has done its work. These two side ligaments of the yard, where they are thick and round, arise from the lower part of the share-bone, and at the beginning are separated the one from the other, resembling a pair of horns, or the letter Y. where the Urethra, or common passage of urine and seed, passeth between them.

2. Those nervous bodies of which I have spoken, so soon as they come to the joining of the share-bone, are joined by the *Scaptum Lucium*, which is the second internal part, to be described, which in substance is white and nervous, or sinewy, and its use is to uphold the two side ligaments and the Urethra.

3. The third thing in the internal part of the yard is the Urethra, which is the passage or channel by which both the seed and urine is conveyed out thro' the yard. The substance of it is sinewy, thick, soft and loose as the side ligaments are; it begins at the neck of the bladder, and, being joined to it, passeth to the glans. It has in the beginning of it three holes, of which the largest of them is in the midst, which receives the urine into it, the other two are smaller, by which it receives the seed from each seminal vessel.

4. The yard has four muscles: on each side two: These muscles are instruments of voluntary motion, without which no part of the body can move itself. It consists of fibrous flesh to make its body, of nerves for its sense, of veins for its nourishment, of arteries for its vital heat, of a membrane or skin to knit it together, and to distinguishing one muscle from another, and all of them from the flesh. Of these muscles, as I said before, the yard has two of each side, and the use of them is to erect the yard, and make it stand, and therefore they are also called Erectors: But here you must note that of the two on each side the one is shorter and thicker than the other; and these are they that do erect the yard, and so are called Erectors: but the two other being longer and smaller, their office is to dilate the lower part of Urethra, both for making water and emitting the seed; upon which account they are called Accelerators.

5. That which is called the Glans is the extreme part of the yard, which is very soft, and of a most exquisite feeling, by reason of the thinness of the skin wherewith it is covered: this is covered with the *Præputium*, or fore-skin, which in some men covers the top of the yard quite close, but in others it doth not; which skin moving up and down in the act of copulation, brings pleasure both to man and woman: this outer skin is that which the Jews were commanded to cut off on the eighth day: this *Præputium*, or fore-skin, is tied to the glans by a ligament or bridle, which is called *Franum*.

6. The last internal part of the yard are the vessels thereof, veins,

nerves and arteries. Of these some pass by the skin, and are visible to the eye when the yard stands; others pass by the inward part of the yaad; the arteries are wonderfully dispersed thro' the body of the yard, much exceeding the dispersion of the veins; for the right artery is dispersed to the left side, and the left to the right side. It hath two nerves, the lesser whereof is bestowed upon the skin, the greater upon the muscles and body of the yard. But thus much shall suffice to be said in describing the parts of generation in men: and shall, therefore, in the next place, proceed to describe those of women, that so the industrious midwife may know how to help them in their extremities.

SEC. II. *Describing the Parts of Generation in Women.*

WHATEVER ignorant persons may imagine, or some good women think, they are unwilling those private parts which nature has given them, should be exposed, yet it is in this case absolutely necessary; for I do positively affirm, that is it impossible truly to apprehend what a midwife ought to do, if these parts are not perfectly understood by them, nor do I know any reason they have to be ashamed to see or hear a particular description of what God and nature hath given them, since it is not the having these parts, but the unlawful use of them that causes shame.

To proceed then, in this description more regularly, I shall speak in order of these following principal parts; 1st. Of the Privy Passage; 2dly. Of the Womb: 3dly: Of the Testacles, or Stones: 4thly. Of the Spermatic Vessels.

1st. Of the Privy Passage. Under this head I shall consider the six following parts.

1. The lips, which are visible to the eye, and are designed by nature as a cover to the *Fissura Magna*, or great orifice: These are framed of the body, and have pretty store of spongy fat: and their use is to keep the internal parts from cold and dust. These are the only things that are obvious to the sight; the rest are concealed, and cannot be seen, unless the two lips are stretched asunder, and the entry of the privities opened.

2. When the lips are severed, the next thing that appears is the Nymphæ or wings; they are formed of soft and spongy flesh, and are in form and colour like the comb of a cock.

3. In the uppermost part, just above the urinary passage, may be observed the Clitoris, which is a sinewy and hard body, full of spongy and black matter within, like the side ligament of the yard: representing in form the yard of a man, and suffers erection and falling as that doth: and it grows hard, and becomes erected as a man's yard, in proportion to the desire a woman hath in copulation: and this also is that which gives a woman delight in copulation; for

without this a woman hath neither a desire to copulation, and delight in it, nor can conceive by it. And I have heard that some women have had their Clitoris so long, that they have abused other women therewith: Nay, some have gone so far, as to say, that those persons that have been reported to be Hermaphrodites, as having the genitals both of men and women, are only such women in whom the Clitoris hangs out externally, resembling the form of a yard. But though I will not be positive in that, yet it is certain, that the larger the Clitoris is any woman, the more lustful she is.

4. Under the Clitoris, and above the neck, appears the Orifice, or urinary passage, which is much larger in women than men, and causes their water to come from them in a great stream. On both sides the urinary passage may be seen two small membranous appendices, a little broader above than below, issuing forth of the inward parts of the great lips, immediately under the Clitoris; the use whereof is to cover the orifice of the urine, and defend the bladder from the cold air: So that when a woman pisseth, she contracts herself so, that she conducts out the urine without suffering it to spread along the privities, and often without so much as wetting the lips; and therefore these small membranous wings are called the *Nymphae*, because they govern the woman's water. Some women have them so great and long, that they have been necessitated to cut off so much as hat exceeded and grew without the lips.

5. Near this are four Caruncles, or fleshy knobs, commonly called Caruncles Myrtiformes; these are placed, on each side two, and a small one above, just under the urinary passage, and in virgins are reddish, plump and round, but hang flapping when virginity is lost: In virgins they are joined together by a thin and finewy skin or membrane, which is called the Hymen, and keeps them in subjection, and makes them resemble a kind or rose-bud half blown. This disposition of the Caruncles is the only certain mark of virginity, it being in vain to search for it elsewhere, or hope to be informed of it any other way: And 'tis from the pressing and bruising these Caruncles, and forcing and breaking the little membranes (which is done by the yard in the first act of copulation) that there happens an effusion of blood; after which they remain separated, and never recover their first figure, but become more and more flat as the acts of copulation are increased; and in those that have children they are almost totally defaced, by reason of the great distention these parts suffer in the time of their labour. Their use is to straiten the neck of the womb, to hinder the cold air from incommoding it, and likewise to increase mutual pleasure in the act of coition: for the Caruncles being then extremely swelled, and filled with blood and spirits, they close with more pleasure upon the yard of the man, whereby the woman is much more

delighted. What I have said of the effusion of blood which happens in the first act of copulation, tho' when it happens it is an undoubted sign of virginity, shewing the Caruncles Myrtiformes have never been pressed till then; yet when there happens no blood, it is not always a sign that virginity is lost before; for the Hymen may be broken without copulation, by the defluxion of sharp humours, which sometimes happen to young virgins, because in them it is thinnest: It is also done by the unskilful applying of bestaries to provoke the terms, &c. But these things happen so rarely, that those virgins do thereby bring themselves under a just suspicion.

6. There is next to be spoken of, the neck of the womb, which is nothing else but the distance between the privy passage and the mouth of the womb, into which the man's yard enters in the act of copulation: and in women of reasonable stature is about eight inches in length. 'Tis of a membranous substance, fleshy without, skinny, and very much wrinkled within; and that it may both retain the seed cast into it in the act of copulation, and also that it may dilate and extend itself to give sufficient passage to the infant at its birth. It is composed of two membranes, the innermost of them being white, nervous and circularly wrinkled much like the palate of an ox, that so it might either contract or dilate itself according to the bigness or length of the man's yard: and to the end, that by the collision, squeezing, or pressing made by the yard in copulation, the pleasure may be mutually augmented. The external or outmost membrane is red and fleshy like the muscle of the Fundament, surrounding the first, to the end the yard may be the better closed within it; and it is by means of this membrane that the neck adheres the stronger to both the bladder and the right guts. The internal membrane in young girls is very soft and delicate, but in women much addicted to copulation it grows harder; and in those that are grown aged, if they have been given much to venery, it is almost become grissly.

Having spoken of the privy passage, I come now to speak of the womb or matrix, its parts are two; the mouth of the womb, and the bottom of it. The mouth is an orifice at the entrance into which may be dilated and shut together like a purse; for though in the act of copulation it be big enough to receive the glans of the yard, yet after conception it is so close shut, that it will not admit the point of a bodkin to enter; and yet again at the time of the woman's delivery, it is opened so extraordinary, that the infant passeth thro' it into the world; at which time this orifice wholly disappears, and the womb seems to have but one great cavity from its bottom to the very entrance of the neck. When a woman is not with child it is a little oblong, and of a substance very thick and close; but when she is with child, it is shortened, and its thickness diminisheth

proportionably to its distention: And therefore it is a mistake of some anatomists to affirm, that its substance waxeth thicker a little before a woman's labour; for any one's reason will inform them, that the more distended it is, the thinner it must be, and the nearer a woman is to the time of her delivery, the shorter her womb must be extended. As to the action by which this inward orifice of the womb is opened and shut, it is purely natural; for were it otherwise, there would not be so many bastards gotten as there are; nor would some married women have so many children were it at their own choice, but they would hinder conception, though they would be willing enough to use copulation; for nature has attended that action with something so pleasing, and delightful, that they are willing to indulge themselves in the use thereof, notwithstanding the pains that they afterwards endure, and the hazard of their lives, which often follow it; And this comes to pass not so much from any inordinate lust in women, as for that the Great DIRECTOR of Nature, for the increase and multiplication of mankind, and even for all other species in the elementary world, hath placed such a magnetic virtue in the womb, that it draws the seed to it as the loadstone draws iron.

The AUTHOR of nature has placed the womb in the belly, that the heat might always be maintained by the warmth of the parts surrounding it; it is therefore seated in the middle of the *Hypogastrium* (or the lower part of the belly) between the bladder and the rectum (or right gut) by which also it is defended from any hurt through the hardness of the bones; and it is placed in the lower part of the belly for the convenience of copulation, and of a birth's being thrust out at the full time.

It is of figure almost round, inclining somewhat to an oblong, in part resembling a pear, for, from being broad at the bottom, it gradually terminates in the point of the orifice which is narrow.

The length, breadth and thickness of the womb differ according to the age and disposition of the body; for, in virgins not ripe it is very small in all its dimensions, but in women whose terms flow in great quantities, and such as frequently use copulation, it is much larger; and if they have had children, it is larger in them than in such as have none; but in women of a good stature, and well shaped (it is as I have said before) from the entry of the privy parts to the bottom of the womb, usually about eight, but the length of the body of the womb alone does not exceed three inches, and breadth thereof is nearly about the same, and of a thickness of the little finger, when the woman is not pregnant; but when the woman is with child, it becomes of a prodigious greatness, and the nearer she is to her delivery, the more is the womb extended.

It is not without reason then that nature (or the God of nature rather) has made the womb of a membranous substance ; for thereby it does the easier open to conceive, and is gradually dilated from the growth of the *Fœtus* or young one, and is afterwards contracted and closed again, to thrust forth both it and the after-burden, and then to retire to its primitive seat. Hence also it is enabled to expel any noxious humours which may sometimes happen to be contained in it.

Before I have done with the womb, which is the field of generation, and ought therefore to be the more particularly taken care of (for as the seed of plants can produce no fruits, nor spring unless sown in ground proper to waken and excite their vegetative virtue, so likewise the seed of a man, though potentially containing all the parts of a child, would never produce so admirable an effect, if it were not cast into the fruitful field of nature, the womb) I shall proceed to a more particular description of the parts thereof, and the uses to which nature has designed them.

The womb then is composed of various similiary parts, that is, of membranes, veins, arteries and nerves. Its membranes are two, and they compose the principal parts of its body ; the outmost of which ariseth from the *Peritonium*, or cawl, and is very thin, without smooth, but within equal, that it may the better cleave to the womb, as it were fleshy and thicker than any else we meet within the body when a woman is not pregnant, and is interwoven with all sorts of fibres or small strings, that it may the better suffer the extension of the child, and the waters caused during the pregnancy, and also that it may the easier close again after delivery.

The veins and arteries proceed both from the *Hypogastricks* and the *Spermatic Vessels*, of which I shall speak by and by ; all these are inserted and terminated in the proper membrane of the womb. The arteries supply it with blood for its nourishment, which, being brought thither in too great a quantity, sweats thro' the substance of it, and distils as it were dew into the bottom of its cavity ; from whence do proceed both the terms in ripe virgins, and the blood which nourisheth the embryo in breeding women. The branches which issue from the *Spermatic Vessels*, are in each side of the bottom of the womb, and are much less than those which proceed from the *Hypogastricks*, those being greater, and bedewing the whole substance of it. There are yet some other small vessels, which, arising the one from the other, are conducted to the internal orifice, and by these, those that are pregnant, do purge away the superfluity of their terms, when they happen to have more than is used in the nourishment of the infant ; by which means nature has taken such care of the womb, that, during its pregnancy, it shall not be obliged to open itself for the passing away those excrementitious humours

which, should it be forced to do, might often endanger abortion.

As touching the nerves, they proceed from the brain, which furnishes all the inner parts of the lower belly with them, which is the true reason it hath so great a sympathy with the stomach, which is likewise very considerably furnished from the same part; so that the womb cannot be afflicted with any pain, but the stomach is immediately sensible thereof, which is the cause of those loathings or frequent vomitings which happen to it.

But, besides all these parts which compose the womb, it hath four ligaments, whose office is to keep it firm in its place, and prevent its constant agitation, by the continual motion of the intestines which surround it, two of which are above and two below: Those above are called the broad ligaments, because of their broad and membranous figure, and are nothing else but the production of the *Peritonæum*, which growing out of the side of the loins towards the reins come to be inserted in the sides of the bottom of the womb, to hinder the body from bearing too much on the neck, and so from suffering a precipitation, as will sometimes happen when the ligaments are too much relaxed; and do also contain the testicles, and as well conduct the different vessels as the ejaculatories to the womb. The lowermost are called round ligaments, taking their original from the side of the womb near the horn, from whence they pass the groin, together with the production of the *Peritonæum* which accompanies them through the rings and holes of the oblique and tranverse muscles of the belly, where they divide themselves into many little branches resembling the foot of a goose, of which some are inserted into the *os pubis*, and the rest are lost and confounded with the membranes that cover the upper and interior parts of the thigh; and it is that which causes that numbness which women with child feel in their thighs. These two ligaments are long, round and nervous, and pretty big in their beginning near the matrix, hollow in their rise, and all along to the *os pubis*, where they are a little smaller, and become flat, the better to be inserted in the manner aforesaid: it is by their means the womb is hindered from rising too high. Now, although the womb is held in its natural situation by means of these four ligaments, yet it has liberty enough to extend itself when pregnant, because they are very loose, and so easily yield to its distention. But besides these ligaments, which keep the womb as it were in a poise, yet it is fastened for greater security, by its neck, both to the bladder and rectum, between which it is situated. Whence it comes to pass, that if at any time the womb be inflamed, it communicates the inflammation to the neighbouring parts.

Its use, or proper action in the work of generation, is to receive and

retain the seed, and to reduce it from powder to action by its heat for the generation of the infant, and is therefore absolutely necessary for the conservation of the species. It also seems by accident to receive and expel the impurities of the whole body, as when women have abundance of whites and to purge away from time to time the superfluity of the blood, as it doth every month by the evacuation of blood, as when a woman is not with child. And thus much shall suffice for the description of the womb, in which I have been the larger, because, as I have said before, it is the field of generation.

3d. The next thing to be described in the genitals of women is the testicles or stones, for such women have as well as men, but are not for the same use, and indeed are different from those in men in several particulars; as 1st, in place being within the belly, whereas, in men they are without. 2dly, In figure, being uneven in women, but smooth in men. 3dly, In magnitude, being lesser in women than in men. 4thly, They are not fixed in women by muscles, but by ligatures 5thly, They have no prostrates or kernals as men have. 6thly, They differ in form, being depressed or flattish in women, but oval in men. 7thly, They have but one skin, whereas men have four; for the stones of men being more exposed, nature has provided for them accordingly. 8thly, Their substance is more soft than in men. And 9thly, Their temperature is colder than men. And as they differ in all these respects, so do they also in their use, for they perform not the same actions as men's, as I shall shew presently. As for their seat, it is in hollowness of the Abdomen, and therefore not extremely pendulous, but rest upon the ova or egg. 'Tis true Galen and Hypocrates did erroneously imagine that the stones in women did both contain and elaborate the seed as those do in men, but it is a great mistake: For the testicles of a woman are as it were no more than two clusters of eggs, which lie there to be impregnated by the moist spirituous particles, or animating effluvia conveyed out of the womb through the two tubes, or different vessels: But however the stones in women are very useful; for where they are defective, generation work is at an end. For though these little bladders, which are on their superficies, contain nothing of seed, yet they contain several eggs (commonly to the number of twenty in each testicle) one of which being impregnated in the act of coition, by the most spirituous part of the seed of the man, descends through the oviducts into the womb, and there in process of time, becomes a living child.

4th. I am now to speak of the spermatic vessels in women, which are two, and are fastened in their whole extent by a membranous appendix to the broad ligament of the womb: These do not proceed from the testicles as in men, but are distant from them a finger's breadth at least; and being disposed after the manner of the miseraic

veins, are trained along the membranous distance between the different vessels and the testicles. Their substance is, as it were nervous and moderately hard; they are round, hollow, big, and broad enough at their end, joining to the horn of the womb. Some authors affirm that by these, women discharge their seed into the bottom of the womb; but the whole current of our modern authors run quite another way, and are positive that there is no seed at all in their vessels; but that after the egg or eggs in the ovarie or testicles are impregnated by the seed of the man, they descend through these two vessels into the womb, where being placed, the embryo is nourished. These vessels are shorter in women than they are in men; for the stones of a woman lying within the belly, their passage must needs be shorter; but their various wreathings and windings in and out, make amends for the shortness of their passage. These vessels are not united before they come to the stones, but divide themselves into two branches, the largest whereof only passes through the testicles, the lesser to the womb, both for the nourishment of itself and the infant in it. I further observe, That these spermatic veins receives the arteries as they pass by the womb, and so there is a mixture between natural and vital blood, that so the work might be the better wrought, and that it is so, appears by this, That if you blow up the spermatic vein, you may perceive the right and left vessel of the womb, blown up: from whence also the communication of all the vessels of the womb may be easily perceived.

The deferentia or carrying vessels spring from the lower part of the testicles, and are in colour white, and in substance sinewy, and pass not the womb straight, but wreathed with several turnings and windings, as was said of the spermatic vessels, that so the shortness of the way may be likewise recompensed by their winding meanders; yet near the womb they become broad again. They proceed in two parts from the womb, which resemble horns, and are therefore called the horns of the womb. And this is all that is needful to be known or treated of concerning the parts of generation both in men and women.

Only since our modern anatomists and physicians are of different sentiments from the ancients, touching the woman's contributing of seed for the formation of the child as well as the man; the ancients strongly affirming it, but our modern authors being generally of another judgement; I will here declare the several reasons for their different opinions, and so pass on.

SECTION III. *Of the differences between the modern Physicians, touching the Woman's contributing Seed to the formation of the child.*

**I** WILL not make myself a party in this controversy, but set down impartially, yet briefly, the arguments on each side, leaving the judicious reader to judge for himself.

Though it is apparent, say the ancients, that the seed of man is the principal efficient and beginning of action, motion and generation, yet it is evident that the woman doth afford seed, because she hath feminal vessels, which else had been given her in vain; but since nature forms nothing in vain, it must be granted they were made for the use of seed and procreation, and fixed in their proper places to contribute virtue and efficacy to the seed: and this, say they, is further proved from hence. That if women at years of maturity use not copulation to object their seed, they often fall into strange diseases, and it is apparent, that women are never better pleased than when they are often satisfied this way, which argues the pleasure & delight they take therein; which pleasure, say they, is double in women to what it is in men; for, as the delight of men in copulation consist chiefly in the emission of the seed, so women are delighted both in emission of their own, and the reception of the man's.

But against all this, our modern authors affirm, That the ancients were very erroneous; for as much as the testicles in women do not afford seed, but are two eggs, like those of fowls and other creatures, neither have they any such offices as men, but indeed are an Ovarium, or receptacle for eggs, wherein these eggs are nourished by the sanguinary vessels dispersed through them; and from thence, one or more as they are fecundated by the man's seed, are conveyed into the womb by the oviducts. And the truth of this, say they, is plain, that if you boil them their liquor will have the same taste, colour and consistency, with the taste of bird's eggs. And if it be objected, that they have no shells, the answer is easy; for the eggs of fowls, while they are in ovary, nay, after they are fallen into the uterus, have no shell; and though they have one when they are laid, yet it is no more than a fence which nature has provided for them against outward injuries, they being hatched without the body; but those of women being hatched within the body, have no need of any other fence than the womb to secure them.

They also further say, there are in the generation of the fœtus, or young ones, two principles, active & passive: the active is the man's seed, elaborated in the testicles, out of the arterial blood and animal spirits; the passive principle is the ovum or egg impregnated by the man's seed; for to say that women have true seed (say they) is erroneous. But the manner of conception is this: The most spirituous part of man's seed, in the act of copulation, reaching up to the ovarium or testicles of the woman (which contains divers eggs, sometimes more, sometimes fewer) impregnates 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 sent thither, after the same manner that the seeds in the ground suck the fertile moisture thereof to make them sprout.

But, notwithstanding what is here urged by our modern anatomists, there are some late writers of the opinion of the ancients, viz. that women have both, and emit seed in the act of copulation; and the good women themselves take it ill to be thought merely passive in those wars wherein they make such vigorous encounters, and positively affirm they are sensible of the emission of their seed in those engagements, and that a great part of the delight they take in that act consists in it. I will not therefore go about to take any of their happiness away from them, but leave them in possession of their imagined felicity.

Having thus laid the foundation of this work, in the description I have given of the parts dedicated to the work of generation both in man and woman, I will now proceed to speak of conception, and of those things that are necessary to be observed by women from the time of their conception to the time of their delivery.

### C H A P. III.

*Of Conception; what it is; the Signs thereof, whether conceived of a Male or Female; how Women are to order themselves after conception.*

SECTION I. *What Conception is, and the Qualifications requisite thereto.*

**C**ONCEPTION is nothing else but an action of the womb, by which the prolific seed is received and retained, that an infant may be engendered and formed out of it. There are two sorts of conception; the one according to nature, which is followed by the generation of the infant in the womb; the other is false, and wholly against nature, in which the seed changes into water, and produces only false conception, moles or other strange matter. Now there are three things principally necessary in order to a true conception, so that generation may follow; to wit, diversity of sex, congression, and emission of seed. Without diversity of sexes, there can be no conception: For, tho' some will have a woman to be an animal that can engender of herself, it is a great mistake; there can be no conception without a man to discharge his seed into her womb. What they alledge of pullets laying eggs without a cock's treading them, is nothing to the purpose; for those eggs, should they be set under a hen, will never become chickens, because they never received any prolific virtue from the male; which is absolutely necessary to this purpose, and is sufficient to convince us that diversity of sex is necessary even to those animals, as well as to the generation

of man. But diversity of sex, tho' it be necessary to conception, yet it will not do alone; there must also be a congression of those different sexes: for diversity of sex would profit little, if copulation did not follow. I confess I have heard of some subtle women, who, to cover their sin and shame, have endeavoured to persuade some persons that they were never touched by men, to get them with child; and that one in particular pretended to conceive, by going into a bath where a man had washed himself a little before, and spent his seed into it, which was drawn and sucked into her womb, as she pretended: But such stories as those are only fit to amuse them that know no better.—Now that these different sexes should be obliged to come to the touch, which we call copulation or coition, besides the natural desire of begetting their like, which stirs up men and women to it, the parts appointed for generation are endowed by nature with a delightful and mutual itch, which begets in them desire to the action; without which it would not be very easy for a man born for the contemplation of divine mysteries, to join himself by the way of coition to a woman, in regard of the uncleanness of the part, and of the action; and on the other side, if women did but think of those pains and inconveniencies to which they are subject by their great bellies, and those hazards even of life itself, besides the unavoidable pains that attend their delivery, it is reasonable to believe they would be affrighted from it. But neither sex make these reflections, till after the action is over, considering nothing before hand but the pleasure of enjoyment. So that it is from this voluptuous itch that nature obligeth both sexes to this congression. Upon which the third thing followeth of course, to wit, the emission of seed into the womb in the act of copulation. For the woman having received this prolific seed into her womb, and retained it there, the womb thereupon becomes compressed, and embraces the seed so closely, that being closed, the point of a needle, as saith Hippocrates, cannot enter into it without violence; and now the woman may be said to have conceived; the several faculties which are in the seed it contains, being reduced by its heat from power into action, making use of the spirits with which the seed abounds, and which are the instruments by which it begins to trace out the first lineaments of all the parts; to which afterwards, of making use of the menstruous blood flowing to it, it gives in time growth and final perfection. And thus much shall suffice to shew what conception is. I shall now proceed to shew

#### SECTION II. *The Signs of Conception.*

**T**HERE are many prognosticks or signs, of conception: I will name some of the chief, which are the most certain, and let alone the rest.

1. If a woman has been more than ordinary desirous of copulation, and hath taken more pleasure than usual therein (which upon recollection she may easily know) it is a sign of conception.

2. If she retain the seed in her womb after copulation, which she may know if she perceives it not to flow down from the womb as it used to do before, for that is a sure sign the womb has received it into the inward orifice, and there retains it.

3. If she finds a coldness and chillness after copulation, it shews the heat is retired to make conception.

4. If after this she begins to have loathings to those things which she loved before, and this attended with a loss of appetite, and a desire after meats, to which she was not affected before, and hath often nauſeatings and vomitings, with sour belchings, and exceeding weakness of stomach.

5. After conception the belly waxeth very flat, because the womb closeth itself together, to nourish and cherish the seed, contracting itself so as to leave no empty space.

6. If the veins of the breast are more clearly seen than they were wont to be, it is a sign of conception.

7. So it is, if the tops on the nipples look redder than formerly, and the breasts begin to swell, and grow harder than usual, especially if this be attended with pain and soreness.

8. If a woman hath twisting and griping pains, much like those of the cramp in the belly, and about the navel, it is a sign she has conceived.

9. If under the lower eye-lid the veins be swelled, and appear clearly, and the eye be something discoloured, it is a certain sign she is with child, unless she have her menses at the same time upon her, or that she has sat up the night before. This sign has never failed.

10. Some also make this trial of conception: they stop the woman's urine in a glass or phial for three days, and then strain it through a fine linen cloth, and if they find small living creatures in it, they conclude that the woman has certainly conceived.

11. There also is another easy trial: let the woman that supposes she has conceived, take a green nettle, and put it into her urine, cover it close, and let it remain therein a whole night: if the woman be with child, it will be full of red spots on the morrow; but if she be not with child, it will be blackish.

11. The last sign I shall mention is that which is most obvious to every woman, which is the suppression of the terms: For, after conception, nature makes use of that blood for the nourishment of the embryo, which before was cast out by nature, because it was too great in quantity. For it is an error to think that the menstrual blood, simply in itself considered, is bad; because if a woman's bo-

dy be in good temper, the blood must needs be good: and that it is voided monthly is because it offends in quantity, but not in quality. But tho' the suppression of the terms is generally a sure sign of conception to such persons as have had them orderly before, yet is not the having them always a sign there is no conception: Forasmuch as many that have been with child have had their terms, and some even until the fifth or sixth month, which happens according to the woman's being more or less sanguine; for if a woman has more blood than will suffice for the nourishment of the embryo, nature continues to void it in the usual way. Whence the experienced midwife may learn there are few general rules which do not sometimes admit of an exception. But this shall suffice to be spoken of the signs and prognosticks of conception.

SECTION III. *Whether Conception be of a Male or Female.*

AUTHORS give us several prognosticks of this: though they are not all to be trusted, yet there is some truth among them; the signs of a male child conceived are.

1. When a woman at her rising up is more apt to stay herself upon her right hand than her left.

2. Her belly lies rounder and higher than when she has conceived of a female.

3. She first feels the child to beat on the right side.

4. She carries her burden more light, and with less pain than when it is a female.

5. Her right nipple is redder than the left, and her right breast harder and more plump.

6. Her colour is more clear, nor is she so swarthy as when she has conceived a female.

7. Observe a circle under her eye, which is a pale and bluish colour; and if that under her right eye be most apparent, and most discoloured, she hath conceived a son.

8. If she would know whether she hath conceived a son or a daughter, let her milk a drop of her milk into a basin of fair water; if it spreads and swims at top, it certainly is a boy; but if it is round as it drops in, and sinks to the bottom, it is a girl. This last is an infallible rule. And in all it is to be noted, that what is a sign of a male conception, the contrary holds good of a female.

SEC IV. *How a woman ought to order herself after conception.*

**M**Y design in this treatise being brevity, I shall pretermit all that others say in the cause of twins; and whether there be any such thing as superfœtations, or a second conception in woman, which is yet common enough, when I come to shew you how the midwife ought to proceed in the delivery of these women which are pregnant with them. But having already spoken of conception, I

think it now necessary to show how such as have conceived ought to order themselves during their pregnancy, that they may avoid those inconveniencies which often endanger the life of the child, and many times their own.

A woman after her conception, during the time of her being with child, ought to be looked on as indisposed or sick, tho' in good health; for child bearing is a kind of nine-months sickness, being all that time in expectation of many inconveniencies, which such a condition usually causes to those who are not well governed during that time; and therefore ought to resemble a good pilot, who, when sailing in a rough sea and full of rocks, avoids and shuns the danger, if he steers with prudence; but if not, it is a thousand to one, but he suffers shipwreck. In like manner, a woman with child is often in danger of miscarrying and losing her life, if she is not very careful of herself, and secondly of the child she goes with, for otherwise a single error may produce a double mischief; for if she receives any prejudice her child also suffers with her.

Let a woman therefore after conception, observe a good diet, suitable to her temperament, custom, condition and quality; and if she can, let the air where she ordinarily dwells be clear and well tempered free from extremes either of heat or cold; for being too hot, it dissipates the spirits too much, and causeth many weakneses, and by being too cold and foggy, it may bring down rheums and distillations on the lungs, and so cause her to cough, which by its impetuous motions forcing downwards, may make her miscarry; She ought also to avoid all nauseous and ill smells, for sometimes the stink of a candle not well put out may cause her to come before her time; and I have known the smell of charcoal to have the same effect. Let her also avoid smelling of rue, mint, pennyroyal, castor, brimstone, &c.

But with respect to her diet, women with child have generally so great loathings, and so many different longings, that it is very difficult to prescribe an exact diet for them. Only this I think adviseable, that they may use of those meats and drinks which are to them most desirable, tho' perhaps not in themselves so wholesome as some others, and it may not be so pleasant; but this liberty must be made use of with this caution, that what she so desires be not in itself absolutely unwholesome; and also that in every thing they take care of excess. But if a child-bearing woman finds herself not troubled with such longings as we have spoken of, and in such quantity as may be sufficient for her and the child, which her appetite may in a great measure regulate; for it is alike hurtful for her to fast too long as to eat too much, and therefore rather let her eat a little and often, especially let her avoid eating too much at night;

because the stomach being too much filled, compresseth the diaphragm, and thereby causes difficulty of breathings. Let her meat be easy of concoction, such as the tenderest parts of beef, mutton, veal, fowls, pullets, capons, pigeons and partridges, either boiled or roasted, as she likes best; new laid eggs are also very good for her; and let her put into her broths those herbs which purify it, as sorrel, lettuce, succory and burrage; for they will purge and purify the blood; let her avoid whatsoever is hot seasoned, especially pies and baked meats, which being of hot digestion, overcharge the stomach. If she desires fish, let it be fresh, and such as is taken out of rivers and running streams. Let her eat quinces, or marmalade, to strengthen the child; for which purpose sweet almonds, honey, sweet apples, and full ripe grapes, are also good. Let her abstain from all sharp, sour, bitter, and salt things, and all things that tend to provoke the terms, such as garlick, onions, olives, mustard, fennel, with pepper and all spices, except cinnamon, which in the last three months is good for her. If at first her diet be sparing as she increases in bigness let her diet be increased for she ought to consider she has a child as well as herself to nourish. Let her be moderate in her drinking; and if she drinks wine, let it be rather claret than white (which will breed good blood, help the digestion, and comfort the stomach, which is always but weakly during her pregnancy) but white wine being diuretic, or that which provokes urine ought to be avoided. Let her have a care of too much exercise, and let her avoid dancing, riding in a coach, or whatever else puts the body into violent motion, especially in her first month. But to be more particular I shall here set down rules proper for every month for the child-bearing woman to order herself, from the time she has first conceived to the time of her delivery.

#### Rules for the first two months.

**A**S soon as a woman knows or has reason to believe she hath conceived, she ought to abstain from all violent motion or exercise, whether in walking, riding on horseback, or in a coach. Let her also abstain from venery, to which after conception, she has usually no great inclination, lest there be a mole or superfatation; which is the adding of one embryo to the other. Let her beware she lift not her arms too high, nor carry great burdens, nor repose herself on hard and uneasy seats. Let her use moderately meats of good juice and easy concoction, and let wine be neither too strong nor too sharp, but a little mingled with water; or, if she be very abstemious, she may use water wherein cinnamon is boiled. Let her avoid fastings, thirst, watching, mourning, sadness, anger and all other perturbations of the mind. Let none present any strange or unwholesome things to her, not so much as name it, lest she should

desire it, and not be able to get it, and so either cause her to miscarry, or the child have some deformity on that account. Keep her belly loose with prunes, raisins, or manna, in her broth; and let her use the following electuary to strengthen the womb and the child.

“Take conserve of burrage, bugloss, and red roses, two ounces each; balm, citron peel, and maribolans, candied, each an ounce; extract of wood aloes a scruple: pearl prepared half a dram; red carol, ivory each a dram; precious stones each a scruple; candied nutinegs two drams; and with syrups of apples and quinces make an electuary.

Let her use the following rules.

“Take pearls prepared a dram; red carol prepared with ivory each half a dram, precious stones, each a scruple; yellow citron peels, mace, cinnamon, cloves, each half a dram, saffron a scruple, wood aloes half a scruple; ambergrease six drams, and with six ounces of sugar dissolved in rose water, make rous.” Let her also apply strengtheners to the naval, of nut megs, mace, mastic, made up in bags, or a toast dipped in mansiey, sprinkled in powder of mint. If she happens to desire clay, chalk or coal (as many women with child do) give her beans boiled with sugar: and if she long for any thing which she cannot obtain, let her presently drink a large draught of pure cold water.

Rules for the third month.

In this month and the next, be sure to keep from bleeding; for though it may be safe at other times, it will not be so until the end of the fourth month; and yet if too much blood abound, or some incident disease happen, which requires evacuation, you may use a cupping glass, with scarification, and a little blood may be drawn from the shoulders and arms, especially if she has been accustomed to bleed. Let her also take care of lacing herself too straightly, but give herself more liberty than she used to do; for inclosing her belly in too straight a mould, she hinders the infant from taking its free growth, and often makes it come before its time.

Rules for the fourth month.

In this month you ought also to keep the child-bearing woman from bleeding, unless in extraordinary cases; but when this month is past, blood-letting and physic may be permitted, if it be gentle and mild; and perhaps it may be necessary to prevent abortion. In this month she may purge in acute diseases; but purging may be only used from the beginning of this month to the end of the sixth: but let her take care that in purging she uses no vehement medicine, not very bitter, as aloes, which is an enemy to the child, and opens the mouth of the vessels; neither let her use coloquintida, scammony, nor turbit; she may use cassia, manna, rhubarb, agaric,

and fenna, but diacridonium purgans is best with a little of the electuary of the juice of roses.

Rules for the fifth, sixth, and seventh months.

In those months child-bearing women are often troubled with coughs, heart beating, fainting, watching, pains in the loins and hips, and bleeding. The cough is from a sharp vapour that comes to the jaws and rough artery from the terms, or from the thin part of that blood gotten into the veins of the breast, or fallen from the head to the breast: This endangers abortion, and strength fails from watching; therefore purge the humours that fall from the breast with rhubarb and agaric, and strengthen the head as in a catarrh, and give sweet lenitives as in a cough. Palpitation and fainting arise from a vapour that go to it by the arteries or from blood that aboundeth and cannot get out at the womb, but ascends and oppresses the heart; and, in this case, cordials should be used both inwardly and outwardly. Watching is from sharp dry vapours that trouble the animal spirits; in this case use frictions, and let the woman wash her feet at bed time, and let her take syrup of poppies, dried roses, emulsions of sweet almonds and white poppy seeds. If she be troubled with pains in her loins and hips, as in these months she is subject to be from the weight of her child, who is now grown big and heavy, and so stretcheth the ligaments of the womb, and parts adjacent, let her hold it up with swathing bands about her neck. About this time also the woman often happens to have a flux of blood, either at the nose, womb, or hemorrhoids, from plenty of blood, or from the weakness of the child that takes it not in, or else from evil humours in the blood, that stirs up nature to send it forth. And sometimes it happens that the vessels of the womb may be broken, either by some violent motion, fall, cough or trouble of mind; (for any of these will work that effect) and this is so dangerous, that in such a case the child cannot be well; but if it be from blood only, the danger is no less, provided it flows by the veins of the neck of the womb, for then it prevents plethora, and takes away the nourishment of the child; but if it proceeds from the weakness of the child that draws it not; abortion of the child often follows, or hard travail, or else she goes beyond her time: But if it flows by the inward veins of her womb, there is more danger by the openness of the womb, if it comes from evil blood; the danger is alike from cacochimy, which is like to fall upon both. If it arises from plethora, open a vein, but with very great caution, and give her astringents, such as the following; "Take pearl prepared a scruple; red coral two scruples, mace, nutmegs, each a dram; cinnamon, half a dram; make a powder, or with sugar, roul." Or, give this powder in broth: "Take red coral a dram; precious stones half a scruple: red sanders half a dram;

sealed earth, and tormentil roots, each two scruples, with sugar of roses, and manus Christi, with pearl five drams, make a powder."— You may also strengthen the child at the navel; and if there be a cacochimy, alter the humours, and evacuate, if you may do it safely. You may likewise use amulets on her hands, and about her neck. In a flux of hemorrhoids, let her drink hot wine with a toasted nutmeg. In these months the belly is also subject to be bound; but if it be without any apparent disease, the broth of a chicken, or of veal sodden with oil, or with the decoction of mallows, mercury, and lintseed put up in a clyster, will not be amiss, but in less quantity than is given in other cases; to wit, of the decoction five ounces, of common oil three ounces, of sago, two ounces, of cassia fistula one ounce. But if she will not take a clyster, one or two yolks of new laid eggs; or a few pease pottage warm, with a little salt and sugar, supped up a little before meat, will be very convenient: But if her belly shall be distended, and stretched out with wind, a little fennel seed and anniseed reduced into powder, and mingled with honey and sugar, made after the manner of an electuary, will do very well. Also, if the thighs and feet swell, let them be anointed with exphrodium (which is a liquid medicine made with vinegar and rose water) mingled with a little salt.

#### Rules for the Eighth Month.

The eighth is commonly the most dangerous, and therefore the greatest care and caution ought to be used; and her diet ought to be better in quality, but not more, nor indeed so much in quantity as before; but as she must abate her diet, so she must increase her exercise: And because then women with child, by reason of the sharp humours, alter the belly, are accustomed to weaken their spirits and strength, they may well take before meat an electuary of diarrhodon or aromaticum rosatum, or diamargaron; and as they will loath and nauseate their meat they may take green ginger condited with sugar, or the rinds of citrons and oranges condited; and often use honey for the strengthening of the infant. When she is not far from her labour, let her use every day seven roasted figs before meat and sometimes lick a little honey; but let her beware of salt, and powder meat, for it is neither good for her nor the child.

#### Rules for the Ninth Month.

In the ninth month let her have a care of lifting any great weight; but let her move a little more to dilate the parts, and stir up natural heat. Let her take heed of stooping, and neither sit too much nor lie on her sides; neither ought she to bend herself much, lest the child be unfelded in the umbilical ligament, by which means it often perishes. Let her walk and stir often, and let her exercise be

rather to go upwards than downwards : Lether diet now especially be light and easy of digestion ; as damask prunes with sugar, or figs and raisins, before her meat ; as also the yolk of eggs, flesh and broth of chickens, birds, partridges, and pheasants ; astringent and roasted meats, with rice, and hard eggs, millet, and such like other things are proper ; baths of sweet water, with emollient herbs, ought to be used by her this month without intermission. And after the bath, let her belly be anointed with the oil of roses and violets ; but for her privy parts, it is fitter to anoint them with the fat of hens, geese, or ducks, or with oil of lilies, and the decoction of lintseed and fenugreek, boiled with oil of lintseed and marsh mallows, or with the following liniment.

“ Take of mallows and marsh mallows, cut and shred, of each an ounce ; of lintseed one ounce ; let them be boiled from twenty ounces of water to ten ; then let her take three ounces of the boiled broth : of oil of almonds, and oil of flour-de-luce, of each one ounce ; of deer's suet three ounces ; let her bathe with this, and anoint herself with it warm.”

It for fourteen days before the birth she do every morning and evening bathe and moisten her belly with masculine and lavender water, the child will be much strengthened thereby. And if every day she eat toasted bread, it will hinder any thing from growing to the child. Her privy parts may be a fogently straked down with this fomentation.

“ Take three ounces of lintseed ; of mallows and marsh mallows sliced, of each one handful ; let them be put into a bag, and boiled immediately : and let the woman with child every morning and evening take the vapour of this decoction in a hollow stool, taking great heed that no wind or air come to her in any part, and then let her wipe the part so anointed with a linen cloth, that she may anoint the belly and groins as at first. When she is come so near her time as to be within ten or fourteen days thereof, if she begins to feel any more than ordinary pain, let her use every day the following :

“ Take mallows, and marshmallows, of each one handful : camomile, herd mercury, maiden hair, of each half a handful : of lintseed four ounces ; let them be boiled in such a sufficient quantity of water as may make a broth therewith.” But let her not sit too hot upon the seat, nor higher than a little above her navel ; nor let her sit on it longer than about half an hour, lest her strength languish and decay, for it is better to use it often, than to stay too long in it.— And thus I have shewn how a child bearing woman ought to govern herself in each month during her pregnancy. How she must order herself at her delivery, shall be shewn in another chapter, after I have first shewn the industrious Midwife how the child is formed in

the womb, and the manner of its decumbiture there.

C H A P. I.

*Of the Parts proper to a Child in the Womb; how it is formed there, and the Manner of its Situation there.*

**I**N the last chapter I shewed what conception was, how accomplished, its signs, and how she who hath conceived ought to order herself during the time of her pregnancy. Now, before I speak of her delivery, it is necessary that the midwife be first acquainted with the parts proper to a child in the womb, and also how it is formed, and the manner of its situation and decumbiture there; without the knowledge of which, no one can tell how to deliver a woman as she ought. This therefore shall be the work of this chapter. I shall begin with the first of these.

SECTION I. *Of the parts proper to a Child in the Womb.*

**I**N this section I must first tell you what I mean by the parts proper to a child in the womb, and they are only those that either help or nourish it, whilst it is lodged in that dark repository of nature, and that help to clothe and defend it there, and are cast away as of no more use, after it is born, and these are two, viz. the umbilicum, or navel vessels, and the secundum: by the first it is nourished, and by the second clothed and defended from wrong. Of each of these I shall speak distinctly, and, first,

*Of the Umbilicum or Navel Vessels.*

These are four in number, viz. one vein, two arteries, and the vessel which is called urachos: 1. The vein is that by which the infant is nourished, from the time of its conception, to the time of its delivery; till being brought into the light of this world, it has the same way of concocting its food that we have. This vein ariseth from the liver of the child, and is divided into two parts when it hath passed the navel; and these two are again divided and subdivided, the branches being upheld by the skin called chorion (of which I shall speak by and by) are joined to the veins of the mother's womb, from thence they have their blood for the nourishment of the child. 2. The arteries are two on each side, which proceed from the back branches of the great artery of the mother; and the vital blood is carried by these to the child, being ready concocted by the mother. 3. A nervous or sinewy production is led from the bottom of the bladder of the infant to the navel, and this is called urachos; and its use is to convey the urine of the infant from the alantois. Anatomists do very much vary in their opinions concerning this; some denying any such thing to be in the delivery of women, and others affirming it: but experience testifies there is such a thing: For Bartholomew Cabrolius, the ordinary doctor of anatomy to the college of physicians at Montpellier in France, re-

cords the history of a maid, whose water being a long time stopped, at last issued out thro' her navel. And Johannes Fernelius speaks of the same thing that happend to a man of thirty years of age, who having a stoppage in the neck of the bladder, his urine issued out of his navel many months, together, without any prejudice at all to his health, which he ascribes to the ill lying of his navel whereby the urachos was not well dried. And Volchier Coitas quotes such another instance in a maid of thirty-four years, at Nuremberg in Germany. These instances, though they happen but seldom, are sufficient to prove that there is such a thing as an urachos in men. These four vessels before mentioered, viz. one vein, two arteries, and the urachos, do join to the navel, and are united by a skin which they have from the chorion, and so become like a gut or rope, and are altogether void of sense; and this is that which the good women call the navel string. These vessels are joined together, that so they may neither be broken, severed, nor entangled: and, when the infant is born, are of no use, save only to make up the ligament, which stops the whole of the navel and some other physical use, &c.

*Of the Secundine, or After-Birth.*

Setting aside the name given to this day by the Greeks and Latins, it is called in English by the name of Secundine, After-birth, and After-burden, which are held to be four in number.

1. The first is called Placenta, because it resembles the form of a cake, and is knit both to the navel and chorion, and makes up the greatest part of the secundine or after-birth. The flesh of it is like that of the milt, or spleen, soft, red, and tending something to blackness, and hath many small veins and arteries in it; and certainly the chief use of it is for containing the child in the womb.

2. The second is the chorion. This skin, and that called the Amnios, involve the child round, both above and underneath, and on both sides, which the Alantois doth not: This skin is that which is most commonly called the secundine, as it is thick and white, garnished with many small veins and arteries, ending in the Placenta before named, being very light and slippery. Its use is not only to cover the child round about, but also to receive and safely bind up the roots and the veins and arteries, or naval vessels before described.

3. The third thing which makes up the secundine, is the Alantois, of which there is a great dispute among anatomists; some saying there is such a thing, and others that there is not: Those that will have it to be a membrane, say, it is white, soft, and exceeding thin, and just under the Placenta, where it is knit to the Urachos, from whence it receives the urine; and its office is to keep it separate from the sweat, that the saltness of it may not offend the tender skin of the child.

4. The fourth and last covering of the child is called Amnion, and it is white, soft, and transparent, being nourished by some very small veins and arteries. Its use is not only to enwrap the child round, but also to retain the sweat of the child.

Having thus described the parts proper for a child in the womb, I will next proceed to speak of the formation of the child therein, as soon as I have explained the hard terms in this section, that those for whose help this is designed, may understand what they read. There is none so ignorant as not to know that a vein is that which receives blood from the liver, and distributes it in several branches to all parts of the body. Arteries proceed from the heart, are in continual motion, and by that motion quicken the body. Nerve is the same, with sinew, and is that by which the brain adds sense and motion to the body. Placenta properly signifies a sugar-cake; but in this section it is used to signify a spongy piece of flesh, resembling a cake, full of veins and arteries, and is made to receive the mother's blood, appointed for the infant's nourishment in the womb. Chorion is the outward skin which compasseth the child in the womb. The Amnion is the inner skin which compasseth the child in the womb. The Alantois is the skin that holds the urine of the child during the time that it abides in the womb. The Urachus is the vessel which conveys the urine from the child in the womb to the Alantois. I now proceed to.

SECTION I. *Of the Formation of the Child in the Womb.*

**T**O speak of the Formation of the child in the womb, we must begin where nature begins; and that is, at the act of coition, in which the womb having received the genitive seed, without which there can be no conception, the womb immediately shuts up itself so close that not the point of a needle can enter the inward orifice; and this it does partly to hinder the issuing out of the seed again, and partly to cherish it by an inbred heat, the better to provoke it to action; which is one reason why women's bellies are so lank at their first conception. The woman having thus conceived, the first thing which is operative in the conception, is the spirit, whereof the seed is full, which, nature, quickening by the heat of the womb, stirs it up to action. This seed consists of very different parts, of which some are more, and some are less pure. The internal spirits therefore separateth those parts that are less pure, which are thick, cold, and clammy, from them that are pure and noble. The less pure are cast to the outsides, and with them the seed is circled round, and of them the membranes are made, in which that seed which is the most pure is wrapped round, and kept close together, that it may be defended from cold and other accidents, and operate the better.

The first that is formed is the amnios, the next the chorion; and they enwrap the seed round as it were a curtain. Soon after this (for the seed thus shut up in the woman lies not idle) the navel vein is bred, which pierceth those skins, being yet very tender, and carries a drop of blood from the veins of the mother's womb to the seed; from which drop is formed the liver, from which liver, there is quickly bred the vena cava, or chief vein, from which all the rest of the veins that nourish the body spring; and now the seed hath something to nourish it, whilst it performs the rest of nature's work, and also blood administered to every part of it to form flesh.

This vein being formed, the navel arteries are soon after formed, then the great artery, of which all others are but branches, and then the heart; for the liver furnisheth the arteries with blood to form the heart, the arteries being made of seed, but the heart and the flesh of blood. After this the brain is formed, and then the nerves, to give sense and motion to the infant. Afterwards the bones and flesh are formed, and of the bones, first the vetebrae or chine bones, and then the skull, &c.

As to the time in which this curious part of nature's workmanship is formed, physicians assign four different seasons wherein this microcosm is formed, and its formation perfected in the womb: The first is immediately after coition; the second time of forming, say they, is when the womb, by the force of its own innate power and virtue, makes a manifest mutation or coagulation in the seed, so that all the substance thereof seems coagulated flesh and blood, which happens about the twelfth or fourteenth day after copulation; and though this concretion of fleshy mass abounds with spirits, yet it remains undistinguishable without any form, and may be called a rough draught of the fœtus or embryo. The third time in which this fabrick is come to some further maturity is, when the principal parts may be in some measure distinguished, and one may discern the liver, umbellical veins, arteries, nerves, brain and heart: and this is about eighteen days after conception. The fourth and last time assigned by physicians for the formation of the child, is about the thirtieth day after conception for a male; but, for a female, they tell us forty-two or forty-five days are required, though for what reason I know not, nor does it appear by the birth; for if the male receives its formation fifteen days sooner than the female, why should it not be born so much sooner too? But as to that, every day's experience shews us the contrary; for women go the full time of nine months both with male and female. But at this time of thirty days (or some will have it forty-five) the outward parts may be also seen exquisitely elaborate, and distinguished by joints; and from this time the child begins to be animated, though as yet there

is no sensible motion; and has all the parts of the body, though small and very tender, yet intirely formed and figured, although not longer in the whole than one's middle finger: and from thence forward, the blood flowing every day more and more to the womb, not by intervals like their courses, but continually, it grows bigger and stronger to the end of nine months, being the full time of a woman's ordinary labour.

Very great have been the disputes among both philosophers and physicians about the nourishment of the child in the womb, both as to what it is, and which way it receives it. *Almæon* was of opinion that the infant drew in its nourishment by its whole body, because it is rare and spongy, as a sponge sucks in water on every side; and so he thought the infant sucked blood, not only from its mother's veins, but also from the womb. *Democritus* held that the child sucked in the nourishment at its mouth. *Hippocrates* affirms that the child sucks in both nourishment and breath by its mouth from the mother, for which he gives two reasons: 1. That it will suck as soon as it is born, and there must have learnt to suck before. 2. Because there are excrements found in the guts as soon as it is born. But neither of these reasons are sufficient to prove his assertion: For, as to the first, "That the child will suck as soon as it is born," it is from a natural instinct; for take a young cat that never saw her dam catch a mouse, and yet she will catch mice as soon as she is able. And as to his second reason, it is a sufficient answer to say, that the excrements found in the guts of an infant new born, are not excrements of the first concoction, which is evident, because they don't sink, but are the thickest part of the blood, which is conveyed from the vessels of the spleen to the guts. Having therefore said enough to confute the opinion of the child's receiving the nourishment by the mouth, I etc affirm that the child receives its nourishment in the womb by the navel; and, that it should be so, is much more consonant to truth and reason; which, being granted, it will easily follow, that the nourishment the child receives is the pure blood conveyed into the liver by the navel vein, which is a branch of the *vena porta*, or great vein, and passes to the small veins of the liver. Here this blood is made most pure, and the thicker and rawer part of it is conveyed to the spleen and kidneys, and the thick sediment of it to the guts, which is that excrement found there so soon as they are born. The pure part is conveyed to the *vena cava*, and by it distributed throughout the body by the small veins, which like so many small rivulets, pass to every part of it. This blood is accompanied (as all blood is) with a certain watery substance, the better to convey it through the passage it is to run in, which as in men, is breathed out by sweating, and contained in the

ambios, as I have already said.

SECTION III. *Of the Manner of the Child's lying in the Womb.*

I COME now to shew after what manner the child lies in the womb, a thing so essential for a midwife to know, that she can be no midwife who is ignorant of it; and yet, even about this authors extremely differ: For there is not two in ten that agree what is the form the child lies in the womb, or in what fashion it lies there; and yet this may arise in a great measure from the different figures that the child is found in, according to the different times of the woman's pregnancy: For near the time of its deliverance out of those winding chambers of nature, it oftentimes changes the form in which it lay before, for another. Hippocrates affirms the child is so placed in the womb as to have its hands, its knees, and its head bent down towards its feet, so that it lies round together, its hands upon both its knees, and its face between them; so that each eye toucheth each thumb, and its nose betwixt its knees: And Bartholinus was also of the same opinion. Columbus describes the posture of the child thus: "The right arm bowed, the fingers whereof under the ear and above the neck; the head bowed down, so that the chin toucheth the breast, the left arm bowed above both breast and face, and the left arm is propped up by the bending of the right elbow; the legs are lifted upwards, the right of which is so lifted up that the thigh toucheth the belly, the knees the navel, the heel the left buttock, and the foot is turned back and covereth the secrets; the left thigh toucheth the belly, and the leg is lifted up to the breast, the back lying outward. And thus much shall suffice concerning the opinion of authors.

I will now shew the several situations of the child in the womb, according to the different times of pregnancy, by which those that are contrary to nature, and are the causes of all hard labours, will be the more easily conceived by the understanding midwife: It ought therefore, in the first place, to be observed, that the infants, as well male as female, are generally situated in the midst of the womb; for though some times to appearance a woman's belly seems higher on one side than the other, yet it is so with respect to her belly only, and not of her womb, in the midst of which it always placed.

But in the second place, a woman's great belly makes different figures, according to the different times of pregnancy; for when she is young with child, the embryo is always found of a round figure, a little oblong, having the spine moderately turned inwards, the thighs folded and a little raised to which the legs are sejoined that the heels touch the buttocks; the arms a e bending, and the hands placed upon the knees; towards which the head is inclining forwards, so that the chin toucheth the breast; in which posture it resemble one sitting to

ease nature and, stooping down with the head to see what comes from him. The spine of its back is at that time placed towards the mother's and the head uppermost, the face forwards, and the feet downwards proportionably to its growth, it extends its members by little and little, which were exactly folded the first month. In this posture it usually keeps till the seventh or eight months, and then by a natural propensity and disposition of the upper part of the body, the head is turned downwards towards the inward orifice of the womb, tumbling as if it were over its head, so that then the feet are uppermost, and the face towards the mother's great gut; and this turning of the infant in this manner, with his head downwards, towards the latter end of a woman's reckoning is so ordered by nature, that it may thereby be the better disposed for its passage into the world at the time of its mother's labour which is then not far off; (and indeed several children turn not at all until the very time of birth) for in this posture all its joints are most easily extended in coming forth; for by this means the arms and legs cannot hinder its birth because they cannot be bended against the inward orifice of the womb; and the rest of the body: being very supple passeth without any difficulty after the head, which is hard and big, being past the birth. It is true, there are divers children that lie in the womb in another posture, and come to the birth with their feet downwards, especially if there be twins; for then by their different motions they so disturb one another, that they seldom come both in the same posture at the time of labour, but one will come with the head, and another with the feet, or perhaps lie across and sometimes one of them will come right. But however the child may be situated in the womb or to whatever postuer it presents itself at the time of birth if it be not with its head forwards, as I have before described, it is always against nature; and the delivery will occasion the mother more pain and danger, and require greater care and skill from the midwife than when the labour is more natural.

#### CHAP. IV.

*A Guide for Women in Travail, shewing what is to be done when they fall in Labour, in order for their Delivery.*

**T**HE end of all that we have been treating of, is the bringing forth of a child into the world with safety both to the mother and to the infant. The whole time of a woman's pregnancy may very well be termed a kind of labour; for, from the time of her conception to the time of her delivery, the labours under many difficulties, is subject to many distempers, and in continual danger, from one cause or another, till the time of birth comes, and, when that comes, the greatest labour and travail comes along with it, insomuch, that then all her other labours are forgotten, and that only is called the

time of her labour ; and to deliver her safely is the principal business of the midwife. To assist her herein is the chief design of this chapter. The time of the child's being ready for its birth, when nature endeavours to cast it forth, is that which is properly the time of a woman's labour. And, since many women, especially of their first child, are often mistaken in their reckoning, and so, when they draw near their time, take every pain they meet with for their labour, when it is not so, which often proves prejudicial and troublesome to them, I will, in the first section of this chapter, set down some signs, by which a woman may know when the true time of her labour is come.

SECTION . I. *Signs of the true Time of a woman's Labour.*

**W**HEN women with their first child, perceive any extraordinary pains in their belly, they immediately send for their midwife, taking it for their labour ; and then if the midwife be not a skilful and judicious woman, she will, without further inquiry, take it for granted, and so go about to put her into labour before nature is prepared for it : which may endanger the life both of mother and child, by breaking the amnios and chorion. These pains, which are often mistaken for labour, are removed by warm clothes laid to the belly, and the application of a clyster or two, by which those pains which precede a true labour are rather furthered than hindered. There are also other pains incident to women in that condition from a flux in the belly, which are easily known by the frequent stools that follow them.

The signs therefore of labour some few days before are, that the woman's belly, which before lay high, sinks down, and hinders her from walking so easily as she used to do ; also, there flows from the womb slimy humours, which nature has appointed to moisten and smoothe the passage, that its inward orifice may be the more easily dilated when there is occasion ; which beginning to open at that time, suffers that slime to flow away, which proceeds from the glands called Prostratae. These are signs preceding labour ; but when she is presently falling into labour, the signs are great pains about the region of the reins and loins, which, coming and reiterating by intervals, answer to the bottom of the belly by congruous throes, and sometimes the face is red and inflamed, the blood being much heated by the endeavours a woman makes to bring forth her child ; and likewise, because during these strong throes her respiration is intercepted, which causes the blood to have recourse to her face : also her privy parts are swelled by the infant's head lying in the birth, which by often thrusting, causes those pains to descend outwards. She is much subject to vomiting, which is a sign of good labour and speedy delivery, though by ignorant women thought other-

wife, for good pains are thereby excited and redoubled; which vomiting is occasioned by the sympathy there is between the womb and the stomach. Also, when the birth is near, women are troubled with a trembling in the thighs and legs, not with cold, like the beginning of an ague fit, but with the heat of the whole body, tho' this does not always happen. When the humours which flow from the womb are discoloured with blood, the midwives call it Shows, and it is an infallible mark of the birth's being near: and if then the midwife put up her fingers into the neck of the womb, she will find the inner orifice dilated: at the opening of which, the membranes of the infant containing the waters present themselves, and are strongly forced downwards with each pain she hath; at which time one may perceive them sometimes to resist, and then again press forward the finger, being more or less hard and extended, according as the pains are stronger or weaker. These membranes, with the waters in them, when they are before the head of the child, which the midwives call the Gathering of the Waters, resemble, to the touch of the finger, those eggs which have no shell, but are covered only with a single membrane. After this, the pains still redoubling, the membranes are broken by a strong impulsion of the waters, which presently flow away, and then the head of the infant is presently felt naked, and presents itself at the inward orifice of the womb: when these waters come thus away, then the midwife may be assured the birth is very near, this being the most certain sign that can be; for the Amnios and alantois being broken, which contain those waters, by pressing forward of the birth; the child is no better able to subsist long in the womb afterwards, than a naked man in a heap of snow. Now, these waters, if the child comes presently after them, facilitate the labour, by making the passage slippery; and therefore let no midwife (as some have foolishly done) endeavour to force away the water, for nature knows best when the true time of the birth is, and therefore retains the water till that time. But if by accident the water breaks away too long before the birth, then such things as will hasten it, may be safely admitted; and what those are, I shall shew in another section.

SEC. III. *How a Woman ought to be ordered when the time of her Labour is come.*

WHEN it is known that the true time of a woman's labour is come, by the signs laid down in the foregoing section, of which those that are most to be relied on are pains and strong throes in the belly, forcing downwards towards the womb, and a dilation of the inward orifice, which may be perceived by touching it with the finger, and the gathering of the waters before the head of the child, and thrusting down of the membranes which contain them;

through which, between the pains, one may with the finger discover the part which presents, as said before, especially if it be the head of the child, by its roundness and hardness. If these things concur, and are evident, the midwife may be sure it is the time of her Labour; and care must be taken to get all things ready that are necessary to comfort the woman in that time. And the better to help her, be sure to see she be not strait-laced: You may also give her a pretty strong clyster, or more, if there be occasion, provided it be done at the beginning, and before the child be too forward. The benefit accruing hereby will be, to excite the gut to discharge itself of its excrements, that so the rectum being emptied, there may be more space for the dilation of the passage; likewise to cause the pains to bear the more downward, through the endeavours she makes when she is at stool; and, in the mean time, all other necessary things for her labour should be put in order, both for the midwife and the child. To this end some get a midwife's stool, but a pallet bed girted is much the best way, placed near the fire, if the season so require: which pallet ought to be so placed, that there may be easy access to it on every side, that the woman may be the more readily assisted, as there is occasion.

If the woman abounds with blood, to bleed her a little may not be improper, for hereby she will both breathe the better, and have her breasts more at liberty, and likewise more strength to bear down the pain; and this she may do without danger, because the child being about that time ready to be born, has no more need of the mother's blood for its nourishment: Besides, this evacuation does many times prevent her having a fever after her delivery. Also, before her delivery, if her strength will permit, let her walk up and down her chamber; and that she may have strength so to do, it will be necessary to give her some good strengthening things, such as jelly broth, new-laid eggs, or some spoonfuls of burnt wine. And let her, by all means, hold out her pains, bearing them down as much as she can at the time when they take her; and let the midwife from time to time touch the inward orifice with the finger, to know whether the waters are ready to break, and whether the birth will follow soon after; let her also anoint the woman's privities with emollient oil, hog's grease, and fresh butter, if she finds they are hard to be dilated. Let the midwife be all the while near the labouring woman, and diligently observe her gestures, complaints, and pains, for by this she may guess pretty well how her labour advanceth; because when she changeth her ordinary groans into long cries, it is a sign the child is very near the birth; for at that time the pains are greater and more frequent. Let the woman likewise by intervals rest herself on the bed to regain her strength, but not too long,

especially if she be little, short and thick, for such women have always worse labour, if they lie long on their beds in their travail: it is better, therefore, that they walk, as much as they can, about the chamber, the women supporting her under their arms, if it be necessary; for, by this means, the weight of the child causeth the inward orifice of the womb to dilate sooner than in bed; and, if her pains be stronger and more frequent, her labour will not be near so long.

Let not the labouring woman be concerning at those qualms and vomitings which perhaps she may find come upon her, for they will be much for her advantage in the issue, however uneasy she may be for the time, as they further the throes and pains, provoking downwards. But to proceed:

When the waters of the children are ready and gathered, which may be perceived through the membranes to present themselves to the inward orifice, of the bigness of the whole dilation, the midwife ought to let them break of themselves, and not, like some hasty midwives, who being impatient of the woman's long labour, break them, intending thereby to hasten their business, when instead thereof, they retard it; for, by the too hasty breaking of these waters (which Nature designed to cause the infant to slide forth the more easily) the passage remains dry, by which means the pains and throes of the labouring woman are less efficacious to bring forth the infant than they would otherwise have been. It is therefore much the better way to let the waters break of themselves: after which the midwife may with ease feel the child bare by that which first presents, and thereby discern whether it comes right, that is, with the head foremost, for that is the most proper and natural way of its birth; if the head comes right, she will find it round, big, hard, and equal; but if it be in any other part, she will feel it unequal, rugged, and soft or hard, according to the nature of the part it is. And this being the true time when the woman ought to deliver, if nature be not wanting to perform its office, therefore when the midwife finds the birth thus coming forward, let her hasten to assist and deliver it, for it ordinarily happens soon after, if it be natural.

But if it happens, as sometimes it may, that the waters break away too long before the birth, in such a case those things that hasten nature may be safely admitted; to which purpose, let her make use of pennyroyal, dittany, juniper berries, red coral, betony, and feverfew boiled in white wine, and a draught of it drank; or it would be much better to take the juice of it when it is in its prime, which is in May, and having clarified it, let them make it into a syrup, with double its weight of sugar, and keep it by them all the year, to use

when occasion calls for it. Mugwort, used in the same manner, is also good in this case. Also a dram of cinnamon powder given inwardly profits much in this case; and so does tanfy bruised and applied to the privities, or an oil of it so made and used, as you were taught before. The stone *Mites* held to the privities is of extraordinary virtue, and instantly draws away both child and after-burden, but great care must be taken to remove it presently, or it will draw forth the womb and all; for such is the magnetic virtue of this stone, that both child and woman follow it as readily as iron doth the load-stone, or as the load-stone the North-star.

There are many other things that physicians affirm are good in this case; among which are, an ass's or an horse's hoof hung near the privities; a piece of red coral hung near the said place; a load-stone helps much, held in the woman's left hand, or the skin which a snake hath cut off, girt about the middle next the skin. These things are mentioned by Mizaldus; but setting those things aside, as not certain, notwithstanding Mizaldus quotes them, the following precriptions are very good to give speedy deliverance to women in travail.

1. A decoction of white wine made in savory, and drank.
2. Take wild tanfy, or silver weed, buise it, and apply it to the woman's nostrils.
3. Take date stones, and beat them to powder, and let her take half a dram of them in white wine at a time.
4. Take parsley, and bruise it, and press out the juice, and dip a linen cloth in it, and put it up so dipped into the mouth of the womb, it will presently cause the child to come away, though it be dead, and will bring away the after-burden. Also the juice of parsley is a thing of so great virtue (especially stone parsley) that being drank by a woman with child, it cleanseth not only the womb, but also the child in the womb, of all gross humours.
5. A scruple of castorum in powder, in any convenient liquor, is very good to be taken in such case; and so also is two or three drops of spirit of castorum in any convenient liquor: also eight or nine drops of spirit of myrrh, given in any convenient liquors, gives speedy deliverance.
6. Give a woman in such a case another woman's milk to drink, it will cause a speedy delivery, and almost without any pain.
7. The juice of leeks, being drank with warm water, hath a mighty operation to cause speedy delivery.
8. Take piony seeds, and beat them into powder, and mix the powder with oil, with which oil anoint the loins and privities of the woman with child; it gives her deliverance very speedily, and with less pain than can be imagined.

9. Take a swallow's nest, and dissolve it in water, strain it, and drink it warm; it gives delivery with great speed and much ease.

Note, this also is general. That all things that move the terms are good for making the delivery easy; such as myrrh, white amber in white wine, or hly water, two scruples or a dram; or cassia lignea, dittany, each a dram, cinnamon, half a dram, saffron a scruple, give a dram; or take borax mineral a dram, cassia lignea a scruple, saffron six grains, and give in sack; or take cassia lignea a dram, dittany, amber, of each half a dram, cinnamon, borax, of each a dram and a half, saffron a scruple, and give her half a dram; or give her some drops of oil of hazel in a convenient liquor; or two or three drops of oil of cinnamon in vervain water. Some prepare the secundine thus: Take the navel string and dry it in an oven; take two drams of the powder, cinnamon a dram, saffron half a scruple, with juice of savin make troches: give two drams; or wash the secundine in wine, and bake it in a pot; then wash it in endive water and wine; take half a dram of it; long pepper, galangal, of each half a dram; plantain and endive-seed, of each a dram and a half; lavender seed four scruples; make a powder; or take Laudanum two drams, sterox, calamine, benzoin, of each half a dram; musk, ambergrease, each six grains; make a powder or troches for a fume. Or use pessaries to provoke the birth; take galbanum, dissolved in vinegar, an ounce; myrrh two drams; saffron a dram; with oil of orts make a pessary.

#### An Ointment for the Navel.

Take of oil of kier two ounces, juice of savin an ounce, of leeks and mercury, each half an ounce; boil them to the consumption of the juice; and galbanum dissolved in vinegar half an ounce, myrrh two drams, storax liquid a dram; round birthwort, sowbread, cinnamon, saffron, a dram; with wax make an ointment and apply it.

If the birth be retarded through the weakness of the mother, refresh her with applying wine and soap to the nose, Confect Alkermas, Diamarg.

These things may be applied to help nature in the delivery when the child comes to the birth the right way, and yet the birth is retarded; but if she finds the child comes the wrong way, and she is not able to deliver the woman as she ought to be, by helping nature and saving both mother and child (for it is not enough to lay a woman, if it might be done by another with more safety and ease, and less hazard both to woman and child) then let her send speedily for better and more able help; and not as I once knew a midwife, when a woman she was to deliver had hard labour, rather than a man-midwife should be sent for, would undertake to deliver the woman herself (though told by others that it was a man's business) and in

her attempting it, brought away the child, but left the head of the infant behind in the mother's womb; and, had not a man-midwife been presently sent for, the mother had lost her life as well as the child; such persons may rather be termed butchers than midwives. But supposing the woman's labour to be natural, I will next shew what the midwife ought to do in order to her delivery.

C H A P. V.

*Of natural labour; what it is, and what the Midwife is to do in such a Labour.*

SECTION I. *What natural Labour is.*

**T**HERE are four things to denominate a woman's labour natural; the first is, that it be at the full time; for if a woman comes before her time it cannot properly be termed natural labour, neither will it be so easy as if she had completed her nine months. The second thing is, that it be speedy and without any ill accident; for when the time of the birth is come, nature is not dilatory in the bringing of it forth, without some ill accident intervene, which renders it unnatural. The third is, that the child be alive; for all will grant, that the being delivered of a dead child is very unnatural. The fourth thing requisite to a natural birth is, that the child come right; for if the position of the child in the womb be contrary to what is natural, and the event proves it so too often, making that which should be a time of life the death both of the mother and the child.

Having thus told you what I mean by natural labour, I shall next shew how the midwife is to proceed here, in order to the woman's delivery. When all the foregoing requisites concur, and after the waters are broke of themselves, let the labouring woman be conducted to a pallet-bed, provided near the fire for that purpose, as has already been said, and let there rather be a quilt laid upon the pallet-bedstead than a feather bed, having thereon linen cloths in many folds, with such other things as are necessary, and may be changed according to the exigence requiring it, that so the woman may not be incommoded with the blood, waters, and other filth which is voided in labour. The bed ought to be so ordered, that the woman, being ready to be delivered, should lie on her back upon it, having her body in a convenient posture; that is, her head and breast a little raised, so that she is between lying and sitting, for being so placed, she is best capable of breathing, and likewise will have more strength to bear her pains, than if she lay otherwise, or sunk down in her bed. Being so placed she must spread her thighs abroad, folding her legs a little towards her buttocks, somewhat raised by a small pillow underneath, to the end her rump should have no liberty to retire back; and let her feet be staid against some firm things: Besides

this, let her take hold of some of the good women attending her with her hands, that she may the better stay herself during her pains. She being thus placed near the side of her bed, having her midwife by, the better to assist upon occasion, let her take courage, and help her pains the best she can, bearing them down when they take her, which she must do by holding in her breath, and forcing herself as much as possible, in like manner as when she goes to stool; for by such straining, the diaphragma, or midriff, being strongly thrust downwards, necessarily forces down the womb, and the child in it. In the mean time, let the midwife endeavour to comfort her all she can, exhorting her to bear the labour courageously, telling her it will be quickly over, and that there is no fear but she will have a speedy delivery. Let the midwife also, having no rings on her hand, anoint it with oil or fresh butter, and therewith dilate gently the inward orifice of the womb, putting her finger-ends into the entry thereof, and then stretch them one from the other, when her pains take her; by this means endeavouring to help forward the child, and thrusting, by little and little, the sides of the orifice towards the hinder part of the child's head, anointing the parts also with fresh butter, if it be necessary.

When the head of the infant is somewhat advanced into this inward orifice, the midwife's phrase is, It is crowned, because it girds and surrounds it just as a crown; but when it is so far that the extremities begin to appear without the privy parts, then say they, 'The child is in the passage;' and at this time the woman feels herself as it were scratched, or pricked with pins, and is ready to imagine that the midwife hurts her, when it is occasioned by the violent distention of those parts, and the laceration which, at some times, the bigness of the child's head causeth there. When things are in this posture, let the midwife seat herself conveniently to receive the child, which will now come quickly, and with her finger-ends (which she must be sure to keep close pared) let her endeavour to thrust the crowning of the womb (of which I have spoken before) back over the head of the child. And as soon as it is advanced as far as the ears, or thereabouts, let her take hold of the two sides with her two hands, that when a good pain comes she may quickly draw forth the child, taking care that the navel string be not then entangled about the neck, or any other part, as sometimes it is, lest thereby the afterburden be pulled with violence, and perhaps the womb also, to which it is fastened, and so either cause her to flood, or else break the string, both which are of bad consequence to the woman, whose delivery may thereby be rendered the more difficult. It must also be carefully heeded that the head be not drawn out straight, but

shaking it a little from the one side to the other, that the shoulders may sooner and easier take their place immediately after it be past, without loosing any time, lest the head being past, the child be stop'd there by the largeness of the shoulders, and so come in danger of being suffocated and strangled in the passage, as it sometimes happens for the want of care therein. But as soon as the head is born, if there be need, she may slide in her fingers under the arm pits, and the rest of the body will follow without difficulty.

As soon as the midwife hath in this manner drawn forth the child, let her put it on one side, lest the blood and water which follow immediately, should do it an injury, by running into its mouth and nose, as it would do if it lay on its back, and so endanger the choaking it. The child being thus born, the next thing requisite is to bring away the after-burden; but before that, let the midwife be very careful to examine whether there be more children in the womb; for sometimes a woman may have twins that expected it not; which the midwife may easily know by the continuance of the pains after the child is born, and the bigness of the mother's belly. But the midwife may be more sure of it if she puts her hand up the entry of the womb, and finds there another water gathering, and a child in it presenting to the passage; and if she finds so, she must have a care of going about to fetch away the after-birth, till the woman be delivered of all the children she is pregnant with. Wherefore the first string must be cut, being first tied with a thread three or four times doubled and the other end fastened with a string to the woman's thigh, to prevent the inconvenience it may cause by hanging between her thighs; and then removing the child already born, she must take care to deliver her of the rest, whether more or less, observing all the same circumstances as the first; after which it will be necessary to fetch away the after-birth or births. But of that in another section; after first shewing what is to be done to the new born infant.

#### SECTION II. *Of the cutting off the Child's Navel string.*

**T**HOUGH this is by many accounted but a trifle, yet great care is to be taken about it; and shews none of the least art and skill of a midwife to do it as it should be: In doing this the midwife ought to observe, 1. The time; 2. The place; 3. The manner; 4. The event.

The time is, as soon as ever the infant comes out of the womb, whether it brings part of the after-birth with it or not; for sometimes the child brings into the world a piece of the amnion upon its head, and is what the good woman calls the caul, and ignorantly attributes some extraordinary virtue to the child that is so born; but this opinion is only the effect of their ignorance; for when such

a child is born (as some call it) upon its brows it generally betokens weakness, and denotes a short life. But to the matter in hand. As soon as the child is come into the world, consider whether it be weak or strong: and if it be weak, let the midwife gently put back part of the vital and natural blood into the body of the child by its navel; for that recruits a weak child; but if the child be strong, the operation is needless. Only let me advise you that many children that are born seemingly dead, may be soon brought to life again if you squeeze six or seven drops of blood out of that part of the navel string which is cut off, and give it to the child inwardly.

Authors can scarce agree whether the navel string should be cut long or short; some prescribing it to be cut off at four finger's breadth, which is at best but an uncertain rule, unless all fingers were of one size. It is a received opinion that the parts adapted to generation are either contracted or dilated according to the cutting of the navel string; and therefore midwives generally leave a longer part of it to a male than to a female, because they would have the males well provided for the encounters of Venus; and the reason they give why they cut that of the females shorter, is, because they believe it makes them modest, and their privities narrower, which makes them more acceptable to their husbands. Mizaldus was not of this opinion, and therefore he ordered the navel string to be cut long both in male and female children; because, said he, the instrument of generation follows the proportion of it, and therefore if it be cut too short in a female, it will be a hinderance to her having children. I will not contradict these opinions of Mizaldus, that experience has made good. The one is, that if the navel string of a child, after it is cut, be suffered to touch the ground, the child will never hold its water, neither sleeping or waking, but will be subject to an involuntary making of water all its life time. The other is, that a piece of the child's navel string carried about one, so that it touch his skin, defends him that wears from the falling sickness and convulsions.

As to the manner how it must be cut: Let the midwife take a brown thread four or five time double, of an ell long, or thereabouts, tied with a single knot at each of the ends, to prevent their entangling; and with this thread so accommodated (which the midwife must have in readiness before the woman's labour, as also a good pair of scissors, that so no time may be lost) let her tie the string within an inch of the belly with a double knot, & turning about the ends of the thread let her tie two more on the other side of the string reiterating it again, if it be necessary; then let her cut of the navel another inch below the ligature, towards the after-birth, so that there only remains two inches of the string, in the midst of which

will be the knot we speak of, which must be so strait knit as not to suffer a drop of blood to squeeze out of the vessels; but care must be taken not to knit it so strait as to cut it in two, and therefore the thread must be pretty thick, and pretty strait knit, it being better too strait than too loose; for some children have miserably lost their lives, with all their blood, before it was discovered, because the navel string was not well tied. Therefore great care must be taken that no blood squeeze through, for if there does, a new knot must be made with the rest of the string. You need not fear to bind the navel string very hard, because they are void of sense, and that part of it which you leave on falls off of its own accord, in a very few days, sometimes six or seven, and sometimes sooner; but rarely tarries longer than the eight or ninth. When you have thus cut the navel string, then take care the piece that falls off touch not the ground, for the reason I told you Mizaldus gave, which experience has justified.

As to the last thing I mentioned, which is the event or consequence, of what follows cutting of the navel string: As soon as the navel string is 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 most certainly do if you have not bound it close enough. If the lint or cotton you apply to it be dipped in the oil of roses, it will be the better; and then put another small rag three or four times double upon the belly. Upon the top of all put another small bolster, and then swathe it with a linen swathe four fingers broad, to keep it steady, lest by rolling too much, or being continually stirred from side to side, it comes to fall off before the navel string, which you left remaining, is fallen off. It is the usual custom of midwives to put a piece of tinder to it: but I would rather advise them to put a little of armoniac to it, because of its drying quality. But But this shall suffice to be spoken as to the cutting of the navel string.

### S E C. III. *How to bring away the after-burden.*

**A** Woman cannot be said fairly to be delivered, tho' the child be born, till the after burden also be taken from her; herein differing from most animals, who, when they have brought forth their young, cast forth nothing else but some waters, and the membranes which contained them. But women have an after labour which sometimes proves more dangerous than the first: and how to bring it safely away, without prejudice to her, shall be my business to shew in this section.

As soon as the child is born, before the midwife either ties or cuts the navel string, lest the womb should close, let her take the string and wind it once or twice about one or two of the fingers of her left

hand joined together the better to hold it, with which she may draw it moderately, and with the right hand she may only take a single hold of it above the left near the privities, drawing likewise with that very gently, resting the while the fore finger of the same hand, extended and stretched forth along the string towards the entry of the vagina; always observing, for the more facility, to draw it from the side where the burden cleaves least, for in so doing the rest will separate the better: and especially, care must be taken that it be not drawn forth with too much violence, lest by breaking the string near the burden, the midwife will be obliged to put the whole hand into the womb to deliver the woman; and she had need be a very skilful woman who undertakes it, lest the womb to which this burden is sometimes very strongly fastened, be not drawn with it, as it has sometimes happened. It is therefore best to use such remedies as may assist nature. And here take notice, that what brings away the birth will also bring away the after-birth. And therefore, for the effecting this work, I will lay down the following rules:

1. Use the same means in bringing away the after-birth that you make use of to bring away the birth; for the same care and circumspection is needful now that was then.

2. Consider the labouring woman cannot but be much spent by what she has already undergone in bringing forth the infant; and therefore be sure to take care, to give her something to comfort her. And in this case good jelly broths, also a little white wine and toast in it, and other comforting things will be necessary.

3. A little white hellebore in powder to make her sneeze, in this case is very proper.

4. Tanfy and the stone *Ætites*, applied as before directed, is also of good use in this case.

5. If you take the herb vervain, and either boil it in wine or make a syrup of the juice of it, which you may do, by adding to it double its weight of sugar (having clarified the juice before you boil it) and a spoonful or two of it given to the woman is very efficacious to bring away the secundine; and feverfew and mugwort, have the same operation taken as the former.

6. Alexander boiled in wine, and the wine drank; also sweet fer-vile, sweet cicely, angelica roots and master wort, are excellent remedies in this case.

7. Or if these fail, the smoke of marygolds received up a woman's privities by a funnel have been known to bring away the after-birth, even when the midwife let go her hold.

8. Which is all I shall say in this case. Boil mugwort in water till it be very soft; then take it out and apply it in manner of a poultice to the navel of the labouring woman, and it instantly brings

away the birth and after-birth: but special care must be taken to remove it as soon as they come away, lest, by its longer tarrying, it should draw away the womb also. But this much shall suffice to be spoken of in bringing away the after-burden in all natural labours.

SEC. IV. *Of labourious and difficult labours, and how the midwife is to proceed therein.*

**T**O proceed in this section the more regularly, it will be necessary to acquaint the reader that there are three sorts of bad labours, all painful and difficult, but not all properly unnatural. It will be necessary therefore to distinguish these.

The first of these bad labours is that wherein the mother and child suffer very much by extreme pain and difficulty, even though the child come right; and this is distinguishably called laborious labour.

The second is that which is difficult, and differs not much from the former, except that beside those extraordinary pains, it is generally attended with some unhappy accident, which, by retarding the birth, causes the difficulty; and these difficulties being removed, accelerates the birth and hastens the delivery.

Some have asked what the reason is that women bring forth their children with so much pain? I answer, the sense of feeling is distributed to the whole body by the nerves, and the mouth of the womb being so strait that it must of necessity be dilated at the time of the woman's delivery, the dilating thereof stretches the nerves, and from thence comes the pain. And therefore the reason why some women have more pain in their labour than others, proceeds from their having the mouth of the matrix more full of nerves than others, as skilful anatomists do easily discover.

But to proceed, the best way to remove these difficulties that occasion such hard pains and labours as I am here to treat of, is to shew from whence they proceed, for the cause of any distemper being known, is as much as half the cure. Now the difficulty of labour proceeds either from the mother or child, or both.

From the mother, by reason of the indisposition of her body, or may be from some particular part only, and chiefly the womb, as, when the woman is weak, and the womb is not active to expel the burden, or from weakness or disease, or want of spirits; or it may be from some strong passion of the mind with which she was before possessed; it may be also because she hath been too young, and so may have the passage too strait; or too old, and then, if it be her first child, because her parts are too dry and too hard, and cannot be so easily dilated, as happens also to them who are too lean. Likewise, those who are either small, or short, or deformed, as crooked women, who have not a breath strong enough to help their pains, and to bear them down; and persons that are crooked having sometimes the

bones of the passage not well shaped; the cholic also hinders labour, by preventing the true pains, and all great and acute pains, as when the woman is taken with a violent fever, great flooding, frequent convulsions, bloody flux, or any other great distemper.

Also excrements retained cause much difficulty, and so does a stone in the bladder; or when the bladder is full of urine, without being able to void it; or when the woman is troubled with great and painful biles. It may also be from the passages, when the membranes are thick, the orifice too strait, and the neck of the womb is not sufficiently open, the passages are pressed and strained by tumours in the adjacent parts, or when the bones are too firm, and will not open, which very much endangers mother and child; or when the passages are not slippery, by reason of the water's having broke too soon, or the membranes being too thin. The womb may also be out of order with respect to its bad situation, or conformation, having its neck too strait, hard or callous; which may easily be so naturally, or may come by accident, being many times caused by a tumour, a psothume, ulcer, or superfluous flesh.

As to hard labour occasioned by the child, it is when the child happens to stick to a mole, or when it is so weak that it cannot break the membranes, or if it be too big all over, or in the head only, or if the navel vessels are twisted about its neck, when the belly is hydro-pical, or when it is monstrous, having two heads, or being joined to another child: also when the child is dead, or so weak that it can contribute nothing to its birth, likewise when it comes wrong, or when there are one or two more. And in all these various difficulties there is oftentimes one more, and that is the ignorance of the midwife; for want of understanding her business hinders nature in her work, instead of helping her.

Having thus looked into the cause of hard labour, I will now shew the industrious midwife how she may minister some relief to the labouring woman under these circumstances. But it will require understanding and judgement in the midwife, when she finds a woman in difficult labour, to know the particular obstruction, or cause thereof, and so suitable an remedy may be applied; as for instance, when it happens by the mother's being too young and too strait, she must be gently treated, and the passages anointed with oil, hogs lard, or fresh butter, to relax and dilate them the easier, lest there should happen a rupture of any part when the child is born; for sometimes the peritonæum breaks with the skin from the privities to the fundament. But if a woman be in years with her first child, let her lower parts be anointed to mollify the inward orifice, which in such a case being more hard and callous, doth not easily yield to the distention of labour, which is the true cause why such women are longer in labour,

and also why their children, being forced against the inward orifice of the womb (which as I have said, is a little callous) are born with great lumps and bruises on their heads. Those women that are very small and misshapen should not be put to bed, at least till her waters are broke, but rather kept upright, and assisted to walk about the chamber, by being supported under their arms: for by that means they will breathe more freely, and bear their pains better than on the bed, because there they lie all on a heap. As for those that are very lean, and have hard labour, from that cause, let them moisten the parts with oils and ointments, to make them more smooth and slippery, that the head of the infant and the womb be not so compassed and bruised by the hardness of the mother's bones which form the passage. If the cause be weakness, she ought to be strengthened, the better to support her pains; to which end give her good jelly broths, and a little wine with a toast in it. If she fears her pains, let her be comforted, assuring her that she will not bear many more, but be delivered in a little time. But if her pains be slow and small, or none at all, they must be provoked by frequent and pretty strong clysters, that so they may be excited thereby; after which, let her walk about the chamber, that so the weight of the child may help them forward. But if she should have convulsions; she must then be helped by a speedy delivery; the operation whereof I shall relate in the section of unnatural labours. If she be costive, let her use clysters, which may also help to dispel the cholic, at those times very injurious, because attended with useles pains, and because such bear not downwards, and so help not to forward the birth. If she finds an obstruction or stoppage of the urine, by reason the womb bears too much on the bladder, let her lift up her belly a little with her hand, & try if by that she receives any benefit; if she finds she does not, it will be necessary to introduce a catheter in the bladder, and hereby draw forth her urine. If the difficulty be from the ill posture of a woman, let her be placed otherwise, in a posture more suitable and convenient for her; also if it proceed from the indispositions of the womb, as from its oblique situation, &c. it must be remedied, as well as can be, by the placing of her body accordingly; or if be a vicious conformation, having the neck too hard, too callous, and too strait, it must be anointed with oils and ointments, as before directed. If the membrane be so strong as that the waters don't break in due time, they may be broken with the fingers, if the midwife be first well assured that the child is come forward into the passage, and ready to follow after, or else by the breaking of the waters too soon, the child may be in danger of remaining dry a long time; to supply which defect you may moisten the parts with fomentations, decoctions, and emollient oils; which yet is not half so well as

when nature does the work in her own time, with the ordinary slime and waters, which do best when they come in their own proper time and place. But these membranes do sometimes press forth with the waters three or four fingers breadth out of the body before the child resembling a bladder full of water; but there is then no great danger to break them, if they be not already broken, for when the case is so the child is always in readiness to follow, being in the passage; but let the midwife be very careful not to pull it with her hand, lest the after-burden be thereby loosened before its time, for it adheres there to very strongly. If the navel string happens to come first, it must presently be put up again and kept too, if possible, or otherwise the woman must be immediately delivered. But if the after-burden should come first it must not be put up again by no means; for the infant having no further occasion for it, it would be but an obstacle if it were put up; in this case it must be cut off, having tied the navel string, and afterwards drawn forth the child with all the speed that may be, lest it be suffocated.

SECTION V. *Of Women labouring with a dead child.*

WHEN the difficulty of labour arises from a dead child, it is a case of great danger to the mother, and great care ought to be taken therein; but before any thing be done, the midwife ought to be well assured the child is dead indeed, which may be known by these signs.

1. The breast suddenly slacks, or falls flat, or bags down.
2. A great coldness possesses the breast of the mother, especially about the navel.
3. Her urine is thick, a filthy sinking settling at the bottom.
4. No motion of the child can be perceived; for the trial whereof, let the midwife put her hand in warm water, and lay it upon her belly; for that, if it be alive, will make it stir.
5. She is very subject to dream of dead men, and be affrighted therewith.
6. She has extravagant longings to eat such things as are against nature.
7. Her breath stinks though not used so to do.
8. When she turns herself in her bed, or rises up, the child sways that way like a lump of lead.

But these things carefully observed, the midwife may make a judgment whether the child be alive or dead; especially if the woman takes the following prescription;

“Take half a pint of white wine, and burn it, and add thereto half an ounce of cinnamon, but no other spice whatever” and when she has drank it, if her travailing pains come upon her, the child is

certainly dead ; but if not, the child may possibly be either sick or weak, but not dead ; and in this case, it will refresh the child, and give her ease : for cinnamon refresheth and strengtheneth the child in the womb.

Now if upon trial, it be found the child is dead, let the mother do all she can to forward her delivery, because a dead child can be no ways helpful therein. It will be necessary therefore that she take some comfortable things to prevent her fainting, by reason of those putrid vapours ascending from the dead child. And in order to her delivery, let her take the following herbs boiled in white wine, (or as many of them as you can get) viz. Dittany, betony, pennyroyal, sage, feverfew, century, ivy leaves and berries. Let her also take sweet basil in powder, half a drachm at a time, in white wine ; and her privities be anointed with the juice of garden tansy ; or, if you take tansy in the summer, when it may be most plentifully had, and before it runs up to the flower, and having bruised it well, boil it in oil till the juice of it be consumed. If you set it in the sun, after you have mixed it with oil, it will be more effectual. This a careful midwife ought to have always by her. As to the manner of her delivery, the same methods must be used as are mentioned in the section of natural labour. And here I cannot but again commend the stone *Ætites*, held near the privities, whose magnetic virtue draws the child any way, with the same facility as the loadstone draws iron.

Let the midwife also make a strong decoction of hyssop with water, and give the woman to drink it very hot, and it will, in a little time, bring away the dead child. A decoction of the herb masterwort, used as the above, works the same effects. The roots of polypodium stamped well, warmed a little, and bound on the sides of her feet, will soon bring away the child either alive or dead.

If, as soon as she is delivered of the dead child, you are in doubt part of the after-birth is left behind, for in such cases being rotten, it may come away piece-meal, let her continue drinking the same decoction till her body is cleansed.

The following medicines stir up also the expulsive faculty ; but in this case they must be made stronger, because the motion of the child ceaseth.

Take savin, round birthwort, troches of myrrh, asaram roots, cinnamon half an ounce, saffron a scruple ; give a dram with savin water. Or, Take borax, savin, dittany, each an ounce ; myrrh, asaram roots, cinnamon, saffron, each half a dram ; make a powder, give a dram.

But she may purge first, and put her in an emollient bath, anointing her round about the womb with oil of lilies, sweet almonds,

camomile, hen and goose greafe. Also, foment to get out the child with a decoction of mercury, orris, wild cucumbers, sæchus, broom flowers. Then anoint the privities and loins with ointment of sow-bread. Or,

Take coloquintida, agarick, birthwort, each a dram, make a powder, add armoniac dissolved in wine, ox gall, each two drams, with oil of keir make an ointment. Or, make a fume with asses' hoofs burnt, or gallianum, or castor, and let it be taken in with a funnel.

To take away pains and strengthen the parts, foment with the decoction of mugwort, mallows, rosemary, woodmyrtle, St. John's wort, each half an ounce; spermaceti two drams, deer's suet an ounce, with wax make an ointment. Or, take wax four ounces, spermaceti an ounce, melt them, dip flax therein, and lay it all over her belly.

If none of these things will do, the last remedy is to use surgery, and then the midwife ought, without delay, to send for an expert and able man midwife, to deliver her by manual operation; of which I shall treat more at large in the next chapter.

#### C H A P. VI.

**I**N shewing the duty of a midwife, when the woman's labour is unnatural, it will be requisite, to shew in the first place, what I mean by unnatural labour; for it is natural to a woman to bring forth children in pain and sorrow. That which I call unnatural, is when the child comes to the birth in a contrary posture to that which nature ordained, and in which the generality of children come into the world. Now, as truth is but one, but error dilates itself into infinite variety; so there is but one proper, right and natural posture in which children come to the birth; but there are as many wrong and unnatural ways, as there are different postures of children when they are come to be born. The right and natural birth is when the child comes with its head first, and yet even this is too short a definition of a natural birth; for if any part of the head but the crown comes first, so that the body follow not in a straight line it is a wrong and difficult birth. Now, there are four general ways a child may come wrong; 1st, When any of the fore parts of the body present themselves. 2dly, When by an unhappy transposition, any of the hinder parts first present themselves. 3dly, When either of the sides. Or, 4thly, When the feet present themselves first. To these four, all the particular and different wrong postures that a child can present itself in, for the birth may be reduced; and therefore I shall confine myself only to treat of these four more general wrong ways.

SECTION I. *How to deliver a Woman of a dead Child by unnatural Operation.*

**T**HE last section of the last chapter treated of the delivering of a woman of a dead child, and several things were directed to be applied in order to facilitate the delivery ; but when all these fail, a manual operation is absolutely necessary : In order thereto, let the operator acquaint the woman with the absolute necessity there is of such an operation ; and that as the child has already lost its life, there is no other way left for the saving of her's : Let him also tell her, for her encouragement, that he doubts not, with the Diviæ blessing, to deliver her safely, and that the pains arising thereby, will not be so great as she fears. And then let him endeavour to stir up the woman's pains, by giving her some sharp clyster, to excite her throes to bear down and bring forth the child ; and if this prevail not, let him proceed with his manual operation.

First, Let her be placed across the bed, that he may operate the easier ; and let her lie on her back, with her hips a little higher than her head, or at least the body equally placed, when it is necessary to put back or turn the infant to give it a better posture : Being thus situated, she must fold her legs so as her heels be towards her buttocks, and her thighs spread, and held by a couple of strong persons ; there must be others also to support her under her arms, that the body may not slide down when the child is drawn forth, for which sometimes a great strength is required ; let the sheets and blankets cover her thighs for decency's sake, and also to prevent her catching cold. Then let him anoint the entrance of the womb with oil or fresh butter, if necessary, that so he may with more ease introduce his hand, which must also be anointed ; and having by signs before mentioned, received satisfaction that it is a dead child, he must do his endeavour to fetch it away as soon as possible ; and if the child offers the head first, he must gently put it back, until he hath liberty to introduce his hand quite into the womb : then sliding it along under the belly to find the feet let him draw it forth by them, being very careful to keep the head from being locked in the passage, that it be not separated from the body ; which may be effected the more easily, because the child being very rotten and putrified the operator is not so mindful to keep the breast and face downwards as he is in living births. But if, notwithstanding all these precautions, by reason of the child's putrefaction, the head should be separated, and left behind in the womb, it must be drawn forth according to the directions which shall be given in sec. 3. of this chapter for that purpose. But when the head coming first, is so far advanced that it cannot well be put back, it is better to draw it forth so, than to torment the woman too much by putting it back to turn it, and bring it by the feet ; but the head being a part round and slippery, it may so happen that the operator can-

not take hold of it with his fingers, by reason of its moisture, nor put them up to the side of it, because the passage is filled with its bigness, he must take a proper instrument, and put it up as far as he can without violence, between the womb and the child's head, observing to keep the point of it towards the head, and let him fasten it there, giving it a good hold upon one of the bones of the skull, that it may not slide: and, after it is well fixed, he may therewith draw it forth, keeping the ends of the fingers of his left hand, flat upon the opposite side, the better to help to disengage it, and by shaking it a little to conduct it directly out of the passage, until the head be quite born, and then taking hold of it with the hands only, the shoulders may be drawn into the passage, and so sliding the fingers of both hands under the armpits, the child may be quite delivered: and then the after-burden fetched, being careful not to pluck the navel-string too hard, lest it break, as often happens, when it is corrupted.

If the dead child come with the arm up to the shoulder so extremely swelled that the woman must suffer too great a violence to have it put back, 'tis then the best to take it off at the shoulder joints by twisting three or four times about, which is very easily done, by reason of the softness and tenderness of the body: After the arm is so separated, and no longer possessing the passage, the operator will have more room to put up his hand into the womb, to fetch the child by the feet and bring it away.

But although the operator be sure the child is dead in the womb, yet he must not therefore presently use instruments, because they are never to be used but when hands are not sufficient; and there is no other remedy to prevent the woman's danger, or to bring forth the child any other way: and the judicious operator will chuse that way which is the least hazardous and most safe.

SECTION II. *How a Woman must be delivered when the Child's Feet come first.*

**T**HERE is nothing more obvious to those whose business it is to assist labouring women, than that the several unnatural postures in which children present themselves at their births, are the occasion of the most bad labours and all accidents that happen unto women in such a condition.

And since midwives are very often obliged, because of the unnatural situations, to draw the children forth by the feet, I conceive it to be most proper to shew first, how a child must be brought forth that presents itself in that posture, because it will be a guide to several of the rest.

I know indeed that in this case 'tis the advice of several authors to

change the figure, and place the head so, that it may present the birth; and this council I should be very inclinable to follow, could they but also shew how it must be done: But it will appear very difficult, if not impossible to be performed, if we will avoid the dangers that by such violent agitations both the mother and the child must be put into, and therefore my opinion is, That it is better to draw it forth by the feet, when it presents itself in that posture, than to venture a worse accident by turning it.

As soon therefore as the waters are broke, and it is known that the child comes thus, and that the womb is open enough to admit the midwife's or operator's hand into it, or else by anointing the passages with oil or hog's grease, to endeavour to dilate by degrees, using her fingers to this purpose, spreading them one from the other, after they are together entered, and continuing to do so till it be sufficiently dilated, then taking care that her nails are well pared, and no rings on her fingers, and her hands well anointed with oil or fresh butter, and the woman placed in the manner directed in the former section, let her gently introduce her hand into the entry of the womb, where finding the child's feet, let it draw it forth in the manner I will presently direct; only let her first see whether it presents one foot, or both, and if it be but one foot, she ought to consider whether it is the right foot or the left, and also in what fashion it comes: for by that means she will soonest come to know where to find the other, which as soon as she knows and finds, let her gently draw it forth with the other; but of this she must be especially careful, viz. that this second be not the foot of another child; for if so, it may be of the most fatal consequence, for she may sooner split both mother and child than draw them forth; but this may be easily prevented, if she does but slide her hand up the first leg and thigh to the twist, and there find both thighs joined together, and descending from one and the same body. And this is also the best means to find the other foot when it comes with but one.

As soon as the midwife hath found both the child's feet, she may draw them forth, and holding them together, may bring them by little and little in this manner, taking afterwards hold of the legs and thighs as soon as she can come at them, drawing them so till the hips be come forth. Whilst this is doing, let her observe to wrap the parts in a single cloth, that so her hands being already greasy, slide not on the infant's body, which is slippery, because of the vicious humours which are all over it, and prevent one's taking good hold of it, which being done, she may take hold under the hips, so to draw it forth to the beginning of the breast; and let her on both sides with her hand bring down the arms along the child's body,

which she may then easily find; and then let her take care that the belly and face of the child be downwards, for if it should be upwards, there would be some danger of its being stopt by the chin over the shere bone; and therefore, if it be not so, must turn it to that posture; which may be easily done if she take hold on the body when the breast and arms are forth in the manner we have said, and draws it with turning it in proportion on that side which it most inclines to, till it be turned with the face downwards, and so having brought it to the shoulders, let her lose no time, and desire the woman at the same time to bear down, that so at drawing, the head at that instant, may take its place, and not to be stopt in the passage. Some children there are, whose heads are so big, that when the whole body is born, yet that stops in the passage, though the midwife takes all possible care to prevent it. And when this happens she must not endeavour only to draw forth the child by the shoulders, lest she sometimes separate the body from the head, as I have known it done by the midwife, but she must discharge it by little and little from the bones in the passages with the fingers of each hand, sliding them on each side opposite the one to the other, sometimes above, and sometimes under, until the work be ended, endeavouring to dispatch it as soon as possible, lest the child be suffocated, as it will unavoidably be, if it should remain long in that posture: and this being well and carefully effected, she may soon after fetch away the after-birth, as I have before directed.

SECTION III. *How to bring away the Head of the Child when separated from the body, and left behind in the Womb.*

**T**HOUGH the utmost care be taken in bringing away the child by the feet, yet if the child happens to be dead, it is sometimes so putrefied and corrupted, that with the least pull the body separates from the head, and remains alone in the womb, and cannot be brought away but with a manual operation and difficulty, it being extremely slippery, by reason of the place where it is, and from the roundness of its figure, on which no hold can be well taken: And so very great is the difficulty in this case, that sometimes two or three able practitioners in the art of midwifery, have, one after the other, left the operation unfinished, as not able to effect it, after the utmost efforts of their industry, skill and strength: so that the woman not being able to be delivered, perisheth. To prevent which fatal accidents, for the time to come, let the following operation be observed:

When the infant's head separates from the body, and is left behind, whether through putrefaction, or otherwise, let the operator immediately, whilst the womb is yet open, direct up his right hand

to the mouth, for no other hold can there be had; and having found it, let him put one or two of his fingers into it, and his thumb under the chin, and then let him draw it by little and little, holding it so by the jaw; but if that fails, as sometimes it will, when putrified, then let him pull forth his right hand, and slide up his left, with which he must support the head, and with the right let him take a harrow instrument called a crotchet: but let it be strong and with a single branch, which he must guide along the inside of his hand, with the point of it towards it, for fear of hurting the womb; and having thus introduced it, let him turn it towards the head, for to strike either into an eye hole, or the hole of an ear, or behind the head, or else between the stature, as he finds it most convenient and easy; and then draw forth the head so fastened with the said instrument, still helping to conduct it with his left hand; but when he hath brought it near the passage, being strongly fastened to the instrument, let him remember to draw forth his hand, that the passage, not being filled with it, may be the larger and easier, keeping still a finger or two on the side of the head, the better to disengage it.

There it also another way to this, with more ease and less hardship than the former; which is this: let the operator take a soft linen or fillet slip of above four fingers breadth, and the length of three quarters of an ell or thereabouts, taking the two ends with the left hand, and the middle with the right, and let them so put it up with his right as that it may be beyond the head, to embrace it as a sling doth a stone; and afterwards draw forth the fillet by the two ends together, it will be easily drawn forth, the fillet not hindering the least passage, because it takes up little or no space.

When the head is thus fetched out of the womb, care must be taken that not the least part of it be left behind, and likewise to cleanse the woman well of her after-burden, if yet remaining. Some have questioned whether the child's head remaining yet in the womb, or the after-birth ought to be brought away first? The answer to which question may be by way of distinction; that is to say, if the burden be wholly separated from the sides of the womb, that ought to be first brought away, because it may also hinder the taking hold of the head; but if it still adheres to the womb, it must not be meddled with till the head be brought away; for if one should then go about to separate it from the womb, it might then cause a flooding, which would be augmented by the violence of the operation; the vessels to which it is joining remaining for the most part open as long as the womb is distended, which the head causeth while it is retained in it, and cannot close till this strange body be voided, and then it doth by contraction and compressing itself together, as has been more fully

before explained. Besides the after-birth remaining thus cleaving to the womb during the operation, prevents it from receiving easily either bruise or hurt.

SECTION IV. *How to deliver a Woman when the side of the Child's Head is presented to the Birth.*

**T**HOUGH some may think it a natural labour when the child's head may come first, but yet if the child's head presents not the right way, even that is an unnatural labour, and therefore tho' the head comes first, yet if it be the side of the head instead of the crown, it is very dangerous both to the mother and child, for the child may sooner break its neck than be born in that manner; and by how much the mother's pains continue to bear the child, which it is impossible, unless the head be rightly placed, the more the passages are stopt; therefore as soon as the position of the child is known, the woman must be laid with all speed, lest the child should advance further in this vicious posture, and therefore render it more difficult to thrust it back, which must be done in order to place the head in the passage right as it ought to be.

To this purpose therefore place the woman so that her hips may be a little higher than her head and shoulders, causing her to lean a little upon the opposite side to the child's ill posture; then let the operator slide up his hand, well anointed with oil, by the side of the child's head, to bring it right, gently with his fingers between the head and the womb; but if the head be so engaged that it cannot be done that way, he must then put up his hand to the shoulders, that so by thrusting them back a little into the womb, sometimes on the one side, and sometimes on the other, he may by little and little give it a natural position. I confess it would be better if the operator could put back the child by its shoulders with both his hands; but the head takes up so much room, that he will find much ado to put up one, with which he must perform his operation, with the help of the finger ends of the other hand, put forward the child's birth, as when the labour is natural.

Some children present their face first, having their heads turned back, in which posture it is extremely difficult that a child should be born; and if it continue so long, the face will be swelled, and withal black and blue, that it will at first seem monstrous, which is occasioned as well by the compression of it in that place, as by the midwife's fingers handling it too readily, in order to place it in a better posture. But this blackness will wear away in three or four days time, anointing it often with the oil of sweet almonds. To deliver the birth, the same operation must be used as in the former, when a child comes with the side of the head; only let the midwife or operator work more gently to avoid as much as possible the bruising of the face.

SECTION V. *How to deliver a Woman when a Child presents one or both Hands together with the Head.*

**S**OMETIMES the infant will present some other part together with its head, which if it does, it is usually one or both its hands, and this hinders the birth, because the hands take up part of that passage which is little enough for the head alone; besides, that when this happens, they generally cause the head to lean on one side; and therefore this position may be very well stiled unnatural. When the child presents thus, the first thing to be done, after it is perceived, must be to prevent it from coming down more, or engaging further in the passage, and therefore the operator, having placed the woman on the bed a little lower than her hips, must put and guide back the infant's hand with his own, as much as may be, or both of them, if they both come down, to give way to the child's head; and this being done, if the head be on one side, it must be brought into its natural posture, in the middle of the passage, that it may come in a strait line, and then proceed as directed in the foregoing section.

SECTION VI. *How a Woman is to be delivered when the Hands or feet of the Infant come together.*

**T**HERE is none but will readily grant, that when the hands and feet of an infant present together, the labour must be unnatural, because it is impossible a child should be born in that manner. In this therefore, when the midwife guides her hand towards the orifice of the womb, she will perceive only many fingers close together; and if it be not sufficiently dilated, it will be a good while before the hands and feet will be exactly distinguished; for they are sometimes so shut and pressed together, that they seem to be all of one and the same shape; but where the womb is open enough to introduce the hand into it, she will easily know which are the hands, and which are the feet; and having well taken notice thereof, let her slide her hand, and presently direct it towards the infant's breast, which she will find very near, and then let her very gently thrust back the body towards the bottom of the womb, leaving the feet in the same place where she found them; and then having placed the woman in a convenient posture, that is to say, her hips a little raised above her breast and head (which situation ought always to be observed when the child is to be put back into the womb) let the midwife afterwards take hold of the child by the feet, and draw it forth, as is directed in the second section.

This labour, though somewhat troublesome, yet is much better than when the child presents only its hands; for the child must be quite turned about before it can be drawn forth; but in this, they

are ready, presenting themselves, and in this there is not so much to do, but to lift and thrust back a little the upper part of the body, which is almost done of itself by drawing it along by the feet.

I confess there are many authors that have written of labours, who would have all wrong births reduced to a natural figure; which is to turn it, that it may come with the head first; but those that have thus written, are such as never understood the practical part; for if they had the least experience herein, they would know that it is very often impossible, at least if it were to be done, that violence must necessarily be used in doing it, that would very probably be the death of mother and child in the operation. I would therefore lay down as a general rule, that whensoever an infant presents itself wrong to the birth, in what posture soever from the shoulders to the feet, it is the best way, and soonest done, to draw it out by the feet: and that it is better searching for them, if they do not present themselves, rather than try to put it in the natural posture, and place the head foremost; for the great endeavours necessary to be used in turning the infant in the womb, do so much weaken both mother and child, that there remains not afterwards strength enough to commit the operation to the works of nature, for usually the woman hath no more throes or pains fit for labour, after she has been so wrought upon; for which reason it would be very difficult and tedious at best: and the child, by such an operation, made very weak, would be in extreme danger of perishing before it could be born. It is therefore much better in these cases, to bring it away immediately by the feet, searching for them, as I have already directed, when they do not present themselves: by which the mother will be prevented of a tedious labour, and the child be often brought alive into the world, who otherwise would hardly escape death. And thus much shall suffice to be said of unnatural labours: for by the rule already given, a skillful artist will know how to proceed in any posture in which the child shall present itself.

SECTION VII. *How a Woman shall be delivered that has Twins which present themselves in different postures.*

**W**E have already spoken something of the birth of twins in the chapter of unnatural labour; for it is not an unnatural labour barely to have twins, provided they come in a right position to the birth. But when they shall present themselves in divers postures, they come properly under the denomination of unnatural labours; and if when one child presents itself in a wrong figure, it makes it much worse so when there are several, and renders it not only more painful to the mother and children, but to the operator also; for they often trouble each other, and hinder both their births, besides which, the womb is then so filled with them, that the ope-

rator can hardly introduce his hand without much violence, which he must do, if they be to be turned to thrust back, to give them a better position.

When a woman is pregnant with two children, they rarely present to the birth together, the one being generally more forward than the other, and that is the reason that but one is felt; that many times the midwife knows not that there are twins, till the first is born, and that she is going to fetch away the after-birth. In the 5th chapter, wherein I treated of natural labour, I shewed how a woman should be delivered of twins, presenting themselves both right: and therefore, before I close this chapter of unnatural labour, it only remains that I shew what ought to be done, when they either both come wrong, or one of them only, as for the most part it happens; the first generally coming right, and the second with the feet forward, or in some worse posture. In such a case, the birth of the first must be hastened as much as possible, to make way for the second, which is best brought away by the feet, without endeavouring to place it right, even though it was somewhat inclining towards it, because it has been already tired and weakened by the birth of the first, as well as its mother, that there would be greater danger of its death, than likelihood of its coming out of the womb that way.

But if, when the first child is born naturally, the second should likewise offer its head to the birth, it would be then best leaving nature to finish what she has so well begun; and if nature should be too slow in her work, some of those things mentioned in the fourth chapter to accelerate the birth, may be properly enough applied; and if, after that, the second birth should be yet delayed, let a manual operation be deferred no longer: but the woman being properly placed, as has been before directed, let the operator direct his hand gently into the womb to find the feet, and so draw forth the second child, which will be the more easily effected, because there is way made sufficient by the birth of the first; and if the waters of the second child be not broke, as it often happens, yet intending to bring it away by the feet, he need not scruple to break the membranes with his fingers: for though when the birth of a child is left to the operation of nature, it is necessary that the waters should break of themselves; yet when the child is brought out of the womb by art, there is no danger in breaking of them; nay, on the contrary, it becomes necessary; for without the waters are broke, it would be almost impossible to turn the child.

But herein principally lies the care of the operator that he is not deceived, when either the hands or the feet of both children offer themselves together to the birth; in this case he ought well to con-

der the operation, as whether they be not joined together, or any way monstrous; and which part belongs to one child and which to the other, that so they may be fetched one after the other, and not both together, as might be, if it were not duly considered, taking the right foot of the one and the left foot of the other, and so drawing them together, as if they belonged to one body, because there is a left and a right, by which means it would be impossible ever to deliver them; But a skilful operator will easily prevent this, if having found two or three feet of several children, presenting together in a passage, and taking aside two of the forwardest, a right and a left, and sliding his hands along the legs and thighs up to the twist, if forwards, or the buttocks, if backwards, he finds they both belong to one body; of which being thus assured, he may begin to draw forth the nearest, without regarding which is strongest or weakest, bigger or less, living or dead, having put first a little aside that part of the other child which offers to have the more way, and so dispatch the first, wherever it is, as soon as may be, observing the same rules, as if there were but one, that is, keeping the breast and face downwards, with every circumstance directed in that section where the child comes with its feet first: and not fetch the burthen till the second child is born. And therefore when the operator hath drawn forth one child, he must separate it from the burden, having tied and cut the navel string, and then fetch the other by the feet in the same manner, and afterwards, bring away the after-burden with the two strings, as have been before shewed. If the children present any other part than the feet, the operator may follow the same method as is directed in the foregoing section, where the several unnatural positions are carefully treated of.

## C H A P. VIII.

*Directions for Child-bearing Women in their lying-in.*

**I**N the fourth, fifth, and sixth chapters, we have treated at large of women's labour, and how they may be safely delivered both in natural and unnatural labours. Having therefore thus brought the good woman to bed, I will in this chapter direct how she ought to be ordered in her lying-in.

SECTION I. *How a Woman newly delivered ought to be ordered.*

**A**S soon as she is laid in bed, let her be placed in it conveniently for ease and rest, which she stands in great need of, to recover herself of the great fatigue she underwent during her travail; and, that she may lie the more easy, let her head and body be a little raised, that she may breathe the more freely, and cleanse the better, especially of that blood which then comes away, that so it may not clot, which being retained, causeth very great pain.

Having thus placed her in bed, let her drink a draught of burnt white wine, when you have first melted therein a dram of spermaceti. The herb vervain is also a most singular herb for a woman in this condition, boiling it in what she either eats or drinks, fortifying the womb so exceedingly, that it will do it more good in two days, having no offensive taste, though very pleasant virtues. And this is no more than what she stands in need of, for her lower parts being so greatly distended to the birth of the infant, it is good to endeavour the prevention of an inflammation there. Let therefore be outwardly applied all over the bottom of the belly and privities, the following anodyne or cataplasm. Take two ounces of oil of sweet almonds, and two or three new laid eggs, yolks and whites stirring them together in an earthen pipkin over hot embers, till it comes to the consistence of a poultice; which being spread upon a cloth, must be applied to those parts indifferently warm, having first taken away the closures (which were put to her presently after her delivery) and likewise such clots of blood as were then left. Let this lie on five or six hours, and then renew it again as you see cause.

Great care ought to be taken at first, that if her body be very weak, she be not kept too hot, for extremity of heat weakens nature and dissolves the strength; and whether she be weak or strong, be sure that no cold air comes near her at first; for cold is an enemy to the spermatic parts, and if it gets into the womb, it increases the after-pains, causes swellings in the womb, and hurts the nerves. As to her diet, let it be hot, and let her eat but a little at a time. Let her avoid the light for three or four days, and longer if she be weak, for her labour weakens her eyes exceedingly, by a harmony between the womb and them. Let her avoid great noises, sadness and troubles of mind.

If the womb be foul, which may be easily perceived by the impurity of the blood (which will then either come away in clots or stinking, or if you suspect any of the after-burden to be left behind, which may sometimes happen) make her drink of featherfew, mugwort, pennyroyal and mother of thyme, boiled in white wine, sweetened with sugar.

Panada and new laid eggs is the best meat for her at first, of which she may eat often, but not too much at a time. And let her use cinnamon in all her meat and drink, for it is a great strengthener to the womb.

Let her stir as little as may be, till after the fifth, sixth, or seventh days of her delivery, if she be weak. And let her talk as little as may be, for that weakens her.

If she goes not well to stool, give a clyster made only with the

decoction of mallows and a little brown sugar.

When she hath laid-in a week or more, let her use such things as close the womb, of which knot grass and comfrey are very good: and to them you may add a little polypodium, for it will do her good, both leaves and roots being bruised.

SEC. II. *How to remedy those accidents which a lying-in Woman is subject to.*

1. **T**HE first common and usual accident that troubles women, in their lying-in, is after-pains; the cause whereof, some affirm to be one thing, and some another; but it is most certain that they proceed from cold and wind contained in the bowels with which they are filled after labour, because when they have more room to dilate, than when the child was in the womb, by which they were compressed, and also because the nourishment and matter contained in them and the stomach, has been confusedly agitated from side to side, during the pains of labour, and could not be well digested, whence this wind is afterwards generated, and by consequence, the gripes which the woman feels running into her belly from side to side, according as the wind moves, and sometimes from the womb, because of the compression and commotion which the bowels make. These being generally the cause, let us now apply a suitable remedy.

2. Boil an egg soft, and pour out the yolk of it, with which mix a spoonful of cinnamon water, and let her drink it; and if you mix in it two grains of ambergrease, it will be the better; and yet vervain taken in any thing she drinks, will be as effectual as the other.

3. Give the lying-in woman, immediately after delivery, oil of sweet almonds and syrup of maidenhair mixed together; some prefer oil of walnuts, provided it be made of nuts that are very good, but it tastes worse than the other. This will lenify the inside of the intestines by its unctuousness, and by that means bring away that which is contained in them more easily.

4. Take and boil onions very well in water, then stamp them with oil and cinnamon and seed in powder, spread them upon a cloth, and apply them to the region of the womb.

5. Let her be careful to keep her belly very hot, and not to drink what is too cold: and if they prove very violent, hot cloths, from time to time, must be laid to her belly, or a pancake fried in walnut oil, may be applied to it, without swathing her belly so strait; and, for the better evacuating the wind out of the intestines, give her a clyster, repeating it as often as necessity requires.

6. Take bayberries, beat them to powder, put the powder upon a chaffing dish of coals, and let her receive the smoke of them up

her privities.

Take tar and barrows greafe, of each an equal quantity, boil them together, and, whilst it is boiling, add a little pigeon's dung to it. Spread some of this upon a linen cloth, and apply it to the reins of her back, and it will give her speedy ease.

Lastly, let her take half a dram of bayberries beaten into a powder, in a draught of mustard or tent.

II. Another accident to which women in child-bed are subject, is the hemorrhoides, or piles, occasioned through their straining in bringing the child into the world. To cure this,

1. Let her be let blood in the vein saphæna.

2. Let her use polypodium in her meat and drink, bruised and boiled.

3. Take an onion, and, having made an hole in the middle of it, fill it full of oil, toast it, and having bruised it all together, apply it to the fundament.

4. Take as many wood lice as you can get, and bruise them, and having mixed them with a little oil, apply them warm as before.

5. If she go well to stool, let her take an ounce of cassia fistula drawn at night going to bed; she need no change of diet after.

III. Retention of the menstrues is another accident happening to women in child-bed; and, which is of so dangerous consequence, that, if not timely remedied it proves mortal. Where this happens,

1. Let the woman take such medicines as strongly provoke the terms, such as dittany, betony, pennyroyal, savory, featherfew, centaury, juniper berries, piony roots.

2. Let her take two or three spoonfuls of briony water each morning,

3. Gentian roots beaten into a powder, and a dram of it taken every morning in wine, is an extraordinary remedy.

4. The root of birthwort, either long or round, so used and taken as the former, is very good.

5. Take twelve piony seeds, and beat them into very fine powder, and let her drink them in a draught of hot carduus posset, and let her sweat after. And if this last medicine don't bring them down the first time she tastes it, let her take as much more three hours after, and it seldom fails.

IV. Overflowing of the menses is another accident incidental to child-bed women.

1. Take shepherds' purse, either boiled in any convenient liquor, or dried, and beaten into powder, and it will be an admirable remedy to stop them, this being especially appropriated to the

privities.

2. The flowers and leaves of brambles, or either of them, being dried and beaten into powder, and a dram of them taken every morning in a spoonful of red wine, or in the decoction of the leaves of the same (which perhaps is much better) is an admirable remedy for the immoderate flowing of the terms in women.

V. Excoriations, bruises, and rents of the lower part of the womb, are often occasioned by the violent distention and separation of the four caruncles in a woman's labour. For the healing whereof,

As soon as the woman is laid, if there be only simple contusions and excoriations, let the anodyne cataplasm, formerly directed, be applied to the lower parts, to ease the pain, made of the yolks and whites of new laid eggs, and oil of roses, boiled a little over warm embers, continually stirring it till it be equally mixed, and then spread upon a fine cloth, it must be applied very warm to the bearing place for five or six hours, and when it is taken away, lay some rags, dipped in oil of St. John's wort twice or thrice a day, also some foment the parts with barley water and honey of roses to cleanse them from the excrements which pass. When the woman makes water, let them be defended with fine rags, and thereby hinder the urine from causing smart and pain.

VI. The curdling and clotting of the milk is another accident that often happens to women in child-bed; for, in the beginning of child bed, the woman's milk is not purified, because of those great commotions her body suffered during her labour, which affected all the parts, and it is then mixed with many other humours. Now this clotting of milk does, for the most part, proceed from the breasts not being fully drawn, and that either because she hath too much milk, and that the infant is too small and weak to suck all, or because she doth not desire to be a nurse, for the milk in those cases, remaining in the breast after concoction, without being drawn, loseth the sweetness and the balsamic quality it had, and, by reason of the heat it acquires, and the too long stay it makes there, it sours, curdles, and clots, as we see runnet put into ordinary milk turns into curds. This curdling of the milk may be also caused by having taken a great cold, and not keeping the breasts well covered.

But from what causes soever this curdling of the milk proceeds, the most certain remedy is, speedily to draw the breasts until they are emitted and dried. But in regard of the infant, by reason of its weakness, cannot draw strong enough, it will be proper to get another woman to draw her breasts, until the milk comes

freely, and then she may give her child suck. And, that she may not afterwards be troubled with a surplussage of milk, she must eat such diet as gives but a little nourishment, and keep her body open.

But if the case be such that the woman neither can nor will be a nurse, it is then necessary to empty the body by bleeding in the arm; besides drawing down the humours, by strong clysters, and bleeding in the foot, nor will it be amiss to purge gently; and to digest, dissolve and dissipate the curdled milk, apply the cataplasm of pure honey, or use the following liniment:

A Liniment to scatter and dissipate the Milk.

That the milk flowing back to the breasts, may without offence be dissipated, use this ointment: "Take pure wax two ounces, lintseed oil half a pound; when the wax is melted, let the liniment be made, wherein linen cloths must be dipped, and laid upon the breast; and when it shall be discuffed, and pains no more, let other linen cloths be dipped in the distilled water of acorns, and put upon them."

Note, That the cloths dipped in the distilled water of acorns, must be used only by those who cannot nurse their own children; but if a swelling in the breasts of those who give suck, arises from abundance of milk, and threatens an inflammation, use the former ointment, but abstain from using the distilled water of acorns.

#### C H A P. VIII.

*Directions for nurses in ordering new-born children.*

**H**AVING in the former chapter shewn how the lying-in woman should be ordered, it is now high time to take care of the infant, to whom the first service that should be performed for it, is the cutting of the navel-string, of which I have spoken at large before.

*SECTION I. What is to be done to the new-born infant after cutting the navel-string.*

**W**HEN the child's navel-string has been cut, according to the rules before prescribed, let the midwife presently cleanse it from the excrements and filth it brings into the world with it; of which some are within the body, as the urine in the bladder, and the excrement found in the guts; and others without, which are thick, whitish and clammy, proceeding from the sliminess of the waters: There are children sometimes so covered over with this, that one would say they are rubbed over with soft cheese and some women are of so easy a belief, that they really think so, because they had eaten some while they were with child. From these excrements let the child be cleansed with wine & water a little warmed, washing every part therewith but chiefly the head, because of

The hair, also the folds of the groins, armpits, and the cods or privities; which parts must be gently cleansed with a linen rag, or a soft sponge dipped in this lukewarm wine. If this clammy or viscid excrements stick so close that it will not be easily washed off from those places, it may be fetched off with the oil of sweet almonds, or a little fresh butter melted with wine, and afterwards well dried off. She must also make tent of fine rags, and, wetting them in this liquor, clear the ears and nostrils; but for the eyes, wipe them only with a dry soft rag, not dipping it in the wine, lest it should make them smart.

The child being thus washed and cleansed from its native blood and impurities which attended it into the world it must, in the next place be searched to see whether all things be right about it, and that there is no fault or dislocation; whether its nose be straight, or its tongue tied, whether there be any bruise or tumour on the head, or whether the mould be not overshotten; also whether the scrotum, if a boy, be not blown and swelled; and in short, whether it has suffered any violence in any part of the body, and whether all the parts be well and duly shaped, that suitable remedies may be applied, if any part be found not right. Nor is it enough that all be right without, and the outside of the body cleansed, but she must chiefly observe whether it dischargeth the excrements retained within, and whether the passages be open for some have been born without having them perforated; therefore let her examine whether the conduits of the urine and stool be clear, for want of which some have died, not being able to avoid their excrements, because timely care was not taken at first. As to the urine, all children, males and females, do make water as soon as they are born, if they can, especially when they feel the heat of the fire, and sometimes also the excrements, but not so soon as the urine. If the infant does not ordure the first day, then put up into its fundament a small suppository, to stir it up to be discharged, that it may not cause painful gripes by remaining so long in its belly. A sugar almond may be proper for this purpose, anointed over with a little boiled honey, or else a small piece of castile soap rubbed over with fresh butter; she may also give the child, to this purpose, a little syrup of violets at the mouth, mixed with some oil of sweet almonds drawn without a fire, anointing the belly also with the same oil or a little fresh butter.

The midwife having thus washed and cleansed the child, according to the before mentioned directions, let her begin to swaddle in swathing clothes, and when she dresses the head, let her put small rags behind the ears to dry up the filth which usually engenders there, and also in the folds of the armpits and groins, and so swathe

it, having wrapped it up warm in bed and blankets; only take care that they swathe not the child too strait, especially about the breast and stomach, that it may breath the more freely, and not be forced to vomit up the milk it sucks, because the stomach cannot be sufficiently extended to contain it; therefore, let its arms and legs be wrapped in its bed stretched and straight, and swathed to keep them so, viz. the arms along its sides, and its legs equally both together, with a little of the bed between them, that they may not be galled by rubbing each other; let the head be kept steady and straight, with a stay fastened on each side the blanket, and then wrap the child up in mantles and blankets to keep it warm. This swathing of the infant is very necessary to give its body a straight figure, which is most decent and proper for a man, and to accustom him to keep upon his feet, and not walk on all-four, as most other animals do.

#### C H A P. IX.

**N**E W-B O R N children are subject to so many distempers that daily experience shews us, there are not above half the children that are born who live till they are three years old; which is occasioned by the tenderness of their bodies, and feebleness of their age, which hinders them from expressing the incommodities they labour under, any otherwise than by their cries. The business of this chapter therefore will be to discover the indispositions to which they are subject, with the remedies proper them.

##### SECTION I. *Of Gripes and Pains in the Bellies of young Children.*

**T**HIS I mention first, as it is often the first and common distemper which happens to little infants after their birth, many children being so troubled and pained therewith, that they cry night and day, and at last die of it. This comes, for the most part, from the sudden change of their nourishment, for having always received it from the umbilical vessels, whilst in their mother's womb, they come to change, on a sudden, not only the manner of receiving it, but the nature and quality of what they receive, as soon as they are born: for instead of purified blood only, conveyed to them by means of the umbilical vein, they are now obliged to be nourished with their mother's breast milk, which they suck with their mouths, and from which are engendered many excrements, causing gripes and pains, and that not only because it is not so pure as the blood with which it was nourished in the womb, but because the stomach and intestines cannot yet make a good digestion. It is also caused sometimes by a tough phlegm, and sometimes by the worms; for physicians affirm, that worms have been bred in children even in their mother's belly.

The remedy therefore must be suited to the cause; if it proceed from the too sudden changes of nourishment, the remedy must be to forbear to give the child suck for some days, lest the milk be mixed with phlegm; and at first it must suck but little, until it be accustomed to digest it. If it be the excrements in the intestines, which by their long stay increase their pains, give them at the mouth a little oil of sweet almonds, and syrup of roses. If it be worms, lay a cloth dipped in oil of wormwood, mixed with ox-gall, upon the belly; for a small cataplasm, the powder of rue, wormwood, coloquintida, aloes, the seeds of citron, incorporated with ox-gall, and the powder of lupines. Or, give it oil of sweet almonds, with sugar candy, and a scruple of anis seed; it purges new-born babes from green cholera and stinking phlegm, and if it be given with sugar-pap it allays the griping pains of the belly. Also anoint the belly with oil of dill, or pellitory stamped with oil of camomile to the belly.

SECTION II. *Of weakness in new-born infants.*

**W**EAKNESS is an accident that many children bring into the world along with them, and is often occasioned by the labour of the mother, by the violence and length whereof they suffer so much, that they are born with great weakness, and many times it is difficult to know whether they are alive or dead, their body appearing so senseless, and their face so blue and livid, that they seem to be quite choaked; and, even after some hours, their shewing signs of life is attended with so much weakness, that it looks like a return from death, and that they are still upon the borders of that kingdom.

In this case, the best way to help the infant is to lay him speedily in a warm bed and blankets, and carry him to the fire, and then let the midwife sup a little wine, and spout it into his mouth, repeating it often, if there be occasion. Let her apply linen to the breast and belly dipped in wine, and then let the face be uncovered that he may breathe the more freely; also let the midwife keep its mouth a little open, cleanse the nostrils with small linen tents dipped in white wine, that so he may receive the smell of it and let her chafe every part of his body well with warm cloths, to bring back the blood and spirits, which being retired inward through weakness often puts him in danger of being choaked. By the application of these means the infant will insensibly recover strength, and begin to stir his limbs by degrees, and at length to cry, which though it be but weakly at first, yet afterwards as he breathes more freely, he will cry stronger and stronger.

SECTION III. *Of the Fundament being closed up in a new-born Infant.*

**A**NOTHER effect that new-born infants are liable to, is to have their fundaments closed up, by means whereof they can neither evacuate the new excrements engendered by the milk they suck; nor that which was amassed in their intestines whilst in their mother's belly, which is certainly mortal without a speedy remedy.— There have been some female children who have had their fundament quite closed, and yet have avoided the excrements of the guts by an orifice, which nature, to supply that defect, had made within the neck of the womb.

For the cure or remedy of this, we must notice that the fundament is closed two ways; either by a single skin, through which one may discover some black and blue marks, proceeding from the excrements retained, which of one touch with the finger, there is a softness felt within, and thereabouts it ought to be pierced: or else it is quite stopped by a thick fleshy substance, in such sort that there appears nothing without by which its true situation may be known. When there is nothing but the single skin which makes the closure, the operation is very easy, and the child may do very well: for then an apertion or opening may be made with a small incision knife, cross ways, that it may the better receive a round form, and that the place afterwards may not grow together, taking great care not to prejudice the sphincter or muscle of the Rectum. The incision being thus made, the excrements will certainly have issue. But if, by reason of their long stay in the belly, they are become so dry that the infant cannot void them, then let a small clyster be given to moisten and bring them away; afterwards put a linen tent into the new-made fundament, which at first had best be anointed with honey of roses, and towards the end with a drying cicatrizing ointment, such as Unguentum, Album, or Pomphelix, observing to cleanse the infant of his excrements, and dry it again as soon and as often as he evacuates them, that so the apertion may be prevented from turning into a malignant ulcer.

But now if the fundament be stopped up in such a manner, that neither mark nor appearance can be either seen or felt, then the operation is more difficult; and even when it is done, the danger is much more of the infant's escaping it. And then if it be a female, and that it sends forth its excrements by the way I have mentioned before, it is better not to meddle, than by endeavouring to remedy an inconvenience, to run an extreme hazard of the infant's death. But when there is no vent for the excrements, without which death is unavoidable, there the operation is justifiable.

The operation in this case must be thus; let the operator, with a

small incision knife that hath but one edge, enter into the void place, and turning the back of it upwards within half a finger's breadth of the child's rump, which is the place where he will certainly find the intestine, let him thrust it forward, that it may be open enough to give free vent to the matters there contained, being especially careful of the sphincter; after which, let the wound be dressed according to the method directed.

SECTION IV. *Of the Thrush, or Ulcers in the mouth of an Infant.*

**T**HE thrush is a distemper that children are very often subject to, and it arises from bad milk, or from foul humours in the stomach; for sometimes, though there be no ill quality in the milk itself, yet it may corrupt in the child's stomach because of its weakness, or some other indisposition, in which, acquiring an acrimony instead of being well digested, there arises from thence biting vapours, which forming a thick viscosity, do thereby produce this distemper.

It is often difficult, as physicians tell us, because it is seated in hot and moist places, where the putrefaction is easily augmented, and for that the remedies applied cannot lodge there, being soon washed away by spittle. But if they arise from too hot a quality in the nurse's milk, care must be taken to temper and cool, prescribing her cool diet, bleeding and purging her also, if there be occasion.

Take lentiles husked, powder them and lay it upon the child's gums; or take melidium in flower, half an ounce, and with oil of roses make a liniment. Also wash the child's mouth with barley and plantain water, and honey of roses, or syrup of dry roses, mixing them with a little verjuice, or juice of lemons as well to loosen and cleanse the viscid humours which cleave to the inside of the child's mouth, as to cool those parts which are already over-heated. This may be done by means of a small fine rag fastened to the end of a little stick, and dipped therein, wherewith the ulcers may be gently rubbed, being careful not to put the child to too much pain, lest an inflammation make the distemper worse. The child's body must be also kept open, that the humours being carried to the lower parts, the vapours may not ascend, as it is usual for them to do, when the body is costive, and the excrements too long retained. If the ulcers appear malignant, let such remedies be used as do their work speedily, that the evil qualities that cause them being thereby instantly corrected, their malignity may be prevented; and in this case touch the ulcers with plantain waters sharpened with the spirits of vitriol, for the remedy must be made sharp, according to the malignity of the distemper. It will not be unnecessary to purge these ill humours out of the whole habit of the child, by giving half an ounce of sacchar with rhubarb.

SECTION V. *Of Pain in the Ears, Inflammation, Moisture, &c.*

**T**HE brain in infants is very moist, and hath many excrements which nature cannot send out at its proper passages; they get often to the ears, and there cause pains, flux of blood, with inflammation, and matter with pain: and in children is hard to be known, having no other way to make it known but by constant crying; you will also perceive them ready to feel their ears themselves, but will not let others touch them if they could help it: and sometimes you may discern the parts about the ears to be very red. These pains, if let alone, are of dangerous consequences, because they bring forth watching and epilepsy, for the moisture breeds worms there, and fouls the spongy bones, and by degrees incurable deafness.

To prevent all those ill consequences, allay the pain with all convenient speed, but have a care of using strong remedies. Therefore only use warm milk about the ears, with the decoction of poppy tops, or oil of violets: to take away the moisture, use honey of roses, and let aquamellis be dropped into their ears; or take virgin honey half an ounce, red wine two ounces, allum, saffron, saltpetre, each a dram; mix them at the fire; or drop in hempseed oil with a little wine.

SECTION VI. *Of redness and inflammation of the buttocks, groin and thighs of an infant.*

**I**F there be not great care taken to change and wash the child's beds as soon as they are fouled with the excrements, and to keep the child very clean, their acrimony will be sure to cause redness, and beget a smearing in the buttocks, groin and thighs of the child, which by reason of the pain, will afterwards be subject to inflammations, which follow the sooner, through the delicacy and tenderness of their skin, from which the outward skin of the body in a short time separated and worn away.

The remedy of this is twofold; that is to say, first, to keep the child cleanly, and in the second place, to take off the sharpness of its urine. As to keeping it cleanly, she must be a sorry nurse that needs to be taught how to do it, for if she lets it but have dry, clean and warm beds and clouts, as often and soon as it has fouled and wet them, either by its urine or excrements, it will be sufficient; and, as to the second, the taking off the sharpness of the child's urine, that must be done by the nurse's keeping a cooling diet, that her milk may have the same quality; and therefore she ought to abstain from all things that may heat it. But besides these, cooling and drying remedies are requisite to be applied to the inflamed parts; therefore, let the parts be bathed with plantain water, with a fourth of lime water added to it, each time the child's excrements are wiped off; and if the pain be very great, let it only be fomented with lukewarm milk. The powder of a posy to dry it, or a little mill

dust fireweld upon the parts affected, may be proper enough: and it is used by several women. Also Unguentum Album, or Diapampholigos, spread upon a small piece of leather in form of a plaister, will not be amiss.

But the chief thing must be the nurses taking great care to wrap the inflamed parts with fine rags when she opens the child, that those parts may not be gathered and pained by rubbing them together.

SEC. VII. *Of vomiting in young children.*

**V**OMITING in children proceeds sometimes from too much milk, and sometimes from bad milk, and is often from a moist loose stomach; for as dryness retains, so looseness lets go. This is for the most part, without danger in children; and they that vomit from their birth are the lustiest; for the stomach, not being used to meat, and milk being taken too much, crudities are easily bred, or the milk is corrupted; and is better to vomit these up than to keep them in; but if vomiting last long, it will cause an atrophy or consumption for want of nourishment.

To remedy this, if from too much milk, that which is emitted is yellow and green, or otherwise ill coloured; in this case, mend the milk, as has been shewed before; cleanse the child with honey of roses, and strengthen its stomach with syrup of milk and quinces made into an eluctuary. If the humour be hot and sharp, give the syrup of pomegranates, currants and coral; and apply to the belly the plaister of bread, the stomach create, or bread dipped in hot wine; or take oil of mastic, quinces, mint, worm wood, each half an ounce; of nutmegs by expression, half a drachm, chymical oil of min, three drops. Coral hath an occult property to prevent vomiting, and is therefore hung about their necks.

SEC. V II. *Of breeding teeth in young children.*

**T**HIS is a very great, and yet necessary evil in all children, having variety of symptoms joined with it; they begin to come forth, not all at a time, but one after another, about the sixth and seventh month; the fore teeth coming first, then the eye teeth and at last of all the grinders: the eye teeth cause more pain to the child than any of the rest, because they have a very deep root, and a small nerve, which hath communication to that which makes the eye move. In the breeding of their teeth, first they feel an itching in their gums, when they are pierced as with a needle, and pricked by the sharp bones, whence proceed great pains, watching, and inflammation of the gums, fever, looseness, and convulsions, especially when they breed their eye teeth.

The signs when children breed their teeth, are these, 1. It is known by their time, which is usually about the seventh month. 2

Their gums are swelled, and they feel a great heat there, with an itching, which makes them put their fingers in their mouth to rub them, from whence a moisture distils down into the mouth, because of the pain they feel there. 3. They hold the nipple faster than before. 4. The gum is white where the tooth begins to come; and the nurse in giving them suck finds the mouth hotter, and that they are much changed, crying every moment, and cannot sleep, or but very little at a time. The fever that follows breeding of teeth comes from cholerick humours, inflamed by watching, pain and heat. And the longer teeth are breeding, the more dangerous it is, so that many in the breeding of them die of fevers and convulsions.

For remedy, two things are to be regarded; one is, to preserve the child from the evil accidents that may happen to it by reason of the great pain; the other, to assist as much as may be the cutting of the teeth, when they can hardly cut the gums themselves.

For the first of these, *i. e.* the preventing these accidents to the child, the nurse ought to take great care to keep a good diet, and to use all things that may cool and temper her milk, that so a fever may not follow the pain of the teeth. And to prevent the humour from falling too much upon the inflamed gums, let the child's belly be kept always loose by gentle clysters, if it be bound; though oftentimes there is no need of them, because they are at those times usually troubled with a looseness, and yet for all that, clysters may not be improper neither.

As to the other, which is to assist in cutting off the teeth, that the nurse must do from time to time, molifying and loosening them, by rubbing them with her finger dipped in butter or honey, to let the child have a virgin wax candle to chew upon; or anoint the gums with the mucilage of quince made with mallow water, or with the brains of a hare; also foment the cheeks with the decoction of Althea, and camemile flower and dill, or with the juice of mallows and fresh butter. If the gums are inflamed, and juice of nightshade and lettuce. I have already said the nurse ought to keep a temperate diet. I will now add, that barley broth, water gruel, raw eggs, prunes, lettuce and endive, are good for her: but let her avoid salt, sharp, biting, and peppered meats, and wine.

SEC. IX. *Of the flux of the belly, or looseness in infants.*

**I**T is very common for infants to have the flux of the belly, or looseness, especially upon the least indisposition; nor is it to be wondered at seeing their natural moistness contributes so much thereto: and if it be not extraordinary violent, such are in a better state of health than those that are bound. This flux, if violent proceeds from divers causes; as, 1. From breeding teeth, and is then commonly attended with a fever, in which the concoction is hindered,

and the nourishment corrupted. 2. From watching. 3. From pain. 4. From stirring of the humours by a fever. Sometimes they have a flux without breeding of teeth, from outward cold in the guts or stomach, that obstructs concoction. If it be from teeth it is easily known, for the signs in breeding of teeth will discover it. If it be from external cold, there are signs of other causes. If from a humour flowing from the head, there are signs of a catarrh, and the excrements are frothy. If crude and raw humours are voided, there is wind, belching, and phlegmatic excrements. If they be yellow, green and stink, the flux is from a hot and sharp humour. It is best in breeding of teeth when the belly is loose, as I have said before; but if it be too violent, and you are afraid it may end in a consumption, it must be stopped; and if the excrements that are voided be black, attended with a fever, it is very bad.

The remedy in this case has a principal respect to the nurse, and the condition of the milk, must chiefly be observed; the nurse must be cautioned that she eat no green fruit, nor things of a hard concoction. If the child suck not, remove the flux with purges, such as leave a bleeding quality behind them: As syrup of honey, of roses, or a clyster. Take the decoction of millium, myrobolans, each two or three ounces, with an ounce or two of syrup of roses, and make a clyster. After cleansing, if it proceed from a hot cause, give syrup of dried roses, quinces, myrtles, coral, mastic, harts-horn, red roses, or powder of myrtles, with a little Sanguis Draconis. Also anoint with oil of roses, myrtles, mastic, each two drachms, with oil of myrtles and wax, make an ointment. Or, take red roses, moulin, each a handful, cypress roots, two drachms: make a bag, boil it in red wine and apply it to the belly. Or, use the plaister of bread or stomach ointment. If the cause be cold, and the excrements white, give syrup of mastic, and the quinces, with mint water. Use outwardly mint, mastic, cummin: or, take rose seeds an ounce, cummin and annis-feed, each two drachms; with oil of mastic, wormwood, and wax, make an ointment.

SECTION X. *Of the epilepsy and convulsions in children*

**T**HIS is a distemper that is the death of many young children, and proceeds from the brain first, as when the humours are bred in the brain that cause it, either from the parents, or from vapours, or bad humours that twitch the membranes of the brain; it is also sometimes caused from other distempers, and from bad diet; likewise the toothach, when the brain consents, causes it, and so does a sudden fright. As to the distemper itself, it is manifest, and well enough known where it is; and as to the cause whence it comes, you may know by the signs of the disease whether it comes from bad milk, or worms, or teeth: if these are all absent, it is certain

that the brain is first affected; if it comes with the small pox or measles, it ceaseth when they come forth if nature be strong enough.

For the remedy of this grievous and often mortal distemper, give the following powder to prevent it, to a child as soon as it is born: Take male piony roots, gathered in the decrease of the moon, a scruple, with leaf gold make a powder; or, take piony roots a drachm, piony seeds, mistletoe of the oak, elk's hoof, man's skull, amber, each a scruple, musk two grains; make a powder. The best part of the cure is taking care of the nurse's diet, which must not be disorderly by any means. If it be from corrupt milk, provoke a vomit, to do which, hold down the tongue, and put a quill dipped in sweet almonds down the throat. If it comes from worms give such things as will kill the worms. If there be a fever respect that also, and give coral smaraged, and elk's hoof. In the fit give epileptic water, as lavender water, and rub with oil of amber, or hang a piony root, elk's hoof, and smaraged coral, about the neck.

As to a convulsion, it is when the brain labours to cast out that which troubles it; the matter is in the marrow of the back, and fountain of the nerves; it is a stubborn disease and often kills.

For the remedy whereof in the fit wash the body, especially the back bone, with decoction of althæa, lily roots, piony and cammimile flowers, and anoint it with man's and goose grease, oils of wormis orris lilles, turpentine, mastic, storax and calamint. The sun flower is also very good, boiled in water, to wash the child.

T H E  
E X P E R I E N C E D M I D W I F E .

P A R T II.

*Containing proper and safe Remedies for the curing of all those Distempers that are peculiar to the Female Sex, and especially those that have Obstructions to the bearing of Children.*

**H**AVING finished the first part of this book, and I hope therein amply made good my promise to the reader. I am now come to treat of the distempers peculiar to the female sex: in which it is not my design to enlarge, or to treat of all the distempers they are incident to, but those only to which they are most subject, when in a breeding condition, and that keep them from being so: for each of which distempers I have laid down such proper and safe remedies, as, with the Divine blessing, may be sufficient to repel them; and since as amongst all the diseases to which human nature

is subject, there is none that more diametrically opposes the very end of our creation, and the design of nature in the formation of different sexes, and the power thereby given us for the work of generation, than that of sterility or barrenness, which, where it prevails, renders the most accomplished midwife, but an useless person, and destroys the design of our book; I think therefore barrenness is an effect that deserves our first consideration.

## C H A P. I.

*Of Barrenness; its several Kinds, with proper Remedies against it; and the Signs of Insufficiency in Men and Women.*

SECTION I. *Of Barrenness in general.*

**A**S there is no general rule but will admit of some exception against this second part; for though I have promised to treat herein only of diseases peculiar to the female sex, yet this chapter will engage me to speak of a defect in men, barrenness being an effect incident to them also; and therefore it is necessary to be handled with respect to men as well as women, that without treating of it so, I shall not be able to make good the proverb, of setting the saddle on the right horse.

Having premised this, and thereby anticipated an objection, I shall now proceed to the subject of this chapter, which is barrenness.

Barrenness is either natural or accidental.

Natural barrenness is, when a woman is barren, though the instruments of generation are perfect both in herself and husband, and no preposterous or diabolical course used to cause it; and neither age nor disease, or any natural defect hindering, and yet the woman remains naturally barren, and conceives not.

Now this may proceed from a natural cause: for if the man and woman be of one complexion, they seldom have children; and the reason is clear, for the universal course of nature being formed by the Almighty of a composition of contraries, cannot be increased by a composition of likes; and therefore if the constitution of the woman be hot and dry as well as of the man, there can be no conception; and if, on the contrary, the man should be of a cold and moist constitution as well as the woman, the effect would be the same; and this barrenness is purely natural. The only way to help it is for people before they marry to observe each others constitution and complexion, if they design to have children. If their complexions and constitutions be alike, they are not fit to come together, for the discordant nature makes the only harmony in the work of generation.

Another natural cause of barrenness is want of love between the man and wife. Love is that vital principle that ought to inspire

each organ in the act of generation, or else 'twill be but spiritless and dull; for if their hearts be not united in love, how should their seed unite to cause conception; and this is evidently evinced in that there never follows a conception on a rape; therefore if men and women design to have children, let them live so that their hearts as well as their bodies may be united, or else they may miss of their expectations.

A third cause of natural barrenness is virgins letting blood in the arm before their natural courses are come down, which is usually in the fourteenth or fifteenth years of their age; sometimes perhaps before the thirteenth, but never before the twelfth. And because usually they are out of order and indisposed before their purgations come down, their parents run to the doctor to know what is the matter, and he straight way opens a vein in the arm, as if it was fulness of blood which was the cause of offending, and this makes her well for the present; and when the young virgin happens to be in the same disorder again, the mother straight runs to the surgeon, and he directly uses the same remedy: and by these means the blood is diverted from its proper channel, that it comes not down the womb as in another woman; and so the womb dries up, and the woman is forever barren. The way to prevent this is to let the virgin blood in the arm before her courses come down well; but if there be occasion, let her blood in the foot: for that will bring the blood downwards, and by that means provoke the menstrues to come down.

Another cause of natural barrenness is the debility in copulation; if persons perform not that act with all the heat and ardour that nature requires, they may as well let it alone, and expect to have children without it, for frigidity and coldness never produce conception. Of the cure of this we will speak by and by, after I have spoken of accidental barrenness, which is what is occasioned by some morbid matter or infirmity of the body, either of the man or the woman, which being removed, they become fruitful. And since (as I have before noted) the first and great law of the creation was to increase and multiply, and barrenness is the direct opposition to the law, and frustrates the end of our creation; and that it is a great affliction to divers to be without children, and often causes man and wife to have hard thoughts of one another, each party thinking the cause not in them. I shall here for the satisfaction of well meaning people, set down the signs and causes of insufficiency both in men and women, premising this first, that when people have no children, they must not presently blame either party, for neither may be in fault, but perhaps God sees it not good (for reasons best known to himself) to give them any; of which we have divers instances in

history. And tho' the Almighty in the production of nature, works by natural means, yet where he withholds his blessing, natural means are ineffectual: for it is the blessing which is the power and energy by which nature brings forth her productions.

SECTION II. *Signs and Causes of Insufficiency in Men.*

**O**NE cause may be some viciouſness in the yard, as if the same be crooked, or any ligaments thereof distorted or broken, whereby the ways and passages through which the seed should flow, come to be stopped or vitiated.

Another cause may be too much weakness of the yard, and tenderness thereof, so that it is not strongly enough erected to inject seed into the womb; for the strength and stiffness of the yard, very much conduce to conception, by reason of the forcible injection of the seed.

Also if the stones have received any hurt, so that they cannot exercise the proper gift in producing seed, or if they be oppressed with inflammation or tumour, wound or ulcer, or drawn up within the belly, and not appearing outwardly, these are signs of insufficiency and causes of barrenness.

Also a man may be barren by reason of the defect of seed; as, first if he cast forth no seed at all, or lets in substance than is needful. Or, secondly, if the seed be vicious, or unfit for generation, as on the one side, it happens in bodies that are gross and fat, the matter of it being defective, and on the other side too much leanness, or continual wasting or consumption of the body, destroys the seed; nature turning all the matter and substance thereof into nutriment of the body.

Too frequent copulation is also one great cause of barrenness in men; for it attracteth the seminal moisture from the stones before it is sufficiently prepared and concocted; so, if any one by daily copulation, do exhaust and draw out all the moisture of the seed, then do the stones draw the moist humours from the superior veins into themselves; and so having but a little blood in them, they are forced of necessity to cast it out raw and unconcocted, and thus the stones are violently deprived of the moisture of their veins, and the superior veins from all the other parts of the body for their proper nourishment, thereby depriving the body of its vital spirits. And therefore no wonder that those that use immoderate copulation are very weak in their bodies: seeing their whole body is thereby deprived of their best and purest blood, and of the spirit, insomuch that many who have been too much addicted to that pleasure, have killed themselves in the very act, and therefore it is no wonder if such unconcocted and undigested seed be unfit for generation.

Gluttony, drunkenness, and the other excesses, do also much hin-

der men from fruitfulness, and make them unfit for generation.

But among other causes of barrenness in men, this also is one that makes them barren, and almost of the nature of eunuchs, and that is the incision, or the cutting of their veins behind their ears, which, in case of distempers, is oftentimes done; for according to the opinion of most physicians and anatomists, the seed flows from the brain by these veins behind the ears, more than from any other part of the body. From whence it is very probable, that the transmission of the seed is hindered by the cutting of the veins behind the ears, so that it cannot descend at all to the testicles, or come thither very crude and raw. And thus much for the signs and causes of barrenness of men.

### SECTION III. *Signs and Causes of Insufficiency, or Barrenness in Women.*

**A**LTHOUGH there are many causes of the barrenness of women, yet the chief and principal are internal, respecting either the privy parts, the womb, or menstruous blood.

Therefore, Hippocrates saith (speaking of either easy or difficult conception of women) the first consideration is to be had of their species, for little women are more apt to conceive than great; slender than gross; white and fair, than ruddy and high coloured; black than wane; those that have their veins conspicuous are more apt to conceive than others; but to be very fleshy is evil; to have great swelled breasts is good.

The next thing to be considered, is the monthly purgations, whether they have been regular every month, and whether they flow plentifully, and are of good colour, and whether they have been equal every month.

Then the womb or place of conception is to be considered, it ought to be clean, sound, dry and soft: not retracted or drawn up: not prone, nor descending downwards, nor the mouth thereof turned awry, nor too close shut. But to speak more particularly:

The first parts to be spoken of are the pudenda, or privities, and the womb; which parts are shut and inclosed, either by nature or against nature; and from hence such women are called imperfores; and in some women the mouth of their womb continues compressed, or closed up, from the time of their birth, until the coming down of their courses, and then, on a sudden, when their terms press forward to purgation, they are molested with great and unusual pains; some of these break of their own accord, others are dissected and opened by physicians, others never break at all, and it brings death.

And all these Aetius particularly handles, shewing that the womb is shut three manner of ways, which hinders conception. And the

first is, when the lips of the pudenda grows or cleave together; the second is, when there are certain membranes growing in the middle part of the matrix within; the third is, when (tho' the lips and bosom of the pudenda may appear fair and open) the mouth of the womb may be quite shut up; all which are occasions of barrenness in that they hinder both the use of man, the monthly courses, and conception.

But among all the causes of barrenness in women, the greatest is in the womb, which is the field of generation; and if this field be corrupt, it is vain to expect any fruit, let it be ever so well sown; for it may be unfit for generation, by reason of many distempers to which it is subject: as for instance, over-much heat and over-much cold: for women, whose wombs are too thick and cold, cannot conceive, because cold extinguishes the heat of the human seed. Immoderate moisture of the womb also destroys the seed of man, and makes it ineffectual, as corn sown in ponds and marshes; and so does over-much dryness in the womb, so the seed perishes for want of nutriment. Immoderate heat of the womb is also a cause of barrenness, for it scorseth up the seed, as corn sown in the drought of summer; for immoderate heat hurts all the parts of the body, so as no conception can live in the woman. And when unnatural labours are engendered, as too much phlegm, tympanies, wind, water, worms, or any such evil humours abounding contrary to nature, it causes barrenness; as does all the terms not coming down in due order, as I have already said.

A woman may also have other accidental causes of barrenness (at least such as may hinder her conception) as sudden frights, anger, grief and perturbation of the mind: too violent exercises, as leaping, dancing, running after copulation, and the like. But I will now add some signs by which these things may be known.

If the cause of barrenness be in the man through over-much heat in his seed, the woman may easily feel that is receiving it.

If the nature of the womb be too hot, and so unfit for conception it will appear by her having her terms very little, and the colour inclining to yellowness; she is also very hasty, choleric, and crafty; her pulse beats very swift, and she is very desirous of copulation.

If you would know whether the defect is in the man or the woman, sprinkle the man's urine upon a lettuce-leaf, and the woman's upon another, and that which dries away first is unfruitful. Also, take five wheaten corns, and seven beans, put them into an earthen pot, and let the party make water therein, if these begin to sprout after standing seven days, then the party is fruitful, if not, they are barren, whether it is man or woman. This is a certain sign.

Some make this experiment of a woman's fruitfulness; They take

myrrh, red storax, and some odoriferous things and make a perfume, which the woman is to receive into the neck of the womb through a funnel: and if the woman feels the smoke ascend thro' her body to the nose, then she is fruitful, otherwise not. Some also take garlic and beat it, and cause the woman to lie on her back upon it, and if she feel the scent thereof to her nose, it is a sign of fruitfulness.

Culpepper and others also give a great deal of credit to the following experiment.

Take a handful of barley, and steep half of it in the urine of the man, and the other half in the urine of the woman, for the space of twenty-four hours, and then take it out, and set the man's by itself, and the woman's by itself, in a flower pot, or some other thing; water the man's every morning with his own urine, and the woman's with hers, and that which grows first, is the most fruitful; and if one grow not at all, that party is naturally barren.

But now having spoken enough of the disease, it is high time to assign the cure.

If barrenness proceeds from stoppage of the menses, let the woman sweat, for that opens the parts; and the best way to sweat is in a hot-house. Then let the womb be strengthened by drinking a draught of white wine, wherein a handful of stinking arrack, first bruised, has been boiled. For by a secret magnetic virtue it strengthens the womb, and by a sympathetic quality removes any disease thereof. To which add also a handful of vervain, which is very good to strengthen both the womb and head, which are commonly afflicted together by sympathy. Having used these two or three days, if they come not down; take of calac, mint, pennyroyal, thyme, betony, dittany, feverfew, burnet, mugwort, sage, piony roots, juniper berries, half a handful of each, or so many as can be got, let all these be boiled in beer, and drank for her ordinary drink.

Take one part of the gentian root, two parts of century, distil them with ale in an alembic, after you have bruised the gentian roots and infused them well. This water is an admirable remedy to provoke the terms. But if you have not this water in readiness, take a drachm of century, and half a drachm of gentian roots bruised, boiled in posset drink, and drink a draught of it at night going to bed. Seed of wild navew beaten to powder, and a drachm of it taken in the morning in white wine, also is very good; but if it do not do, you must let blood in the legs. And be sure you administer your medicines a little before the full of the moon, or between a new and full moon, by no means in the wane of the moon; if you do, you will find them ineffectual.

If barrenness proceed from the overflowing of the menses, then strengthen the womb, as you were taught, and afterwards anoint

the reins of the back with oil of roses, oil of myrtle, oil of quinces, every night, and then wrap a piece of white baize about your reins, the cotton side next the skin, and keep the same always to it. But above all, I recommend this medicine to you. Take consrey leaves or roots, and blown woundwort, of each a handful: bruise them well, and boil them in ale, and drink a good draught of it now and then: O, take cinnamon, cassia lignea, opium, of each two drachms: myrrh, white pepper galbanum, of each one drachm: dissolve the gum and opium in white wine and beat the rest into powder; then make it into pills, by mixing them together exactly, and let the patient take two pills every night going to bed, but let not the pills exceed fifteen grains.

If barrenness proceed from a flux of the womb, the cure must be according to the cause producing it, which may be known by its signs: for a flux of the womb being a continual distillation from it for a long time together, the colour of what is voided shews what humour it is that offends: In some it is red, and that proceeds from blood putrified: in some it is yellow, and that denotes choler; in others white and pale, and that denotes phlegm. If pure blood comes out, as if a vein were opened, some corrosion or gnawing of the womb is to be feared. All these are known by these signs:

The place of conception is continually moist with the humours, the face is ill coloured, the party loaths meat, and breathes with difficulty, the eyes are much swollen, which is sometimes without pain. If the offending humour be pure blood, then you must let blood in the arm, and the cephalic vein is fittest to draw back the blood, and then let juice of plaintain and consrey be injected into the womb. If phlegm be the cause, let cinnamon be used in all her meats and drinks, and let her take a little Venice treacle or mithridate every morning. Let her boil burnet, mugwort, featherfew and vervain, in all her broths. Also, half a drachm of myrrh taken every morning, is an excellent remedy against this malady. If choler be the cause, let her take borage, bugloss, and roses, endive, and succory roots, lettuce, and white poppy seed, each an handful; boil these in white wine till one half be wasted; let her drink half a pint every morning, to which add syrup of peach flowers, and syrup of chicony, of each an ounce, with a little rhubarb, and this will gently purge her. If it proceeds from putrified blood, let her be bled in the foot, and then strengthen the womb as I have directed in stopping of the menses.

If barrenness be occasioned by the falling out of the womb, as sometimes happens, let her apply sweet scents to her nose, such as civit, galbum, storax, calamitis, wood of aloes and other things of that nature; and let her lay stinking things to the womb, such as

assaetida, oil of amber, or of the smoke of her own hair burnt; for this a certain truth, that the womb flies from all stinking, and cleaves to all sweet things. But the most infallible cure is this, Take a common burdock leaf, (which you may keep dry all the year) apply this to her head, and it will draw the womb upwards. In fits of the mother apply it to the soles of her feet, and it will draw the womb downwards. Burseed beaten into powder draws the womb which way you please according as it is applied.

If barrenness proceed from a hot cause, let the party take whey, and clarify it; then boil plantain leaves and roots in it, and drink it for her ordinary drink. Let her also inject the juice of plantain into the womb with a syringe; if it be in winter when you cannot get the juice, make a strong decoction of the leaves and roots in water, and inject that up with a syringe; but let it be but blood warm, and you will find this medicine of great efficacy. And further, take often conserve of roses, cold lozenges made of tragacanth, the confections of traifantali, frequently smell camphire, rose water and saunders. It is also good to bleed the basilica, or liver vein, and take four or five ounces of blood, and then use this purge. Take electuarum de epithimo, de succo rosarum, of each two drams and a half, clarified whey four ounces; mix them well together and take it in the morning fasting; sleep after it about an hour and an half, and fast four hours after it. And, about an hour before you eat any thing drink a good draught of whey: Also, take lily water four ounces, mandrogory one ounce, saffron half a scruple; beat the saffron to powder and mix it with the waters, and drink them warm in the morning. Use this eight days together.

*Some excellent Remedies against Barrenness, and to cause Fruitfulness.*

**T**AKE broom flowers, sarallage, parsley seed, cummin, mugworth, fetherfew, of each half a scruple; aloes, half an ounce; India salt, saffron, of each half a dram; beat and mix them well together, and put to it five ounces of featherfew water warm, stop it up close, and let it stand and dry in a warm place, and thus do two or three times one after another; then make each dram into six pills, and take one of them every other day before supper.

For a purging medicine against barrenness: Take conserve of benedicta lax, one quarter of an ounce; dipfillo three drams; electuary de succo rosarum, one dram; mix them together with featherfew water and drink it in the morning betimes. About three days after the patient hath taken the purge, let her be let blood four or five ounces in the median or common black vein in the right foot; and then take, for five days one after another, filed ivory a dram and a half in featherfew water; and during the time let her sit in the fol-

lowing bath an hour together morning and night : take wild yellow rapes, daucus, balsam wood and fruit, ashkeys, of each two handfuls ; red and white been, broom flowers, of each a handful ; musk three grains, amber, saffron, of each one scruple ; boil all in water sufficiently ; but the musk, saffron, amber, and broom flowers, must be put in the decoction after it is boiled and strained.

A confection very good against barrenness : Take pistachia, pingles, cringoes, of each half an ounce, saffron one dram, lignum aloes, galingade, mace, balm flowers, red and white been, each four scruples ; shaven ivory, cassia bark, each two scruples ; syrup of confectioned ginger twelve ounces, white sugar six ounces ; decoct all these well together in twelve ounces of balm water, and stir it well together ; then put to it musk and amber each a scruple : take thereof the quantity of a nutmeg three times a day, in the morning, an hour before noon, and an hour after supper.

But if the cause of barrenness either in man or woman be thro' scarcity or diminution of the natural seed, then such things are to be taken as do increase the seed, and incite or stir up to venery, and further conception, which I shall here set down, and conclude this chapter of barrenness.

For this, yellow rape seed baked in bread is very good ; also young fat flesh not too much salted ; also saffron, the snails stincus, and long pepper prepared in wine. But avoid sour, sharp, doughy and slimy meats, long sleep after meat, with surfeiting and drunkenness, and as much as they can, keep themselves from torrow.

These things following increase the natural seed and stir up venery, and recover the seed again when it is lost, viz. eggs, milk, rice boiled in milk, sparrow's brains, flesh, bones and all ; the bones and pizzles of bulls, bucks, rams, and bears ; also cock stones, lamb stones partridges, quails, and pheasants eggs ; for this is an undeniable aphorism, that whatever any creature is addicted unto, they move or incite the woman or man that eats them to the like ; and therefore partridges, quails, sparrows, &c. being extremely addicted to venery, they work the same effect in those men and women that eat them. Also take notice that in what parts of the body the faculty which you would strengthen lies, take the same parts of another creature, in whom the faculty is strong as a medicine. As for instance, the procreative faculty lies in the testicles, therefore cock stones, lamb stones, &c. are proper to stir up venery. I will also give you another general rule : all creatures that are fruitful being eaten, make them fruitful that eat them : as crabs, lobsters, prawns, pigeons ; &c. The stones of a fox dried and beaten to powder, and a drachm taken in the morning in sheep's milk, and the stones of a boar taken in the like manner, are very good. The heart of a mail quail carried a

bout the man, and the heart of a female quail carried about the woman, causeth natural love and fruitfulness. Let them also that would increase their seed, eat and drink of the best as near as they can: for *since cerere et libero frigit Venus*, is an old proverb, which is, Without good meat and good drink, Venus will be frozen to death.

Pottages are good to increase the seed, such as are made of beans, pease and lupines, and mix the rest with sugar. French beans, wheat sodden in broth, annis seeds, also onions stewed, garlicks, leeks, yellow rapcs, fresh bugwort roots, orange roots confected, ginger confected, &c. Of fruits; hazel nuts, cypress nuts, pistachia almonds, and marnapune made thereof. Spices good to increase seed, are cinnamon, cardamum, galengal, long pepper, cloves, ginger, saffron, assafœtida, take a dram and a half in good wine, is very good for this purpose.

The weakness and debility of a man's yard being a great hindrance to procreation, let him to strengthen it, use the following ointments: Take wax, oil of bevercod, marjorum gentle, add oil of colius, of each a like quantity, mix it into an ointment, and put to it a little musk, and with it anoint the yard, cods, &c. Take of house emmets three drams, oil of white sesanum, oil of lilies of each an ounce; pound and bruise the ants, and put them to the oil, and let them stand in the sun six days, then strain out the oil, and add to it euphorbium one scruple, pepper and rue, of each one dram; mustard seed half a dram. Set this again all together in the sun two or three days, then anoint the instruments of generation therewith. So much for this chapter.

## C H A P. II.

### *Diseases of the Womb.*

I HAVE already said, that the womb is the field of generation, and if this field be corrupted, it is in vain to expect any fruit, though it be never so well sown; it is therefore not without reason that I intend in this chapter to set down the several distempers to which the womb is obnoxious, and proper and safe remedies against them.

#### SECTION I. *Of the hot Distemper of the Womb.*

THIS distemper consists in the excess of heat; for the heat of the womb is necessary for conception, but if it be too much, it nourisheth not the seed, but disperseth its heat, and hinders the conception: this preternatural heat is sometimes from the birth, and makes them barren; but, if it be accidental, it is from hot causes that bring the heat and the blood to the womb: it arises also from internal and external medicines, and from too much hot meat, drinks and exercise. Those that are troubled with this distemper, have

but few courses, and those yellow, black, burnt or sharp, and have hair betimes on their privities; they are very prone to lust, and are subject to the head ach, and abound with choler. And when the distemper is strong upon them, they have but few terms, and out of order, being had and hard to flow, and in time they become hypochondriacs, and for the most part barren, having sometimes a frenzy of the womb.

The remedy is to use coolers, so that they offend not the vessels that must be open for the flux of the terms. I therefore inwardly use coolers, such as succory, endive, violets, water lilies, sorrel, lettuce, fanders, and syrups and conserves made thereof. Also take conserve of succory, violets, water lilies, burrage, each an ounce; conserve of roses half an ounce, diamartagon frigid, diatriascantal, each half a dram; and with syrup of violets, or juice of citrons, make an electuary. For outward applications, make use of ointment of roses, violets, water lilies, gourds, Venus-narvel applied to the back and loins.

Let the air be cool, her garments thin, and her meat endive, lettuce, succory and barley. Give her no hot meats, nor strong wine, unless mixed with water. Rest is good for her, but she must abstain from copulation, though she may sleep as long as she will.

SECTION II. *Of the cold Distemper of the Womb.*

**T**HIS distemper is the reverse of the foregoing, and equally an enemy to generation, being caused by cold quality abounding to excess, and proceeds from too cold air, rest, idleness and cooling medicines. It may be known by an aversion to lechery, and taking no pleasure in the act of copulation, when they spend their seed. Their terms are phlegmatic, thick, and slimy, and do not flow as they should. The womb is windy, and the seed crude and waterish. It is the cause of obstructions and barrenness, and is hard to be cured.

For the cure of this distemper, use this water: Take galengal, cinnamon, nutmeg, mace, cloves, each two drams; ginger cubeb, zedory, cardamum, each an ounce; grains of Paradise, long pepper, each half an ounce: beat them and put them into six quarts of wine for eight days; then add sage, mint, balm, motherwort, each three handfuls. Let them stand eight days more, then pour off the wine, and beat the herbs and the spices, and then pour on the wine, and distil them. Or you may use this: Take cinnamon, nutmegs, cloves, mace, ginger cubeb, cardamums, grains of Paradise, each an ounce and an half, galengal six drams, of long pepper half an ounce, zedory five drams, bruise them, and add six quarts of wine; put them into a cellar for nine days, daily stirring them: then add f mint two handfuls, and then let them stand for fourteen days;

pour off the wine and bruise them, and then pour on the wine again, and distil them. Also anoint with oil of lilies, rue, angelica, bays cinnamon, cloves, mace, and nutggs. Let her diet and air be warm, her meat of easy concoction, seasoned with annis seed, fennel, and thyme, and let her avoid raw fruits and milk diets.

SECTION III. *Of the Inflation of the Womb.*

**T**HE inflation of the womb is the stretching of it by wind, called by some a windmole, the wind proceeding from a cold matter, whether thick or thin, contained in the veins of the womb, by which the weak heat thereof is overcome, and it either flows thither from other parts, or is gathered there by cold meats or drinks: cold air may be a procuring cause of it also, as lying-in women are exposed to it. The wind is contained either in the cavity of the vessels of the womb, or between the tunicles, and it may be known by a swelling in the region of the womb, which sometimes reaches to the navel, loins, and diaphragma: and it rises and abates as the wind increaseth or decreaseth. It differs from the dropsy, in that it never swells so high; and that neither the physician nor midwife may take it for conception, let them observe the signs of women with child laid down in the first part of the book; and if one sign be wanting, they may suspect it to be an inflation, of which this is a farther sign, that in conception the swelling still increaseth; also, if you strike on the belly in an inflation, there will be a noise, but not so in case there be a conception. It also differs from a mole, because in that there is a weight and hardness in the belly; and when they move from one side to another, they feel a weight which is moving; but not so in this. If the inflation be without the cavity of the womb, the pain is greater and more extensive, nor is there any noise, because the wind is more pent up.

This distemper is neither of any long continuance, nor dangerous, if looked after in time, and if it be in the cavity of the womb, is more easily expelled. To which purpose give her diaphonicon, with a little castor and sharp clysters that expel wind. If this distemper happens to a woman in travail, let her not purge after delivery, nor bleed, because it is from a cold matter; but if it come after child-bearing, and her terms come down sufficiently, and that she has fullness of blood, let the saphæna vein be opened; after which, let her take the following electuary: take conserve of betony, rosemary, of each an ounce and an half: candied eringoes, citron peels candied, each half an ounce, diacimium, galengal, each a dram, oil of annis seeds six drops, and with syrup of cytrons make an electuary. For outward applications, make a cataplasin of rue, mugwort, camomile, dill, calamints, new pennyroyal; thyme, with oil of rue, keir, and camomile; and let the following clysters, to expel wind

be put into the womb: Take agnus, castus, rue, calamint, each an handful; annis seed, castus, cinnamon, each two drachms, boil them in wine to half a pint. She may likewise use sulphur, baths, and spaw waters, both inward and outward, because they expel wind.

SECTION IV. *Of the Dropsy of the Womb.*

**T**HIS is another morbid effect of the womb, proceeding from water, as that before mentioned did from wind, by which the belly is so swelled, that it deceives many, causing them to think themselves with child when indeed they are not. This is an unnatural swelling raised by the gathering together of waters, from moisture mixed with the terms, and an evil sanguification from the liver and spleen; also by immoderate drinking, or eating of crude meats; all which causing a repletion, do suffocate the native heat: It may also be caused by overflowing of the courses, or by any other immoderate evacuation. The signs of this distemper, are the lower parts of the belly, with the privities puffed up and pained: the feet swell, the natural colour of the face decays: the appetite is departed; the terms also are fewer, and cease before their time; her breasts are also soft, but without milk. This is distinguished from a general dropsy, in that the lower parts of the belly are more swelled; neither does the sanguificative faculty appear so hurtful, nor the urine so pale, nor the countenance so soon changed, neither are the superior parts so extenuated, as in a general dropsy. But yet this distemper foretels the total ruin of the natural functions, by that singular consent the womb hath with the liver, and therefore an evil habit of body or a general dropsy will follow.

For the cure of this empire, first mitigate the pain with fomentations, of mellilot, mallows, lintseed, cammomile, and althæ, then let the humour be prepared with syrup of stoehus, calamint, mugwort, both sorts, with the distilled waters or decoctions of dodder, majorum, sage, orange, speerage, pennyroyal, and betony; and let her purge with fenna, agarick, rhubarb, and eliterian. Take calomints, mugwort, lovage roots, pennyroyal, each an handful; savil a pugil; madder roots, angelica, of each an ounce; boil them in water, and sweeten them with sugar. Or, if she likes it better, make broths of the same. Also take specirem diambree, diamescidulus, diacalamenti, diacinnimoni, diacimini, troce de myrrh, of each two drachms, sugar one pound; with betony make lozenges, and let her take of them two hours before meals. Apply also to the bottom of the belly, as hot as can be endured, a little bag of camomile, cummin, and mellilot, boiled in oil, of rue; and anoint the belly and privities with unguentum Agrippæ, mingling therewith oil of Iroes. Let the lower parts of the belly be covered

with a plaister of bay-berries, or with a cataplasin made of cummin, camomile and briony roots, adding thereto cows, and goats dang. For injection into the womb, take asarum roots three drachms, pennyroyal, calamint, each half a handfull, favin a pugil, mechoacan a drachm: annis-seed, cummin, each half a drachm. Boil them and take six ounces strained, with oil of elder and orris, each an ounce; and inject it into the womb by a metrenchita; let the air be hot and dry. Moderate exercise may be allowed, but much sleep is forbidden. She may eat the flesh of partridges, larks, chickens, mountain birds, hares, conies, &c. and drink wine mixed with a little water.

SECTION V. *Of the inflammation of the Womb.*

**T**HIS is a tumour possessing the womb, accompanied with unnatural heat, by obstruction, and gathering together of corrupt blood; for the blood that comes to the womb, gets out of the vessels into its substance and grows hot, putrefies, and causeth an inflammation, either all over, or in part, before or behind, above or below. This happens also by suppression of the menses, repletion of the whole body, immoderate copulation, often handling of the genitals, difficult child-birth, vehement agitation of the body, or by falls or blows. The signs of this inflammation are tumours with heat and pain in the region of the womb, stretching and heaviness in the privities, also a pain in the head and stomach, with vomiting coldness of the knees, convulsions of the neck, doting, trembling, of the heart: and sometimes straitness of breath by reason of heat which is communicated to the diaphragma, or midriff; and the breasts sympathizing with the womb, are pained and swelled; but more particularly, if the fore part of the matrix be inflamed, the privities are grieved, and the urine is suppressed, or flows forth with difficulty; if it be behind, the loins and back suffer, and the belly is bound: if the inflammation be in the bottom of the womb, the pain is towards the navel; if the neck of the womb be affected, the midwife, putting up her finger, may feel the mouth of it retracted, and closed up, with a hardness about it. As to the prognosticks of it, all inflammations of the womb are dangerous and sometimes deadly, especially if it be all over the womb; if the woman be with child she rarely escapes, an abortion follows, and the mother dies.

As to the cure: first, Let the humours flowing to the womb be repelled; for the affecting of which after the belly hath been opened by the cooling clysters, letting of blood will be needful: open therefore a vein in the arm, but have a care of bleeding in the foot, lest thereby you draw more blood to the womb, but if it be from the terms stopt, you may. The opinion of Galen is, that the blood

may be diverted by bleeding in the arm, or cupping the breasts, and that it may be by opening an ankle vein, and cupping upon the lips. Then purge gently with cassia, rhubarb, fenna, and mirobolans thus, Take fenna two drachms, annis-seed one scruple, mirobolans half an ounce, barley water a sufficient quantity; make a decoction, dissolve it in syrup of succory, with rhubarb two ounces, pulp of cassia half an ounce, oil of annis-seed two drops and make a potion. At the beginning of the disease anoint the privities and reins with oil of roses and quinces. Make plaisters of plaintain, lint seed, barley meal, mellilot, fenugreek, and white of eggs; and if the pain be vehement, add a little opium. For repellens and anodynes take Venus navel, purslain, lettuce, housleek, vine leaves, each a handful, boil them in wine; barley meal two ounces, pomegranate flowers two drachms, boil a drachm with oil of roses, and mak a poultice. Or take diacibilou simple two ounces, juice of Venus navel, and plantain each half an ounce; take of fenugreek, mallow roots, decocted figs, lint seed, barley meal, dove's dung, turpentine, each three drachms; deer's suet half a drachm, opium half a scruple, and with wax make a plaister. After it it is ripe break it by motion of the body, coughing, sneezing, or else by cupping and pessaries; as, Take rhue half a handful, figs an ounce, pigeon's dung, orris roots, each half a drachm; with wool, make pessary. After it is broken, and the pains abate, then cleanse and heal the ulcer with such cleansers as these, viz. Whey, barley water, honey, wormwood, smallage, orris, birthwort, myrrh, turpentine, allum: Take new milk boiled a pint, honey half a pint, orris powder half an ounce, and use it very often every day. If it break about the bladder, use an emulsion of cold seeds, whey, and syrup of violets. Let her drink barley water, or clarified whey, and her meat be chickens, and chicken broth, boiled with endive, succory, sorrel, buglos and mallows.

SECTION VI. *Of Schirrosity and bardness of the Womb.*

**A** SWELLING in the womb neglected, or not perfectly cured, often produces a schirrosity in the matrix, which is a hard insensible, unnatural swelling, causing barrenness, and begetting an indisposition of the whole body. The immediate cause is a thick, earthy humour (as natural melancholy, for instance) gathered in the womb, and causing a schirrous without inflammation. It is a proper schirrous when there is neither sense nor pain, and it is an improper schirrous when there is some little sense and pain. This distemper is most usual in women of a melancholy constitution, and also such as have been cleansed from their menses, or from the retention of the lochia, or after purgings; it is likewise sometimes caused by eating corrupt meat; or those inordinate longings called pica, to which breeding women are often subject; and lastly, it may

also proceed from obstructions and ulcers in the womb, or some evil effects in the liver and spleen. It may be known by these signs; If the effect be in the bottom of the womb, she feels as it were a heavy burden representing a mole, yet differing, in that the breasts are attenuated, and the whole body also. If the neck of the womb be hardened, no outward humours will appear, the mouth of it is retracted, and touched with the finger, feels hard: nor can she have the company of a man without great pains and prickings. This schirrosity or hardness is (when confirmed) incurable, and will turn into a cancer, or dropfy: and ending in a cancer, proves deadly; the reason of which is, because the native heat in those parts being almost smothered, it is hardly to be restored again.

For the cure of this, first prepare the humour with syrup of burrage, succory, epicymum, and clarified whey; which being done, take of these pills following according to the strength of the patient: take hieca-picra, six drachms and a half; agarick, lapislazuli, ablutifalis Indœ, coloquintida, of each one drachm and a half; mix them, and make pills. The body being purged, proceed to molify the hardness as followeth; anoint the privities and the neck of the womb with the following ointment: take oil of capers, lilies, sweet almonds, jessamin, each one ounce; mucilage, fenugreek, althæ, ointment of althæ each six drachms; amoniacum dissolved in wine, an ounce, which with wax make into an ointment. Then apply below the navel diachilon fernelli; and make emulsions of figs, mugwort, mallows, pennyroyal, althæ, fennel roots, mellilot, fenugreek, and lintseed boiled in water; but for injection, take bdellium dissolved in wine, oil of sweet almonds, lillies, camomile, each two ounces, marrow of veal bones, and hen's grease, each an ounce with the yolk of an egg. The air must be temperate; and as for her diet, let her abstain from all gross, viscidious and salt meats, such as pork, fish, old cheese, &c.

SECTION VII. *Of the Straitness of the Womb and its Vessels.*

**T**IS being seated in the vessels of the womb, and neck thereof is an obstruction to the bearing of children, as it hinders both the flowing of the mentes and conception. The cause of this straitness is thick and tough humours that stop the mouth of the veins and arteries; these humours, are bred of gross or too much nourishment: when the heat of the womb is so weak that it cannot attenuate the humour which, by reason thereof, either flow from the whole body, or are grthered into the womb. Now, the vessels are made closer or straiter several ways; sometimes by inflammations, schirrous, or other humours; sometimes by compressions, or by a scar, or flesh, or membrane, that grows after the wound. The signs by which this is known, are stoppage of the terms, not con-

ceiving, crudities abounding in the body, which are known by particular signs; for if there was a wound, or the secundine was pulled out by force, phlegm comes from the wound. If stoppage of the terms be from an old obstruction by humours, it is hard to be cured; if it is only from the disorderly use of astringents, it is more curable; if it be from a schirrous, or other tumours that compress or close the vessels, the disease is incurable.

For the cure of that which is curable, obstructions must be taken away, phlegm must be purged, and she must be let blood, as will be hereafter directed in the stoppage of the terms. Then use the following medicines: Take of annis-seed and fennel-seed, each a dram; rosemary, pennyroyal, calamint, betony flowers, each an ounce; cestus, cinnamon, galengal, each half an ounce; saffron half a drachm, with wine. Or, take asparagus roots, parsley roots, each an ounce; pennyroyal, calamints, each a handful; wall flowers, dill flowers, each two pugils; boil, strain, and add syrup of mugwort, an ounce and a half. For a fomentation, take pennyroyal, mercury, calamint, marjoram, mugwort, each two handfuls; sage, rosemary, bays, camomile-flowers, each an handful; boil them in water, and foment the groin and bottom of the belly, or let her sit up to the navel in a bath, and then anoint about the groin with oil of rhue, lillies, dill, &c.

#### SECTION VIII. *Of the falling of the womb.*

**T**HIS is another evil effect of the womb, which is both very troublesome, and also a hindrance to conception. Sometimes the womb falleth to the middle of the thighs, nay, almost to the knees, and it may be known then by its hanging out. Now that which causeth the womb to change its place, is when the ligaments by which it is bound to the other parts are not in order; for there are four ligaments, two above, broad and membranous, that come from the peritoneum, and two below that are nervous round and hollow; it is also bound by the great vessels by veins and arteries, and to the back by nerves. Now the place is changed when it is drawn another way, or when the ligaments are loose, and it falls down by its own weight. It is drawn on one side when the menses are hindered from flowing, and the veins and arteries are full, namely, those which go to the womb. If it be a mole on one side and the spleen cause it; by the liver veins on the right side, and the spleen on the left, as they are more or less filled. Others are of opinion it comes from the solution of connection of the fibrous neck, and the parts adjacent, and that from the weight of the womb descending. This we deny not; but the ligaments must be loose or broken. But women in a dropsy could not be said to have the womb fallen down, if it came only from looseness: but in them it is caused by the salt-

ness of the water, which dries more than it moistens. Now, if there be a little tumour within or without the privities, it is nothing else but a descent of the womb; but if there be a tumour like a goose-egg, and a hole at the bottom, there is at first a great pain in the parts to which the womb is fastened, as the loins, the bottom of the belly, and the os sacrum, which proceeds from the breaking or stretching of the ligaments, but a little after the pain abates; and there is an impediment in walking; and sometimes blood comes from the breach of the vessels, and the excrements and urine are stopt, and then a fever and a convulsion ensueth, and ostentatives prove mortal, especially if it happen to women with child.

For the cure of this distemper, first cut it up before the air alter it, or it be swollen or inflamed; and therefore first of all give a clyster to remove the excrement; then lay her on her back, with her legs abroad, and thighs lifted up, and head down; then take the humour in your hand, and thrust it in without violence; If it be swelled by alteration and cold, foment it with the decoction of mallows, althæa, line, fenugreek, consomile-flowers, bay-berries, and anoint it with oil of lillies and hen's greese. If there be an inflammation, do not put it up, but fight it in, by putting red-hot iron before it, and making a shew as if you intended to burn it; but sprinkle upon it the powder of mastick, frankincense, and the like: Take frankincense, moslich each two drams; sarcecol steeped in milk, a dram; mummy, pomegranate flower, sanguis draconis, each half a dram: when it is put up, let her lie with her legs stretched, and one upon the other, for eight or ten days, and make a pessary in the form of a pear, with a cork or sponge, and put it into the womb, dipped in sharp wine, or juice of acacia, with powder of sanguis, galbanum, bdellium. Also apply a cupping glass with great flame under the naval or paps, or to both kidneys, and lay this plaister to the back: Take opoponix two ounces, storax liquid half an ounce, mastich frankincense, pitch, bole, each two drams, then with wax make a plaister; of laudanum a dram and a half, mastich, and frankincense, each half a dram, wood aloes, cloves, spikes, each a dram; ash coloured amber-grease four grains, musk half a scruple; make two round plaisters to be laid on each side of the naval; make a fume of snail skins fitted, or of garlic, and let it be taken in the funnel. Use also astringent fomentations of bramble leaves, plantain, horsetail, myrtles, each two handfuls, wormseed two pugils, pomegranate flowers half an ounce, boil them in wine and water. For an injection take comfrey roots an ounce, rupture wort two drams, yarrow, mugwort each half an ounce, boil them in red wine and inject it with a syringe. To strengthen the womb, take hartshorn, bays, of each a dram, ʒj rhh half a dram; make a powder for two doses, and give it with

sharp wine. Or, Take zedoary, parsnip seed, crabs-eyes prepared, each a dram; nutmeg half a dram, and give a dram in powder: but astringents must be used with great caution, least by stopping the courses a worse mischief follow. To keep it in its place, make rollers and ligatures as for the rupture; and put pessaries into the bottom of the womb, that may force it to remain. I know some physicians object against this, and say they hinder conception; but others in my opinion, much more justly affirm, that they neither hinder conception, nor bring any inconvenience; nay, so far from that, they help conception, and retain it, and cure the disease perfectly. Let the diet be such as is of drying, astringent, & glewing qualities, such as rice, starch, quinces, pears, and green cheese: but let summer fruits be avoided, and let her wine be astringent and red.

## C H A P. III.

*Of Diseases relating to Women's Monthly Courses.*

SECTION I. *Of Women's Monthly Courses in general.*

**D**IVINE Providence, who, with a wisdom worthy of himself, has appointed woman to conceive by coition with the man, and to bear and bring forth children, has provided for the nourishment of children during their recess in the womb of their mother, by that redundancy of the blood which is natural to all women, and which flowing out at certain periods of time (when they are not pregnant) are from thence called terms and menses from their monthly flux of excrementitious and unprofitable blood; which is only to be understood with respect to the redundancy thereof, being an excrement only with respect to its quantity, for as to its quality it is as pure and incorrupt as any blood in the veins; and this appears from the final cause of it, which is the propagation and conservation of mankind; and also from the generation of it, it being the superfluity of the last aliment of the fleshy parts. If any ask, If the menses be not of a hurtful quality, how can it have such venomous effects, as if it fall upon trees and herbs, it makes the one barren, and mortifies the other? I answer, This malignity is contracted in the womb; for the woman wanting native heat to digest this superfluity, sends it to the matrix, where seating itself till the mouth of the womb be dilated, it becomes corrupt and mortified, which may easily be, considering the heat and moistness of the place; and so this blood being out of its proper vessels, and too long retained, offends in quality. But if rigidity be the cause why women cannot digest all their last nourishment, and by consequence have these monthly purgations, how comes it to pass, may some say, that they are of so cold a constitution more than man? Of this I have already spoken in the chapter of barrenness; It is chiefly thus: The Author of our being has laid an injunction upon men and women to propagate their kind, hath

also wisely fitted them for that work; and seeing that in the act of coition there must be an agent and a patient (for if they be of one constitution, there can be no propagation) therefore the man is hot and dry, and the woman cold and moist. It is therefore necessary that the woman should be of a cold constitution, because in her is required a redundancy of matter for the nourishment of the infant depending on her. And this is wisely ordained by nature, for otherwise the child would detract from and weaken the principal parts of the mother; which would most unnaturally render the provision of the infant to be the destruction of the parent. Now, these monthly purgations usually begin about the 14th year, and continue till the 46th or 50th year: yet not so constantly, but that oftentimes there happens a suppression, which is sometimes natural, and sometimes morbid. When they are naturally suppressed, it is either in breeding women, or such as give suck; but that which is morbid, must be the subject of the following subject.

SECTION II. *Of the Suppression of the Monthly Courses.*

THE suppression of the terms, which is morbid, is an interception of that accustomed evacuation of blood which should come from the matrix every month, and which proceeds from the matter vitiated. The cause of this suppression is either internal or external: The internal cause is either instrumental or material, in the blood or in the womb. The blood may be faulty two ways, in quantity or quality; in quantity, when it is so consumed that there is no overplus left, as in vigores, and all virile women, who through their heat and strength of nature digest and consume all their best nourishment; but women of this constitution are rather to be accounted anthropophagæ, that is women eaters, than women breeders; because they consume one of the principles of generation, which gives a being to the world, i. e. the menstruous blood. The blood may also be consumed, and the terms stayed, by too much bleeding at the nose, and likewise by a flux of the hemorrhoids, or by a dysenteria, evacuations, chronical and continued diseases. But secondly, the matter may be vicious in quality, as if it be sanguineous phlegmatical, melancholic; each of these, if they offend in grossness, will cause an obstruction in the veins.

The womb also may be in fault divers ways; as by the narrowness of the veins and passages, by apothumes, tumours, ulcers, and by overmuch heat or cold, the one vitiating the action, and the other consuming the matter; also, by an evil composition of the uterine parts by the neck of the womb being turned aside; and sometimes, though but rarely, by a membrane or excrecence of flesh growing about the womb.

The external cause may be heat, or dryness of the air, immode-

late watching, great labour, violent motion, whereby the matter is so consumed, and the body is so exhausted, that there is no redundant blood remaining to be expelled; whence it is recorded of the Amazons, that being active, and always in motion, they had little or no monthly fluxes, it may also be caused from cold; and most frequently is so, making the blood vicious and gross, condensing and binding the passages, that it cannot flow forth. The signs of the disease are pains in the head, neck, back, and loins, with weariness of the whole body, but especially of the hips and legs, by reason of a confinement which the womb hath in those parts; if the suppression proceeds from cold, it causeth a heavy sluggish disposition, a pale colour, a slow pulse, the urine crude, waterish, and much in quantity, and no desire to copulation, the excrements of the guts being usually retained: but if it proceeds from heat, the signs are contrary. If it be natural, or caused by conception, it may be known by drinking water and honey after suppers, going to bed; for if after the taking it it causeth the woman to feel a bearing pain about the navel and lower parts of the belly, it is a sign she hath conceived, and the suppression is natural, if not, then it is vicious, and ought medicinally to be taken away, otherwise many dangerous diseases will follow, such as swoonings, faintings, intermission of pulse, obstructions, epilepsies, apoplexes, frenzies, melancholly, passions, &c. which makes it highly necessary to say something now of the cure.

The cure of this distemper must be by evacuation, for this suppression is a phlethorick effect, it will therefore be best in the midst of the menstrual period to open the liver vein: and for the reversal of the humour two days before the wonted evacuation, open the saphæna veins of both feet: and if the repletion be not great, apply cupping glasses to the legs and thighs, after letting blood, the humour must be prepared and made flexible with syrup of stæchus, horehound, hysoy, betony, maiden hair, of each one handful, make a decoction, and take thereof three ounces of syrup of mugwort, succory, maiden hair, mix each half an ounce; and after she comes out of the bath, let her drink it off. Then purge pil. de Agarick, Elephang, Coch; Fædit. Galen in this case commends Pilula de Hierâ cum caloquintida; for as they are proper to purge the humour offending, so they open the passage of the womb. If the stomach be overcharged, let her take a vomit, but let it be so prepared as to act both ways, lest the humours should be too much turned back by working only upwards; to which end, take trockisk of agarica two drachms, infuse them in three ounces of ox mel, in which dissolve benedict. laxat. half an ounce, and of the electuary diaph-

ram one scruple; and let her take it after the manner of a purge. When the humour has been thus purged, you may proceed to more proper and forcible remedies. Take extract of mugwort one scruple and a half, rinds of cassia, parsley seed, castor, of each a scruple; and with juice of smallage, after supper going to bed. Also, administer to the lower parts suffumigations of amber, unctions, inlections and incessions; make suffumigations of amber, galbanum, melanthum, bay-berries, mugwort, cinnamon, nutmegs, cloves, &c. Make pessaries of figs, and the leaves of mercury bruised, and rolled up with liat. Make injections of the decoction of mercury, betony, origin, mugwort and figs, and inject it into the womb by an instrument fit for that purpose. For unction, take ladant, oil of nishr, of each two drachms: oil of lillies, almonds, capers, camomile, of each half an ounce, and with wax make an unguent, with which let the place be anointed. Let the air be hot and dry, her sleep shorter than ordinary, let her use moderate exercise before meals, and let her meat and drink be attenuating.

### SECTION III. Of the overflowing of the monthly courses.

**T**HIS distemper is directly contrary to that of which I have spoken, in the foregoing section, and is no less dangerous than the other, and therefore requires to be spoken of next in order. This distemper is a sanguineous excrement, proceeding from the womb and exceeding in time and quality. I call it sanguineous, because there are two ways by which the blood flows forth, one is by the internal veins in the body of the womb, which is properly called the monthly flux; the other is, by those veins which are terminated in the neck of the matrix, which some physicians call the hemorrhoids of the womb; and that it exceeds in quantity, when they flow about three days; but this is the most certain sign of their excess in flowing, when they flow so long that the faculties of the body are thereby weakened; for in bodies abounding with gross humours, this immoderate flux does sometimes unburden nature of her load, and is not to be stopt without advice from a physician.

The cause of this immoderate flowing is either external or internal. The external cause may be the heat of the air, lifting and carrying heavy burdens, unnatural child-births, falls, &c. The internal cause may be threefold, in the matter, instrument or faculty: the matter, which is the blood, may be vicious two ways; first, in quantity being so much that the veins are not able to contain it: secondly, in quality, being adust, sharp, waterish, or unconnected. The instrument, viz. the veins are faulty by the dilation of the orifice, which may be caused two ways: first, by the heat of the constitution, climate, or season, heating the blood, whereby the passages are dilated, and the faculty weakened, that it cannot retain the blood: secondly, by falls, blows, violent motion, breaking of a vein, &c.

This inordinate flux may be known by the appetite being decayed, the concoction depraved, and all the actions of the body weakened; the feet swelled, the colour of the face changed, and a general feebleness possesseth the whole body. If it comes by the breaking of a vein, the body is sometimes cold, the blood flows forth on heaps, and that suddenly, with great pain: if it comes through heat, the orifice of the veins being dilated then there is little or no pain, yet the blood flows faster than it doth in a erosion; and not so fast as in a rupture. If by erosion, or sharpness of blood, she feels a great heat scalding the passage it differs from the other two, in that it flows not so suddenly, nor so copiously as they do. If it be by weakness of the womb, she has an aversion to copulation; if it proceeds from the blood, drop some

of it on a cloth, and when it is dry, you may judge of the quality by the colour; if it be choleric, it will be yellow, if melancholy, black, if phlegmatick, waterish and whitish.

The cure of this consists in three particulars. First, in repelling and carrying back the blood: secondly, in correcting and taking away the fluxibility of the matter: and thirdly, in corroborating the vein or faculties. For the first, to cause a regression of the blood, open a vein in her arm, and draw out so much blood as the strength of the patient will permit, and that not an ounce, but at several times, for thereby the spirits are less weakened, and the retraction so much the greater. Apply the cupping-glass to the liver, that the reversion may be in the fountain. To correct the fluxibility of the matter, cathartics moderated with astringents may be used. If it be caused by sharpness of blood, consider whether the corrosion be by salt phlegm, or adust cholera; if by salt phlegm, prepare with syrup of violets, wormwood, roses, citron peels, succory, &c. then take this purgation: Mirobolans, chervil, half an ounce, trochisks of agaric one drachm, with plantain water make a decoction, add thereto syr. rosar. lux. three ounces, and make a potion. If by an adust cholera, prepare the body with syrup of roses, myrtles, sorrel, purslain, mixed with water of plantain, knot-grass, and endive, then purge with this potion: Take rinds of mirobolans, rhubarb, of each one drachm, cinnamon fifteen grains, infuse them one night in endive water, add to it the strained pulp of tamarinds, cassia, of each half an ounce, syrup of roses one ounce, and make a potion. If the blood be waterish and unconnected, as it is in hydropical bodies, and flows forth by reason of the tenury, to draw off the water will be profitable, to which end purge with agaric, elaterium, and colocintida. Sweatings is also very proper in this case, for by it the matter offending is taken away, and the motion of the blood is carried to the outward parts. To procure sweat, use cardanum water with mithridate or the decoction of guaiacum, saffras, sansaparilla: gum of guaiacum does also greatly provoke sweat: and pills of sansaparilla, taken every night at going to bed, are worthily commended. If the blood flows forth from the opening or breaking of a vein, without any evil quality of itself, then ought corroboratives only to be applied, which is the thing to be done in this inordinate flux; bole armoniac one scruple, London treacle one drachm, old conserve of roses, half an ounce, with syrup of myrtles, make an electuary. Or, if the flux has continued long, take of mastich two drachms, olibani. tinct. de careble, of each one drachm, balanstium one scruple, make a powder; with syrup of quinces make it into pills, and take one always before meals.

#### SECTION IV. Of terms coming out of order, either before or after the usual time.

**B**OTH these shew an ill constitution of body. Every thing is beautiful in its order, in nature as well as in morality, and if the order of nature be broke, it shews the body to be out of order. Of each of these effects briefly.

When the monthly courses come before their time, it shews a depraved excretion that comes for the time often flowing sometimes twice a month: The cause why they come sooner is in the blood, which stirs up the expulsive faculty in the womb, or sometimes in the whole body, caused oftentimes by the person's diet, which increases the blood too much, makes it too sharp or too hot and if the retentive faculty of the womb be weak, and the expulsive faculty strong, and of a quick sense, it brings them forth the sooner, and sometimes they flow sooner by reason of a fall, stroke, or some violent

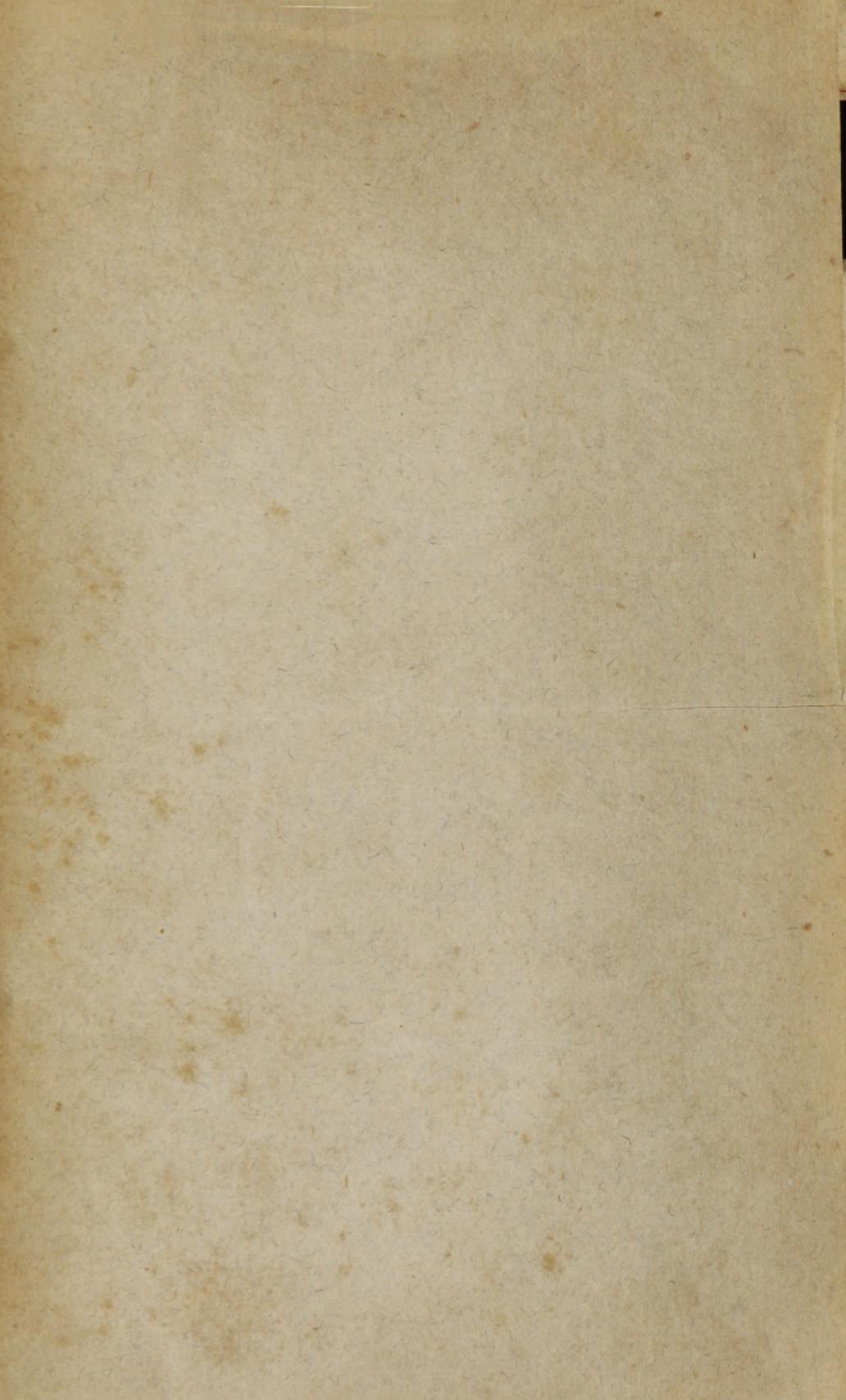
passion, which the parties themselves can best relate. If it be from heat, thin and sharp humours, it is known by the distemper of the whole body. The looseness of the vessels, and the weakness of the retentive faculty, is known from a moist and loose habit of body. It is more troublesome than dangerous, but hinders conception, and therefore the cure is necessary for all, but especially such as desire children. If it proceeds from sharp blood, let her temper it by a good diet and medicines; for which purpose let her use baths of iron water, that correct the distemper of the bowels, and then evacuate. If it proceeds from the retentive faculty, and looseness of the vessels, it is to be corrected with gentle astringents.

SECTION V. Of the false courses, or whites.

**T**HE whites or false courses are a foul excretion from the womb, for from the womb proceeds not only the menstruous blood, but accidentally many other excrements, which is a distillation of a variety of corrupt humours through the womb, flowing from the whole body, or part of the same; which though called the whites, are sometimes blue or green, or reddish, not flowing at a set time, or every month, but in a disorderly manner, sometimes longer, and sometimes shorter. It is different from the running of the reins, both less in quantity and whiter and thicker in quality, and coming at a great distance; it is different also from those night pollutions which is only in sleep, and doth proceed from the imagination of venery.

The cause of this distemper is either promiscuously in the whole body, by a cachochymia, 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 then the matter is reddish: sometimes in the gall, being remiss in its office, not drawing away those choleric superfluities which are engendered in the liver, and then the matter is yellowish: sometimes in the spleen, not defecating and cleansing the blood of the excrementitious parts, and then the matter flowing forth is blackish. It may also come from catarrhs in the head, and from any other putrid or corrupt member. But if the matter of the flux be white, the case is either in the stomach or reins. In the stomach, by a phlegmatical and crude matter there contracted and vitiated through grief, melancholy and other distempers; for otherwise, if the matter were only pituitous, and no ways corrupt or vitiated, being taken into the liver, it might be converted into blood; for phlegm in the ventricle is called nourishment half digested; but being corrupt, although it be sent into the liver, it cannot correct 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, still keeping the colour which it had in the ventricle. The cause also may be in the veins, being over heated, whereby the spermatical matter, by reason of its tenuity, flows forth. The external cause may be the moistness of the air, eating corrupt meats, anger, grief, slothfulness, immoderate sleeping, and costiveness.

Thus I have gone through the principal diseases peculiar to the female sex, and prescribed for each of them such remedies, as, with the divine blessing, will cure their distempers, confirm their health, and remove all those obstructions, which might otherwise prevent their bearing children: and I have brought it into so narrow a compass, that it might be of the more general use, being willing to put it into every one's power, that has occasion for it, to purchase this rich treasure at an easy rate.





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