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V—— S——, M. D.

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ARISTOTLE REDIVIVUS ;

OR,

CULPEPPER'S

COMPLETE AND EXPERIENCED

M I D W I F E.

In Two Parts.

- I. A GUIDE FOR CHILD-BEARING WOMEN, IN THE TIME OF THEIR CONCEPTION, BEARING AND SUCKLING THEIR CHILDREN; WITH THE BEST MEANS OF HELPING THEM, BOTH IN NATURAL AND UNNATURAL LABOURS:

Together with

Suitable Remedies for the various Indispositions of
NEW-BORN INFANTS.

- II. PROPER AND SAFE REMEDIES FOR THE CURING ALL THOSE DISTEMPERS THAT ARE INCIDENT TO THE FEMALE SEX; AND MORE ESPECIALLY THOSE THAT ARE ANY OBSTRUCTION TO THEIR BEARING OF CHILDREN.

A Work

*Far more perfect than any extant ; and highly necessary
for all Surgeons, Midwives, Nurses, and*
CHILD-BEARING WOMEN.

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TRANSLATED BY W—— S——, M. D.  
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TWELFTH EDITION.

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EDINBURGH :

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1816.

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TO THE

MIDWIVES.

IT is for your sakes, worthy Matrons, that I rendered this excellent Treatise of Midwifery into English ; and, therefore, to you it is most properly dedicated ; for though it be necessary to be known by all women, yet to you does the practical part thereof principally belong. And indeed the deficiency that I have seen in many, that pretend to your office, in the doing of their business, was the great, if not the only motive, that caused me to translate it. For though their ignorance advanced my practice, yet the regard I had to the saving the lives of so many persons as I saw every day in danger of perishing, by the committing themselves into the hands of unskilful Midwives, was much more than that of my own private advantage. And to remedy so great an evil was of far greater concernment than any private interest I could propose to myself. For when I saw how many persons took upon them that great and weighty employment

of Midwife, without any regard to their own qualifications and fitness for such a work, having an eye to nothing but their own gain, I could not but deplore the miserable state of mankind, whom I saw in so great danger of dying, almost before they were born. And that compassion that I had for mankind under such deplorable circumstances, put me upon considering how I might best remedy so great an evil. And that which most readily occurred to my thoughts, was to render into English the great ARISTOTLE's most elaborate Treatise on this subject, as being that which is most proper for the instruction of Midwives and Child-bearing women, which is done in a plain and familiar style, fitted to the meanest capacities; that thereby being fully instructed in their duty, they might perform their office with more reputation to themselves, and less danger to their patients. And this I was the rather inclined to do, because my own daily practice constantly informed me wherein the deficiency of many Midwives lay, and also brought me acquainted with many particular secrets relating to the safe and speedy delivery of travailing women. My business being generally when either the unskilfulness of the Midwife, or the hardness or difficulty of the woman's labour, rendered my assistance necessary, which must needs qualify me so much the better, for this understanding wherein I am now engaged. However it be, I have ventured upon it, and will perform it with the Divine assistance, as well as my ability will give me leave; for if I fail, it will be in power, and not in will;

and I hope all those that stand in need hereof, will follow our great exemplar so far, as to accept of the will for the deed. And to make this Treatise the more methodical, ARISTOTLE herein has not only treated of the delivery of women, when the time of their travail come, but also what shall be a guide to them and you, both in their conception, bearing and suckling of them. For it is necessary you should be able to direct them in all those things. And though this book will be a guide for all Child-bearing women into whose hands it will come, (and it were to be wished that every Child-bearing woman had one of them, for observing the rules he has here laid down, they would ease you of much trouble you have with them,) yet it cannot be expected, but that the most part must have their directions from you ; and I hope you are not ignorant, that upon women's well ordering themselves during the time they are bearing children, the preservation of themselves and children in a very great measure depends ; for how many are they, who for want of care herein, do ruin both themselves and children.

But were the rules that are here laid down, attended to, and put in practice, you need not have those difficulties to encounter with, which you so often find, and which make you so often stand in need of my assistance. For I must tell you, (though it be against my own interest,) that it is a disparagement to you, and reflects both upon your reputation and profession, when you cannot deliver

a woman without the help of a Man-Midwife. Which, though it may be for the safety of the travailing woman, is yet a discredit to you, who ought to be so accomplished, as to go through with the work you have undertaken, and to perfect it yourselves, is the design of this Treatise. For it is to your knowledge, care, and skill, that the well-being of a woman in labour is committed, and the life of every child you help to bring into the world, from the first moment that it draws its breath; and at your hand, if it miscarry through your want of skill, as well as care, shall it be required. Which, if duly considered, ought to deter all those from undertaking this noble office (which is no less than being the handmaid and fellow-helper of nature) in bringing into the world the chiefest of her works, (for such is man,) without they know themselves duly qualified for it. And it is no ordinary qualification will serve; for a Midwife ought to be as quick-sighted as ARGUS, and to have always all her wits about her, for when her books are at home, her business is abroad; and all the affections that can be in a woman, ought to be in a Midwife. And all the knowledge of GALEN and HIPPOCRATES in the art of Physic; for the office of a Midwife is not only to bring forth a child when it comes to the birth, but to know readily what to apply upon all occasions, according to the various exigents in which she finds the patient; for want of which knowledge, many women have made their child-bed their death-bed, who might otherways have recovered and done very well.

In the Second Part of this book, he has endeavoured to make the Midwife a skilful Physician, by treating of all those distempers incident to women, even from the cradle to the grave, that so she may know how to administer in all those various ills with which her patients may be affected ; and this he did the rather, because he knew, that such is the pudicity and bashfulness of many young women who happen to be affected with those distempers that are common to their sex, that they had rather die than discover them to the doctor, who yet at the same time will freely enough disclose them to a Midwife ; whom he has, therefore, in this Second Part, furnished with safe and proper remedies for all those distempers that are incident to the Female Sex, that she need not in any case be at a loss.

To conclude, therefore, as I began, though the theory of this book be very requisite to all women, yet the practical part being more particularly your province, I thought it most proper to make the Dedication to you ; and if you shall think fit to make trial of what is here written, you will find the rules here laid down, to be very plain, and very easy ; not so many, as to burden your memory, nor so few, as to be insufficient for every exigent and necessity. And if, in the faithful discharge of your office, you add diligence to your skill, and be as skilful to prevent evils before they come, as to provide for them when they are come, you will not only find the good effect of it while you live, but

*also the comfort of it when you come to die. Which
that you may do, is the earnest desire of,*

Your well-wisher,

W—— S——.

THE
COMPLETE AND EXPERIENCED
M I D W I F E.

PART I.

A GUIDE FOR CHILD-BEARING WOMEN, &c.

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 whatsoever 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 ; and is therefore the more to be depended upon. A Midwife is a most necessary and honourable 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 the instruments with which she works : for she that knows not the operations of nature, nor with what tools she works, must needs be at a loss how to assist her therein. And seeing the instruments of generation 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 therefore 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 other books of this nature are for the most part too much clogged, and which are more curious than needful. And though I shall 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 SOIT QUI MAL Y PENSE; or, Evil to him that evil thinks.

CHAPTER I.

AN ANATOMICAL DESCRIPTION OF THE INSTRUMENTS OF GENERATION BOTH IN MAN AND WOMAN.



SECTION I.

Of the parts of Generation in Man.

AS the generation of mankind is produced by the coition of both sexes, it necessarily follows, that the instruments of generation are of two sorts, viz. 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 honest and discreet Midwife may be well acquainted with their several parts, and the various operations as they contribute to the work of generation. And in doing this, I shall give the honour of precedence to my own sex, and speak first of the parts of generation in man, which will 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 that work. Whence you may note, that the liver is

the original of the 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 less 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 *Aske*, which is indeed the great trunk and original of all the arteries. But I will not trouble you with Greek derivation 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 intertexture or 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 any sensible hollowness. Their 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, that so the Stones may both have a fit matter to work upon, and do their work the more easily; for which reason this interweaving reacheth down to the very Stones, and pierceth into their substance.

3. The Stones are the third thing to be spoken of, called also Testicles; in Latin *Teste*, that is, a witness, 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 every 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 humours into them. Their form is oval, but most authors are of opinion that their business 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 then the Stones 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 heat, strength, and courage to the body; which is evident from this, that Eunuchs are neither 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 so called Spermatick 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 back-side 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 Cells, which somewhat resemble the cells of an honey-comb, which cells contain an only substance, for they draw the fatty substance from the seed, which they empty out into the Urinal Passage; which is done, for the most part, in the act of copula-

tion, 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 above declared, they fall into the *Glandulæ Prostatae*, which are the vessels by which nature ordained to keep the seed, and which are next to be spoken of.

5. The Seminal Vessels, called *Glandulæ Seminales*, 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 a spongy nature, from shedding their seed against their wills, this 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 subtle spirit, and especially being moved, will pass through this caruncle or skin, as quicksilver through leather ; and yet the pores of this skin are not discernable, unless in the anatomy of a man who had some violent running of 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 spoke 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 conveying 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 call *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 flaggy, but when it stands, it is stiff. This 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 *Carnas Membrana*, or fleshy skin, it is so called, not because its body is fleshy, but because it lies between the flesh, and passeth in other parts of the body underneath the fat, and sticks close to the muscle, 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 parts 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, though 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 reins and arteries. The black blood contained therein is very full of spirits, and the delights or desire of Venus, adds heat to these, which causeth the Yard to stand; and that is the reason that both venereal sights 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 the Moon (though colder and moister than she) will burn by night, as the Psalmist testifies, Psalm cxxi. 6. Now this hollow spongy intertexture 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 *Septum Lucidum*, 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 parts of the Yard is the Urethra, which is the passage or channel by which both the seed and urine is conveyed out through 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 up 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 distinguish 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 are they also called *Erectores* ; 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 *Erectores*; but the other two being longer and smaller, their office is to dilate the lower part of the Urethra, both for making water, and emitting the seed, upon which account they are called *Acceleratores*.

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 foreskin, 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 the 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 *Frænum*.

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 parts of the Yard; the arteries are admirably dispersed through 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 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 this 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 honest and industrious Midwife may the better know how to help them in their extremities.

SECTION II.

Describing the parts of Generation in Women.

WHATEVER ignorant persons may imagine, or some good women think, that are unwilling those private parts which nature has given them should be thus exposed, yet it is in this case absolutely necessary, for I do positively affirm, that it is 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 has 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.* 2d, *Of the Womb.* 3d, *Of the Testicles, or Stones.* 4th, *Of the Spermatick 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 spungy 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 these two lips are stretched asunder, and the entry of the privities a little opened.

2. When the lips are severed, the next thing appears is the *Nymphæ*, or wings; they are framed of soft and

spungy 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 *Clytoris*, which is a sinewy and hard body, full of spungy and black matter within, like the side ligaments 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 doth, 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, or any delight in it, nor conceives by it. And I have heard that some women have had their *Clytoris* so long, that they have abused other women therewith ; nay, some have gone so far, as to say that those persons who have been reported to be hermaphrodites, as having the genitals both of men and women, are only such women to whom the *Clytoris* 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 *Clytoris* is in any woman, the more lustful she is.

4. Under the *Clytoris*, 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 greater 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 *Clytoris* ; 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 *Nymphæ*, because they

govern the womens' water. Some women have these so great and long, that they have been necessitated to cut off so much as has 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 redish, plump, and round, but hang flagging when virginity is lost; in virgins they are joined together by a thin and sinewy skin or membrane, which is called the hymen, and keeps them in subjection, and makes them resemble a kind of rose-bud half blown. This disposition of the caruncles is the only certain mark of virginity, it being vain either to search for it elsewhere, or hope to be informed of it any other way. And it is 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 had children they are almost totally defeated 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 the mutual pleasure in the act of coition; for these 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, it is an undoubted sign of virginity, showing 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 defluction of sharp

humours, which sometimes happen to young virgins, because in them it is the thinnest. It may be also done by the unskilful applying of pessaries to provoke the terms, &c. But these things happen so rarely, that those virgins to whom it so happens, do therefore 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. It is of a membranous substance, fleshy without, skinny and very much wrinkled within; and that both because it may 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 circular; 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, or squeezing, or pressing, made by the yard in copulation, the pleasure may be mutually augmented. The external or outermost 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 both to the bladder and the right gut. 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 grisly.

2d. Having spoken of the privy passage, I come now to speak of the Womb, which the Latins call *Matrix*, yet the only English word is the womb. Its parts are

two; the mouth of the womb, and the bottom of it. The mouth is an orifice at the entrance into it, which may be both dilated and shut together like a purse; for although 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 of the point of a bodkin to enter. And yet again at the time of the woman's delivery, it is opened so extraordinarily, that the infant passeth through 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 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 it is distended, the thinner it must be, and the nearer a woman is to the time of her delivery, the more 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 begotten as there are, nor would many 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 they afterwards endure, and the hazard of their lives that often follow it. And this comes to pass, not so much from any inordinate lust in woman, as for that the great **DIRECTOR** of nature, for the increase and multiplication of mankind, and even of 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 load-stone draws iron.

The AUTHOR of nature has placed the womb in the woman's 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 lower part of the belly,) between the bladder and the *Rectum*, (or right gut,) by which also it is defended from receiving any hurt through the hardness of the bones; and is placed in the lower part of the belly for the convenience of copulation, and of the 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 had none: but in a woman of good stature, and well shaped, it is (as I have said before) from the entry of the privy parts to the bottom of womb, usually about eight inches; but the length of the body of the womb above, does not exceed three inches; and the breadth thereof is near about the same, and of the 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 her delivery, the more is the womb extended.

It is not without reason, then, that nature (or rather the GOD of nature) has made the womb of a membranous substance, for thereby it does not the easier open to conceive, and is gradually dilated for the growth of the *Fœtus*, or young one; and is afterwards contracted

and closed again, to thrust forth both it and the afterburden, and then to retire to its primitive state. Hence also it is enabled to expel any noxious humours, which may sometimes happen to be contained within 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 the ground proper to waken and excite their vegetative virtue; so likewise the seed of man, though potentially containing in it all the parts of a child, would never produce so admirable an effect, if it were not cast into that 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 part of its body; the outmost of which ariseth from the *Peritoneum*, or cawl, and is very thin, without smooth, but within unequal, that it may the better cleave to the other, which is indeed the most proper membrane of the womb, as it is more fleshy and thicker than any else we meet with in 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 waters caused during 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 two great a quantity, sweats through the substance of it, and distils as it were a 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 inserted 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. And 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 hath 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, it might often endanger abortion.

As touching the nerves they proceed from the brain, which furnishes all the inner part 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 same 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 yet 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 broad ligaments, because of their broad and membranous figure, and are nothing else but the production of the *Peritonæum*, which, growing out of the sides 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 will safely conduct the different vessels therein contained as the ejaculatories to the womb. The lowermost are called round ligaments, taking their original from the sides of the womb near the horns, from whence they pass to the groin, together with the production of the *Péritonæum*, which accompanies him through the rings or holes of the oblique and transverse 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 part of the thigh, and it is that which causes the numbness which women with child feel in their thighs. Those two ligaments are long, round and nervous, and pretty big in the beginning near the *Matrix*, hollow at 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 distension. 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 power 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 does every month by the evacuation of the blood, when a woman is not with child. And this 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.

III. 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 first, in place, as being within the belly, whereas in men they are without. Secondly, in figure, being uneven in women but smooth in men. Thirdly, in magnitude, being lesser in women than in men. Fourthly, they are not fixed in women by muscles but by ligaments. Fifthly, they have no *Prostates*, or kernels as men have. Sixthly, they differ in form, being depressed or flattish in women, but oval in men. Seventhly, they have but one skin, whereas men's have four, for the stones of men being more exposed, nature provided a covering for them accordingly. Eighthly, their substance is more soft than in men's. And ninthly, their temperature is colder than men's, and as they differ in all these respects, so do they also in their use, for they perform not the same actions as mens; as I shall shew presently. As for their seat, it is in the hollowness of the *Abdomen*, and therefore not externally pendulous, but rest upon the *Ova*, or egg. It is true, Galen and Hippocrates 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 im-

pregnated by the most spirituous particles or animating effluviūms conveyed out of the womb through the two tubes or different vessels. But, however, the stones in women are very usefu^l, for where they are defective generation work is at an end: for though those 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.

IV. 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 Miseraick Veins, are trained along this 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 the end, joining to the horn of the womb. Some authors by these affirm, that 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 these vessels, but that after the egg or eggs, in the *Ovaria* of testicles are impregnated by the seed of the man, they descend through those two vessels into the womb, where being placed, the *Embryo* is nourished. These vessels are shorter in women than 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, whereof the biggest only passeth through the testicles, the lesser to the womb, both for the nourishment of itself and the infant in it, I will only observe further, that these spermatic veins receive the arteries as they pass by the womb, and so there is a mixture between the vital and natural 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 which also the communion 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 to the womb straight, but wreathed with several turnings and windings, as was said of the spermatick vessels, that so the shortness of the way may be likewise resompened 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 judgment, I will here declare their several reasons for their different opinions, and so pass on.

SECTION III.

*Of the Difference between the ancient and 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, arguments on each side, and leave the judicious reader to judge for himself.

Though it is apparent, says the ancients, that the seed of the man is the principal, efficient and beginning action, motion and generation, yet that the woman affords seed, and contributes to the procreation of the child, is evident from hence, that the woman has seminal vessels, which had been given her in vain, had she wanted seminal excrescence, but since nature doth nothing in vain, it must be granted they were made for the use of seed and procreation, and fixed in their proper places to operate, and contribute virtue and efficacy to the seed; and this, say they, is further proved from hence, that if women at the years of maturity use not copulation to eject their seed, they often fall into strange diseases, as appears by young women and virgins, and also women are never better pleased than when they are often satisfied this way, which argues the pleasure and delight they take therein, which pleasure and delight, say they, is double in women to what it is in men; for as the delights of men in copulation consists chiefly in the emission of their seed, in women are delighted both in the 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 those of men, but indeed are an *Ovarium*, or receptacles for eggs, wherein these eggs are nourished by the sanguinary Vessels, dispersed through them, and from thence one or more, as they are fecunded by the man's seed, are conveyed into the womb by the oviducts. And the truth of this, say they, is so plain, that if you boil them, their liquor will have the same taste, colour and consistency, with the taste of bird-eggs, and if it be objected that they have no shells, the answer is easy, for the eggs of fowls while they are in the ovary, nay, after they are fallen into the *Uterus* they 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 but the womb to secure them.

They also further say, there are, in the generation of the *Fetus*, or young one, two principles, active and 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 thus; the most spirituous part of man's seed, in the act of copulation, reaching up to the *Ovarium*, or testicles of the woman, (which contain divers eggs, sometimes more, sometimes fewer,) impregnates one of them, which being conveyed by the oviducts to the bottom of the womb, presently begins to swell bigger and bigger, and drinks in the moisture that is plentifully sent thither, after the same manner that seeds in the ground suck the fertile moisture thereof, to make them sprout.

But notwithstanding what is here urged by our modern anatomist, there are some late writers of the opinion of the ancients; viz. that women both have 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 that they are sensible of the emission of their seed in those engagements, and that it is therein that a great part of the delight they take in that act consists; 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.

CHAPTER II.

OF CONCEPTION, WHAT IT IS ; THE SIGNS THEREOF ;
WHETHER CONCEIVED OF A MALE OR A FEMALE ;
AND HOW WOMEN ARE TO ORDER THEM-
SELVES AFTER CONCEPTION.



SECTION I.

What Conception is, and the Qualifications thereto.

CONCEPTION 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 true 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 ; viz. diversity of sex, congression, and emission of seed. Without diversity of sexes there can be no conception ; though some will have a woman to be an animal that can engender of herself, it is a great mistake : for 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 these 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 though it be necessary to conception, yet it wont do alone, there must 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 subtile 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, wherein a man had washed himself a little before, and spent his seed in it, which was drawn and sucked in by her womb, as she pretended, but stories as these are only fit to amuse them that know no better. Now, that those different sexes should be obliged to come to the touch, which we call copulation or coition, beside the natural desire of begetting their like, which stir 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 an ardent 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 way of coition to a woman, in regard of the uncleanness of the parts and of the action, and on the other side, if women did but think of those pains and inconveniences to which they are subjected 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 were affrighted from it. But neither sex make these reflections till after the action is over, considering of nothing beforehand 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. And all these must precede or go before conception, 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 without violence; and now the woman may be said to have conceived, being reduced by its heat from power to action: the several faculties with which are in the seed it contains, making use of the spirit 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, by 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.

There 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 ordinarily desirous of copulation, and hath taken more pleasure than usual therein, (which, upon recollection, she may easily know,) it is a true 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 has retired to make the 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 breasts are more clearly seen than they were wont to be, it is a sign of conception.

7. So it is also, if the tops of 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 has twining and griping pains, much like those of the cramp, in her belly, and about her 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 set up the night before. This sign has never failed.

10. Some also make this trial of conception. They stop the woman's urine close in a glass vial 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. This also is another easy trial. Let the woman that supposes she has conceived, take a green nettle

and put 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.

12. 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. for if a woman's body be in a good temper, the blood must needs be good, and that it is voided monthly, is because it offends in quantity, and not quality. For though 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. For as much as many that have been with child have had their terms, and some even till 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 very few general rules which do not sometimes admit of an exception. But this shall suffice to be spoken of the signs and prognostics of conception.



SECTION III.

Whether Conception be of a Male or Female.

AUTHORS give us several prognostics of this, though they are not all to be trusted to, 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 stir on her right side.

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

5. Her right nipple is redder than her 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 the circle under her eye, which is of a pale and bluish colour, and if that under her right eye be most apparent, and most discoloured, she has conceived of a son.

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

SECTION IV.

How a Woman ought to order herself after Conception.

MY design in this Treatise being brevity, I shall preter nit all that other's say of the causes of twins, and whether there be any such thing as superfœtation, or a second conception in a woman, which is common; and as to twins, I shall have occasion to speak of them, when I come to shew how the Midwife ought to proceed in the delivery of those women that 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 inconveniences 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, though in good health: for child-bearing is a kind of nine months sickness, being all that time in expectation of many inconveniences, which such a condition usually causes to those that are not well governed during that time; and therefore ought to resemble a good pilot, who, when sailing into 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 to prevent those accidents to which she is subject all the time of her pregnancy. All which time, her care must be double, first of herself, and secondly, of the child she goes with; for otherwise, a single error must 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 by being too hot, it dissipateth the spirits too much, and causeth many weaknesses ; 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 motion 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 to 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 advisable, that they may make use of those meats and drinks which are to them most desirable, though perhaps not in themselves so wholesome as some others, nor 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 a quantity as may be sufficient for herself and the child, which her appetite may in a great measure regulate ; for it is alike hurtful for her to fast too long, and to eat too much, and therefore 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 diaphragma, and thereby causes difficulty of breathing. Let her meat be easy of concoction, such as the tenderest parts of beef, mutton, veal, fowl,

pullets, eapons, pigeons, and partridges, either boiled or roasted, as he likes best. New laid eggs are also very good for her, and let her put in her broth those herbs that purify it, as sorrel, lettice, succury, and burrage, for they will purge and purify the blood. Let her avoid whatever 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 her 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 three last months is good for her. If at first her diet be sparing, as she increases in bigness, let her diet be also 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 rather be claret than white wine; (which will breed good blood, help the digestion, and comfort the stomach, which is always but weakly during her pregnancy;) but white whine 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 a violent motion, especially in her first months. 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.

As soon as a woman knows (or has reason to helieve) she has conceived, she ought to abstain from all violent motions and exercise, whether she walk on foot, or ride

on horseback, or in a coach, it ought to be very gently. Let her also abstain from venery, (to which, after conception, she has usually no great inclination,) lest there be a mole or superfœtation; which is the adding of one embryo to another. Let her beware she lift not her arms too high, nor carry great burdens, nor repose herself on hard and uneasy seats. Let her moderately use meat of good juice, and easy concoction, and let her 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 thing to her, nor 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 to have some deformity on that account. Let her belly be kept 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 horage, bugloss, and red roses, each two ounces; of balm an ounce; citron-peel, and shebs mirobolans candied, each an ounce; extract of wood aloes, a scruple; pearl prepared, half a dram; red coral and ivory, each a dram; precious stones, each a scruple; candied nutmegs, two drams: and with syrup of apples and quinces, make an electuary.

Let her use the following Rules.

Take pearls prepared, a dram; red coral prepared, and ivory, each half a dram; precious stones, each a scruple; yellow citron-peels, mace, cinnamon, and cloves, each half a dram; saffron, a scruple; wood aloes, half a scruple; ambergris, six drams; and with six ounces of sugar dissolved in rose water, make

ouls. Let her also apply to the Navel strengtheners. Of nutmegs, mace, mastich, made up in hags, or a toast dipped in malmsey, sprinkled with powder of mint. If she happens to desire clay, chalk or coals, (as many women with child do) give her beans boiled with sugar; and if she happens to long for any thing which she cannot obtain, let her presently drink a 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 sure, at other times it will not be so, till the end of the fourth month and yet if too much blood abound, or some incident disease happen, which requires evacuation, you may use cupping glasses, with scarrification, 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 straitly, but give herself more liberty than she uses to do, for by inclosing her belly in too strait 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 also you ought to keep the child-bearing woman from bleeding, unless on extraordinary cases; but when this month is already 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 an acute disease; 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, nor very bitter, as aloes, which is an enemy to the child, and opens the mouth of the vessels, nei-

ther let her use coloquintida, scammony, nor turbith ; but she may use cassia, manna, rhubarb, agarick and senna ; but dyacidonium purgans is best, with a little of the electuary of the juice of roses.

RULES FOR THE FIFTH, SIXTH, AND SEVENTH MONTHS.

In these 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, and from a thin part of that blood gotten into the veins of the breast, or falling 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 agarick, and strengthen the head as in a catarrh, and give sweet lenitives as in a cough.—Palpitation and fainting arises from vapours that go to it by the arteries, or from blood that aboundeth, and cannot get out at the womb, but ascends and oppreseth the heart, and in this case, cordials should be used both inwardly and outwardly.—Watching is from dry sharp vapours that trouble the animal spirits ; and 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 the loins and hips, as in these months she is subject to be from the weight of the 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 the 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 hu-

mours in the blood, that stir 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, rough, 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 the less, provided it flows by the veins of the neck of the womb, for then it prevents plethory, and takes not 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 her hard travail, or else she goes beyond her time. But if it flow by the inward veins of the womb, there is more danger by the openness of the womb than if it came from evil blood; the danger is alike from cacochymy, which is like to fall upon both. If it arise from plethory, open a vein, but with very great caution, and use astringents; of which, the following will do well: take pearls prepared, scruple; red coral, two scruples; mace and nutmegs, each a dram; cinnamon, half a dram; make a powder, or with sugar rouls. Or give this powder in broth: take red coral, a dram; pearl, half a dram; precious stones, each half a scruple; red sanders, half a dram; bole, a dram; sealed earth, tormentil roots, each two scruples; sugar of roses, manus christi, and with pearl, six drams, make a powder. You may strengthen the child at the travail: and if there be a cacochymy, alter the humours; and (if you may do it safely) evacuate. You may likewise use amulets in her hands, and about her neck. In flux of hemorrhoids, beware of the pain, and 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 meal, sodden with oil, or with the decoction of mallows, or marsh mallows; mercury and linseed put up in a lyster will not be amiss, but less than is given in other cases; viz. of the decoction, five ounces; of common oil, three ounces; of sugar, two ounces; of cassia fistula, one

●unce. 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 be distended and stretched out with wind, a little fennel-seed and anni-seed reduced into powder, and mingled with honey or sugar, and made after the manner of an electuary, will do very well. Also, if the thighs and feet swell, let them be anointed with oxphrodinum, (which is a liquid medicine made with vinegar and rose water,) mingled with a little salt.

RULES FOR THE EIGHTH MONTH.

The eighth month 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 the sharp humours alter the belly, are accustomed to weaken both their spirits and strength, they may well take before meat, an electuary of diarrhoden or aromaticum rosatum, or diamargariton; and sometimes they may lick a little honey: and they which loath and nauseate their meat, may take green ginger, candied with sugar, or the rhinds of citron and oranges candied. And let her often use honey for the strengthening of the infant. When she is not far from her labour, let her eat every day seven toasted figs before meat, and sometimes let her lick a little honey. But let her beware of salt and powdered meats, 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 weights, 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, lest thereby she give the child an occasion to turn herself; but let her lie with her face upwards, or upon her back; neither ought she to bend herself much, lest the child be unfolded in the umbilical ligaments, by which means it often perisheth. Let her walk and stir often, and let her exercise be rather to go upwards than downwards. Let her diet now especially be light, and of easy digestion; as damask prunes with sugar, or figs and raisins, before meat; and also the yolk of eggs, flesh, and broth of chickens, birds, partridges and pheasants; astringent and roasted meats, with rice, hard eggs, millet, and such like other things are very proper. Baths of sweet water, with emollient herbs, ought to be used by her this month with some intermission. And after the bath, let her belly be anointed with the oil of roses and violets. But for her privy parts, it is better to anoint them with the fat of hens, geese, or ducks; or with oil of lilies, and the decoction of linseed and fenigreek, boiled with oil of linseed and marsh mallows, or with the following liniment.

Take of mallows and marsh mallows, cut and shred, of each one ounce; of linseed, 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 flower-de-luce, of each one ounce; of deer suet, three ounces; let her bath with this, and anoint her with it warm.

If for fourteen days before the birth, she do every morning and evening bathe and moisten her belly with muscadine and lavender water, the child will be much strengthened thereby: and if every day she eat roasted bread, it will hinder any thing growing to the child. Her privy parts may be also gently stroaked down with this fomentation.

Take three ounces of linseed, of mallows and of marsh mallows sliced, of each one handful; let them be put into a bag and boiled moderately, and let the woman with child, every morning and evening take the vapour of this decoction in a hollow stool, and 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 begin to feel any more than ordinary pain, let her use every day the following bath.

Take mallows and marsh mallows, of each one handful; chamomile, herb mercury, maiden-hair, of each half a handful; of linseed, four ounces. Let these be boiled in 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 above 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 have I 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.

CHAPTER III.

OF THE PARTS PROPER TO A CHILD IN THE WOMB;
HOW IT IS FORMED THERE; AND THE MAN-
NER OF ITS SITUATION THEREIN.



IN the last chapter, I treated of conception, shewed what it was, how accomplished, its signs, and how she who had conceived ought to order herself during the time of her pregnancy. Now, before I come to 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, that she know how it is formed, and the manner of its situation or decumbiture there, which are so necessary to her. that without the knowledge thereof, 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 the Child in the Womb.

IN 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 to nourish it whilst it is lodged in that dark repository of nature, and that help to cloath and defend it there; and are cast away, as of no more use. after it is born: and these are two, viz. the Umbelicans, or Navel Vessels, and the Secundine.

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 Umbilicar, 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, till 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 the Chorion, (of which I shall speak by and by,) and are joined to the veins of the mother's womb, from whence they have their blood for the nourishment of the child. 2. The arteries are two on each side, which proceed from the iliac 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 bladder to the Allantois. Anatomists do very much vary in their opinions concerning this, some denying any such thing to be in the delivery of women ; and others, on the contrary, affirming it. But experience has testified there is such a thing ; for Bartholomew Carbrolius, the Ordinary Dissector of Anatomies to the College of Physicians, at Montpelier in France, records the history of a maid, whose water being a long time stopped, at last issued out through her navel. And Johannes Fernelius speaks of the same thing that happened to a man of thirty years of age, who having a stoppage in the neck of the bladder, his urine issued out at his navel many

months together, and that 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 Volcher Coites quotes such another instance, in a maid of thirty-four years of age, at Nuremberg in Germany. These instances, though they happen but seldom, are yet sufficient to prove, that there is such a thing as an Urachos in men. These four vessels before mentioned, viz. one vein, two arteries, and the Urachos, do join near 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. The vessels are thus joined together, that so they might 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 hole of the navel, and some other physical uses, &c.

Of the Secundine, or After-Birth.

Setting aside the names given to this by the Greeks and Latins, it is called in English by the names 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 the 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 Allantois

doth not. This skin is that which is most properly called the Secundine, and 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 hind up the root, and the veins and arteries, or navel vessels, before described.

3. The third thing which makes up the Secundine, is the Allantois, of which there is a great dispute among anatomists; some saying that there is such a thing, and others that there is not. Those that will have it 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 separated 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 the Amnios, 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 to the 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, sure, can be 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 a continual motion, and by their continual motion quicken the body. A Nerve is the same with a 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 Amnios is the inner skin, which compasseth the child in the womb. The Allantois is the skin that holds the urine of the child, during the time that it abides in the womb. The Urachos is the vessel that conveys the urine from the child in the womb to the Allantois.



SECTION II.

Of the Formation of the Child in the Womb.

To 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 generative 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 those that are more 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 thing that is formed is the Amnion, 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 womb 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 *Vertebræ*, or Chine Bones, and then the Skull, &c.

As to the time in which this curious part of nature's workmanship is complete, 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 virtues, make 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 or fleshy mass abound 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 fabric is come to some further maturity, is when the principal parts may be in some measure distinguished, and one may discern the liver, umbilical vein, 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 is required, though for what reason I know not; nor does it appear by the birth, for if the male receives its formation fifteth days sooner than the female, why should it not be born much sooner too? But as to that, every days experience shews us the contrary, for women go their full time of nine months both with males and females. But at this time of thirty days, (or as some will have it forty-five,) the outward part may be also seen exquisitely elaborated 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 its body, though small and very tender, yet entirely formed and figured, although no longer in the whole than one's little 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. And Hippocrates affirms, that the child sucks in both nourishment and breath by its mouth, for the mother, for which he gives two reasons. 1. That it will suck as soon as it is born, and therefore must have learned 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 a child will suck as soon as it is born, it is 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 do not stink ; 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 do affirm, that the child receives the nourishment in the womb, by the navel ; and that it should be so, is is much more consonant to truth and reason. Which being granted, it will easily follow, that the nourishment the child receives, is by pure blood conveyed into the liver by the navel vein ; which is a branch of the *Vena Porta*, or Gate Vein, and passeth to the small veins of the liver. Here this blood is made more pure, and the thicker and rawer part of it is conveyed to the spleen and kidneys, and the thick excrement 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 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 passages it is to run in; which as in men, is breathed out by sweating, and contained in the Amnios, 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 that 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 that the child lies in, 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, that the child is so placed in the womb, as to have his hands, and his knees, and his head, bent down towards his feet. in that he lies round together, his hands upon both his knees, and his face between them; so that each eye toucheth each thumb, and his nose betwixt his knees: and Bartholinus was also of the same opinion. Columbus describes the posture of the child thus: the right arm bowed, the fingers thereof 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 upward, the right of which are so lifted up, that the thigh toucheth the belly, the knees, and navel; the heel toucheth 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 breasts, the back lying outwards. And this much shall suffice touching the opinion of authors.

I will now shew the several situations of the child in the mother's womb, according to the different times of pregnancy; by which those that are contrary to nature, and are the chief cause of all ill LABOURS, will be the more easily conceived by the understanding MID-WIFE.

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 sometimes to appearance a woman's belly seems higher on the 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 is 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 so joined, that the heels touch the buttocks, the arms are bended, 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 resembles one sitting to ease nature, and stooping down to see what comes from him. The spine of his back is at that

time placed towards the mothers', the head uppermost, the face forwards, and the feet downwards; and proportionable to its growth, it extends its members by little and little, which were exactly folded in the first month.

In this posture it usually keeps till the seventh or eighth month, and then by a natural propensity and disposition of the upper parts of the body, the head is turned downwards towards the inward orifice of the womb, tumbling as it were over its head; so that then the feet are uppermost, and the face towards the mother's great gut. And thus 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 easier passage into the world, at the time of its mother's labour, which is not then far off; (and indeed, several children turn not all, until the very time of birth,) for in this posture all its joints are more 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 do 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 cross, and sometimes neither of them will come right.

But however the child may be situated in the womb,

• or in whatever posture 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.

CHAPTER IV.

A GUIDE FOR WOMEN IN TRAVAIL; SHEWING WHAT
IS TO BE DONE WHEN THEY FALL IN LABOUR,
IN ORDER TO THEIR DELIVERY.



THE end of all that we have been treating of, is the bringing forth a child into the world, with safety both to the mother and the infant; and the whole time of the 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, she labours under many difficulties, is subject to many distempers, and in continual danger from one effect 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 principle business of the Midwife; and to assist her therein, shall be the chief design of this chapter. The time of the child's being ready for the birth, when nature endeavours to cast it forth, is that which is properly the time of a woman's labour, nature then labouring to be eased of its burden. And since many child-bearing 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, which oft proves prejudicial and troublesome to them, when it is not so. 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.

The Signs of the true time of a Woman's Labour.

WHEN women with child, especially of their first, perceive any extraordinary pains in their belly, they immediately send for their Midwife, as taking it for their labour; and then if the Midwife be not a skilful and judicious woman, to know the time of her labour, but takes it for granted, without further inquiry, (for some such there are,) and so goes about to put her into labour, before nature is prepared for it, she may endanger the lives both of mother and child, by breaking the Amnios and Chorion. Those pains, which are often mistaken for labour, are usually caused by the cholick, and proceed from wind: which pains come and go griping the whole belly, without any forcing downwards, or into the womb, as is done by those that go before labour. These cholick pains are removed by warm clothes laid to the belly, and the application of a clyster or two by which those pains that precede a true labour, are rather furthered than hindered. There are also other pains incident to women in that condition, proceeding from a flux of 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 smooth 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 Glandules called *Prostate*, these are signs preceding labour ; but when she is perfectly 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 throws. 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 during these strong throws her respiration is intercepted, which causes the blood to have recourse to her face. Also her privy parts are swelled by the infants head lying in the birth, which, by often thrusting, causes the parts to distend outwards. She is much subject to vomiting, which is also a sign of good labour and speedy, though by ignorant women thought otherwise, 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 the cold, like the beginning of an ague fit, but with the heat of the whole body : though it must be granted this does not happen always. Also if the humours, which then flow from the womb, are discoloured with blood, it is that which the midwives usually call *Shows*, and is an infallible mark of the birth being near ; and if then the midwife puts up her finger 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 got 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 yet no shell, but are covered only with a simple membrane. After this, the pains still redoubling, the membranes are broken by the 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 *Al-lantois* being broken, (which contained those waters) by the pressing forward of the birth; the child is no better able to subsist long in the womb afterwards than a naked man is in a heap of snow; now these waters if the child come 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 break 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.



SECTION II.

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

WHEN it is known that the true time of her 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 throws 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 in some manner, with the finger, discover the part which presents, (as was said before,) especially if it be the head of the child, by its roundness and hardness; I say, 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 that 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, for it will be difficult for her to receive them afterwards. The benefit accruing hereby will be, that they 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 downwards, through the endeavours she makes when she is at stool. And in the meantime all other necessary things for her labour should be put in order, both for the midwife and the child. To this end some will 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 easily assisted as there is occasion.

If the woman abounds with blood, to bleed her a little may not be improper, for thereby she will both breath the better, and have her breasts more at liberty, and likewise more strength to bear down her pains, 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 delivery ; also, after 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 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 that they take her ; and let the midwife from time to time touch the inward orifice with her 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 oils, hog's grease and fresh butter, if she find they are too hard to be dilated : let the midwife be likewise 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 ; for when she changeth her groans into loud cries, it is a sign the child is very near the birth, for at that time her pains are greater and more frequent ; let the woman likewise by intervals, rest herself on her 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 her pains being stronger and frequenter, her labour will not be near so long.

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

When the waters of the child 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 off 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 thereby retard it; for if by the too hasty breaking of these waters, (which nature designed to cause the infant to slide forth the more easily) it remains dry, by which means the pains and throws of the labouring woman are less efficacious to bring forth the infant than they otherwise would have been. It is therefore much the better way to let the waters break off themselves, after which the midwife may easily 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 feel it round, big, hard and equal, but if it be 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 be delivered, if nature be not wanting to perform its office; and 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, bettony, featherfew boiled in white wine, and a draught of it drunk, 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 in sugar, and keep it by them all the year, to use when occasion calls for it. Mug-

wort, used in the same manner, is also good in this case, also a dram of cinnamon in powder, given inwardly, profits much in this case; and so does tansy bruised and applied to the privities, or in oil of it so made, and used as you were taught before. The stone *Ætites* held to the privities is of extraordinary virtues, and instantly draw away child and afterburden, but great care must be taken to remove it presently, or it will draw forth the womb too, for such is the magnetic virtue of this stone, that both child and womb follow it as readily as iron doth the loadstone, or as the loadstone doth the north star.

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

1. A decoction of white wine made in savoury, and drunk.

2 Take wild tansy or silver weed, bruise 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, bruise it, and press out the juice, and press 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 afterburden also. The juice of parsly is a thing of so great virtue, (especially stone parsly) that being drunk 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 a case; and so also is two or three drops of spirit of castorum, in any convenient liquor, also eight or nine drops of the spirit of myrrh, given in any convenient liquor, gives speedy deliverance.

6. Give a woman in such a case another woman's milk to drink, it will cause 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.

6. 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 in general, that all things that move the terms are good for making the delivery easy, such as myrrh, white amber in white wine or lily water, two scruples or a dram; or give a drop of oil of amber in vervain water, or cassia lignea, dittany, each a dram. Cinnamon hair a dram, saffron a scruple, give a dram; or, take borax mineral a dram, cassia lignea a scruple,

saffron six grains, and give it in sack; or, take cassia lignea a dram; dittany, amber, of each half a dram; cinnamon, and borax, each a dram and a half, saffron a scruple, and give her half a dram. Or give her some drops of the oil of hazel in 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, 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 labdanum two drams, storax, calaminte, herzoin, each half a dram, musk, anibergrease, 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 orris make a pessary.

An Ointment for the Navel.

Take oil of keir two ounces, juice of savin an ounce, of leeks and mercury each half an ounce, hoil 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 scruple, 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, alkermes. Diamose, diamarg. These things may be applied to help nature in the delivery, when the child comes the right way, and yet the birth is retarded. But if she find, the child come the wrong way, and that 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 to both 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 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.

CHAPTER V.

OF NATURAL LABOUR, WHAT IT IS, AND WHAT
THE MIDWIFE IS TO DO IN SUCH A
LABOUR.



SECTION I.

What Natural Labour is.

THERE are four things requisite to denominate woman's labour natural. The first is, that it be at the full time, for if a woman come before her time it cannot properly be called 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 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, it follows that it must be unnatural, and the event proves it so too often, making that which should be a time of life, the death both of the mother and child.

Having thus told you what I mean by natural labour, I shall next shew you how the Midwife is to proceed therein, in order to the woman's delivery. When all the foregoing requisites concur, and after the waters be

broke of themselves, let the labouring woman be conducted to a pallet-bed, provided near the fire for that purpose, as have been already said; and let there rather be a quilt laid upon the pallet-bedstead, than a feather-bed, having thereon linen and clothes 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 be 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 otherways, 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 more liberty to retire back; and let her feet be staid against some firm thing. 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 when going 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 meantime, let the Midwife endeavour to comfort her all she can, exhorting her to bear her labour courageously, telling her it will be quickly over, and

that there is no fear but that she will have a speedy delivery. Let the Midwife also, having no rings on her hand, anoint it with oil of fresh butter, and therewith dilate gently the inward orifice of the womb, putting her fingers 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 these 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 extremity begins to appear without the privy passage, they then say, "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 laceration which at sometimes 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 fingers 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 after-burden 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 strings: 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 forth straight, but shaking it a little from one side to the other, that the shoulders may the sooner and easier take the place; immediately after it be past, which must be done without losing any time, lest the head being past, the child be stopt 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 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 waters which follow immediately should do it any injury, by running into its mouth and nose, as it would do if it lay on the back, and so endanger the choking 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 no 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 to the entry of the womb, and finds there another water gathering, and a child in it presenting to the passage; and if she finds it so, she must have a care of going about to fetch 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 double, and fasten the

other end 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 were to the first. After which, it will be necessary to fetch away the after-birth or births. But of that I shall treat in another section ; and first shew what is to be done to the new-born infant.

SECTION II.

Of the Cutting of the Child's Navel-string.

THOUGH this is by many accounted but a trifle, yet great care is to be taken about it ; and it shews none of the least art and skill of a Midwife to do it as it should be. And that it may be so done, 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 part of the Amnios upon its head, and is what the good women call the Caul, and ignorantly attribute some extraordinary virtue to the child that is so born. But this opinion is only the effect of their ignorance ; for when a child is born with such a crown (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. The vital and natural spirits being communicated by the mother to the child, by its navel-string. But if the child be strong, that operation is needless. Only let me advertise you, that many children that are born seemingly dead, may soon be brought to life again, if you squeeze out six or seven drops of blood, out of that part of the navel-string which is cut off, and give to the child inwardly.

As to the place in which it should be cut, that is, whether it should be cut long or short, it is that which Authors can scarce agree in, and which many Midwives quarrel about; some prescribing it to be cut at four fingers breadth, which is at the 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 that's the reason that Midwives are generally so kind to their own sex, that they leave a longer part of the navel-string of a male, than of a female; because they would have all the males well provided for the encounters of Venus. And that reason they give why they cut that of 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 altogether of the opinion of these Midwives; and, therefore, he orders the navel-string to be cut long both in male and female children; for which he gives this reason, that the instruments of generation follow 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 go about to contradict this opinion of Mizaldus, because he was a great searcher into the mysteries of nature; and for that reason, I will acquaint you with two things more out 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 nor 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 it both 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 times 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 a readiness before the woman's labour, (as also a good pair of scissars, that so no time may be lost) let her tie the string within an inch of the belly with a double knot, and 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 off the navel another inch below the ligature, towards the after-birth, so that there remains only but 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 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 do, new knots must be made with the rest of the string. You need not fear to bind the navel-string very hard, because it is void of sense, and that part of it which you leave on, falls off of its own accord in a very few days, ordinarily six or seven, and sometimes sooner, but rarely tarries longer than the eighth or ninth. When you have thus cut the navel-string

take care that 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 consequent, or what follows the 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 hard enough. If the lint or cotton you apply to it be dipt in oil of roses, it will be the better; then, having put another small rag three or four times double upon the belly of the child, above the navel, lay the string so wrapped upon it, that it may not touch the naked belly. Upon the top of all, put another small bolster, and then swath it with a linen swath, four fingers broad, to keep it steady, lest by toiling too much, or by 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 a burnt rag to it, which we commonly call tinder; but I would rather advise them to put a little bole armoniac to it, because of its drying quality. But this shall suffice to be spoken, as to the cutting of the navel-string.



SECTION III.

How to bring away the After-Burden.

A WOMAN cannot be said to be safely delivered, though the child be born, till the After-Burden be also 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 away safely, 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, having taken the string, 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, and resting all 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 special care must be taken, that it be not drawn forth with too much violence, lest, by breaking the string near the burden, the Midwife be obliged to put up the whole hand into the womb to deliver the woman; and she had need be a very skilful person that undertakes it, lest the womb, to which that burden is sometimes very strongly fastened, be not drawn away 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 made use of in bringing away the birth; for the same care and circumspection is needful now, that was then.

2. Consider that 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-broth, also a little wine and toast in it, and other comforting things, will be very necessary.

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

4. Tansy, and the stone ætitis, 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 with the juice of it, which you may do by adding to it its double weight of sugar, (having clarified the juice before you boil it) and a spoonful or two of that given to the woman, is very efficacious to bring away the secundine ; and featherfew and mugwort have the same operation, taken as the former.

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

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

8. Which is all I shall add 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 both birth and after-birth ; but special care must be taken to remove it as soon as they are come away, lest by longer tarrying, it should draw away the womb also. But thus much shall suffice to be spoken of bringing away the after-burden, in all natural labours.

SECTION IV.

Of Laborious and Difficult Labours, and how the Midwife is to proceed therein.

TO 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, besides those extraordinary pains, it is generally attended with some unhappy accident, which, by retarding the birth, causes the difficulty; and those difficulties being removed, accelerates the birth, and hastens 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 stretcheth the nerves, and from thence comes the pain. And therefore, the reason why some women have more pain in their labours 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 to remove these difficulties that occasion such hard pain and labour, as I am here to treat of, is to show from whence they proceed; for the cause of any distemper being known, it is as

much as half the cure. Now the difficulties of labour proceed either from the mother, or child, or both. From the mother, by reason of the indisposition of her body, or it may be from some particular part only, and chiefly the womb. As, when the womb is weak, and the mother is not active to expel its burden; or from weakness, or diseases, 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 may be too young, and so may have the passages too strait; or too old, and then, if it be her first child, because her parts are too dry and hard, and cannot be easily dilated, as happens also to them which are too lean. Like those who are either small, short, or misshappen, or crooked women, who have not a breast strong enough to help their pains, and to bear them down; and persons that are crooked have 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 make labour very troublesome, by hindering the true pains; as when the woman is taken with a violent fever, a 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 piles. 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 both mother and child; or when the passages are not slippery, by reason of the waters having broke so soon; or of the membranes being too thin. The womb may be also out of order, with respect to its bad situation or conformation, having its neck too strait, hard, callous, which may either be so naturally, or may come by ac-

cident, being many times caused by a tumour, apostume, 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 it cannot break the membranes; or if it be big all over, or in the head only, as if the navel-vessels are twisted about its neck; when the belly is hydropical, 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 two more. And to all these various difficulties there is oftentimes one more; that is, the ignorance of the Midwife, who, for want of understanding her business, hinders nature in her work, instead of helping her.

Having thus looked into the causes of hard labour, I will now shew the industrious Midwife how she may minister some relief to the labouring woman, under these difficult circumstances. But it will require understanding and judgment in the Midwife, when she finds a woman in difficult labour, to know the particular obstructions or cause thereof, that so a suitable 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, hog's 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 peritoneum breaks with the skin, from the privities to the fundament. But if a woman be in years of her first child, let her lower parts be anointed to mollify the inward orifice, which, in such a case, being more hard and callous, does 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 their womb, (which as I have said, is a little callous) are born with great

bumps and bruises on their heads. Those women that are very small and misshapen should not be put to bed, at least till their waters are broke, but rather kept upright, and assisted to walk about the chamber, by being supported under the arms; for by that means, they will breathe more freely, and mend 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 compressed 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 endure 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 flood or have convulsions, she must then be helped by a speedy delivery, the operation of which 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 useless pains, because such as bear not downwards, and so help not forward the birth. If she finds an obstruction or stoppage of urine, by reason the womb bears too much on the bladder, let her lift up her belly a little with her hands, and try if by that she receives any benefit: if she finds she does not, it will be necessary to introduce a catheter into her bladder, and thereby draw forth her urine.

If the difficulty be from the ill posture of the 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 it be by a vicious conformation, having the neck too hard, too callous, and too strait, it must be anointed with oils and ointments. If the membranes be so strong, as that the waters do not break in due time, they may be broken with the fingers, if the Midwife be first well assured that the child be come very forward into the passage, and ready to follow presently after: or else by the breaking of these 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 fomentation, 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 a 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 thereto very strongly. If the navel-string happen to come first, it must presently be put up again, and kept up 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 any means; for the infant having no further occasion for 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 draw forth the child with all possible speed, lest it be suffocated.

Some women there are who protract their delivery,

by reason of their shamefacedness or modesty, as not willing that their private members should be exposed to the view of some persons that may at that time be there; and in such a case, the persons who are the cause thereof, must be desired to quit the room. Others protract the birth, by reason of their timidity and extreme fear of some further pain than what she at present feels: such must be advised, that it is the will of the Author of our Beings that it should be so, and that her fears are beyond what she will feel, and that others have gone through greater pains than she is like to have; such comfortable words being oftentimes a great support to the labouring woman. If she be melancholy, (for sometimes difficult labour arises from thence,) endeavour by all means to make her cheerful, and encourage her to believe, that all will soon be over, and that she shall have such a child as she desires: that her sorrows will be soon turned into joy, and that she is in no danger, especially when danger is not very evident.



SECTION V.

Of Women Labouring of 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, that the child is dead indeed; which may be known by these signs:

1. The breast suddenly slacks, and falls flat, or bags down.
2. A great coldness possesses the belly of the mother, especially about the navel.

3. Her urine is thick, with a filthy stinking settling at the bottom.

4. No motion of a child can be perceived, for the trial whereof, let the Midwife wet 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 swags that way like a lump of lead.

By these things carefully observed, the Midwife may make a judgment whether the child be alive or dead ; especially if the child-bearing woman take the following prescriptions :

Take half a pint of white wine and burn it, and add thereto half an ounce of cinnamon, but no other spice whatsoever ; 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 weak or sick, but not dead ; and this which will bring her pains upon her if it be dead, will refresh the child and give her ease, if it be living. 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 further her delivery, because a dead child can be no ways helpful therein. It will be necessary, therefore, that she take some comfort-

table 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 at least as many as you can get,) viz. dittany, betony, pennyroyal, sage, featherfew, centaury, ivy leaves, and berries. Let her also take sweet basil in powder, half a dram at a time, in white wine. Let her privities be also 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 grow up to 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, before you boil it, and let it remain a month together, it will be more effectual. This an industrious Midwife, who would be prepared against all events, 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 commend the stone *Ælitis*, held near the privities, whose magnetic virtue renders it exceeding necessary on this occasion, for it draws the child any way, with the same facility as the loadstone draws iron.

Let the Midwife also make a strong decoction of hyssop water, and let the woman drink it very hot, and it will in a little time bring away the dead child.

As soon as she is delivered of the dead child, you are in doubt that part of the after-birth be left behind in her body, (for in such cases as these, many times it is rotten, and comes away by piecemeal,) let her continue drinking the same decoction till her body be cleansed.

A decoction made of the herb masterwort, used as you did the decoction of hyssop, works the same effect: let the Midwife also take roots of polipodium, and stamp

them very well; warm them a little, and bind them on the sides of her feet, and it will soon bring away the child either alive or dead.

The following medicines likewise are such as stir up 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, and castor, each a dram; cinnamon, half an ounce; saffron, a scruple; give a dram with savin water.

Or, take borax, savin, dittany, each an ounce; myrrh, asarum 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, hens and goose grease. All foment, to get out the child, with a decoction of mercury, orris, wild cucumbers, and broomflowers. Then anoint the privities and loins with ointment of sowbread.

Or, take collquintida, agaric, birthwort, each a dram; make a powder, add armeniacum dissolved in wine; ox gall, each two drams; with oil of keir make an ointment.

Or, this pessary: Take birthwort, orris, black hel-lebore, colloquintida, myrrh, each a dram; powdered ammoniacum dissolved in wine; ox gall, each two drams. Or, make a fume with asses' hoof burned, or galbanum, 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, wormwood, myrtles, 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 the belly.

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

CHAPTER VI.

OF NATURAL LABOUR, AND WHAT IS TO BE DONE THEREIN.

IN shewing the Duty of a Midwife, when the child-bearing woman's labour is unnatural, it will be requisite to shew in the first place, what I mean by unnatural labour; for, for women to bring forth children in pain and sorrow is natural and common to all. Therefore, 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 it is in this case, there is but one proper, right and natural way or posture, in which children come to the birth, but there are as many wrong and unnatural ways of birth as there are different postures of children when they 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 brow comes first, so that the body follow not in a straight line, it is a wrong and difficult birth, even though the head come first. Therefore, if the child comes with its feet, or with the sides cross, it is quite contrary to nature, or to speak more plainly, that which I call unnatural. Now there are four general ways that a child may come wrong. The first is, when any of the fore part of the body first present themselves. Secondly, when by an unhappy transposition, any of the hinder parts first present themselves. Thirdly, when either of the sides, or Fourth-

ly, the feet presents themselves first. To these four, all the particular wrong postures that a child can present itself in for the birth may be reduced ; and therefore I shall confine myself herein to treat only of these four more general wrong postures.



SECTION I.

How to deliver a Woman of a Dead Child by a Manual Operation.

THE last section of the last chapter was about the delivering of a woman with a dead child, wherein 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 to which 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 way left to the saving of her's, let him also tell her for her encouragement, that he doubts not, with the Divine blessing, to deliver her safely, and the pain rising thereby will not be so great as she fears. And then let him stir up the woman's pains, by giving her some sharp and strong Clysters, to excite her throes to bear down and bring forth the child. And if this prevails not, let him proceed with his manual operation.

First, therefore, 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 so by a couple of strong persons ; there must

be others to support her under her arms, that her 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 with respect to the assistants, and also to prevent her catching cold; the operator herein governing himself, as well with respect to his own convenience, and the facility and surety of the operation, as to the other things. Then let him anoint the entrance of the womb with oil or fresh butter, if it be necessary, that so he may the more easily introduce his hand, which also must be anointed, and having by the signs before mentioned, received satisfaction that it is a dead child, he must do his endeavour to fetch it away as soon as possibly he can; 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, and that it be not separated from the body, which may be effected the more easily, because the child being 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 Section third of this chapter, for that purpose. But when the head coming first is so far advanced that it cannot be well 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 cannot take hold of it with his fingers by reason of its moisture, nor put them up 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, (for if the child be dead before there can be no danger in the operation) let him fasten it there, giving it good hold upon one of the bones of the skull, that it may not slide: and, after it is well fixed in the head, 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 wagging it by little and little, to conduct it directly out of the passage until the head be quite born; and then taking hold of it by the hands only, the shoulders may be drawn into the passage, and so sliding the fingers of both hands under the arm-pits, the child may be quite delivered, and then the afterburden fetched, to finish the operation, being careful not to pluck the navel string too hard, lest it break, as it often happens when it is corrupted.

If the dead child comes with the arm up to the shoulders so extremely swelled that the woman must suffer too great a violence to have it put back, it is then, (being first well assured that the child is dead) best to take it off at the shoulder joint, by twisting it two or three 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 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 that there is no other remedy to prevent the woman's danger, or to bring forth the child any other way, and the judicious ope-

rator will choose 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.

THERE 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 of the bad labours and ill accidents that happen unto women in such a condition.

And since Midwives are very often obliged, because of these 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 it is the advice of several authors to change the figure, and place the head so that it may present the birth; and this counsel 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 would avoid the dangers that by such violent agitations both the mother and 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 the womb is o-

pen enough to admit the midwife's or operator's hand into it, or else by anointing the passages with oil and hog's grease, to endeavour to dilate it by degrees, using her fingers to this purpose, spreading the one from the other, then taking care that her nails are well pared and no rings on her fingers, and her hands well anointed with oil and 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 her draw it forth in the manner I shall presently direct; only let her first see whether it presents one foot or both; and if but one foot she ought to consider whether it be 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 pull 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 consequences, for she may sooner split both mother and children 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 waist, and there find both thighs joined together, depending from one and the same body; and this is also the best means to find the other foot, when it comes but with 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, in this manner, taking afterwards hold of the legs and thighs as soon as she can come to them, drawing them 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 very slippery in consequence of the viscous 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 as to draw it forth to the beginning of the breast, and then let her on both sides with her hands bring down the arms along the child's body, which she may then easily find, and 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 share bone, and therefore if it be not so she 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, desiring the woman at the same time to bear down, that so in drawing the head at that same instant, may take its place, and not 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 take all the care possible to prevent. And when this happens, she must not only endeavour to draw forth the child by the shoulders, lest she sometimes separate the body from the head, as I have known it done by a Midwife; but she must disengage it by little and little from the bones in the passage with the fingers of each hand, sliding them on each side the one opposite to the other, sometimes above and sometimes under, until the work be ended, endeavouring to despatch 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 afterbirth, 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.

Though the utmost care be taken in bringing away the child by the feet, yet if the child happen to be dead, it is so putrified 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 for 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 taken. And so great many times 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, perished. To prevent which fatal accidents for the time to come, let the following operation be observed.

When the infant's head, separated from its body, is left alone behind, whether through putrification or otherwise, let the operator immediately, without any delay, whilst the womb is yet open, direct up his right hand to the mouth of this head, (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 drag 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 narrow 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 sutures, as he finds most 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 is also another way to effect this, with more ease and less hazard than the former; which is this: Let the operator take a soft fillet, or a linen slip, of about four finger's 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 him 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 drawing the fillet by the two ends together, it will easily be 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 afterburden, if yet remaining.

Some have questioned whether the child's head, yet remaining in the womb, and the afterbirth too, which ought to be brought away first? The answer to which question must 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 also hinders the taking hold of the head; but if it

still be adhering 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 joined 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 avoided; and then it doth by contracting and compressing itself together, as hath been more fully before explained. Besides the afterbirth remaining thus cleaving on 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.

THOUGH some may think it a natural labour when the child's head comes first, but yet if the child's head presents not the right way even that is an unnatural labour; and therefore though the head comes first, yet if it be the side of the head instead of the crown, for the child may sooner break its neck than be born in that manner, and by how much the woman's pains continue to bear the child, which is impossible, unless the head be rightly placed, the more the passages are stopped: therefore, as soon as the position of the child is known, the woman must be laid with all speed, lest the child should advance farther to this vicious posture, and thereby 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 engaged that it cannot be done that way, he must then put his hand up to its shoulders, that so by thrusting them back a little in 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 up as far as necessary ; after which let him excite and 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 very difficult that a child should be born ; and, if he continue so long, the face will be so swelled, and withal black and blue, that it will, at first sight seem monstrous, which is occasioned as well by the compression of it in that place, as by the Midwife's fingers handling it too rudely, 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 this 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 very gently, to avoid as much as possible the bruising of the face.

SECTION V.

How to deliver a Woman when the Child presents one or both hands together with the head.

SOMETIMES an infant will present some other part together with his head, which if he 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 styled unnatural. When the child presents that, 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 with her head a little lower than her hips, must put and guide back the infant's head 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 straight line and then proceed as in the foregoing Section.



SECTION VI.

How a Woman is to be delivered when the Hands and Feet of the Infant come together.

THERE are none but will readily grant, that where 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 case,

therefore, when the Midwife guides her hand towards the orifice of the womb, she will perceive only many figures close together, and if it be not sufficiently dilated, it will be a guard 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 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 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 raised a little higher than 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 his hands. For in that the feet must be searched a great way off, and 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 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 alone 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 to bring the head first ; but these that have thus written are such as never understood the practical part. For if they have had the least experience herein, they would know that

is very often impossible, at least if it were to be done, that violence must be used in doing it, that it 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 to try to put it into a natural posture, and place the head foremost, for the great endeavours often 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 work of nature; for usually the woman hath no throws, nor pains fit for labour after she hath 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 rules already given, a skilful artist will know how to proceed to any other posture in which the child shall present itself.

SECTION VII.

How a Woman is to be delivered that has Twins, which present themselves in different postures.

WE have already spoken something of the birth of twins in the chapter of natural 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 different postures they come properly under the denomination of unnatural labour. And if, when the child presents itself in a wrong figure, it makes the labour dangerous and unnatural, it must make it much more so when there are several; it renders it not only more painful to the mother and children, but to the operator also, for they are then so constrained and pressed, that they often trouble each other, and hinder both their births; besides which the womb is so filled with them, that the operator can hardly introduce his hand, without much violence, which he must do, if they are to be turned or thrust back again, to give them a proper 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, and that many times the Midwife knows not that there are twins, till the first is born, and that she is going to bring away the after-birth. In the fifth 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 natural labours, it only remains that I shew what ought to be done, when either they have 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 forwards, in some worse posture. In such a case the birth 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 hath been already tired and weakened by the death of the first, as well as the 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 is born naturally, the second should likewise offer its head to the birth, it would then be best leaving nature to finish what she has well begun; and if nature 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: if the woman being properly placed, as has been before directed, let the operator direct his hand gently to the womb to find the feet, and so draw forth this 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 this second child be not broke, as it oftens 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 the child is left to the operation of nature, it is necessary the waters should break of themselves, yet when a child is brought out of the womb part, there is no danger of breaking 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 be not deceived, when either the hands or feet of both children, offer themselves together to the birth; in this case he ought well to consider the operation, as whether they be not joined together, or any ways monstrous; and which part belongs to the 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 both 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 the passage, and taking aside two of the forwardest, to right and left, and sliding his hand along the legs and thighs up to the twist, if forwards, or to 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 regard which is strongest or weakest, bigger or less, living or dead; having first put a little aside that part of the other child, which offers to have the more way, and so dispatch the first, whenever 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 the feet first; and not fetch the burden till the second child be 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; afterwards bring away the after-burden with the two strings, as hath been before shewed. If the children present any other part than the feet, the operator must follow the same method as is directed in the foregoing sections, where the several unnatural positions are fully treated of.

CHAPTER VII.

DIRECTIONS FOR CHILD-BEARING WOMEN IN THEIR LYING-IN.

IN 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.

Shewing how a Woman newly delivered ought to be Ordered.

AS soon as she is laid in her bed, let her be placed in it conveniently for her ease and rest, which she stands in great need of to recover herself from the great fatigue she underwent during her travel; and, that she may lie the more easily, 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 clod, which, being retained, causes very great pain.

Having thus placed her in her bed, let her drink a draught of burnt white wine, when you have first melted therein a drachm of spermaceti. The herb *Wervain* 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 her more good in two days than any thing else you can give her will do in two weeks, having no offensive taste, though very pleasing virtues. And this is no more than what she stands in need of, for her lower parts being greatly distended by the birth of the infant, it is good to endeavour the prevention of an inflammation there. Let there be also outwardly applied all over the bottom of the belly and privities, the following anadine or cataplasm: take two ounces of sweet almonds, with 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 poultis, which being spread upon a cloth, must be applied to those parts indifferently warm; having first taken away the clothes, (which were put to her presently after her delivery) and likewise such clods of blood as were there left, let this lie on five or six hours, and then renew it again as you see cause.

Great care must 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 get into the womb, it increases the after-pains, causeth swelling in the womb, and hurts the nerves. As to her diet, let it be hot, and let her eat but little at a time. Let her avoid the light for the three first days, and longer, if she be weak; for her labour weakens her eyes exceedingly, by a harmony between the womb and them. Let her also avoid great noises, sadness, and trouble of mind.

If the womb be foul, which may be easily perceived by the impurity of the blood, (which then will either come away in clots, or stinking) or if you suspect any

of the after-burden to be left behind, (which may sometimes happen, though the Midwife be ever so able and careful) make her a drink of featherfew, stingingwort, pennyroyal, and mother of thyme, boiled in white wine, and 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 meats and drinks; for it is a great strengthener of 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 her a clyster, made only of the decoction of mallows, and a little brown sugar.

When she has lain in a week, or something more, let her use such things as close the womb, of which kentgrass and camphory are very good, and to them you may add a little polipodium, for it will do her good, both leaves and roots being bruised.



SECTION II.

How to remedy those Accidents to which a Lying-in Woman is subjected.

1. The first most common and usual accident that troubles women in their lying-in, is after-pains, about the cause whereof physicians make no small stir, some affirming one thing to be the cause, and some another: but it is most certain that they proceed from cold and

wind contained in the bowels, with which they are easily filled after labour, because then 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 as well in them as in the stomach, have been so confusedly agitated from side to side, during the pains of labour, by the frequent throes which always much compress the belly, that they could not be well digested, whence this wind is afterwards generated; and by consequence the gripes which the woman feels running in her belly from side to side, according as the wind moves more or less, and sometimes likewise from the womb, because of the compression and commotion which the bowels make: this being generally the cause, let me now apply a suitable remedy.

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

2. Give the lying-in woman, immediately after her delivery, oil of sweet almonds and syrup of maiden-hair, mixed together. Some prefer oil of walnuts, provided it be made of nuts that are very good, but it tastes worse than the other at best. 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.

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

4. Let her be careful to keep her belly very hot,

and not to drink too cold; and if that prove very violent, hot clothes from time to time must be laid to her belly; or a pancake fried with walnut oil may be applied to it, without swathing her belly too strait. And for the better evacuating the wind out of the intestines, give her a clister, which may be repeated as often as necessity requires.

5. Take bayberries, beat them to powder, put the powder upon a chaffingdish of coals, and let them receive the smoke of them by her privities.

6. Take tar and barrow-hog's grease, of each an equal quantity, boil them together, and while 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 the back of her that is troubled with after-pains, and it will give her speedy ease.

Lastly, Let her take half a drachm of bayberries beaten into powder, in a draught of muskadel, or trent.

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

1. Let her be let blood in the vein *Saphena*.

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

3. Take an onion, and having made a hole in the middle of it, fill it full of oil, roast it, and having bruised it altogether, apply it to the fundament.

4. Take a dozen of snails without shells, if you can get them, or else so many shell-snails, and pull them

out, and having bruised them with a little oil, apply them warm to the fundament.

5. Take as many wood-lice as you can get, and bruise them, and having mixed them with a little oil, apply them warm to the fundament.

6. If she goes not well to stool, let her take an ounce of cassia-fistula, drawn at night going to bed, she needs of diet after it.

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

1. Let the woman take such medicines as strongly provoke the terms; and such are dittony, bettony, pennyroyal, savory, featherfew, centaury, juniper-berries, and piony roots.

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

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

4. The roots 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 cordus posset drink, and let her sweat after it. If this last medicine do not bring them down the first time she takes it, let her take as much more three hours after, and it seldom fails.

IV. Overflowing of the menstrues is another accident incident to childbed women; for remedy whereof,

1. Take shepherd's purse, either boiled in any convenient liquor, or dried and beaten to 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 a powder, and a drachm of them taken every morning in a spoonful of red wine, or in a 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 anodine 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 spread upon 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 fine rags dipped in the oil of St. John'swort, on each side of the bearing-place; or let the parts excoriated be anointed with the oil of St. John'swort twice or thrice a-day; also foment the parts with barley water and honey of roses, to cleanse them from the excrements which pass: and 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 childbed. For in the beginning of childbed the woman's milk is not well purified, because of the great commotion her body suffered during her labour, which affected all the parts, and it is then mixed with many other humours. Now this clotting of the 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 these cases remaining in the breasts after concoction, without being drawn, loses the sweetness and 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, in like manner as we see runnet put into ordinary milk turns it into curds: this curdling of the milk may be also caused by having taken a great cold, and not keeping the breast 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 that the infant, by reason of its weakness, cannot draw strongly enough, the woman being hard marked, when her milk is so curdled, it will be most proper to get another woman to draw her breasts until the milk comes freely, and then she may give the child suck. And that she may not afterwards be troubled with a surplusage of milk, she must eat such diet as gives but little nourishment, and that she keeps her body always open.

But if the case be such, that the woman neither can nor will be a nurse, it is then necessary to apply other remedies for the curing of this distemper: for then it will be best not to draw her breasts, for then it will be the way not to bring more milk into them; which in

this case must be by all means prevented: for which purpose it will be necessary to empty the body by bleeding in the arm: besides which, let the humours be drawn down by strong clysters, and bleeding in the feet; nor will it be amiss to purge gently. And to digest, resolve, and dissipate the curdled milk, apply the cataplasm of pure honey, or that of the four brands boiled in a decoction of sage, milk, smallage and fennel, mixing it with oil of camomile, with which let the breasts be also well anointed. The following liniment is also good to scatter and dissipate the milk.

A Liniment to Scatter and Dissipate the Milk.

That the milk flowing back to the breasts, may, without offence, be dissipated, you must use this ointment.

Take of pure wax, two ounces, of lintseed oil, half a pound; when the wax is melted, let a liniment be made, wherein linen clothes must be dipped, and according to their largeness be laid upon their breasts; and when it shall be discussed, and pained no more, let other linen clothes 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 that cannot nurse their own children; but if a swelling in the breasts of them that give suck, do arise from abundance of milk, or threatens an inflammation, let them use the former ointment, but abstain from using the distilled water of acorns.

CHAPTER VIII.

DIRECTIONS FOR NURSES IN ORDERING NEW-BORN CHILDREN.

HAVING 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 its navel string, of which I have spoken at large before page 76.



SECTION I.

What is to be done to the New-born Infant, after Cutting the Navel String.

WHEN the child's navel string hath 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 all over with this, that one would say, they were rubbed over with soft cheese; and some women are of so easy a belief that they really think it so, because they had eaten some while they were with child. From these excrements let the child be cleansed with wine and water a little warmed, washing every part of the body therewith, but chiefly the

head, because of the hair, also the folds of the groin, arm-pits, and the cuds or privities; which parts must be gently cleansed with a fine linen rag, or a soft sponge, dipped in this lukewarm wine. If this clammy or viscous excrement stick so close that it will not be easily washed off from those places, it may be fetched off with oil of sweet almonds, or a little fresh butter melted with wine, and afterwards well dried off. She must also make tents of fine rags, and wetting them in this liquor, therewith unstop the ears and nostrils; but for the eyes, wipe them only with a dry soft rag, not dipping it in the wine, least it should make them smart.

The child being thus washed and cleaned 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 be no fault or dislocation; whether its nose be straight, or its tongue be tied; or whether that there be any bruise or tumour of the head, or whether the mold be not overshorten; also whether the *scrotum* (in case it be a boy) be not blown up and swelled; and, in short, whether it has suffered any violence by its birth in any part of its body; and whether all the parts be well and fully shaped; that so suitable remedies may be applied, if any thing be not found right. Nor is it enough to see that all be right without, and that the outside of the body be cleansed, but she must also chiefly observe whether it dischargeth the excrements retained within, and whether the passages are open; for some have been born without having them perforated; therefore let her examine whether the conduits of the urine and stool be near, for want of which some have died, not being able to void their excrements, because timely care was not taken at first: as to the urine, all children, as well males as 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 it the first day, then put up its fundament a small suppository, to stir it up to be discharged, that it may not cause paining gripes, by remaining so long in its belly. A sugared 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 roses or violets at the mouth, mixed with some oil of sweet almonds, drawn without 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 it with 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 so let her do also in the folds of the arm-pits and groins, and so swathe it, having wrapped it up warm in bed and blankets, which there is scarce any woman so foolish, but knows well enough how to do, only let me give them this caution, that she swathe not the child too strait in its blankets, especially about the breast and stomach, that it may breathe 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 out 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 pealed by rubbing each other: then let the head be kept steady and straight, with a stay fastened on each side of the blanket; and wrap the child up in mantles and blankets to keep it warm: let none think that this swathing of the infant

is needless to set down, for it is necessary it should be thus swaddled to give its little body a straight figure, which is most decent and proper for a man, and to accustom him to keep upon his feet; which otherwise would go upon all-four, as most other animals do.



SECTION II.

Of the Suckling and Further Ordering of a New-Born Infant.

AS the new-born infant is come into a new world, so now it must have a new way of nourishing itself, which now must be by taking it in at the mouth, whereas before it received its nourishment at the navel by the umbelical vessels; but the Midwife ought to take care that this change be not made too suddenly, which it may be unwell with respect to the difference of the nourishment, as the manner of receiving it, lest it occasion some alteration in the infant's health. Care ought therefore to be taken to empty the phlegm out of its stomach first, giving it some wine and sugar for the first three or four days, to cut and loosen it, and to prevent the milk it shall take from corrupting, by being mixed with this viscous phlegm; and therefore it will be very proper to stay at least five or six days before it sucks; that so this phlegm may be wholly evacuated and consumed, and then it may safely be put to the breast; and to make it the better, take it, let the nurse milk a little into its mouth and upon its lips, that it may taste it by degrees, and then let her put the nipple drooping into its mouth, and squeeze her breast with her hand, when the child hath fastened upon the nipple, that the milk may come down the easier, and that the infant, who hath yet but small strength, may

not take too much pains to draw and suck it; and this by degrees will accustom it to suck.

As to the quantity it ought to suck, that must be proportioned to its age and strength, only in the beginning let it not have too much, nor too often, that its stomach, not yet accustomed to concoct it, may the better digest it; and so let it be augmented by degrees until it comes to take its fill. As to the time of its sucking, it is not to be limited, only let him have it rather a little and often, than too much at a time, that its little stomach may the better concoct and digest it without vomiting, as often happens when it cannot easily contain it.

The child having sucked two or three months, if the nurse then finds it can bear stronger nourishment, she may give it pap made of flour and milk, though but little at first, nor let that little be too thick, lest its stomach be soon overcharged by not being used to it. And that it may be the easier digested, put the flour with which you thicken your milk in an earthen pan, and set it in an oven after the bread is drawn, stirring it often to dry it equally; and you will find that pap made of this flour is much better than ordinary, and sooner concocted; not being by much so heavy and clammy. Remember also, that after the child has at any time had pap (which is best in a morning) let the nurse give it a little suck, to the end that it being thereby washed down into the stomach, the digestion may be made more easy.

When the child hath sucked sufficient to satisfy it, let the nurse lay it to rest, but not in the same bed that she lies in, for fear of overlaying it, as some have done, but rather in a cradle by the bedside, and let her put a mantle over the head of the cradle, as well

to prevent the falling of dust on its face, as that the day-light, sunshine, candle, or fire, in the chamber may not offend it. Let the child be laid to sleep upon its back, with its head a little raised upon a pillow, and let his sleep come naturally without rocking, which does but entail a further trouble upon the nurse. As to the time of its rest, it may sleep at any time, and the more he sleeps, generally the better he is, for sleep is a great nourisher of young children.

When at any time the nurse opens the child, let it be before the fire; and let his bed and clothes be well warmed and dried before he be put into them, lest their coldness and moisture cause cholic and gripes. The nurse likewise must be careful to renew and continue the putting of soft rags behind the ears, and under the arm pits, to dry up the moisture found there: and let her be very careful for the first four or five days, not to make the remaining part of the navel-string fall off too soon, before the vessels of it be perfectly closed. Let her likewise see every time she opens the child, whether the navel, for want of being well tied at first, or that the thread is since loosed, do not bleed. And, after the end is quite fallen off, let her still, for some time swathe the navel, always laying a bolster on the top of it, until it be well cicatrized, and wholly depressed, and as it were, sunk inwards.

Let her also take great care in the dressing its head, to put something upon the mould of its head, under its coif; both to keep the brain warm, and to defend it from outward injuries, which may easily hurt it, because of the tenderness of the place, not yet covered over with any bone. Let her also be very careful not to let the child cry too much, especially at first, lest the navel being forced outwards, there also happens to him, by its being dilated, a rupture in the groin. Therefore,

when the child cries any thing hard, the two best ways to quiet him are, to give him suck and to lay him clean and dry.

These directions are sufficient for the ordering of a new-born infant, provided it be in health ; but if he be indisposed any way, some other methods must be used, which I shall further describe in the following chapter.

CHAPTER IX.

OF THE INDISPOSITION OF NEW-BORN INFANTS, WITH SUITABLE REMEDIES FOR EACH.

IN new-born children, there are so many distempers they are subject too, that daily experience shews us, there are not above half the children which are born, that live till they are three years of age; which is occasioned, as well because of the tenderness of their bodies, as the feebleness of their age, which hinders them from expressing the trouble they labour under, any other-wise than by their cries. The business of this chapter, therefore, shall be to discover the indispositions to which they are subject, with the remedies proper for them.



SECTION I.

Of Gripes and Pains in the Bellies of Young Children.

THIS is mentioned first, as it is often the first and most common distemper which happens to little infants after their birth. Many children being so troubled and pained therewith, that it causes them to cry day and night, and at the last to die of it. The cause of it, for the most part, comes from the sudden change of their nourishment; for, having received it from the umbelical vessels, whilst in their mother's womb, they come on a sudden to change, not only the manner of receiving it, but the nature and quality of what they receive,

as they are born. For instead of purified blood only, which was conveyed to them by means of the umbelical vein, they are now obliged to be nourished with the 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, being unaccustomed to it. It is also caused by a rough phlegm, and sometimes by the worms: for physician's affirm, that worms have been bred in children, even in their mother's belly.

The remedy, therefore, must be suited according to the cause. If it proceed from the too sudden change of nourishment, the remedy must be to forbear giving the child suck for some days, lest the milk being mixed with phlegm, which is then in the stomach corrupt: 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 long stay increaseth these 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, on the belly: or, a small cataplasm mixed with the powder of rue, wormwood, coloquintida, aloes, and the seeds of citrons incorporated with ox-gall and the powder of lupines. Or, give it oil of sweet almonds, with sugar candy, and a scruple of anniseeds; it purgeth 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 lay pellitory stamped with oil of camomile, to the belly.

SECTION II.

Of Weakness in New-Born Infants.

WEAKNESS 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 so much weakness, that it is many times difficult to know whether they are alive or dead, the body appearing so senseless, and their face so blue and livid, that they seem to be quite choked ; and even after some hours, their shewing any 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 his kingdom.

In this case, the best way to help the infant, is to lay him speedily in a warm bed and blanket, 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 breasts and belly, dipped in wine ; and let the face be uncovered, that he may breathe the more freely ; also, let the Midwife keep its mouth a little open, and 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 bloods and spirits which have retired inwards through weakness, and oft puts him in danger of being choked. 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, will cry stronger.

SECTION III.

Of the Fundament being Closed up in New-Born Infants.

ANOTHER trouble 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 so closed, and yet have voided 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 take notice, that the fundament is closed two ways ; either by a single skin, through which, one may discover some black and blue marks proceeding through the excrements retained, which, if touched with the finger, there is felt a softness within ; and thereabouts it ought to be pierced. Or else it is quite stopped up 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 children may do very well ; for then apertion or opening may be made with a small incision-knife, crossways, that it may the better receive a round form, and that the place may not afterwards 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 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 *Pomphilix*; 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 to 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 much more difficult; and, even when it is done, the danger is much more of the infant's escaping it. And, therefore, 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, then by endeavouring to remedy an inconvenience, 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 so forward, that it may be open enough to give free vent to the matter there contained, being especially careful of the sphincter. After which, let the wound be dressed according to the method above directed.

SECTION IV.

How the String of an Infant is to be Cut when Tongue-tied.

PHYSICIANS and Anatomists do all know, that the tongue is naturally tied with a ligament sufficiently strong, fastened just underneath, in the middle of it; upon which being fastened, it makes all its different motions on either side. But new-born infants have oftentimes before it a small membranous production, usually stiled The String, which is continued in some very near the end of their tongue; and, thereby taking away the liberty of its motion, hinders them from sucking with that ease which they would otherwise do, by reason that the tongue, being as it were bridled up by this thread, the infant cannot move it upwards as it ought, to press the nipple against the palate, and so suck it to draw the milk; neither can it move it commodiously to swallow it afterwards.

That this inconvenience may be remedied, let the skilful operator cut off as much or as little as he thinks convenient, with a pair of sharp scissars, cutting at the point; taking great care that he cut not off the proper ligament of the tongue, nor open the vessels that are under it. To perform this as he ought, let him make use of an instrument like a fork, but blunt at the ends, (for his fingers will hinder him from seeing what is fit to be done,) by putting it underneath the middle of the tongue, on each side the string, and then lifting it up straight, he will easily command it; by means of which, he may make his operation as he sees most proper.

After the tongue is thus dexterously cut, the nurse must every day, twice or thrice, pass her finger, being very clean, underneath it, to prevent its growing together again, doing it very gently, for fear of irritating

the small wound, that it may not be inflamed, lest worst effects follow.



SECTION V.

Of the Thrush, or Ulcers in the Mouth of an Infant.

THE thrush is a distemper that infants are very often subject to, and it arises from bad milk, or some 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 for 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 with spittle. But if they arise from too hot a quality in the nurse's milk, care must be taken to temper and cool it, prescribing her a cool diet, bleeding and purging her also, if there be occasion.

Then, take lentils husked, powder them, and lay it upon the child's gums. Or, take melium 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 with them a little verjuice or juice of lemons; as well to loosen and cleanse the vicious humour, which cleaves 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 pain the child too much, lest an inflammation make the distemper worse.

The child's body must also be kept open, that the humours being carried to the lower parts, the vapour 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, that malignity may be thereby prevented. And, in this case, touch the ulcers with plantain water, sharpened with the spirit of vitriol, according to the malignity of the distemper. It will now be also necessary to purge those ill humours out of the whole habit of the child, by giving half an ounce of syrup of succory, with rhubarb.



SECTION VI.

Of Pains in the Ears, Inflammations, Moisture, &c.

THE 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 pain, flux of blood, with inflammation, and matter with pain. And pain 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 would not let others touch them if they could help it; and sometimes you may discern the parts about the ear to be very red. These pains, if let alone, are of dangerous consequence, because they may bring both watching and epilepsy; for the moisture breeds worms there, and fouls the spungy bones, and by degrees causes incurable deafness.

To prevent all these 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 decoction of puppy-tops, or oil of violets. To take away the moisture, use honey of roses; and let *aqua mellis* be dropt into the ears. Or, take virgin's honey, half an ounce; red wine, two ounces; alum, saffron, saltpetre, each a dram; mix them at the fire. Or, drop in hempseed oil with a little wine.



SECTION VII.

Of Redness and Inflammation of the Buttocks, Groin and Thighs of a Young Child.

IF there be not great care taken to change and wash the child's bed, as soon as they are fouled with the excrements, and to keep the child very cleanly, their acrimony will be sure to cause redness, and beget a smarting in the buttocks, groin and thighs of the child; which, by reason of the pain, will afterwards be subject to inflammation, which follows the sooner through the delicacy and tenderness of their skin: from which, the outward skin of the body is 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 keep off the sharpness of its urine. As to keeping it cleanly, she is but a sorry nurse that needs to be taught how to do it; for if she sees it have a dry, clean, and warm bed, and clothes, as often and as 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 necessary to be applied to the inflamed parts; therefore, let the parts be bathed with plantain water, with a fourth part 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 post to dry it, or a little mill-dust strewed upon the parts affected, may be proper enough, and it is used by several women: also, *Unguentum Album*, or *Diapompholiges*, spread upon a small rag in the form of a plaister, will not be amiss. But the chief thing is, that the nurse must take a great care to wrap the inflamed parts with fine rags, when she opens the child, that these parts may not be more gathered and pained by rubbing together.



SECTION VIII.

Of Vomiting in Young Children.

VOMITING 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 the 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 it 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 it be from too much milk, (which

you may know from the child being better after vomiting,) give it less. If it be from corrupted milk, that which is vomited is yellow and green, or otherwise ill coloured and stinking. In this case, mend the milk, as has been shown before: cleanse the child with honey of roses, and strengthen its stomach with syrup of mints and quinces. Or, take wood-ashes, coral, mastich, each half a dram; galangal, half a scruple; with syrup of quinces, make an electuary. If the humour be sharp and hot, give syrup of pomegranates, currants and coral; and apply to the belly the plaister of bread, the stomach cerot, or bread dipped in hot wine. Or, take oil of mastich, quinces, mints, wormwood, each half an ounce; of nutmegs, (by expression) half a dram; chymical oil of mints, three drops. Coral hath an occult property to prevent vomiting, and is therefore hung about their necks.



SECTION IX.

Of Breeding of Teeth in Young Children.

THIS 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 or seventh month; the fore-teeth coming first, then the eye-teeth, and 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 with that which makes the eye move.

In the breeding of their teeth, first they feel an itching in their gums, then they are pierced as with a needle, and pricked with the sharp bones. When proceed great pains, watching, and inflammation of the

gums, looseness and convulsions, especially when they breed their eye-teeth.

The signs when children breed their teeth are these: 1. It is known by the 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 much 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 it may be, the cutting of the teeth, when they can hardly cut the gums themselves.

For the first of those, that is, 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 on the inflamed gums, let the child's belly be kept always loose; use gentle clysters if he be bound, though oftentimes there is no need of them, because they are then 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 the cutting of the teeth, that the nurse must do from time to time, mollifying and loosening them, by rubbing them with her finger dipped in butter or honey, or let the child have a virgin wax candle to chew upon. Or, anoint the gums with the mucilage of quinces, made with mallow-water, or with the brains of a hare. Also, foment the cheeks with the decoction of athæa, and camomile flowers and daffodil, or with the juice of mallows and fresh butter. If the gums be inflamed, add the juice of nightshed and lettuce.

I have already said that the nurse ought to keep a temperate diet; I will now add, that barley-broth, water-gruel, rare eggs, prunes, lettuce and endive, are very good for her. But let her avoid salt, sharp, biting and peppered meats and wine.



SECTION X.

Of the Flux of the Belly, or Looseness in Infants.

IT is very ordinary for infants to have a flux in 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 extraordinarily violent, such are in better health than those that are bound.

This flux, if violent, proceeds from divers causes; as,
1. From breeding of 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. 5. When they suck or drink too much in 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 no 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, belchings, and flegmatic 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 are voided, be black, and 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 binding quality behind them, as syrup of honey of roses, or a clyster. Take the decoction of milium, myrobalans, each two or three ounces, with an ounce or two of syrup of roses, make a clyster. After cleansing, if it proceeds from a hot cause, give syrup of dried roses, quinces, myrtles, coral, currants, or the powder of diamargariton, mastich, hartshorn, red roses, or powder of myrtle, with a little sanguis draconis; also anoint with oil of roses, myrtles, mastich; or take red roses an ounce, myrtles, mastich, 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, apply it to the belly, or use the plaister of bread, or stomach

ointment. If the cause be cold, and excrements white, give syrup of mastich and quinces with mint water: use outwardly mints, mastich, cummin, or take rose seeds an ounce, cummin, anniseeds, each two drachms, with oil of mastich, wormwood and wax, make an ointment.

SECTION XI.

Of the Epilepsy and Convulsion in Children.

THIS 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 tooth-ache, 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, worms, or teeth: If these are all absent, it is certain that the brain is first affected: if it come 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 this following powder to a child to prevent it, as soon as it is born; male piony roots gathered in the decrease of the moon, a scruple, magiery of coral, half a scruple, with gold leaf make a powder; or take piony roots, a drachm, piony seeds, misletoe 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 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 dipt in sweet almond down the throat. If it comes from worms, give things that will kill the worms, as you will be directed in the following section, if there be a fever, respect that also, and give coral, smaragd, 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, smaragd 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 remedy whereof, in the fit wash the body, especially the back bone with decoction of Althæa, lily roots, piony and camomile flowers, and anoint it with man's and goose grease, oil of worms, orris lilies, foxes turpentine, mastich, storax, and galamint. The sun flower is also very good, boiled in water, to wash the child.



SECTION XII.

Of the Worms in Young Children.

SEVERAL physicians have observed, that children have had worms even in their mother's belly, and have voided them after they were born, but they are not so common. The truth is, worms, generally speaking, are bred by mixing milk with other meats, in hot and moist constitutions, and from sweetmeats and summer fruits, both which worms love. As to their form, it is diverse, but they are generally round and

long, or broad and little ; and they are known to be in a body where there is excessive crying, gnashing of teeth, troublesome sleep, stinking breath, and much spittle; also a dry cough, loathings, vomiting, want of appetite, or too much thirst, a belly swelled, or round, or too loose, the urine thick and white, coming away with pain, when the belly is empty, and the worms want food; there is also a cold sweat over the face, and a high colour, and then sudden paleness, and sometimes a fever and convulsion, which ceaseth presently; but all these are signs of round worms, rather than flat; and those long round worms are the worst, and sometimes have eaten through the guts and belly; with a fever these are very dangerous: those that are of a white colour are better than those of other colours.

As to the remedy, I shall first offer something by way of preservation, it being better to prevent the breeding of worms, than to expel them after they are bred. The way to prevent the breeding of them is, by eating meats of good juice, with oranges and pomegranates, and avoiding all sorts of sweet, fat, and slimy meats, flesh, milk, and summer fruit, and to drink wine with scurvy grass and sorrel water in it, and with powder of hartshorn; and let the belly be kept loose with clysters for children; or give the decoction of sebestines before meat, or of wormwood and scordium, but children will not take things that are bitter, therefore take water grass water, and juice of lemons or citrons, or a drop or two of spirit of vitriol. Thus much by way of prevention.

For cure, when you know that the child has the worms, kill and repel them with powder of caralline, wormseed, hartshorn, or eight grains of mercurius dulcis, infuse them a night in grass water, and cast away the substance of the mercury, and give the water. Or take wormwood, two drachms, caralline, harts-

horn, prepared each, a drachm, roots of piony, ditany, magistery of coral, each a scruple, make a powder, or give the essence of peachflowers, or the decoction of fern water, half an ounce, or an ounce: If there be a fever with the worms (as it sometimes happens) then use juice of lemons, pomegranates, oranges, vinegar, hartshorn, bezoar, confection of hyacinth, or this following potion; take grass water, syrup or juice of citrons, an ounce; of violets, half an ounce; spirit of vitriol, two drops, give two spoonfuls; or take ten raisins, seven figs, boil them in water, take of it four ounces, and sugar, an ounce and a half, make a clyster, and give it to the child. It is best to use variety, that the worms may not be too familiar with one. If you can get the child to take it, bitter things will be best at the mouth; but apply to the fundament those that are sweet, and therefore a clyster of sweet milk will be proper. Also apply hern leaves to the navel, bruised, for cataplasm; of ox gall, wormwood, gith, century, wormseed, lupines, of each half an ounce, with oil of wormseed, and wax half an ounce, make an ointment. Or take half an ounce of treacle, mix it with juice of wormwood, and apply it to the navel.

END OF THE FIRST PART.

THE
COMPLETE AND EXPERIENCED
MIDWIFE.

PART II.

CONTAINING PROPER and SAFE REMEDIES FOR
THE CURING OF ALL THOSE DISTEMPERS THAT
ARE PECULIAR TO THE FEMALE SEX; AND
ESPECIALLY THOSE THAT ARE ANY OBSTRUC-
TION TO THEIR BEARING OF CHILDREN.

HAVING finished the first part of this book; and
herein I hope amply made good my promise to the
reader: I am now come to treat of distempers peculiar
to the female sex. In which it is not my design so to
enlarge as to treat of all the distempers that are inci-
dent to, but those only to which they are most subject
when in a breeding condition, and those that keep
them from being so: for each of which distempers I
have laid down such proper and safe remedies, and
with the divine blessing, may be sufficient to repel

them. And since 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 our procreation, than that of sterility or barrenness, which, wherever it prevails, renders the most accomplished Midwife but a useless person, and destroys the design of our book, I think therefore barrenness is an effect that deserves our first consideration.

CHAPTER I.

OF BARRENNESS; ITS SEVERAL KINDS, WITH PROPER
REMEDIES AGAINST, AND THE SIGNS OF INSUFFI-
CIENCY BOTH IN MEN AND WOMEN.



SECTION I.

Of Barrenness in General.

AS there is no general rule but will admit of some exception, so this first chapter seems to be an exception, against this second part; for though I have promised here to treat 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 so 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 old proverb, of *setting the saddle upon the right horse*.

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

Barrenness is either natural nor 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 diabo-

lical course used to cause it; and neither age nor diseases, nor any defect hindering, and yet the woman remains naturally barren, and conceives not.

Now this may proceed from a natural cause, for if the man have not any great objection, they seldom have children, and the reason is clear, for the universal course of nature being formed by the Almighty of a composition of contrarieties, cannot be encreased 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 constitutions and complexions, if they design to have children. If their complexions and constitutions be alike, they are not fit to come together; for discordant natures make 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 principal that ought to animate each other in the act of generation, or else it will 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 sufficiently evidenced in that there never follows a conception upon rape; therefore if men and women design to have children, let them take care to live so that their hearts as well as their bodies may be united, or else they miss of their expectations.

A third cause of natural barrenness is the letting of virgins' blood in the arm before their natural courses are come down, which is usually in the fourteenth and 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 prescribes opening a vein in the arm, seeing it was fulness of blood which was the cause offending: and this makes her well at present; and when the young virgin happens to be in the same disorder again, the mother runs straight to the surgeon, and uses the same remedy; and by these means the blood is departed from its proper channel, that comes not down to the womb, as in other women; and so the womb dries up, and the womb is for ever barren. The way to prevent this, is to let no virgin bleed in the arm before her courses come well down; but if there be occasion, in the foot; for that will bring the blood downward, and by that means provoke the menstrues to come down.

Another cause of natural barrenness is the debility of persons 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 produces conception. Of the cures of this we will speak by and by, after I have spoken of

Accidental barrenness, which is that occasioned by some morbissie matter, or infirmity, upon the body either of the man or woman, which, being removed, they become fruitful; and since (as I have before stated) the first and great law of the creation was to increase and multiply, and barrenness is the direct opposition to that law, and frustrates the end of our creation, and that it is so great an affliction to divers to be without children, and often causes man and wife to have hard thoughts one of another, each party thinking the cause not in them: I shall here, for the satisfaction of all

true meaning people, set down the signs and causes of insufficiency both in men and women, promising this first, that when people have not 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 story. And though the Almighty in the productions of nature, work by natural means, yet, where he withholds his blessing, natural means are ineffectual; for it is his blessing which is the power and energy by which nature brings her productions forth.



SECTION II.

Signs and Causes of Insufficiency in Men.

ONE cause may be in some vitiousness 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 conduces to conception, by reason of the forcible injection of the seed.

Also, if the stones have received any hurt, so that they cannot exercise their proper gift in producing seed, or if they be oppressed with an inflammation or rumour, 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; first, if he cast forth no seed at all, or less in substance than is needful. Or, secondly, if the seed be vitious, 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; for if any one by daily copulation do exhaust and draw out all the moisture of his seed, then do the stones draw the moist humours from the superior veins unto themselves, and so having but a little blood in them, they are forced out of necessity to cast them out raw and unconcocted; and thus the stones violently deprived of the moisture of their veins, attract the same from the other superior 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 bodies are thereby deprived of their best and purest blood, and of the vital spirits, 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 and drunkenness, and other excesses, do also much hinder man from fruitfulness, and make them unfit for generation.

But amongst other causes of barrenness in men, this adds also to make them barren, and almost of the

nature of eunuchs, and that is the incision or the cutting of their veins behind their ears; 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 this 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, but comes to them very crude and raw. This will suffice for signs and causes of barrenness in men.



SECTION III.

Signs and Causes of Insufficiency and Barrenness in Women

ALTHOUGH there are causes of the barrenness of women, yet the chief and principal are internal, respecting either the privy parts, the womb, or menstrual blood.

Therefore Hippocrates saith, (speaking either of the easy or difficult conception of women) the first consideration 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 wan; those that have their veins conspicuous, are more apt than others: but to be very fleshy is evil, to have great swelling breasts good.

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

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

The first part 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 *impeperforante*, for 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 seized with great and unusual pains, some of them break of their own accord, others are defective and opened by a physician, others never break, and therefore bring death.

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* grow or cleave together; the second is, when there are certain membranes growing in the middle part of the matrix within; the third is, when (though 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 occasion of barrenness, in that they hinder both the use of man, the monthly courses, and conception.

But amongst all the causes of barrenness in women, the greatest is in the womb, which is the field of generation: and if this field be corrupted, it is in vain to expect any fruit, let it be never so well sown, for it may be unfit for generation, by reason of many distempers to which it is subject: and for instance, overmuch heat and overmuch cold; for women whose wombs are too thick and cold cannot conceive, because

coldness extinguisheth 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 overmuch dryness in the womb, so that the seed perisheth for want of nutriment. Immoderate heat of the womb is also a cause of barrenness; for it scorcheth up the seed as corn sown in the drought of summer: for immoderate heat hurts all the parts of the body, for no conception can live in that woman.

Also when unnatural humours are engendered, as too much phlegm, tympanies, wind, water, worms, or any such ill humours abounding contrary to nature, is causes; 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, fear, grief, and perturbation of the mind, too valiant excercises, as leaping, dancing, running after copulation, and the like. But I will now give some signs by which those things may be known.

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

If the nature of the woman be too hot, and so unfit for conception, it will appear by having her terms very little, and their 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 fault is in the man or in the woman, sprinkle the man's urine upon one lettice leaf, and the woman's upon another, and that which dries away first, is unfruitful. Also take five

wheat corns and seven beans, put them into an earthen pot, and let the party make water therein, let this stand seven days, and if in that time they begin to sprout, then the party is fruitful; but if they sprout not, then the party is barren, whether it be man or woman. This is a certain sign.

There are some that make this experiment of a woman's fruitfulness. Take myrrh, red storix, and some such odoriferous things, and make a perfume of it, which let the woman receive into the neck of the womb through a tunnel, if the woman feel the smoke ascend through her body to her nose, then she is fruitful, otherwise, barren. Some also take garlic, and heat it, and let the woman 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 four-and-twenty-hours, and then take it out, and set it, the man's by itself, and the woman's by itself; set it in a flowerpot, or some other thing where you may keep it dry, then water the man's every morning with his own urine, and the woman's with her's, and that which grows first, is the most fruitful, and if one grows not at all, that party is naturally barren.

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

If barrenness proceed 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 magnet 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 the head, which are commonly afflicted together by sympathy, having used these two or three days, if they come not down, take of calumint, pennyroyal, thyme, bettony, dittander, burnet, featherfew, 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 drink thereof her ordinary drink.

Take one part of gentian, two parts of centaury, distil them with ale in alimbeck, 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 centaury, and half a drachm of gentian roots, beat them to powder, and take it in the morning in white wine ; or else take a handful 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, is also very good. But if this do not succeed, you must let her bleed in the legs. And be sure you administer her medicines a little before the full of the moon ; or between the new and full moon, but 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 menstrues, then strengthen the womb, as you were taught before, and afterwards anoint the reins of the back with oil of roses, oil of myrtles, oil of quince, every night, and then wrap a piece of white baize about your reins, the cotton side next your skin, and keep it

the same always to it. But, above all, I recommend this medicine to you: take camphory leaves or roots, and clown's woundswort, of each one handful, bruise them well, and boil them in ale, and drink a good draught of it every now and then; or 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, beat the rest into powder, then make them into pills, by mixing of them together exactly, and let the patient take two pills every night going to bed, but let not both the pills exceed fifteen grains.

If barrenness proceed from a flux of the womb, the cure must be according to the cause producing it, or which the flux proceeds from, 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 come out, as if a vein were opened, some corrosion or gnawing of the womb is to be feared. All of them 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 with 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 the juice of plantain and camphory be injected into the womb. If phlegm be the cause, let cinnamon be a spice used in all her meats and drinks, and let her take a little Venice treacle or Mithridates 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 burrage, bugloss, red roses, endive, and succory roots, lettuce, and white poppy seed, of each a handful, boil these in white wine till one-half be consumed, let her drink half a pint every morning, to which half pint let her add syrup of peachflowers and syrup of cichory, of each one ounce, with a little rhubarb, and this will gently purge her. If it proceed from putrified blood, let her let blood in the foot, and then strengthen the womb, as I have directed in stopping of the menstrues.

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, galbanum, styrax calamitis, wood of aloes, or such other things as are of that nature; and let her lay stinking things to her womb, such as asafoetida, oil of amber, or the smoke of her own hair being burnt, for this is a certain truth, that the womb flies from all stinking, to all sweet things. But the most infallible cure in this case is this: take a common burdock leaf (which you may keep dry if you please all the year) apply this to her head, and it will draw the womb upward. In fits of the mother, apply it to the soles of her feet, and it will draw the womb downward. Bur-seed beaten into powder has also the like virtue, by a magnetic power it 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 into 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, to take away barrenness proceeding from hot causes, take often conserve of roses, cold lozenges made of tragacanth, the confections of triasantali, and use to smell to camphire, rosewater, and saunders. It is also good to breathe the basilica, or liver vein, and take four or five ounces of blood, and then take this purge, take *electuarium de epithymo de fucco rosarum*, of each two drachms 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 a half, and fast about 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, mandragora water, 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 these eight days together.



SECTION IV.

Some excellent remedies against barrenness, and to cause fruitfulness.

TAKE broom flowers, smallage, parsly seed, cummin, mugwort, featherfew, of each half a scruple, aloes, half an ounce; india salt, saffron, of each half a drachm, 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 this do two or three times one after another, then make each drachm into six pills, and take one of them every other day supper.

For a purging medicine against barrenness, take conserve of benedict's lax, one quarter of an ounce, de

philistia, three drachms, electuary de succo rosarum, with featherfew water, and drink it in the morning betimes. About three days after the patient hath taken this purge, let her be let blood four or five ounces in the median, or common black vein in the right foot; and then take five days, one after another, filed ivory, a drachm and a half in featherfew water; and during that time, let her sit in the following bath an hour together morning and night: take wild yellow rapes, daucus, balsam wood, and fruit, ash keys, of each two handfuls; red and white behen, 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 broomflowers, put them into the decoction after it is boiled and strained.

A confection very good against barrenness. Take pistachia, pingles, eringoes, of each half an ounce, saffron, one drachm; lignum, aloes, gallingale, mace, calyophylla, balmflowers, red and white behen, of each four scruples, shaven ivory, cassia bark, of each two scruples; syrup of confected 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 of musk and amber, of each half a scruple: take hereof the quantity of a nutmeg three times a-day, in the morning, before noon, and an hour after supper.

But if the cause of barrenness either in man or woman be through the scarcity or diminution of the natural seed, then such things are to be taken as do encrease the seed, and incite or stir up to venery, and further conception, which I shall here set down, and so 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 tails of stincus, and long pepper, prepared in wine. Let such persons

eat no sour, sharp, doughy, and slimy meats, long sleep after meat, with surfeiting and drunkenness, and, as much they can, keep themselves from sorrow, grief, vexation, and care.

These things following, encrease 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, bones, and all; the stones and pizzles of bulls, bucks, rams, and boars; also cock-stones, lamb-stones, partridge, quails, and pheasant eggs, and this is an undeniable aphorism, that whatsoever any creature is addicted unto, they move or incite the man or woman 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 part of the body the faculty which you would strengthen lies, take the same part of the body 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, makes 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 like manner, are very good. And the heart of a male quail carried about the man, and the heart of a female quail carried about the woman, causeth mutual love and fruitfulness. Let them also that would increase the seed, eat and drink of the best, as near as they can; for *sine cerero et libero friget Venus*, is an old proverb, which is, *without good meat and good drink, Venus will be frozen to death.*

Pottages good to increase the seed, or such as are made of beans, pease, and lupines, and mix the rest

with sugar; French beans, wheat sodden in broth, anniseed, fennelseed, mustardseed, colewort, and nettleseed. Also onions stewed, garlicks, leeks, yellow rapes, fresh bugwort roots, eringo roots, confected ginger, &c. Of fruits, hazel nuts, cyprus nuts, pistachio, almonds and march pans made thereof: spices good to increase the seed, are cinnamon, cardamum, galengal, long pepper, cloves, ginger, and saffron; asafoetida, taken a drachm and a half in good wine, is very good for that purpose also.

The weakness and debility of a man's yard being a great hinderance to procreation, let him to strengthen it, use the following ointments, take wax, oil of pever cod, marjorum gentle, and oil costus, of each a like quantity, make it into an ointment, and put to it a little musk, and with it anoint the yard, cods, &c. Take of horse emmets, three drachms, oil of white sesanum, oil of lilies, of each one 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 rhue, of each one drachm, mustard seed, half a drachm, set this again altogether in the sun two or three days, then anoint all the instruments of generation therewith. But so much for this chapter.

CHAPTER II.

OF THE 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 which is obnoxious to the womb, with 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 from the womb. It arises also from internal and external medicines, and from too much hot meats, drinks, and exercise. Those that are troubled with this distemper have but few courses, and those yellow, black, burnt or sharp; have hairs betimes upon their privities; they are very prone to lust, and are subject to the head-ach, and abound with choler. And, when the dis-

temper is strong upon them, they have but few terms and out of order, being bad 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 open for the flux of the terms. Therefore inwardly use coolers, such as succory, endive, violets, water lilies, sorrel, lettuce sandors, and syrups and conserves made thereof. Also take conserve of succory, violets, water lilies, burrage, each an ounce, conserve of roses half an ounce, diamargariton frigid, diatrasnatolon, each half a dram, and with syrup of violets, or juice of citrons, make an electuary. For outward application make use of ointment of roses, violets, water lilies, gourds, Venus navel, applied to the back and loins.

Let the air be cool, her garments thin, and her meat be with 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 much as she will.



SECTION II.

Of the Cold Distemper of the Womb.

THIS distemper is the reverse of the foregoing, and equally an enemy to generation, being caused by a cold quality abounding to excess, and proceeds from a too cold air, rest and 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 flegmatic, 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 hard to be cured.

For the cure of this distemper use the following water: take Galengal, Cinnamon, Nutmeg, Mace and cloves, each two drams; ginger cubebs, zedoary, cardamom, each an ounce; grain of paradise, long pepper, each half an ounce; beat them, and put them in six quarts of wine for eight days. Then add sage, mints, 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, cubebs, cardamoms, grains of paradise, each an ounce and a half, galengal six drams, long pepper half an ounce, zedoary five drams, bruise them and add six quarts of wine, put them in a cellar nine days, daily stirring them; then add mint two handfuls, and let them stand fourteen days: and pour off the wine and bruise them; and then pour on the wine again and distil them. Also anoint with the oil of lilies, rue, angelica, bays, cinnamon, cloves, mace and nutmeg. Let her diet and air be warming, her meat of easy concoction, seasoned with anniseed, fennel and thyme; and let her avoid raw fruits and milk diets.

SECTION III.

Of the Inflation of the Womb.

THE inflation of the womb is a stretching of it by wind, called by some a windy mole: 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, if women that lie in are exposed to it. This 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 loins, navel and diaphragma, and it rises or abates as the wind increaseth or decreaseth. It differs from a dropsy in that it never swells so high, and that neither the physician nor midwife may take it for a conception, let them observe the signs of women with child laid down in the first part of this 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, but in an inflation it sometimes increaseth and sometimes decreaseth. Also if you strike upon 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 moveth, but not so in this. If the wind 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 easy. To which purpose, give her diaphænicon, with a little castor, and sharp clysters that repel wind. If this distemper happen to a woman in travail, let her not purge after delivery, nor bleed, because it is from a cold matter. But if it comes after childbearing, and her terms come not down sufficiently, and that she has fulness of blood, let the Saphæna vein be opened. After which let her take the following electuary; take conserve of bettony and rosemary, of each an ounce and a half, candied eringos and citron peel candied, each half an ounce; diacymium and galengal, each a dram; oil of anniseed six drops, and with syrup of citrons make an electuary. For outward application make a cataplasm of rue, mugwort, camomile, dill, calamints, new pennyroyal, thyme, with oil of rue, keir and camomile. And the following clyster to expel wind be put into the womb. Take agnus, castus, rue, calamints, each a handful; anniseed, castus, cinnamon, each two drams; boil them in wine for half a pint. She may likewise use sulphur baths and spa waters both inward and outward, because they expel wind.



SECTION IV.

Of a Dropsy of the Womb.

THIS is another morbid affect of the womb, proceeds 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, being no other than an unnatural swelling, raised by the gathering of waters, from moisture mixed with the terms, and from an evil sanguification from the liver and spleen; also by immoderate drinking or the eating of crude meats, all

which causing a repletion, do suffocate the native heat. It may also be caused by the 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 are puffed up and are pained, the feet swell, the natural colour of the face decays, the appetite is depraved, the terms also are fewer, and cease before the time, the breasts are also soft, but without milk. This is distinguished from a general dropsy, in that the lower parts of the belly are most swelled, neither does the sanguificative faculty appear so hurtful, nor the urine so pale, nor the countenance so changed, neither are the superior parts so extenuated as in a general dropsy. But 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 disease, first mitigate the pain with fomentations of melliont, mallows, linseed, camomile and althæa: then let the humour be prepared with syrup of stœhas, hysop, calamint, mugwort of both sorts with the distilled waters, or decoction of douder, marjoram, sage, origan, speerage, pennyroyal and bettony; and let her purge with senna, agarick, rhubarb and elaterium. To purge the water take calamints, mugwort, lovage, pennyroyal, each a handful; savin, a pugil; madder roots, angelica, of each half an ounce; boil them in wine and sweeten them with sugar. Or, if she likes it better, you may make broths of the same. Also take the specierum, diambraë, diamosci dulcis, diacalamenti, dracinnamoni, diacimini, troch. de myrrha, of each two drams, sugar one pound, with bettony water make lozenges and let her take of them two hours before meat. Apply also the bottom of the belly as hot as can be endured, a little bag of camomile, cummin, and melliot, boiled in oil of rue, and anoint the belly and privities with unguentum, agrip-

pæ, mingling therewith oil of ireos. Let the lower parts of the belly be covered with a plaster of bay berries, or with a cataplasm made of cummin, cammomile and briony roots, adding thereto cow's and goat's dung. For injections into the womb, take asarum roots, three drams; pennyroyal, calamints, each half a handful; savin, a pugil; mehoacan, a dram; anniseed, cummin, each half a dram. 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 flesh of partridges, larks, chickens, mountain birds, hares, &c., and let her drink bean wine, mixed with a very little water.



SECTION V.

Of the Inflammation of the Womb.

THE affect is a tumour possessing the womb, accompanied with unnatural heat, by obstructions, and gathering together corrupt blood: for if the blood that comes to the womb go out of the vessels into its substance, and grow hot and putrify, it causeth inflammation, either all over, or in part, before or behind, above or below. This happens also by the suppression of the menstrues, repellation of the whole body, immoderate copulation, often handling of the genitals, difficult childbirth, vehement agitations of the body, or by falls or blows. The signs of this inflammation are a tumour, with heats and pains in the region of the womb, with stretching and heaviness in the privities, also pains in the head and stomach, with vomiting, coldness of the knees, convulsions of the neck, trembling of the heart, and sometimes straitness of breath, by reason of the

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 the forepart of the matrix be inflamed, the privities are grieved, and the urine 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 toward 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 prognostics of it, all inflammations of the womb are dangerous, and sometimes deadly if it be all over the womb. If the woman be with child, she rarely escapes, but abortion follows, and the mother dies.

As to the cure, first let the humours flowing to the womb be repelled, for the effecting of which, after the belly hath been opened by cooling clysters, letting of of blood will be needful, open therefore in a vein the arm, but have a care of bleeding in the foot, lest thereby you draw more blood to the womb, but afterwards to derive, if it be from the terms stopt, you may. The opinion of Galenis, that the blood may be diverted by bleeding in the arm, or cupping the breasts, and that it may be deprived by opening the ancle vein, and cupping upon the hips, then purge gently with cassia, rhubarb, senna and myrobolans thus; take of senna, two drachms, anniseed, one scruple, myrobolans, half an ounce, barley-water, a sufficient quantity, make a decoction, dissolve it in spirit of succory, with rhubarb, two ounces, pulp of cassia, half an ounce, oil of anniseed, two drops, and make a potion. Also at the beginning of the disease, anoint the privities and reins with oils of roses and quinces. Make plasters of plantane, linseed meal, melliot, fenugreek, and whites of eggs; and if the pain be vehement, add a little opium. For repellers and anodines, take Venus navel, purslain,

lettuce, houseleek, vine leaves, each a handful, boil them in wine, and barley meal two ounces, pomegranate flowers, two drachms, with oil of roses, and make a pultice. Or take diachylon simple, two ounces, juice of Venus navel, and plantane, each half an ounce, oil of roses an ounce, sugar of lead, a drachm, make an ointment in a leaden mortar, and apply it. If the tumour cannot be removed, but tends to suppuration, take of fenugreek, mallow roots, decocted figs, linseed, barley-meal, dove's-dung, turpentine, of each three drachms, deer's-foot, half a drachm, opium, half a scruple, and with wax make a plaster. After it is ripe, break it by the motion of the body, coughing, sneezing, or else by cupping and pessaries, as, take rue, half a handful, figs, an ounce, boil them soft, add honey and leven, each half an ounce, pigeon's-dung, orris roots, each half a drachm, with wool make a pessary. After it is broken, and the pains abate, then cleanse and heal the ulcers with such cleansers as these, viz. whey, barley-water, honey, wormwood, smallage, oribus, orris, birthwort, myrrh, turpentine, allum: as take new milk boiled, a pint, honey, half a pint, orris powder half an ounce; and use it hot very often every day. If it break about the bladder use an emulsion of cold seeds, whey and syrup of violets. Let her drink be barley water or clarified whey, and her meat be chicken broth, boiled with endive, succory, sorrel, buclofs and mallows.

SECTION VI.

Of Schirrosity and Hardness of the Womb.

A PHALEGMON or swelling in the womb, neglected, not perfectly cured, often produces a schirrosity in the matrix, which is a hard insensible unnatural swelling, causing barrenness, and begetting a hardness 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 not been cleansed from their menstrues, or from the Lochis or after purging. It is likewise sometimes caused by eating corrupt meal, 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 from some 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 humour will appear, the mouth of it is retracted, and touched with the finger, feels hard; nor can she have the complaint of a man, without great pains and prickings. The schirrosity or hardness is (when confirmed) incurable, and will turn into a cancer or dropsy; and ending in a cancer proves deadly, the reason of which is, because the native heat in these parts being almost smothered, it is hardly to be restored again.

For the cure of this, first prepare the humour with:

the syrup of burrage, succory, epithymum, and clarified whey ; which being done, take of these pills following, according to the strength of the patient. Take hicra picra, six drams, hellebore, pollpody, of each two drams and a half, agarick, lapis lazull, ablurt, salis indiæ, coloquintida, of each one dram and a half, mix them and make pills. The body being purged, proceed to mollify the hardness as followeth : anoint the privities and the neck of the womb with the following ointment. Take oil of capers, lillies, sweet almonds, jessamine, each an ounce ; fresh butter, hens' grease, of each half an ounce ; mucilage, fenugreek, althæa, ointment of althæa, each six drams ; amoniacum, dissolved in wine, an ounce ; which with wax make into an ointment. Then apply below the navel, diachylon fernelii, and make domifical of figs, magwort, mallows, pennyroyal, althæa, fennel roots, melliot, fennugreek, and lintseed boiled in water. But for bdellium dissolved in wine, oil of sweet almonds, lilies, camomile, each two ounce ; marrow of veal bone and hen's grease, each an ounce with the yolk of an egg. The air must be temperate, and for her diet let her abstain from all gross, vicious and salt meats, as pork, fish, old cheese, &c.



SECTION VII.

Of the Straitness of the Womb and its Vessels.

THIS is another affect of the womb, which is an obstruction to the bearing of the children, as hindering both the flowing of the menstruals and conception ; and is seated in the vessels of the womb, and of the

neck thereof. The cause of this straitness, are thick and tough humours that stop the mouth of the veins and arteries. These humours are bred either of gross, or too much nourishment; when the heat of the womb is so weak, that it cannot attenuate the humours, which by reason thereof either flow from the whole body, or are gathered into the womb. Now the vessels are made closer or straiter several ways, sometimes by inflammation, or schirreous or other tumour; sometimes by compression, or by a scar, or flesh or membrane, that grows after the wound. The signs by which this is known, are the stoppage of the terms, not conceiving, crudelties 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 womb. If stoppage of the terms be from an old obstruction by humours, it is hard to be cured. If it be only from the disorderly use of astringents it is more curable. If it be from schirrous or other tumour, that compresseth or closeth the vessels, the disease is incurable.

For the cure of that which is curable, obstructions must be taken away, flegm must be purged, and she must be let blood, as it shall be hereafter directed in the stoppage of the terms. Then use the following medicines: take of annise and fennel seed, each a dram, rosemary, pennyroyal, bettony flowers, each an ounce; birthwort and white dittony roots each an ounce; castus, cinnamon, galengal, each half an ounce, saffron half a dram, with wine; or, take asparagus roots, parsley roots, each an ounce; pennyroyal, calamints, each an handful; madder roots, half an ounce; red pease, half 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, calamints, marjoram, mugwort,

each two handfals ; sage, rosemary bays, cammomile flowers each a 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 rue, lilies, dill, &c.



SECTION VIII.

Of the Falling of the Womb.

• THIS is another evil affect of the womb, which is both very troublesome and also a hinderance to conception. Sometimes the womb falleth to the middle of the thighs, nay almost to the knees, and 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 out of order ; for there are four ligaments, two above, broad and membranous, that come from the peritonium, and two below that are nervous, round and hollow, it is also bound to 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 menstrues 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, the liver and 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 the connexion of the fibrous neck and the parts adjacent, and that is from the weight of the womb descending. This we deny not,

but then the ligaments must be loose or broken. But women in a dropsy cannot be said to have the womb fallen down, if it came only from looseness: but in them it is caused only by the saltness of the water, which dries more than it moistens. Now, if there be a little tumour within or without the privities, like a skin stretched or a weight felt about the privities, it is nothing else but a descent of the womb; but if there be a tumour like a goose egg, and a mole 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 abateth, and there is an impediment in walking, and sometimes blood comes forth from the breath at the vessels, and the excrements and urine are stopt, and then a fever and convulsion ensueth, and then it oftentimes proves mortal, especially if it happens to women with child.

For the cure of this distemper, first put it up before the air alter it, or it be swollen or inflamed. And then first of all give a clyster to remove the excrements, then lay her upon her back, with her legs abroad, and thighs lifted up and head down; then take the tumor 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, fennugreek, camomile, and bay-berries, and anoint it with oil of lilies and hen's grease. If there be inflammation, dont put it up, but fright it in, by putting a red hot iron before it, and making a show as if you intended to burn it. But first sprinkle upon it the powder of mastick, frankincense and the like, thus: take frankincense, mastick, each two drams, saracal steeped in milk, a dram, mummy, pomegranate flowers, 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 cork or sponge, and put it into the womb, dipped in sharp wine, justice of aconia; with powder of sanguis, draconis, bole, mastick, the ointment called the countesses, with galbanum and bdellium. Also apply a cupping glass with great skill under the navel or paps, or to both kidneys, and lay this plaster to the back. Take opponax, two ounces, storax liquid, half an ounce, mastick, frankincense, pitch, bole, each 2 drams, then with wax make a plaster. Or take labdanum, a dram and a half, mastick and frankincense, each half a dram, wood aloes, clover, spike, each a dram, ash-coloured ambergrease, four grains, musk half a scruple, make two round plaisters, to be laid on each side of the navel. Make a fume of suril skins salted, or garlick, and let it be taken in by the funnel. Use also astringent fomentations of bramble leaves, plantine, horsetails, myrtles, each two handfuls, wormseed, two pugils, pomegranate flowers, half an ounce, boil them in wine and water. For an injection take comfry roots, an ounce, snakeweed, pomegranate flowers, each half an ounce, rupturewort, 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, make a powder for two doses, and give it with sharp wine. Or you may take zodoary, parsnip seed, crab's eyes prepared each a dram, nutmeg half a drams and give a dram in powder. But astringents must be used with great caution, lest 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 it may force it to remain. I know some physicians object against this, and say they hinder conception; but others very justly affirm, that they neither hinder conception, nor bring any incon-

veniency. Nay, so far from that, that they help conception and retain it, and cure the disease perfectly. Let the diet be such as has dry, astringent and glueing qualities, such as rice, starch, quinces, pears, and green cheese. But let summer fruits, and let her wine be astringent and red.

CHAPTER III.

OF DISEASES RELATING TO WOMEN'S MONTHLY COURSES.



SECTION I.

Of Women's Monthly Courses in general.

THAT Divine Providence, which, with a wisdom worthy of itself, hath 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 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 flowing, and are therefore designed to be a monthly flux of excrementitious and unprofitable blood. Now that the matter flowing is excrementitious is to be understood only with respect to the redundancy and overplus thereof, being an excrement only with respect to its quality, for as to its quantity, it is pure and incorrupt as any blood of the veins. And this appears from the final cause of it, which the propagation and conservation of mankind; and also from the generation of 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 cause such venomous effects; as if it falls 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 never heat to digest the superfluity, sends it to the matrix, where seating itself till the mouth of the womb be dilated, it becomes corrupt and putrified, 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 frigidity be the cause why women cannot digest all their last nourishment, and by consequence have these monthly purgations, how it comes to pass, may some say, why they are of so cold a constitution more than men; of this I have already spoken in the chapter of barrenness, only chiefly thus. The author of our being having laid an instruction 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 both an agent and patient, (for if they be both of one constitution there can be no propagation,) and therefore man is hot and dry, and woman cold and moist. He is the agent, she the patient or weaker vessel, that she might be subject to the office of the man. It is therefore necessary that the woman should be of a cold constitution, because in her is required a redundancy of matter for the infant depending her. And this is wisely ordered by nature, for otherwise the child would detract from and weaken the principal part of the mother; which would most unnaturally render the production of the infant the destruction of the parent. Now these monthly purgations usually begin about the fourteenth year, and continues till the forty-sixth or fiftieth year, yet not so constantly, but that oftentimes there happens a suppression, which is sometimes natural, and sometimes morbidical. When they are naturally suppress it is either in breeding women or such as give suck; but that which is morbidical must be the subject of the following section.

SECTION II.

Of the Suppression of the Monthly Courses.

THE suppression of the terms, which is morbidick It is an interruption 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 in quality; in quantity, when it is so consumed, that there is not an overplus left, as in viragoes and all virile women, who, through heat and strength of nature, digest and consume all their best nourishment. But women of this constitution are rather to be accounted anthropophagi; 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 menstous blood. The blood may also be consumed, and the terms staved, by much bleeding at the nose; and likewise, by a flux of the hemorrhoids, or by a dysentery, evacuation, and chronical and continual diseases. But, Secondly, the matter may be vicious in quality, as if it be sanguineous, flegmatical, bilious, or melancholious; each of these, if they offend in grossness, will cause an obstruction in the veins.

The womb also may be in the fault divers ways: as, by the narrowness of the veins and passages; by aposthumes, tumors, ulcers, and by overmuch cold and heat, 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 (thought but rarely) by a membrane or excrescence of flesh, growing about the

womb.—The external cause may be heat, or dryness of the air immoderate watchings, great labour, violent motion, whereby the matter is so consumed, that there is no redundant blood remaining to be expelled; whence it is recorded of the Amazons, that being active, always in motion, they had little or no monthly flowers. It may also be caused through cold, and most frequently it is so, making the blood viscous and gross, condensing and binding up 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 confinity which the womb hath with those parts. If the suppression proceeds from cold, it causes 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, and be caused by conception, it may be known by drinking water and honey after supper, going to bed; for if, after the taking it, it causeth the woman to feel a bearing pain about the navel and other parts of the belly, it is a sign she hath conceived, and that the suppression is natural; if not, then it is viscious, and ought medicinally to be taken away, otherwise many dangerous diseases will follow, such as swooning, fainting, intermission of pulse, cachexies, jaundice, dropsy, hardness of spleen, epilipsies, apoplexies, frenzies, melancholy 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 plethoric affect. It will, therefore, be best, in the midst of the menstrual period, to open the liver vein; and for the reversion of the humour, two days before the wonted evacuation, open

the saphæna vein on both feet. And if the repletion be not great, apply cupping-glasses to the legs and thighs. After letting blood the humours must be prepared and made flexible with syrup of stæchas, horehound, hysop, bettony, maidenhair, mugwort, fumitory. Then let a bath be made of rue, featherfew, marjoram, savin, bay leaves, pennyroyal, cammomile and juniper berries. Then after which bath, take of the leaves of hysop, bettony, succory, maidenhair, of each one handful, make a decoction, and take thereof three ounces; syrup of mugwort, succory, maidenhair, mix each half an ounce, and after she comes out of the bath, let her drink it off. Then purge with pil de agarick, elephang, coch. fœtid. Galen in this case commends pilula de hieracum colocintida; for as they be proper to purge the humour offending, so do they open the passages of the womb, and strengthen the faculty by the aromatical quality. If the stomach be overcharged let her take a vomit; but let it be so prepared as to work both ways, lest the humours should be so much turned back, by working only upwards. To which end, take trochisks of agarick two drachms, infuse them in three ounces of oximel, in which dissolve benedict. Laxat. half an ounce, and of electuary eiasarum one scruple, and let her take it after the nature of a purge. When the humour has been purged you may proceed to more proper and forcible remedies, take extract of mugwort, one scruple and a half; musk, ten grains; trochisks of myrrh, a drachm and a half, rinds of cassia, parsleyseed, castor, of each one scruple, and with the juice of smallage make twelve pills, and let her take two every morning, or after supper going to bed. Also administer to the lower parts by suffumigations, pessaries, unctions, injections and infussions. Make suffumigations of amber, galbanum, melanthium, bay-berries, mugwort, cinnamon, nutmegs, cloves, &c. Make injections of the decoction of mercury, bettony origan, mugwort

and eggs, and inject it into the womb by an instrument fit for that purpose. For unctions take ladant, oil of myrrh of each two drachms; oil of dillies, almonds, capers, camomile, of each 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.

THIS 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 quantity. I call it sanguineous, because the matter of the flux is only blood, and differs from the whiter, (of which I shall speak afterwards) and I say it proceeds from the womb, because there are two ways by which the blood flows forth, one 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, is 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 sometime unburden nature of her load, and it is not to be stopt without advice from a physician.

The cause of this immediate flowing is either ex-

ternal or internal. The internal cause may be the heat of the air: lifting, carrying heavy burdens, unnatural child births, &c. The internal cause may be threefold in the matter, instrument, or faculty. The matter, which is the blood, may be vitious two ways. First, in quantity, being so much that the veins are not able to contain it. Secondly, in quality, being a dust, sharp, waterish, or unconcocted. The instrument, viz. the veins, are faulty, by the dillation of the orifice, which may be caused two ways. First, by the heat of the constitution, climate, or season; heating the blood, whereby the passage are dillated, 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's 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 something cold, the body flows forth in 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 an ersion, and not so fast as in a rupture. If by ersion, 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 proceed from the blood, drop some of it in a cloth, and when it is dry, you may judge of the quality by the colour. If it be cholerick, it will be yellow; if melancholy, black; if flegmatic, watterish 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. Thirdly, in corroborating, the veins and faculties. For the first, to cause a regression of the blood, open a vein in the arm, and draw out so much blood as the strength of the patient will permit, and that not together, but at several times; for thereby the spirits are less weakened, and the retraction so much the greater. Apply the cupping-glasses to the liver, that the reversion may be in the fountains: To correct the fluxability of the matter, cathartical means, moderated with astrictories, may be used. If it be caused by sharpness of blood, consider whether the erogen be by salt phlegm, or a dust cholor. If by a salt phlegm, prepare with syrup of violets, wormwood, roses, citron pills, succory, &c. Then take this purgation following. Take mirabolens, chesful, half an ounce; trochisks of abolens, one dram; with plantin water make a decoction: add thereto syr. rosat. lax. three ounces, and make a potion. If by a dust choler, prepare the body with syrup of roses, myrtles, sorrol, purslain, mix with water of plantin, knot grass, and endive. Then purge with this potion: take rinds of mirabolens, rhubarb, of each one dram; cinnamon, fifteen grains: infuse them one night in endive water. Add to the straining pulp of tamarinds, casu, of each half an ounce; syrup of roses, one ounce: and make a potion. If the blood be waterish and unconcoct, as it is in cydrepical bodies, and flows forth by reason of the tenurity, to draw off the water will be comfortable. To which end, purge with agarick, elazerium, and coloquintida. Sweating is also 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 guiacum, sassafras, sassaparella; the gum of guiacum doth also greatly provoke sweat, and pills of sarsaparella are also worthily commended. If the blood flows forth from the opening or breaking of a vein, without an evil quality of itself, then ought corroboratives only to be ap-

plied, which is the thing to be done in this inordinate flux. Bol-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 have continued long, take of mastich, two drachms, olibani, troch. de carabe, of each, one drachm, balanstium, one scruple, make a powder with syrup of quinces, make it into pills, and take always one before meals.



SECTION IV.

Of the Terms coming out of Order, either before or after their usual Time.

BOTH these have an ill constitution of body; every thing is beautiful in its order, in nature as well as in mortality; 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 due before the 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 the 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 weakness of the re-

tentive 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 therefore they come to soon from the faculty provoked by too much plethory, let the person bleed, and use a spare diet, exercising herself as much as she can. If it proceed from a sharp blood, let her temper it by a good diet and medicines. To which purpose, let her use baths of iron water, that corrects 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.

As to the courses flowing after their usual time, the causes are thickness of the blood, and the smallness of its quantity, with the straitness of the passage, and weakness of the expulsive faculties; either of these single may stop the courses, but if all these concur, they render the distemper the worse. If the blood abound not in such a quantity as may stir up nature to expel it, its purging must necessarily be deferred till there be enough. And if the blood be thick, the passage stopped, and the expulsive faculty weak, the menses must needs be out of order, and the purging of them retarded.

For the cure of this, if the quantity of blood be small, let her use a larger diet, and very little exercise. If the blood be thick and foul, let it be made thin, and the humours mixed therewith be evacuated. It is good to purge after the courses have done flowing, and to use calamints; and indeed the oftener she purges the better. She may also use fumes and pessaries, and apply cupping glasses without scarification, to the inside of the thighs, and rub the legs, scarify the ancles, and hold the feet in warm water four or five days before the courses come down. Let her also anoint the

bottom of her belly with things proper to provoke the terms.



SECTION V.

Of the false Courses, or Whites.

THE 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 by the ancients are comprehended under the title of _____ which is a distillation of 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, being both less in quantity, and whiter and thicker in quality, and coming at a greater distance: is different also from those night pollutions, which is only a sleep, and proceed from the imagination of venery.

The cause of this distemper is either promiscuously in the whole body, by a cachoymia, or weakness of the same, or in some other 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 it is 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 dregs and excremental parts, and then the matter flowing forth is blakish. It may also come from cattarrhs in the head, or from any other pu-

trified or corrupt member. But if the matter or the flux be white, the cause is either in the stomach or reins. In the stomach, by a phlegmatical and crude matter there contracted and violated, 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 venticle, is called nourishment half digested, but being corrupt, though it be sent unto the liver, it cannot be turned into nutriment, for the second concoction cannot correct that which the first hath corrupted, and therefore the liver sends it to the womb, which can neither digest it nor repel it, and so it is voided out, still keeping the colour which it had in the venticle. The cause may be in the reins, being overheated, whereby the spermatical matter by reason of tenuity flows forth: the external cause may be the moistness of the air, eating of corrupt meats, anger, grief, slothfulness, immoderate sleeping, and costiveness.

The signs are extenuation of the body, shortness and stinking breath, loathing of meat, pain in the head, swelling of the eyes, melancholy, humidity, flows from the womb of divers colours, as reddish, black, green, yellow, white; it is known from the flowing and overflowing of the courses, in that it keeps no certain period, and is of so many colours, all which do degenerate from blood.

For the cure of this, it must be by method adapted to the cause, and as the causes are various, so must be the cure.

If it be caused by distillation from the brain, take syrup of bettony, stæches and marjoram, purge with pillcoch. Make napalia of the juice of sage, hysop, bettony, hegella, with one drop of oil of cloves, and a

little silk cotton. Take elder, dranth, aromat, rosat, diambre, diamiris, fulbis, of each one drachm, nutmeg, half a drachm, with sugar and bettony water, make lozenges to be taken morning and evening. Also take auriæ alexandriæ, half a drachm at night going to bed.

If the matter flowing forth be reddish, open a vein in the arm, if not, apply ligatures to the arms and shoulders; some have cured this distemper by rubbing the upper parts with crude honey; and so Galen says he cured the wife of Bætius.

If it proceed from crudities in the stomach, or from a cold distempered liver, take every morning of the decoction of lignum sanctum. Purge with pill de agarico de diacolocyathid. fœtida agragative, take of elect. arnot. ros. two drachms, citron pills dried, nutmeg, long pepper, of each one scruple, diagolinga, one drachm; santali alba, ligni, aloes, of each half a scruple, sugar, six ounces, with mint water, make lozenges of it, and take of them after meals.

If with frigidity of the liver, be joined a repression of the stomach, purging by vomit is commended, for which, take three drachms of the electuary of diarsarus. Some physicians also allow of diuretical means, as of opium, petrosolinum, &c.

If the matter of the flux be melancholy, prepare with syrup of maidenhair, epithimum, polipoly, burrage, bugloss, fumetary, hartstongue, and syrup bysantius, which must be made without vinegar, otherwise it will rather animate the disease, than strengthen nature, for melancholy by the use of vinegar is increased, and by Hippocrates, Sylvius, and Aventinus, it is disallowed of as an enemy to the womb, and therefore not to be used inwardly in utrine diseases; purges of melancholy

are pilulæ bumariæ, pilulæ sadæs pilulæ de lap. lazull, diasena and confectio hameagh. Take stamped prunes, two ounces, senna, one drachm, epithimum, polypody, fumitory, of each a drachm and a half, four dates, one ounce, with endive water, make a decoction, take of it four ounces, add unto it confectionis hamech, three drachms, manna, three drachms, or take pile lardatur, pile fœtidarum, agaricetrochiscati, of each one scruple, lapidis lazuii, fivegrains, with syrup of fritemum make pills, and take them once every week.

If the matter of the flux be choleric, prepare with syrup of endive, violets, succory, roses, and purge with mirabolans, manna, rhubarb, cassia. Take of rhubarb, two drachms, anniseed, one drachm, cinnamon, a scruple and a half, infuse them in six ounces of prune broth, add to the straining of manna an ounce, and take it according to art. Take specierum, diatronfantalon, diatragacant, frig. diarrhod. abbatis diacydont, of each, one drachm, sugar, four ounces, with plantain water, make lozenges.

Lastly, let the womb be cleansed from the corrupt matter, and then corroborated; and for the cleansing thereof, make injections of the decoction of bettony, featherfew, mugwort, spikenard, bistort, mercury, sage, adding thereto sugar, oil of sweet almonds, of each two ounces. Then to corroborate the womb, prepare trochisks in this manner: take of featherfew, mugwort, nutmegs, mace, amber, ligni aloes, storax, red roses, of each an ounce, with mucilage of tragacanth, make trochisks, cast them on the coals, and smother the womb therewith; fomentations may also be made for the womb of red wine, in which hath been decocted mastich, fine pole, balustia, red roses. And drying diet is best, because this distemper usually abounds with phlegmatic and crude humours. Immoderate sleep is hurtful, but moderate exercise will do well.

Thus have I gone through the principal effects 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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