

A N
E S S A Y
O N T H E
P R A C T I C E
O F
M I D W I F E R Y.

STUDIO MINUENTE LABOREM.

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T O

DOCTOR HUNTER,

T H I S

ESSAY ON MIDWIFERY

Is most humbly dedicated,

By his most obedient Servant,

THE AUTHOR.

P R E F A C E.

EVERY Essay, however sensibly or accurately written, seems naked without a Preface or Dedication: had I prefix'd my name to this, I should have courted the patronage of some one of the friends who advis'd the publication. But as that is not the case, I have boldly consign'd the trifle to the wide world, without a guardian or protector; if it is a work of merit, it will stand in need of no protection; if it should be judg'd to be not, no protection
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whatever can save it in the unprejudic'd court of criticism. Be it which it will, I shall no otherwise regard its sentence, than to lament I have it not in my power (which was the sole design of this essay) to serve the public. That there are faults in it I am very well convinc'd, on a cool perusal after publication; therefore I make this declaration, to anticipate those little critics who prey upon the reputation of little authors. Could I have observ'd any flagrant faults, they should have been alter'd, or the publication entirely suppress'd. However, for the encouragement of those, I'll undertake
for

for every fault they find out, I will shew them two. The true critic, I know, is not to be biaſſed with whatever is ſaid for or againſt, but by the equal ſcale of his own judgment. Was he not, many a moving circumſtance may be hatch'd up to avert the dreadful judgment of a critic. The ſhort time allowed to do it in, or what is more frequently the caſe in the court of criticism, as well as at the Old-Bailey, the youth of the culprit, might ſoften the offence. Theſe unmanly ways I deſpiſe, and ſhall dare either modeſtly confeſs my inability, or boldly ſtand on my own footing. However any one may cen-

censure the author for his offering this essay to the perusal of the public, at a time when every one sets up for a critic; yet I am certain no one can blame him for his motive in writing it. The work may be badly executed, but the intention is above censure.

The good Samaritan poured wine and oil into the wounds of the poor afflicted; but should his benevolence and charity be call'd in question because it might not perhaps be the practice of our modern hospitals? Should I profess that an anxious care for the welfare of the tender sex in
their

P R E F A C E. v

their greatest perils was my motive for this publication, I should not be guilty of a falsehood ; nay more, I am convinc'd he cannot have the feelings of humanity, who neglects the wants or afflictions of those, whom he was born to relieve and defend.

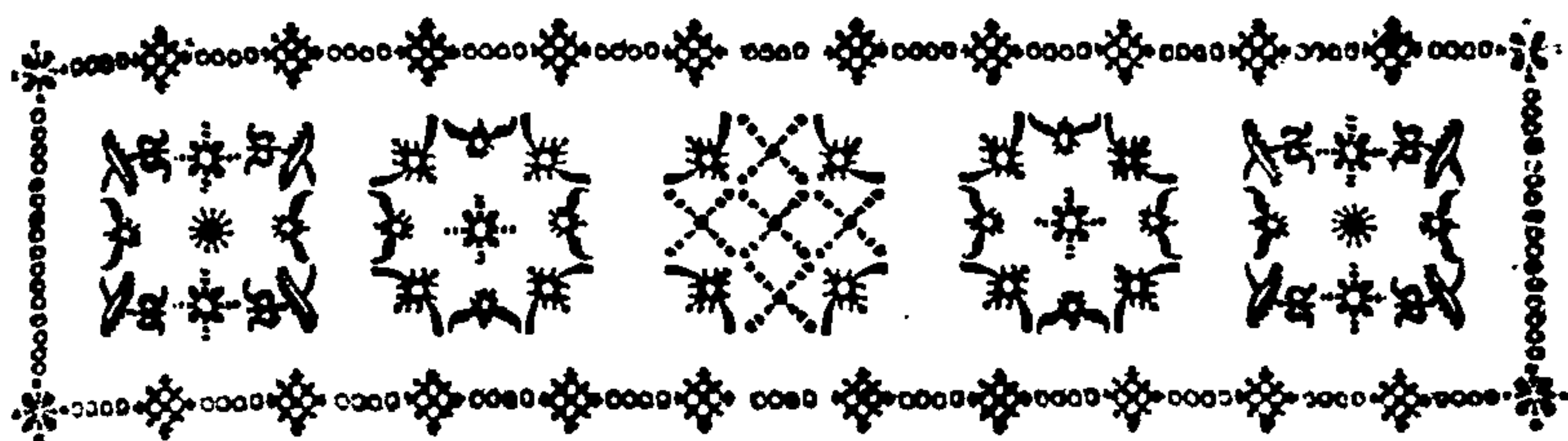
The Author.

Humani nihil a me alienum puto. Ter.

The Author residing at a distance from the Press, the reader is desired to excuse the following

E R R A T A.

- Page 6. 4th line from the bottom, for *wedge like a cartilage*, read *wedgelike cartilage*.
- Page 9. 2d line from the bottom, for *the Crura*, read *two Crura*.
- Page 12. 3d line, for *Valvula* read *Valvulæ*.
- Page 13. 5th line of the note for *Vagina*, read *Vaginæ*.
- Page 14. 10th line for *Valvula* read *Valvulæ*—In the note *Flour Albus*, read *Fluor Albus*.
- Page 22. 2d line for *Chorion* read *Amnion*.
- Page 23. 7th line read *by the Umbilical Chord*.
- Page 24. 1st line for *Vera* read *Veria*.
- Page 27. 4th line for *Falci* form read *falciform*.
- Page 31. 8th line for *Mordern* read *modern*.
- Page 32. 14th line for *doses* read *dozes*.
- Page 40. 12th line for *gain* read *again*.
- Page 44. dele *upon*.
- Page 53. 2d line for *brain* read *head*.
- Page 59. last line but two, for *we should separate*, read *we should never separate*.



A N

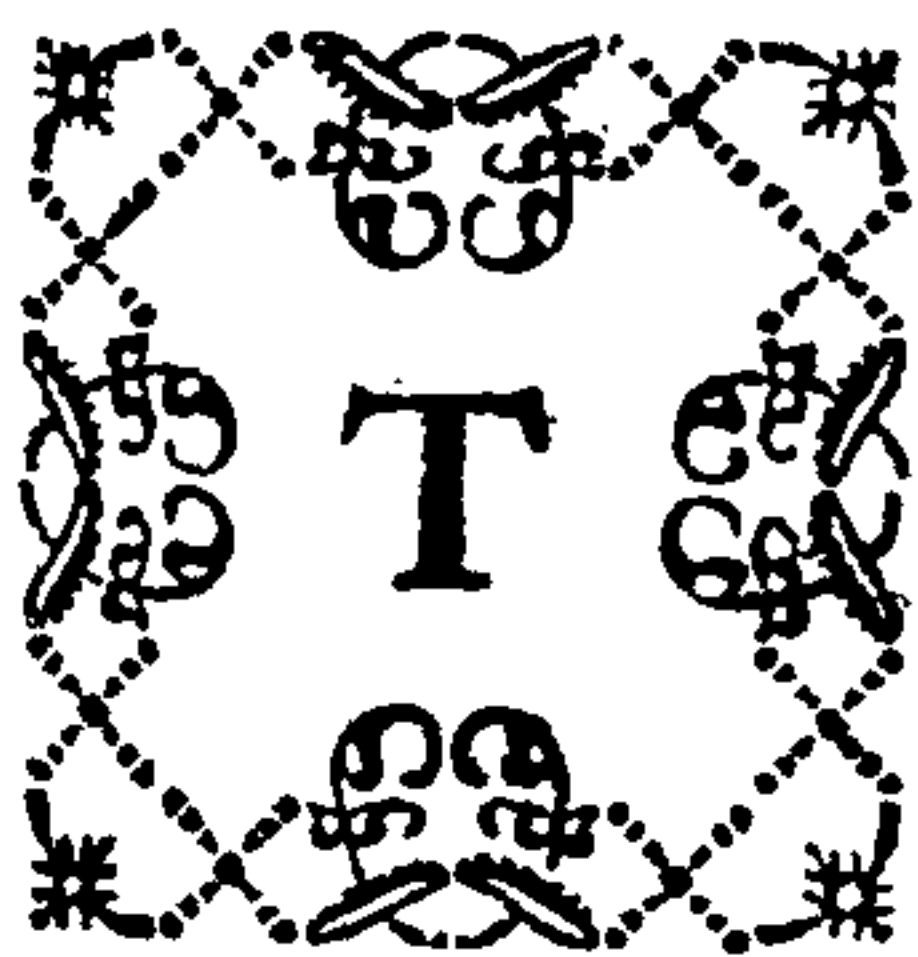
E S S A Y

O N T H E

PRACTICE of MIDWIFERY.

C H A P. I.

Of the PELVIS.



THE *Pelvis* is composed of eight bones, viz. the two *Ossa Pubis* before, the *Ossa Ischii* and *Ossa Ilii* on the sides, and the *Os Sacrum* and *Os Coccygis* behind: The lower part, which alone is called the true *Pelvis*, is considerably narrower than the upper; it contains the *Bladder*, *Uterus*, and *Intestinum Rectum*.

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The *Os Sacrum* has at its Base two large thick Shoulders, by which it is united to the *Ossa Ilii* by something like a Suture.

The *Os Coccygis* is made up of four little Bones, somewhat moveable, and terminates in a point a little above the *Anus*.

The *Ossa Ilii* and *Ischii* are strongly united together at the *Acetabulum*, and you may divide them by drawing two lines across the hollow.

The *Ossa Ilii* form but a very small share of the true *Pelvis*.

The *Ossa Ischii* are of a triangular form, and have a considerable tuberosity on the inside, called the Spine; between these and the *Ossa Pubis* on each side is the *Foramen Magnum*.

The *Ossa Pubis* are united to each other by a wedge like a cartilage, that allows some very small motion; they have been known to separate from some disease, but I believe never from labour pains only.

The

The brim of the *Pelvis* lies backward; thus, if a line be let fall from the middle of the *Thorax*, it will fall before the *Symphisis* of the *Pubis*: The figure of the brim is oval, with two diameters, the longer from side to side; the head of the child is oval, but it cannot be so well delivered in the long axis, as in the diagonal direction, that is, from the union of the *Pubis* and *Ischium* to the joining of the *Ilium* and *Sacrum*, as it may chance to lodge on the spines of the *Ischium*.

The depth of the *Pelvis* forward is about two inches, at the sides four inches, and behind six inches; whence the child in its passage must necessarily move in a circular manner, for which no direction is so well suited as the diagonal; and the lower opening being of a square figure, the spines of the *Ischia* obstruct the long axis.

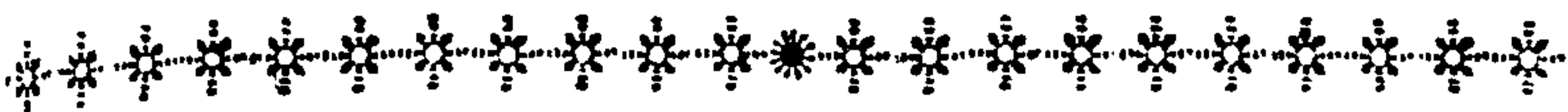
Some *Pelves* are circular, these are generally large, and afford an easy passage to the child, nor is the triangular shape very unfavourable.

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A distorted *Pelvis* is from a particular softness of the bones in infancy, wanting the due proportion of bony or earthy matter, owing to rickets, &c. In these the base of the *Sacrum* can easily be touched by the finger. And the *Symphisis* of the *Pubis* will be very acute.

Besides this, an inconvenience will arise from too large a *Pelvis*, as if the pains be very strong, and the orifice of the *uterus* very rigid, the head of the child may push the orifice down before it.

In a well formed *Pelvis*, the diameter from the base of the *Sacrum* to the *Symphisis* of the *Pubis* should be full four inches.



C H A P. II.

Of the external Parts of Generation.

THESE are the *Mons Veneris*, the *Labia Externa*, the *Nymphæ*, the *Clitoris*, the *Vaginal Orifice*, the *Glandulæ Myrtiformes*, and the *Muscles*.

The *Mons Veneris* is a mass of fat, at the angle of the *Pubis*, covered with hair.

The *Labia Externa* run down from the *Mons Veneris* to within an inch of the *Anus*.

The *Nymphæ* lie immediately under the *Labia Externa*; they are two ruddy lips, one generally larger than the other.

The *Clitoris* lies immediately under the angle of the *Nymphæ*, made up of the *Crura*, running from the lower part of the *Pubis*, to be united

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here;

here ; it is a spongy substance, the extremity is called *Glans* ; it has likewise a *Septum* or *Frenum*, with a *Præputium*, like the *Penis*.

A little beyond the *Clitoris* but within the *Vaginal Orifice*, may be felt a prominence made by the *Urethra*, which directs the *Catheter* without the necessity of looking on the part.

The *Glandulæ Myrtiformes* are seen at the lower part of the *Vagina* when the *Labia* are opened ; they are produced by the *Hymen*.

The *Muscles* are the *Sphincter Vaginæ*, the *Erectores Clitoridis*, the *Levatores Ani*, and *Transversales Perinæi*.

The *Sphincter Vaginæ* furrounds the orifice of the *Vagina*, and contracts it in coition.

The *Erectores Clitoridis* rise from the protuberance of the *Ischia*, and running obliquely in the direction of the *Crura*, are inserted into the *Glans*, the name shews their use.

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The *Levatores Ani* in women have fibres, which surround the *Vagina*, and contract it at will.

The *Transversales Perinæi*, seem part of the *Levatores Ani*.



C H A P.



C H A P. III.

Of the Internal Parts.

TH E S E are the *Vagina*, the *Urethra*, COWPER's Glands, the *Os Tincæ*, the *Uterus*, the *Arbor Vitæ*, or *Valvula MORGAGNI*, the *Tubæ Fallopiantæ*, the *Fimbria* or *Morsus Diaboli*, the *Ovaria*, and the *Ligaments*.

The *Vagina* is a strong membranous canal, reaching from the *Os Externum* to the *Os Tincæ*, lying between the Bladder and *Rectum*; before child-bearing it is usually full of *Rugæ*, the greater number, towards the lower extremity, and immediately under the *Labia*.

The *Urethra* opens by an orifice, large enough to admit a goose-quill, into the *Vagina*, just behind the *Clitoris*, and is surrounded at its extremity by a substance very like the Prostate Gland in men, hence the *Urethra* is strong and thick that it cannot be safely dilated.

In the lower part of the *Vagina*, near the *Carunculæ Myrtiformes*, open the ducts of COWPER'S Glands by two small orifices, one on each side ; though the glands are themselves seated in the *Perinæum*; they separate when pressed a gelatinous liquor, which serves to facilitate the passage of the *Penis* in coition.

The *Uterus* is said to resemble a pear, a little flattened, from its situation; its broadest part is called the *Fundus*, its lower and narrowest *Cervix*, which opens into the *Vagina* by the *Os Tincæ*: * The substance is nearly the same throughout, but rather thinnest towards the two angles of the *Fundus*, where the *Tubæ Fallopiantæ* enter;

* As the *Uterus* rests upon the *Vagina*, a *Prolapsus Uteri* will naturally produce a *Prolapsus Vaginæ*, and the Bladder being connected to the *Vagina* will be brought down also: One may easily distinguish a *Prolapsus Uteri*, by looking for the *Os Tincæ*. The *Prolapsus Vagina* is always attended with a *Fluor Albus*, or an increased discharge of the *Menses*, the removal of which is consequent of the cure of the *Prolapsus*.

enter; and has a whiter appearance at the *Cervix* than *Fundus*; the cavity is triangular; having two angles at the upper end, and one where the *Cervix* commences; the cavity becoming smaller till it reaches the *Os Tincæ*.

Near the extremity of the *Cervix* may be seen a little white ridge, from which run small *Rugæ*, on each side transversely, like the branches of a tree, from hence called the *Arbor Vitæ*, otherwise *Valvula MORGAGNI*; between these are small glands, which according to some secrete a thick *Mucus*, which glews up the *Os Tincæ* in time of gestation; they are the seat of the *Fluor Albus*. *

The *Tubæ Fallopianæ* run from the upper angles of the *Fundus Uteri* along the upper edge of the *Ligamenta lata*, and terminate in a jagged extremity, called *Fimbria*, or *Morsus Diaboli*,
round

* Injections are of great service to keep the parts clean, in a *Flour Alous*.

round the *Ovaria* ; they serve to carry the *Semen Masculinum* to the *Ovum*, and after impregnation to carry it back again to the *Uterus*.

The *Ovaria* are oblong bodies behind the *Tubæ Fallopiantæ* covered all round by the *Peritonæum*, which ties them on one side to the *Fundus Uteri*, and on the other to the *Morsus Diaboli* ; they are plump and smooth in young women, but shrivelled, flaccid, and often diseased in old ; their substance is cellular, having a number of small bags full of *Serum*, supposed by some to be the *Ova* : The *Ovaria* are supplied with spermatic vessels from the emulgents, like the *Testes* in men ; these with the *Hypogastric* vessels are spread upon the *Uterus*, the *Tubæ Fallopiantæ*, *Ligamenta lata* and *rotunda*, *Vagina*, &c. making frequent *Anastomoses* with each other.

The *Ligamenta rotunda* lie behind, but below the *Uterus* ; they seem of no service as ligaments, but rather a *Plexus* of vessels.

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The *Ligamenta lata* are formed by a doubling of the *Peritonæum*, and serve as a kind of *Mesentery* to the *Uterus*.





C H A P. IV.

Of CONCEPTION.

THE most received opinion concerning Conception is, that the *Semen Masculinum* is conveyed through the *Os Tincæ* into the *Uterus*, from whence by Orgasm it is conveyed by the Fallopian Tubes to the *Ovaria*, where it impregnates and receives a *Nidus* in the *Ovum*, which then drops by the same channel to the womb for nourishment.

LEWENHOECK observed, by means of his glasses, innumerable *Animalculæ*, like tadpoles, swimming in the male *Semen*; these he supposed were conveyed as before said: This *Hypothesis* is very ingenious, it is plausible, but not certain; the same phenomenon has appeared in other juices of the body: In fact, all that has yet been discovered amounts to very little; perhaps it is happy for us we still remain in ignorance,

rance, as the knowledge might introduce a train of ills too shocking to think of.

When the *Fætus* is brought back to the womb, it is nourished by absorption from the uterine vessels of the mother, by the *Placenta*; of which we shall speak more fully hereafter.





C H A P. V.

Of the Symptoms of Pregnancy ; the Progress of the Child, and Women's Reckoning.

THE symptoms of pregnancy are oppression ; loss of appetite ; vomiting, particularly in a morning ; a longing desire for things at other times disagreeable, and dislike to others ; the breasts swell ; the nipples become more elevated, and have commonly a brown ring round them ; their eyes sink, and they are generally fretful, either from the head-ach, or tooth-ach, &c. they are dull ; the belly flattens till towards the third month ; a sure sign is a discharge of brown *Gruma* from the breasts after any of the foregoing ; the vomiting and loss of appetite go off generally about the fourth month ; the *Uterus* is heavier and more fixed.

In the beginning of pregnancy the *Uterus* sinks lower down, which causes the flatness of the *Abdomen*.

Rather before the third month the *Uterus* begins to rise out of the *Pelvis*, and from this time the *Abdomen* begins to swell.

At five months the tumour reaches half way from the *Pelvis* to the navel; and the *Cervix* is reduced to half its length.

At seven or eight months it rises to the navel.

At the full time it presses the stomach.

To examine if a woman be with child, it is best for her to stand leaning a little forward; then kneeling behind her, we are to carry up our hand with the fore-finger bent on the thumb, which when we have gained the orifice is to be extended, and in this direction we may search for the *Os Tincæ*; but 'if we want to feel the child, we must turn the soft part of the finger forwards, and just above the *Symphisis* of the *Pubis* we shall generally feel the child's head.

The general posture of the child in the womb is to be conceived sleeping; that is, with its head hanging

hanging down, the belly of the child to the back of the mother, legs drawn up, &c.

Women reckon three ways, as first, from the loss of the *Menses* they reckon a month.

Secondly, They reckon from the quickening or first motion of the child, from which they have five months to go.

Thirdly, From the very time of conception; but this is confined to women who have had many children, and can only be known from experience.



C H A P.



C H A P. VI.

Of the Membranes, the Waters, the Umbilical Chord, and Placenta.

TH E *Fætus* in *Utero* is enveloped in two coats or membranes, the *Chorion* which is internal, and the *Chorion* which is external; within these are contained, as well as the *Fætus* and its appendages, a quantity of fluid called *Liquor Amnii*, vulgarly, the waters; which serves as a proper medium between the child and the surrounding parts, to prevent injuries from blows, &c. at the time of labour it also serves to lubricate the passage for the child in the delivery.

The *Amnion*, which immediately contains the *Fætus* and waters, is a smooth transparent and thin membrane, but firm and compact, and has but few blood vessels.

The *Chorion* lies round the *Amnion*, and is connected to it by an intervening gelatinous substance;

stance; it is made up of two *Lamellæ*, the internal finer, thinner, and more transparent than the *Amnion*; it readily peels off from the outer *Lamella* except on the inside of the *Placenta*, where it adheres very closely; whatever vessels these membranes have, they seem to come from the *Uterus*, as they cannot be injected by *Umbilical Chord*; the external *Lamella* of the *Chorion* is an opake fleshy membrane, uneven, with many vessels on it.

The *Amnion* and *Chorion* form complete bags, except at the root of the *Umbilical Chord*, down which it is continued, making a kind of *Capsula*.

As there is much less water answerable in the latter end of pregnancy than in the beginning; hence it is very prejudicial for the women to stir much in the two last months of gestation, because if the child should get into a bad posture, it will not be able to recover itself.

The *Umbilical Chord* is composed of two arteries and one vein; the arteries rise from the
Iliacs,

Iliacs, and the vein terminates in the *Vera Porta*; its length is various, but generally about a foot and a half; the vessels run in a tortuous manner.

The *Placenta* is to the child, what the roots are to the plant; it is a thick, circular flat cake; whose substance, when recent, is like that of the liver; it is composed of an innumerable Compages of vessels, which come from the *Umbilical Chord*.

It has been doubted whether the *Uterus* grows thicker or thinner in pregnancy; the vessels that run in and upon the *Uterus* are always distended in proportion as the *Uterus* itself is; but the veins bear no proportion to the arteries, becoming much larger; they are called *Sinuses*; those veins which before were scarce visible become, at the latter end of gestation, large enough to admit a quill, or even the top of the little finger: After delivery, and the separation of the *Placenta*, an effusion of blood is produced, called the *Lochia*, but the contraction of the *Uterus*, and the elasticity of the vessels, soon put a stop

stop to the discharge ; this shall be considered more fully in another place.

When the membranes break, and the waters are discharged, the *Uterus* is always in contact with the child ; a thing particularly to be considered in all preternatural cases, when the child must be turned ; as it is impossible to push up the child, and turn it round as in a hallow cavity.





C H A P. VII.

Of the Particularities of the Fætus, and the Circulation of the Blood.

THE *Fætus* has several particularities ; as the peculiar vessels ; these are the *Ductus Arteriosus*, the *Ductus Venosus*, and the arteries and vein in the navel string.

The *Ductus Arteriosus* arises from the extremity of the pulmonary artery, and opens at its other end into the *Aorta*, just below its curvature, making a communication between the *Aorta* and the pulmonary artery.

The arteries of the navel string are a continuation of the internal iliac arteries, which pass from each side through the navel to the *Placenta*.

The vein of the *Umbilical Chord* is formed by
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the different branches of vessels from the *Placenta*, and being continued along with the arteries forms with them the chord, enters the *Abdomen* at the navel, and running along under the *Falci* form ligament to the great fissure on the concave side between the two lobes of the liver, gets to the *Portæ*, and there communicates with the *Vena Portarum* by its main trunk ; but the umbilical vein also sends off a branch called *Ductus Venosus*, which runs between the *Lobulus Spigellii*, and the left and small lobe of the liver to enter the *Vena Cava Hepatica*, on the left side just where that is piercing the left trunk of the *Vena Cava Inferior* ; hence it is plain that the greatest part of the blood brought back by the umbilical vein enters the *Vena Portarum*, and circulates through the liver, then gets into the trunk of the *Vena Cava* by the *Vena Cava Hepatica* ; but that some portion, viz. that carried by the *Ductus Venosus*, will immediately get into the trunk of the *Cava*, which ascending through the diaphragm, enters the right *Auricle* of the heart, and from thence is pushed through the *Foramen Ovale* (another particularity of the

Fætus) into the left *Auricle*; this may be said chiefly of the blood returning from the *Placenta*; the remaining, or what is brought from the veins of the *Fætus* by the *Cava Superior*, passes from the right *Auricle* to the right *Ventricle*; from thence in its endeavours to pass through the lungs by the pulmonary artery, two thirds of it escape into the *Aorta* by the *Ductus Arteriosus*, so that not above one third of the blood passes through the lungs, every time it is brought back to the heart; nor would it be of any use while the lungs are in this collapsed state. The blood which is thrown out from the right to the left *Auricle* through the *Foramen Ovale* passes not through the lungs at all, but goes immediately to the left *Ventricle*, and from thence to the *Aorta*.

Some time after the child is born and grown up a little, the *Foramen Ovale* becomes closed up, the peculiar ducts become ligamentous, and the circulation is carried on as in the adult.

How the child comes to live in the *Uterus*, and even a little while after, without breathing;
and

and why respiration is afterwards necessary to life, is a secret the Almighty has hidden from us.

Another particularity of the *Fœtus* is the gland *Thymus*, situated in the upper part of the cavity of the *Thorax*, lying before the large blood vessels rising from the heart; it appears to be a gland of the conglomerate kind, but its use is unknown.

The lungs of the *Fœtus* before birth, having never been inflated, are not grey as in the adult; but of a deep red colour, and heavy as the liver, or any other solid part, readily sinking in water.

As the child never breathes till it is delivered, and the lungs have the appearance just described, it has been usual, on suspicion that a woman has murdered her child, to have the lungs examined; if they are found solid, and of a deep red colour, and sink to the bottom, when immersed in water, it is considered as a mark of innocence; and they immediately conclude the child still born; but if of a greyish colour, and specifically

specifically lighter than water, then the child having plainly breathed, is said to have been murdered. But this experiment, though perhaps generally true, is sometimes fallacious, and not to be depended upon in a case of life and death; for there have been instances of children lying some hours after birth without breathing, and yet have afterwards lived; so that the child is not always still born, when it has not breathed: one reason why the lungs swimming in water is no proof of the child's having been born alive is, because the lungs, after lying, may generate air, and thus become specifically lighter than water; or, perhaps, some one may have blown air into the lungs.



C H A P.



C H A P. VIII.

Division of Labours and Posture of the Woman.

THE antients divided their labours into two kinds.

First, The natural, under which were comprehended all in which the mother's pains could expel the child.

Secondly, The preternatural, in which the child was turned and extracted.

By modern authors labours are divided into three classes, the natural, the laborious, and the preternatural.

In the natural birth the mother's pains expel the child's head foremost, either easy or lingering.

In

In the laborious birth the head presents, but from the largeness of its size, or ill direction, or a bad formation of the *Pelvis*, violent means are used to extract it.

A preternatural birth is when any part besides the head presents.

A natural labour is again divided into the *speedy* or *lingering*; thus, if a woman be delivered in three or four hours, it may be called a *speedy* labour; but if, as it sometimes happens, the woman be two or three days in labour, it may be called *tedious* or *lingering*.

There are also other terms, as the *sleepy* labour, in which the woman dozes between each pain; this is of service, by giving the woman strength to hold out the longer.

The *sick* labour; in this the woman vomits, which is considered as serviceable; the vomiting helping to expel the child, and bringing down a moisture to relax the parts.

The *dry* labour, in which the membranes breaking too soon leave the parts deprived of that fluid which is necessary to dilate the passage; this is generally very tedious.

The *wet* labour; the labour is so called when the waters come part away at the bursting of the membranes, and part remains behind, coming away at intervals, and not suffering the *Uterus* to contract; this is also often very tedious.

The posture of women in delivery differs in different countries; in some a stool in form of a horse-shoe is made use of for the woman to sit upon, while an assistant supports her behind; the weight of the *Fætus* is undoubtedly some advantage, but then the woman must soon grow tired, and is much exposed to the cold.

Others deliver half sitting half lying, with the knees bent toward the breast; but here the woman is often cramped, and the situation causes a considerable tightness on the *Perinæum*. —

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There are other methods, as sitting in a woman's lap, &c. but the most convenient as well for the accoucheur as the woman is the horizontal posture, either on a bed or couch, with her back to the midwife ; after delivery she may be undressed and put to bed ; the only objection is want of weight, which is not very considerable ; as she may sit up and walk about a little till the membranes are ready to break.





C H A P. IX.

The Natural Labour.

TH E progress of a natural labour should be well observed; it is divided into three stages.

First, From the woman's attack, to the breaking of the membranes.

Secondly, From the bursting of the membranes, to the expulsion of the child.

Thirdly, The extraction of the *Placenta*.

A *Mucus* or shew will generally precede, and is a sign of labour.

The first pain the woman feels is generally in her back, which soon goes off, but returns again with double violence, and gets to the loins, and at last quite round, then they have a bearing

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down,

down, a desire to make water; sometimes the pain is mostly or entirely forwards, owing to a stricture on the parts.

If there be a discharge of *Mucus* from the *Vagina* tinged with blood, warm cloths should be applied; if the woman be in pain at the time, it is a pretty certain sign of labour.

When the pain is in the back, the woman seems very unwieldy; then it comes lower, and presses on the bladder; and at last on the *Rectum*, which gives a motion to stool: By these symptoms we may nearly guess how far the labour is advanced.

On examining you shall find the orifice soft and open, and when in pain the membranes will bag down and push to get through the orifice; when the pain goes off, the orifice will relax; it gives way more and more to every pain.

If

If the woman talk much, &c. the labour is not far advanced ; they are then very quiet, they keep in their breath, they seem to have a motion to stool, and do not care to speak.

The cause of the bagging is the contraction of the *Uterus* from the pain, which in time bursts the bag, and brings on the second stage, the expulsion of the child.

Sometimes nature is of herself unable to break the bag at the right time, from the toughness of the membranes ; it is then necessary for the midwife to do it by pressing it against the head of the child and scratching it with the nail ; but this should never be done with the first child, or till the *Os Uteri* will admit a large share of the head ; and the external parts are sufficiently dilated, for when the membranes break too soon, there may be danger of the womb being pushed down before the child, the *Perinæum* torn, &c. The business of the midwife is to assist, never to counteract nature.

After

After the waters are discharged, the child advances much faster, as the parts are more dilated; till this time we do not exactly know the situation of the child; there is no certain direction for the child's head entering the *Pelvis*; but it generally inclines to the diagonal; in which case we shall generally find the lesser Fontanel in one or other of the groins, and the *Occiput* consequently to that groin; the face will be at the opposite part of the *Pelvis*, lying to the union of the *Sacrum* and *Ilium*; an ear will be felt lying to the *Pelvis*, and that will direct which side the face is lying to; the head now disengaged from thence is by the resistance of the *Perinæum* pushed out in a circular direction; when the head is come out, and the body does not follow, apply one hand over the *Occiput*, and the other under the chin, and draw it along; or else introduce a finger under the armpit: If the child is strong it cries as soon as born; if it do not, put the little finger into its mouth and stimulate to vomit: If the child be alive, apply one ligature of six or seven common sewing threads doubled, about four inches from the navel,

navel, and another at any distance on the chord from it, with a pair of scissars cut between them, and give the child to the nurse in a receiver.

The next stage is the extracting of the *Placenta*; we are first to feel the belly if there be another child, in which case the abdomen will seem but little diminished in its size; if there be none other, we shall only discover a round tumour or lump caused by the *Placenta*.

In about a quarter of an hour, or when the pain comes on, the *Placenta* may be extracted by twisting the rope twice or thrice round the fingers of the left hand, and introducing two fingers of the right hand into the *Vagina*, and pressing it down towards the *Sacrum*.

There is no doubt but the *Placenta* would be expelled by nature, but perhaps it would be some time first; and might occasion an inflammatory, or even a putrid fever, by dissolving in the *Uterus*, therefore it is certainly best to assist and bring it away before the midwife leaves the room;

room ; nor is it to be done so properly immediately after the child. It will be right to look at the child's ligature, lest it should bleed, and the child be lost.

There is seldom an occasion to introduce the hand to remove the *Placenta* ; if it sticks very strongly, let the woman blow in her hands, take a pinch of snuff, and the nurse may gently rub her belly.

The immediate extraction of the *Placenta* gives great pain, and is much more difficult ; gain in time of pain the contraction of the *Uterus* assists separation ; may we not fear, even an inversion of the *Uterus* from using violence ?

The reasons why two ligatures are preferable to one, are these :

First, For cleanliness.

Secondly, It separates easier when gorged with blood.

Thirdly,

Thirdly, There may be two children, and *Placenta* of each may anastomose with the other; in which case the other child would continue bleeding all the time it remained in the womb, and perhaps be lost, from the effusion of blood.



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C H A P.



C H A P. X.

DIRECTIONS and CAUTIONS.

IN the first stage when the pain comes on, it will be right to apply the forefinger of the right hand and press the *Perinæum*, which will seem to the woman as though the head of the child was coming down, and cause her to make the most of her pains. — But if the *Pelvis* be very large we should act cautiously.

We ought to take particular care not to mistake false pains for true; in false pains the *Os Uteri* will be still closed, and if she has any time to go, will be hard and contracted, whereas if she be really in labour, the orifice is soft and open, and the membranes bag in time of pain and retract; in false pains there is no passing down or bagging, no fullness or tension of the membranes, or if there be a little bagging it

it will not give way when the pain is off: False pains may be caused by stimulus from wind or acrimony in the bowels; it will be right to give a clyster of chamomile infusion, &c. and afterwards an opiate; this will give her strength; nor will it harm if the pains are true; false pains mistaken for true may be of bad consequence.

After delivery of the child apply warm cloths to the *Vulva*, as also after the extraction of the *Placenta*.

As the woman's belly seems very lax after her delivery, it is necessary to put a napkin or something round her for a suspensory, the petticoat with the wide band is most in use.

Let the nurse provide a sufficient quantity of clouts by the fire, thread, scissars, warm water, and a basin for the *Placenta*, the receiver and other necessaries for the child.

Let the bed be guarded with sheets several times doubled.

In the woman's first child the membranes should come out of the *Labia externa* rather than the midwife break them.

We may generally, in a natural labour, feel the child's head, by passing upon up the finger between the bladder and *Uterus*.

If the labour is very quick, and it presses much on the *Perinæum*, we must keep the finger against the head of the child to support it, and desire the woman not to bear down too much.

When the head presses against the *Perinæum* we should support it rather than scoop the head out.



C H A P. XI.

Of the TEDIOUS LABOUR.

THE birth may be tedious through want of pains, or the woman may be worn by some disease before labour, want of sleep, *Diarrhæa*, &c. It is not right to force nature by volatile stimulating medicines or spirits; we should rather give an opiate if she has not natural sleep, and let her rest a little, the pains will come on afterwards.

If it arise from too great a head, we must take time and assist by gently pressing on the *Perineum*; if the waters are discharged too soon, we should endeavour to dilate the *Os Uteri*, but not hook in the finger and draw down, as that may cause a *Prolapsus Uteri*.

In

In an unfavourable direction, if not altered by the assistance of the hand, it becomes laborious.

When the membranes are too strong for nature to burst them, the midwife, as before said, must assist.

When the tedious birth is owing to rigidity from age, as suppose the first child at forty, we must give the parts time to relax.



C H A P.



C H A P. XII.

Of the LABORIOUS BIRTH.

AS before said, under this class are comprehended all labours where the mother's pains are ineffectual to expel the child, and violent means are made use of.

When the head is lodged on the spines of the *Ischium*, with the face lying to one side, we must endeavour to turn the face to the *Sacrum*, as the more violent the mother's pains, the faster will the child be lodged in the passage; if this cannot be done by the hand, we must make use of the *Forceps*; by sliding the finger into the hollow under the *Symphisis* of the *Pubis*, we may feel the ear, and by that judge on which side the face is lying.

The *Forceps* ought always to be in contact with the child's head; wherefore they should be
widest

widest towards the heel of the instrument, to take in the convexity of the head. The blades should be covered with soft leather, being first rubbed over with wax, they should be well polished ; the handles should be of wood covered with leather, they should be furnished with a groove to tie the ligature in ; the interstices of the blades should be free and even, to receive the convexity of the parietal bones ; after they have been once used, the leather should be taken off, the fangs scowered very bright, and fresh leather put on.

They are never to be used till the head is in the *Pelvis*.

Suppose as before said the larger axis lies on the spines of the *Ischium*, the woman must lie on her side, we must examine to which side the face is lying; always apply the *Forceps* first from left to right, and then from right to left; pass one blade, gently pressing on the head two fingers, guiding it right between the head and
Uterus,

Uterus, then let the handle fall back ; introduce the other blade, make the ligature, minding that no hairs are pinched in ; we are to throw the face into the hollow of the *Sacrum*, by gently drawing from side to side ; keep the handles down till the *Occiput* is out of the *Pelvis* ; but after the child is right, we shall seldom have occasion to use the instruments to pull with.

In a large head and narrow *Pelvis*, where the ears are lying to the sides, the face to the *Sacrum*, the instruments are to be passed in right angles with the brim of the *Pelvis*. They are to be applied along the sides of the child's head, bearing on the parietal bones opposite the *Vertex*, exactly between the two *Fontanel*s, over the child's ears : This is always the method of applying them ; — when the ears lie to the sides, the woman should lie supine on her back, her shoulders and head a little raised, her knees supported ; the blades, as in every case, should first be introduced from left to right, and then from right to left ; we must keep the handles back, and mind they slip not in tying ; we must now

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imitate

imitate the natural labour, as much as possible; never let any pain pass without assisting; when the pain is off, we may examine how far the head is advanced, taking care of the external parts.

When the face is lying towards the *Pubis*, we must apply the *Forceps* in the same manner as the last, and extract it as it lies; we must not turn the child lest we dislocate the neck.

When the face presents, the chin is generally on one side, and an ear may be felt under the *Symphisis* of the *Pubis*; we must bring the chin to the *Os Pubis*; apply one fang of the *Forceps* between the ear and the *Pubis*, the other fang between the other ear and the *Sacrum*, the handles must be kept to the chin, the blades will then be over the parietal bones, bring the chin round, keeping the handles up enough, and draw in a circular manner; if the chin does not start from the *Pubis*, pass the finger up and disengage it.

From

From what has been said of the use of the *Forceps* we may conclude, that they never ought to be applied unnecessarily, or neglected in time of danger. The exact position of the head should be known before the application of the *Forceps*, otherwise the consequences must be bad.





C H A P. XIII.

Of the distorted Pelvis, large Head, &c.

IF the *Pelvis* is distorted, we may feel the base of the *Sacrum* with the finger, and the *Symphisis* of the *Pubis* will be found very acute; if the child is at its full time it cannot possibly pass alive; in this case, where the efforts of nature are insufficient, we must have recourse to surgery, to lessen the bulk of the head; the best method in use (perhaps) is this, take a pair of scissars bent towards the points, armed with two shoulders, pass them on two fingers of the left hand up to the head, push the points in at the future in the longitudinal direction, the shoulders direct how far; then open them to lengthen the wound, shut them and drive them into the texture of the brain, and turn them round to destroy it; withdraw them, and with the finger

ger or crotchet extract the brain; and afterwards extract the brain by hooking the finger or crotchet on the bones; if one piece breaks off, try another, till it either all breaks off or comes away; pull towards the *Os Coccygis*.

In the *Hydrocephalus*, simply opening it will generally be sufficient.



C H A P.



C H A P. XIV.

Preternatural LABOURS.

PRETERNATURAL Labours are much more common than the laborious, they are so called when the child is extracted by the feet, which is always the case when the head does not present.

The first stage is to go on as in the natural labour, indeed we are not certain what labour it is till the waters are come away.

When both feet present, the birth is generally easy; we are to take hold of the ankles, and if not so already, as we draw down, turn the child's belly to the back of the mother; we should grasp the legs in a cloth to prevent their slipping; the
chin

chin should slip in the diagonal direction over the *Psoas* muscle ; if we do not bring the belly of the child to the back of the mother, the chin is very liable to hitch on the *Pubis* ; when we have brought it down to the breech, if the arms do not follow, we must bring them down with the hand, introducing a finger by the shoulder : Before we endeavour to extract the head, we should examine the situation of the chin, by passing a finger up the breast and neck ; a finger may be hitched in the mouth, and assist to draw down : Draw in the diagonal direction the other hand on the child's back with a cloth, moving from thigh to thigh as we draw down.

We should never be in a hurry, as the body may come out, and the *Uterus* contract round the head, which would impede the circulation and kill the child ; whereas the child may lie a long while with the thighs out, and be pressed without danger about the breech, &c. so it is very proper to let the parts be sufficiently relaxed.

C H A P.



C H A P. XV.

When the Breech presents.

WHEN the breech presents, the spine may be felt, and cannot easily be mistaken for the head, the thighs are generally bent, and we may very often find the feet at or near the *Os Uteri*; so we are advised to take hold and draw down; but if the breech is come down, we are to pass the blunt hook into the groin and draw down, first one, then the other; the blunt hook should be covered with soft leather; this method is more troublesome, the breech will not so properly bend to the *Pubis*; when the legs are out, the labour goes on as in the last.

When the side presents, or according to some, the belly (which I believe cannot possibly happen) the navel string generally comes down first, we are to search for the feet, and bring it down as before directed.

C H A P.



CHAP. XVI.

*Of the Preternatural Labour when the Arm,
Neck, or Shoulder presents.*

IN these the feet lie at a much greater distance than in the preceding; we must pass our hand high enough under the child; for we must not push to turn the child, as that will be altogether impracticable; if the arm hangs out, it will not be serviceable to return it: Some have directed to cut the ligament, and twist it off at the shoulder, we gain nothing by it, unless the arm is very much swollen; we may pull the arm into the *Vagina*, and then search for the feet; if there be a very strong contraction of the *Uterus*, it will be proper to give an opiate, which will take off the spasm; we should pass our hand on the *Psoas* muscle; when we have hold of one foot we are to bring it down, then the other, or both at once if we can; if the

H

shoulder

shoulder is fast locked, we may tie a garter round the ankle, and while we pull there, assist with the other hand to push the shoulder up very gently.

If the legs are crossed, some difficulty may arise in pulling them down, if one is fixed try if the other will come down more easily.

If the belly of the child is stretched with air or water, so that it cannot pass, the contained fluid should be let out with a pair of scissors.

But the head is generally the greatest difficulty, if this sticks after the body is out, the navel string is compressed and the child lost, this may arise from its too great bulk, or from a distorted *Pelvis*, or unfavourable situation; an unfavourable situation may happen though the shoulders be right, so that we should always search for the chin; if it lodge on the brim of the *Pelvis*, the *Occiput* will be driven down; we are directed before to search for the chin, and with the finger in the mouth bring it down to the breast, the other hand pushing up the *Occiput*.
In

In the other cases we must lessen the bulk of the head to bring it away, if the *Pelvis* is much distorted as before said, the finger will touch the base of the *Sacrum*, and the *Symphisis* of the *Pubis* will be very acute; we must destroy the brain and extract it; if a share of the head is in the brim of the *Pelvis*, we are to make our opening in the future behind the ear of the child; if the face is to one side, the opening will be backward in the frontal *Sinus* about the nose, making the opening with the scissars: Then, the woman half sitting, half lying, introduce the crotchet on two fingers of the other hand, and extract the brain; both sides of the head will be squeezed together; extract it by hitching the crotchet in the *Sella Turcica*; an assistant's hand should be kept on the woman's belly to hold it firm.

We should separate the body from the head; but if it is already separated, our directions are the same as above, only more care if possible is required.



C H A P. XVII.

Of the Management of the Woman, &c.

THE common method is, when they have brought away the *Placenta*, to apply a warm cloth to the woman, tuck the cloths about, and leave her in this disagreeable condition.

We should lay two or three dry cloths under her before the *Placenta* comes away, and afterwards change them for others; the woman's belly will be very disagreeable if we do not get a napkin bound pretty tight round her.

If she has sweat much, the shift should be changed. As soon as she is delivered she should have a little nutmeg and sugar, washing it down with some brandy and water or wine and water. 'Till the fever is off she should be kept to slops, caudle, &c. and she may take a few draughts with *spt. Minderer. pulv. e contr. c. tinct. thebaic. &c.*

about

about twenty drops of the *tinct. thebaic.* may be given in an hour after, and are very serviceable, to prevent after-pains being very violent.

When the *Placenta* is separated, there will be an effusion of blood from the vessels of the *Uterus*, called *Lochia*; this is a very salutary evacuation, preventing a fullness of the vessels, and the ill consequences thence arising; it does not come from the rout of the circulation; the red colour lessens by degrees, so that about the fourth or fifth day it is merely *Serum*, of a light green or brown colour.

If the *Lochia* are obstructed, a fever is produced; we are to assist here by gentle diaphoretics, not forcing emmenagogues; the symptoms will be a quick pulse, and pain in the lower region of the belly, a constant pain and inflammation of the *Uterus*, (whereas after-pains intermit) we should give draughts of *spt. Mindereri. sal absinth. cum succ. limon. spt. nitri d. sal nitri,*

nitri, aq. pulgeii, &c. apply a *Galbanum* plaister to the *Abdomen*.

On the other hand, if the discharge be too much, which is known from the symptoms, she will have a low quick pulse, grow weak by degrees, will be giddy, cold in the extremities, have a tingling in the ears, dimness in the eyes, &c. we should give gentle opiates, and recruit the patient's strength with broths, sago, &c. we should apply cloths dipt in warm vinegar. The child should be put to suck immediately, it will prevent the milk fever, which is else oftentimes very troublesome, but is cured by gentle diaphoretics, clysters, &c.

When the breasts are uneasy, let them be rubbed with a soft hand dipped in oil, and apply a hare skin. If they suppurate, poultices should be applied.

When the after-pains are off, they will sometimes have a rumbling in the belly, and soreness, so that they cannot bear the slightest touch,
owing

owing to costiveness, pressure of the child's head during labour, &c. Draughts of *Magnesia Alba*, and clysters should be given.

I have now finished the design of my first part; if I find this read I shall pursue it farther, and give my opinion with directions for diseases of both mother and child, in a more enlarged manner.

END OF THE FIRST PART.

