

*Louis L. Seaman M.D.,*

THE

# MIDWIVES MONITOR,

AND

## MOTHERS MIRROR:

BEING

THREE CONCLUDING LECTURES OF A  
COURSE OF INSTRUCTION ON

## M I D W I F E R Y.

CONTAINING

DIRECTIONS for pregnant Women; RULES for  
the Management of natural Births, and for  
early discovering when the Aid of a Physician  
is necessary;

AND

CAUTIONS FOR NURSES, RESPECTING BOTH  
THE MOTHER AND CHILD.

TO WHICH IS PREFIXED,

A Syllabus of Lectures on that Subject.



BY VALENTINE SEAMAN, M. D.

One of the Surgeons of the New-York Hospital, and  
Physician Extraordinary to the Lying-in Ward in the  
Alms-House.



NEW - Y O R K :

Printed by ISAAC COLLINS, No. 189, Pearl-Street.

1800.



---

---

## P R E F A C E.

*HAVING frequently had to witness the accidents attendant upon mismanagement, in the practice of Midwifery, and having, with pain, reflected upon the limited knowledge of that business among most of the female practitioners, I have, for a considerable time past, had a wish, that some means might be adopted for the better information of those necessary, though too much neglected, members of the community.*

*I consider midwives as necessary, and, not only necessary, but indispen-*

sably so, notwithstanding the abundance of physicians, because some women, absolutely refuse having a man to attend them in their labours, or at least not till they are convinced of being in a critical or dangerous situation, and oftentimes not until they are beyond the reach of the greatest skill. However indiscreet and ill-founded this prejudice may be considered, let it be called whim, a false delicacy or what we will, it matters nought to me, existing distress, whether it arises from reason or folly, equally demands our attention ; and if we cannot afford relief by one method, it behoves us to attempt it by another. If women cannot be persuaded to submit themselves to the care of male practitioners, it is our duty to instruct females how to give them the necessary aid. That this prejudice does exist, and that some women will have none but their own sex to assist them upon such



*occasions, every day's experience teaches us : and that this disposition is firm and not to be overcome, the arbitrary decrees of the government of Athens clearly demonstrate; for while with them midwives were prohibited from practising, the fatal sufferings of many of their women, fully proved the futility of attempting to confine that business entirely in the hands of the men.*

*However sufficient in itself this reason may be, it is by no means the only or the greatest one for encouraging the study of Midwifery with women : for even were there no objections in the mind of any to the employment of male practitioners, still the nature of the practice of physic, in this country, is such, that physicians cannot afford to give up so much of their time from their other business, as would be necessarily employed*

*upon such occasions, for the small compensation, that the greater proportion of citizens are able, without distressing their families, to make them. What then must be done? The only means to relieve the major part of the community, both from oppression and from danger, in such cases, is the judicious establishment of regularly instructed midwives.*

*Besides these reasons, which are of a general application, there is an additional one for their establishment in the country. In cities a physician often may, in lingering cases, steal time enough from them to visit his other patients; but, in more thinly settled places, the necessary distance of their patients is such, as to render it impossible for a physician to practise midwifery with prudence, and to do justice to his other practice: in this respect, then, the assistance of mid-*



*wives is not merely convenient, but indispensably necessary.*

*So forcibly has the propriety of instructing females in the art of midwifery, impressed the liberal minded in Europe, that their most celebrated physicians have not failed to express an "ardent wish that schools might be erected in their principal cities for that purpose." And the committee, in their proposals for regulating and improving the practice of Medicine in France, have carefully recommended measures to that effect: considering it as an object deserving their particular attention.*

*Whatever may have been the desire, and whatever may have been done elsewhere, no plan of the kind, as far as I can learn, has heretofore been established in America: consequently the midwives, with a very*

*few exceptions, are as ignorant of their business as the women they deliver : and I much doubt whether one out of twenty of them have ever seen the bones that support and protect the womb : indeed I cannot but suspect whether some even know, that, in being born, a child has to pass through a bony passage. The greater part of them, at least as far as my enquiries have reached, having taken up the business by accident, having first been caught, as they express it, with a woman in labour, they were forced to receive the child. Attendant success inspiring confidence, they without more ado, consider themselves competent, and become immediately established in the profession. But the more diffident and considerate, those who seek further information, have not generally been much better off : Books were their only helps, and books, of themselves, are but dim lights indeed ;*



*generally rendered still more gloomy by the cloud of technical obscurity in which they are involved. To learn such a handicraft business by reading alone, is like learning ship-building without touching timber. Can we expect, but that such workers, in either occupation, must destroy more materials than their good work will ever pay for?*

*How, it may be asked, in the primitive times, did they do? We have no account of obstetrical schools, nor hear any complaint of ignorant midwives; children were born then as well as now; why may not women, without so much study and instruction, attend one another as well now as then? or, is child-birth a disorder, that women must always have a skilful person to assist them? Probably in the early ages, before the pampering stews of luxury had taken the*



*place of the salutary calls of nature in diet, and before the warping trammels of fashion had taken the lead of comfort and convenience in dress, seldom, very seldom, was there any disease in child-bearing, or difficulty in travail. Delivery is certainly a natural process, and so far am I from considering assistance as always necessary, that I doubt whether the whole art of midwifery will ever compensate for the mischief arising from the officious interference of ignorance in its practice.*

*Under the impression of the foregoing considerations, in the fore part of the last winter, I proposed to the female practitioners in this city, and such other women as wished information in the art of midwifery, to deliver them a course of instruction in that business, connected with the privilege of their attending the practice*

*of the lying-in ward in the Alms-House. And altho' it must be regretted that a great proportion of them, either from an idea of self-sufficiency, from not duly appreciating the importance of their profession, from indolence, or, possibly, from a dread of the retrospect, that opening their eyes might present to their senses, still chose to grope on in their original darkness. Yet, to their credit be it said, a number, and those also who appeared to be among the most considerate and better informed, embraced the proposition with alacrity, and have since attended to the establishment with a punctuality and attention, worthy the high object of their pursuit.*

*The following sheets, besides a short syllabus of the lectures, contains the substance of the three concluding ones, being a short recapitulation of the parts most material to midwives; with*



*directions and cautions respecting their conduct in the practice of their profession; published by the particular request of the class.*

*The author has consented to their publication, not from a pretension of the new light that they may throw upon the art of midwifery, but with the hope of their serving as a medium through which, as far as they go, to transmit its present perfection to the attention of those to whom they are directed: should be thereby promote a more general spirit of enquiry among the female practitioners, his purposes will be fully answered; should be not, he rests upon his intentions as a security from censure.*



---

A  
SYLLABUS  
OF  
A COURSE OF LECTURES  
ON THE  
THEORY AND PRACTICE  
OF  
MIDWIFERY.

---

LECTURE I.

INTRODUCTION.

**A** SHORT account of the origin and progressive improvement of the Art of Midwifery. Its practice at first confined to women. Luxurious refinement of society, with its concomitant

dieases, probably the cause of its devolving so much into the hands of physicians, midwives not having like advantages of instruction. Midwives present neglect of the opportunities that do offer for their improvement, renders their very name almost a disgrace. The advantages of their being regularly instructed, as it relates to the welfare of those entrusted to their care ; as it respects their own reputation and emolument ; and as it secures that peace of mind resulting from the heart-felt conviction of having done well.

## L E C T U R E II.

### OBSERVATIONS UPON THE ANIMAL ECONOMY.

*On the Mind, and five auxiliary senses, viz. Seeing, Hearing, Smell-*

*ing, Tasting and Feeling, with their organs.*

**T**HE necessity in those who operate upon the human body of being well acquainted with its make and functions, since missteps are often so dangerous in their consequences. The *brain* and head. *Spinal marrow* and backbone. The *Eyes*; their secure situation in a bony cavity, composed of three humors, which are contained in three coverings. Their muscles, nerves and appendages, eye-lids, &c. The *Ears*. Their external and internal parts: the drum and internal communication with the mouth. The *Nose*, lined by the expansion of a nervous coat, the organ of smelling, moistened by the tears, &c. *Mouth*, comprehending lips, cheeks, teeth, roof, palate, pap of the palate, tongue,



glands, &c. *Skin*, divided into scarf and true skin, with an intervening jelly-like colouring matter : composition, nerves, and appendages.

### L E C T U R E. III.

*On the nerves, muscles, circulation of the blood, secretion, digestion, and absorption, and on the nature of the animal fluids.*

**N**ERVES, their appearance, nature, and distribution, convey sensation to the mind, and carry her will to the muscles. Muscles or flesh, are the instruments by whose contraction every motion is produced. Generally under the command of the will, excepting those particularly essential to life, viz. those subservient to the circulation, secretion, and to breathing. *Circulation* through the

heart, arteries and veins. The formation and functions of the *Heart*, &c. The nature and composition of the *Blood*. *Glands*, their composition and use: manner in which they perform *secretion*. Of the *Gall*, *Urine*, *Spittle*, &c. The *Stomach*, situation, juice, nerves, &c. *Digestion* how performed. The *Bowels*. *Absorbents* divided into milk vessels, or *lacteals* and *lymphatics*; their action and communication with the heart.

## L E C T U R E IV.

*On Respiration and the Organs subservient thereto.*

THE *Chest* formed by the *ribs*, *breast* and *back bones*; it is separated from the belly by the *midriff*: contains the heart and *lungs* and their appendages, &c. The mo-  
C

tions of the ribs and midriff dilating the chest, causes an *inspiration* of air ; their relaxation, diminishing its cavity, affects the discharge of air or *expiration* : these alternate motions constitute *breathing* or *respiration*. The blood, as it passes through the lungs, receives *life* from the air : the *air* at the same time undergoing a change in its nature, in the same manner as it is changed by the burning of combustible bodies, thence producing *animal heat*, &c.

Of the superiority of *animal bodies* over the most complete artificial machine. Their power within themselves of *repairing injuries* : *Casting out what is superfluous* or hurtful ; *accommodating themselves to losses*, as of blood, &c. *calling for supplies*, by appetite ; *accommodating themselves to different degrees of heat*, keeping an



*equal temperature* in a burning or freezing atmosphere. and to crown all, they are endowed with power to make other machines like themselves, which again possess the like power of *propagating* their species to the end of time.

## L E C T U R E V.

*The Bones forming the Pelvis or Basin.*

**I**MPORTANT organs securely lodged in boney cavities, as brain in the head, heart and lungs in the chest, &c. so also the womb and its appendages, are supported and protected by the pelvis or basin. Pelvis rests upon the thigh bones and supports the back: it is composed of the *sacred* and *rump bones behind*, and the *nameless bones* on the sides and before; their par-

ticular description: nameless bones divided into *hunch*, *seat* and *share* bones. Peculiarities of the *female* basin. *Brim* of the basin is of an *oval* shape, about five and a quarter inches from side to side, and four and a quarter across from sacred to share bones: in its *lower opening* this proportion reversed, being longest from fore to hind part, and shortest from side to side. Depth six inches behind, four at the sides, and two before. Dimensions of the *child's head* and *shoulders*, and the turns they take in delivery. *Distortion* or crookedness of the bones of the basin, and the manner in which they affect delivery: how discovered: causes. *Motions* of the bones in labour, and whether the share bones separate or not.

## LECTURE. VI.

*Female organs of generation.*

**T**H E *mons veneris. External labiæ. Clitoris, Nymphæ. Opening of the urethra, method of introducing a catheter. The perineum. Vagina or passage to the womb. Hymen. Of the womb, lying between the urinary bladder and straight gut, divided into body, neck and mouth: supported by the round and flat ligaments, which last contain in their double the fallopian tubes, which originate from the bottom of the womb on each side, and terminating in loose jagged ends. They also contain the ovaria.*



## L E C T U R E VII.

*Diseases of the aforementioned organs.  
Their causes, prevention and cure.*

**R**EASONS why midwives should have a knowledge of the diseases of the sex, notwithstanding a physician should in most cases be called upon for their relief. *Watery swellings, abscesses and adhesions of the external parts. Stones in the bladder and urinary canal. Excrescences about the orifice of the canal. Imperforated hymen, contraction and adhesions of the vagina. Polypusses in the passage. Whites. Falling down and falling out of the womb. Hydatids or collections of bladders of water in the womb. Dropsy of the womb. Wind in the womb. Moles, their different kinds. Dropsy of the ovaria. Retroversion or falling backward of the womb.*

## L E C T U R E VIII.

*Of the Menses, and their irregularities.*

**P**ERIODICAL *discharge* from the womb necessary to every woman, who is not pregnant, or does not nurse. Exceptions. *Time* of appearance differs from climates, with us from the thirteenth to the eighteenth year. General *change in the system* at that time. *Quantity* discharged various from clime and constitution. With us generally *ceases* between the forty-fifth and fiftieth year. *Final cause*, necessary to generation. *Obstruction* and *suppression*, their various causes, symptoms, effects and cure. *Profusion* ; causes, cure. *Painful menstruation*, and remedy. Treatment to follow about the time of their final cessation.

## L E C T U R E IX.

*On Conception.*

**T**H E O R I E S of different authors. Anatomy proves *the course of conception* from the ovaria through the fallopian tubes to the womb. *Nutrition and growth* of the child in the womb. Peculiarities of the child, its connection by the *cord* to the *placenta* or cake: of the size, composition and circulation in the placenta. Of the *membranes* that include the child. The *Waters*, their nature and use. *Position* of the child; head generally first presents to the birth, and reasons why. Changes of the womb; at the third month rises above the brim of the basin. State of the womb at the different periods, reasons for its continuing of nearly an equal thickness, dur-



ing the whole time of pregnancy. Of the size of the child at different periods.

## LECTURE X.

*Of the signs of Conception, and consequent diseases.*

**W**OMEN do not conceive before their menses appear, nor after their final cessation; their obstruction or profusion impedes impregnation. Causes of *barrenness* may be imperforations of the vagina, orifice of the womb, or fallopian tubes and diseases of the ovaria. First signs of conception *obstruction* of the periodical discharge, *hardness of the breasts* and *colouring of the rings* around the nipple; *nausea, drowsiness, lividness under the eyes, tooth-ache, head-ache, &c.* these however not certain. About

the *third month*, the womb may be felt above the share bones. *Motion* of the child between the fourth and fifth months, the most undoubted sign: caution against deception on this head. *Nausea* and *vomiting* in the morning. *Suppression of Urine*. *Costiveness*, *Piles*. *Swelled legs* and enlargement of their *veins*. *Difficulty of breathing* and vomiting in the last stages. Frequent desires to void urine. Irregular *discharges* of the menses in the first months. The particular causes of the foregoing diseases explained, and the means for relieving them. Of *gravel*, *dropsy* and *hernia*, and their treatment.

## LECTURE XI.

*Directions for preventing the many disorders incident to the pregnant state.*

**T**HIS particularly to be attended to by midwives. These diseases generally, though very erroneously, attributed to too much blood. The whole weight of what would otherwise have been discharged by the periodical evacuations, not nearly equal to that of the child and its appendages. Of *miscarriages*, their causes and means of prevention: of *exercise*, *elixir of vitriol*, *cold bath*, *bleeding*, *dress*, *diet*, &c. Of the *imagination* and peculiar *unnatural cravings*.



## LECTURE XII.

*On Labour.*

THIS takes place at or about the thirty-ninth week from conception. *Signs. False pains*, how distinguished; cause and remedy. *True pains*, how known. *Shews*, what. Of the *touch: its use*, in determining a state of pregnancy or not, in ascertaining the approach of real labour, and in discovering the presentation. Labours divided into *natural, difficult, preternatural* and *complicated*. *Proper position* of the woman. Of standing on her knees, sitting in the lap of another, resting on their backs on a Pallet, and lying on their side in bed: change sometimes necessary. *Management* as it relates to *dress*, the state of the *bowels*, and the *bed*. *Progress* of

labour; *waters* gathering; *head* presenting, its *turns*; distention of the *perineum*: the necessary care. Turns of the *shoulders* and final expulsion; how to be managed. When to cut the *cord*. Of the expulsion of the *afterbirth*, when necessary to assist it and how. Of the irregular contraction of the womb. Floodings. Inversion of the womb.

### LECTURE XIII.

**R**ECAPITULATION of the foregoing, with a full exemplification of every circumstance, upon the *Machine*.

### LECTURE XIV.

*Of difficult Labours.*

**I**N these the head presents, but is not delivered within twenty-

four hours, or requires aid. They may arise from too great *distention* of the womb, its *irregular contraction*, from *firmness of the membranes* containing the waters, much oftener from their too *early rupture*, *shortness of the cord*, or its being *entangled*; from *fever*, *inflammation* of the parts, *want of irritability*, *debilitating passions*, *difficulty of breathing*; from its being a *first child*, particularly with women advanced in years, *rigidity* of the orifice of the womb, of the external parts, *smallness* of the basin or its *crookedness*, *largeness* of the *child's* head, or the growing together of its bones, or its enlargement by disease; *improper presentation* as face to share bones, face to the birth, head with the arms; difficulties may also arise from *suppression of urine*, *stone* in the bladder, *scars* or *adhesions* in the sides of the vagina



and *rupture* of the womb. Of the aid necessary to be given in all these cases of difficulty. Instruments seldom required. The assistance of a physician always advisable.

## LECTURE XV.

*Further attention<sup>m</sup> to difficult births.*

**T**HEIR various causes, and the means generally sufficient for relieving them, exhibited upon the *Machine*.

## LECTURE XVI.

*On the use and abuse of instruments.*

**I**NSTRUMENTS sometimes not to be dispensed with. *Fillets* justly discarded. Of the *forceps* and *vectis* : cannot be used till the second stage of labour, and when

the ear of the child can be felt. Only to be used when the *woman is unequal* to the expulsion of the *child*, and one or other of them are in *danger*. *How to apply them* in the different presentations, and of the necessary positions of the woman. The *scissors* and *crotchet*: in what cases *only* they can be admitted. Of the symptoms of a *dead child*; of the method of using these *dreadful* instruments.

## LECTURE XVII.

### *Practical recapitulation.*

**B**Y performing on the *machine* every operation with the *instruments*, in the various cases that may require them.

## LECTURE XVIII.

*Preternatural labours.*

**T**HESE are when any *other part* than the head, first presents. They vary in regard to the presenting part. Difficult in proportion to the time elapsed, since the breaking of the waters, and the degree of contraction of the womb. How to discover the presenting part. *Head* round, hard, and hairy: *Breech* soft, with a division of the buttocks: *Back* by the back bone, ribs and shoulder-blades: *Loins* by the back bone without ribs: *Breast* by the breast bone and ribs: *Belly* by its softness and navel string: *Hand* by being thinner than the foot, fingers longer than the toes and the thumb standing out: *Foot* by the heel. When *Breech* or *inferior ex-*



*tremities* present, help seldom necessary till the hips are born: when necessary and how to be given. Child always to be brought with its face to the back of the mother. When the circulation in the cord is obstructed by the pressure of the upper part of the child's body or its head, in passing the bones, if delivery is not soon effected by nature, we must assist. In *cross* cases support the body; seek for and deliver by the feet. When the *Arm* presents with the head and the head is right, slip the arm up over it and deliver naturally, otherwise *turn* it and deliver by the feet. When *head* and *arm* are wedged immovably in the pelvis and cannot otherwise be delivered, instruments become necessary. In cases of distorted or crooked basin, never turn the child.

## LECTURE XIX.

**R**ECAPITULATION of the foregoing, with a *practical illustration* upon the *machine*, of the various preternatural presentations and modes of managing them.

## LECTURE XX.

*Complicated labours, floodings, miscarriages, convulsions, and twins.*

**I**NSTANCES of menses having continued in small quantity for a few months after conception. *Floodings* with pain and weight in the lower part of the body, especially if attended with a discharge of the waters, generally followed by *miscarriage*. *Predisposition* by previous miscarriages, by full habit, by the use of spirits, by strong purges, great exertion, passions of the mind, costiveness, heat, cold,

external injuries, &c. *Danger*, in proportion to the advanced stage of pregnancy, unless it be near full time. Remedies: of bleeding, opiates, rest, cold air, and drinks, astringents, cold vinegar and water to the back, &c. elixir of vitriol: in what instances wine. After fifth or sixth month, sometimes necessary to promote delivery; how done. *Convulsions* caused, by habit, suppression of urine, passions, &c. remedied by bleeding, opiates, delivery, &c. Cautions to be observed during the fits. *Twins* discovered by swelling continuing after the birth of the first child, in which case tie the navel string. Nature generally sufficient: where otherwise, be governed as in other cases.



## L E C T U R E XXI.

*Treatment of the woman during the month.*

**T**O be put in *dry linen* and bed, in an airy temperate apartment. *Caution respecting heat*, either from fires, confined air, accumulated clothing, or hot drinks. Belly not to be bound over tight. No unnecessary disturbance by early *visitors*, &c. *Drinks* to be cooling, and *diet* mild, as gruel, panado, fago, tapioca, chocolate, ripe fruits, &c. afterwards white meats, &c. Do not induce sweating; change linen often, *get out of bed* soon and frequently. *Bowels* to be regulated by mild injections, or castor oil, manna, rochelle salts or rheubarb. *Child to breast* in a few hours. Breasts to be drawn four or five times a day. Short or depressed *nipples*, how drawn out.

Means of preventing their becoming sore: of wax rings, &c. When the mother does not intend to nurse, live sparingly and seldom draw the breasts. Caution against sudden exposure to cold, after having been imprudently heated.

## L E C T U R E XXII.

*Of the Diseases in the month.*

**A**FTER-PAINS, their causes and remedies, when any necessary. *Inflammation* of the parts, causes, consequences and treatment. *Falling down*, of the vagina, of the womb, and of the end of the bowels; their causes and method of reducing them. *Inversion* of the womb or the turning of it inside out, the consequence of rashness in delivering the after-birth. *Laceration* of the perine-

um, means of prevention. *Immoderate after-discharges*; causes, treatment as in other cases of flooding; their *obstruction*, how re-established. *Milk fever*. Hardness of the breasts, relieved by mild warm oily applications or lead water, cooling purges. *Sore nipples*, mucilaginous and unctuous applications, leaden caps, &c.

## LECTURE XXIII.

*Of the management of Infants, and of their diseases and remedies.*

**W**ASHING of the child, management of the *cord*. Observations on *cleanliness, dress, air, exercise and diet*. Of the *swellings* of their heads from the circumstances of the birth. *Bruises* of the face. *Injuries* of their genitals in breech presentations.



*Fractures* of their extremities. Of apparently *still born* children. Of the *swelling* of their *breasts*. *Obstruction* of the *natural passages*. *Tied tongue*. *Ruptures*. *Gum*. *Cos-tiveness*. *Yellow gum*. *Sprue*. *Ex-coriations*. *Cholic*. Observations respecting the *medicines*, recommended in the course of the foregoing Lectures.

LECTURE XXIV XXV  
and XXVI.

**A** SHORT *Recapitulation* of such parts of the foregoing Lectures, as are considered more especially deserving the attention of Midwives, together with *cautions* and *rules* for their conduct in practice.

---

---

CONCLUDING  
LECTURES

ON A COURSE OF INSTRUCTION TO

MIDWIVES, &c.

---

LECTURE XXIV.

*Of the peculiarities of the sex, and  
of new-born children. Of con-  
ception.*

RECAPITULATION.

**I**N the course of instruction, that  
we are now about closing, I  
have endeavoured, in the most  
simple manner, to make the *art*  
*of Midwifery*, which, unfortunate-  
F.

ly, like the other branches of our profession, has till of late been too much cloaked by the mystic rubbish of technical phraseology, familiar to your comprehensions. I must now further beg your attention to a short *recapitulation* of the subject, wherein the most essential parts will be particularly attended to, accompanied with such *cautions* as in my opinion should be attended to by every Midwife who would wish to practise with safety and satisfaction to their patients, or reputation to themselves.

The four first Lessons, as you may recollect, and will find by adverting to the Syllabus, were chiefly confined to observations on the system at large, and the animal economy in general; and this subject, I again repeat it, you cannot too much attend to, as no



workman can be too well acquainted with the machine whereon and wherewith he operates. Then we attended to the *peculiarities* of the female system, of whom in general we observed that they were of a smaller size, and more delicate and sensible habit than men. After which we noticed the *particular* peculiarities of the sex, viz. their breasts and uterine system, consisting of the womb and its appendages.

The *Breasts* were observed to be large globular bodies of glands, intermingled with fat ; formed of a great number of blood-vessels, which send off many little tubes to carry the milk that is strained into them ; these uniting as they pass along, at length end in six or eight tubes, which, by an irregular, convoluted course, finally ter-

minate in about as many openings on the point of the nipple. The nipple is of a spongy nature, subject to be distended or relaxed, sometimes prominent and pointed, at other times flattened and even dented inwards. It is covered only by a thin skin, and is furnished with numerous little glands, which secrete an oily glutinous matter to defend it from being fretted by the child's sucking, and also to close up the mouths of the milk ducts, thus aiding their crimped form, in preventing the milk from constantly draining off.

In regard to the system of the womb, in the first place we observed of the *bones*, upon which the body rests, and which form its lower part, and constitute what is called the *pelvis* or *basin*, were composed of the *nameless bones*, the

*sacred bone*, and the *rump bone*. The nameless bones were again subdivided into the *wings* or *haunch*, *seat* or *bip*, and *fore part* or *share bones*, the fore part of which last are joined together by an intervening gristly substance.

The *sacred bone* forms the back part of this compages of bones, and seems to be a continuation of the back bone. It is of an irregular triangular shape, with its point downwards, hollowed, and comparatively smooth on its inner surface, but rough and rounding on its outside. Upon its upper part the back bone rests, and from its point is continued the little movable rump bone.

The *sacred bone* joined to the hinder edge of the nameless bones, forms the *basin*, a just knowledge



of which we esteemed as highly interesting to every one concerned in the practice of Midwifery. The ridge at the upper broad part of the sacred bone, where it joins the nameless bones, is met by a ridge at the base of the wings or flaring parts of the haunch bones, this ridge is continued to the anterior part or junction of the share bones, where they meet and form a regular oval margin called the brim of the basin. The longest diameter of this oval brim is from side to side, the shortest from fore to back part, the former being about five inches and a quarter, the latter an inch less. The bones below this ridge all combine in forming the hollow cavity in which the womb and its appendages, the bladder and lower end of the intestines, are lodged. This is called the basin. Observation of

the dry bones gives but a very inadequate idea of the regularity of this cavity, but when we see the ligaments stretched from the extremities and corners of the sacred and rump bones to the seat bones, and its whole inner surface lined by its proper membrane, we cannot but admire its smoothness and regularity, so well adapted to the important purposes it is intended to answer. This one circumstance of it is highly worthy of our attention, that, as was just observed, the longest diameter of this cavity at its brim was from side to side, and the shortest from fore to hind part; in the lower aperture we find these proportions reversed, here the longest diameter being from fore to hind part, and the shortest from side to side, or from seat bone to seat bone.

Of the bason it was further observed, that its depth was also irregular, being about six inches behind, four at the sides, and two at its anterior part.

Having fixed the size of the bason, as it most generally exists in females, subject however to some little variation; we proceeded to examine the size and shape of the child's head and shoulders, and found the greatest diameter to be from the hind to the forehead, the shortest from side to side, while the greatest diameter of the body was across the shoulders. Hence, then, we should suppose, what indeed happens in natural labours, that the child's head, at its first presentation, would lie with its forehead and hind head to the haunch bones, while the ears lie to the sacred and share bones.



But as the labour advances, the head, favouring the passage it has to pass through, naturally turns so, that, as it gets to the inferior opening of the bones, its forehead is sunk into the hollow of the sacred bone, while its hind head is presented to the junction of the share bones. And further, as the depth of the basin is by far the least at its anterior part, the hind head naturally rises from under these bones as it comes into the world. By the time the head is born, the shoulders being the widest part of the body, are fixed across the longest diameter of the basin, till a succeeding pain propelling it forward, it takes the turn and the child is born on its side.

We then considered the question, whether the share bones ever separate from each other in time

of labour? And concluded that, from their firm adhesion to each other by their cementing gristle, rendered doubly strong by the surrounding ligaments, the whole power of the womb, with the aid of the muscles of the belly, did not appear adequate to that effect; and that if we should admit that they possessed strength sufficient, the child's head was so composed, of various unconnected bones, as by no means to be able to overcome the powerful resistance that their firm connexion would make; we might almost as well conceive of a knurly log's being split by a wedge of cork:—We finally concluded that, except in cases of disease, none of the bones of the basin had any motion upon one another, during labour, excepting the rump bone, which is generally straightened out, nearly upon a

line with the back, by the pressure of the child's head.

The bones of the basin we mentioned were sometimes deformed and crooked, diminishing in some way or other the natural size of this cavity; we observed that this happened by the upper part of the sacred bone being pressed inwards, thereby lessening the shortest diameter of the brim of the basin; but that in some instances the fault laid in the iliac bones being pressed inwards, in other cases in the seat bones or lower part of the sacred bone being projected upwards and inwards. These deformities were said *sometimes* to be owing to rheumatic affections, and that even in women who may have previously borne children through a capacious basin; but that *generally* the



cause of them were laid in early years, and was owing to rickety complaints : the bones thereby becoming softened, there appeared no difficulty in accounting for the variety of crookedness, from the various pressure of the superincumbent body upon them in the states of standing, of sitting, and of lying. It was further remarked that this deformity was often accompanied by like affections in the other bones, so that when, with a curved back bone, the legs and thighs were also crooked, there was great reason to suspect this complaint ; and if delivery should go on laboriously, it should be particularly attended to.

After having fully attended to the bones of the basin, both in their separate and in their connected state, and after having

viewed the difference between the aperture of a natural and of a deformed bafon, and observed the great difficulty that confequently muft take place in labour from that circumftance, we proceeded to examine the *parts* of *generation* in women, which, to be enabled more perfectly to defcribe, we divided into *external* and *internal* parts.

The **EXTERNAL PARTS** were discoverable without the aid of diffection, and confifted of the *mons veneris*, which is a fatty fubftance lying upon the junction of the thare bones covered with the common integuments, fkin, &c. Continued down from this on each fide were the *labiæ pudendi*, formed of fat covered by a doubling of the fkin, which externally were like the furface of the *mons*, but

internally were smooth and red; these joining together again below, entirely surrounded the entrance of the passage to the womb.

Between the two labiæ pudendi, about an inch below their separation at the mons, is situated the *Clitoris*, which resembles, in some degree, the end of a finger; it is said to have been very much enlarged in some instances, whence originated the idea of hermaphrodites. From this, on each side, are continued down, doublings of the skin which are called the *Nymphæ*; they lie in the direction of the labiæ, and are generally concealed by them, though sometimes they are very inconveniently elongated; they serve to direct the course of the urine, and to favour the dilatation of these parts in time of delivery.



A little below the clitoris, and between the nymphæ, we observed a small projecting opening evident to the touch, which is the *orifice of the Urethra*, or termination of the canal which leads the urine from the bladder.

The *orifice of the vagina*, or the opening of the passage to the womb, is situated immediately below the orifice of the urethra ; this opening in girls is surrounded and nearly closed by a membrane called the *Hymen*, which in some instances has been found entirely to close the passage, and to produce complete obstruction to the discharge of the menses.

The part which lies between the junction of the labiæ pudendi below, and the opening of the bowels, is called *Perinæum*, which

is naturally small, but is greatly stretched and enlarged during delivery. To prevent this being torn, we observed, was the chief aid necessary in a natural labour.

Of the INTERNAL PARTS, we first noticed the *Vagina* or passage to the womb, leading from its opening just described, about six or seven inches up to the womb ; it is of a muscular nature, capable of great dilatation in time of labour, and of contracting again after delivery ; this, as well as the inner surfaces of all the other parts just described, is furnished with little glands for excreting a mucus substance for lubricating them.

The *Womb* resembles a bell-pear, but is flattened ; it is situated between the bladder of urine and the

lower part of the intestines. It is supported and joined to the sides of the bason by two *broad* and two *round ligaments*; in the doublings of the former the blood-vessels and nerves run; the round ligaments also run in the duplicature of the broad ones, and pass over the brim of the bason, to be inserted into the groin.

The womb we divided into *orifice*, *neck*, and *body*. Its *orifice*, we observed, hung in the vagina looking rather towards its back part: *neck* half the length of the womb. Around the neck the vagina is attached, but much nearer its orifice on its fore than on its back part, giving rise to its position as just mentioned. The cavity of the neck of the womb is very small at both ends; it is furnished with glands for excreting a matter to



close the womb immediately after conception.

The *body* of the womb is somewhat triangular; its cavity is hardly as large as to contain an almond; its inner surface, to the eye, appears perfectly smooth, with no observable opening of the vessels that discharge the periodical evacuation. The blood-vessels of the womb greatly enlarge after impregnation, so that at their openings, where the Placenta or cake adheres, they equal the size of a quill.

The substance of the womb we found to be of a firm, compact nature; formed, as we observed, of muscular fibres running in every direction, of blood-vessels, nerves and lymphatics. —

From the upper corners of the womb arise the *Fallopian tubes*, which are continued, in the double and along the upper part of the flat ligaments for about three inches, when they terminate in ragged ends, which hang loose in the cavity of the belly. The cavities of these tubes are somewhat trumpet-shaped, being very small at their origin in the womb, but enlarge considerably towards their termination.

About an inch from the womb, on each side, a little below and behind the fallopian tubes, are two small, flatish, oval bodies called *ovariæ*. They are also suspended in the broad ligaments.

Having particularly examined and described these parts, we afterwards attended to the *Diseases*

to which they were subject, but as it always will be most prudent to refer these things to the attention of a physician, it may not, perhaps, be any way profitable now, to repeat any thing then said, in regard either to their symptoms, causes or cure.

It was observed to you, that every healthy woman, who was not pregnant and did not suckle, had a regular discharge from her womb, called, from the term of its period, *Menses*, from the latin word signifying month. This discharge makes its first appearance at different ages in different countries; for, like their fruits, it appears early in proportion to the heat of their climates: thus in southern latitudes it often appears as early as the eighth or ninth year, whereas in the northern ones



it is deferred to a much later period : with us it generally appears between the thirteenth and eighteenth years. Not only the time of its first appearance is affected by the climate, but the frequency of its return, the quantity discharged, and the time of its final cessation, are also all influenced thereby, it being more frequent, more profuse, and sooner ceasing in proportion to the warmth of the country : with us the discharge is, generally, about six ounces, continues from three to six days, returns monthly, and finally ceases between the forty-fifth and fiftieth year.

The *use* of this discharge appears to be for keeping the womb in a proper state for conception, since that cannot take place either before its appearance, during its

obstruction, nor after its cessation. Another use is to afford by its suspension, during pregnancy, a necessary supply of nourishment for the child.

The *Diseases* attending their irregularity, as well as those occurring at the time of their final cessation, I shall wave the re-consideration of here; for notwithstanding the particular attention we paid to that subject, still I would never advise you to venture to prescribe for them, when a physician can be procured.

## OF CONCEPTION.

THE peculiar manner in which conception takes place, being a matter more of curiosity than of real utility, we shall omit at present any attempt to investigate:

thus far, however, it may not be improper to remark, that the child receives some essential original principles from both parents; else why should it in some instances bear so strong a resemblance to the father, and in others to the mother? And that the woman by no means stands in that secondary order, in this wonderful transaction, as she is stated to do by some; for did she *only* furnish a safe *receptacle* for the protection, and proper *nourishment* for the growth of the child, why should it carry the traits of her features in its countenance, or the colour of her skin upon its surface? Might we not as well expect horns to sprout out on the forehead of an infant that has been brought up upon the milk of a cow, or a woolly skin upon him who had always been wrapped in flannel?



In whatever way conception is performed, anatomy assures us, That it *first* takes place in the ovaria, from whence it is taken up by the loose open ends of the fallopian tubes, and conveyed through them to the womb. That it takes this route is proved, first, by conception never being effected after the ovaria have been taken out, as has frequently been done by farmers on some of their animals : secondly, by certain marks discoverable in these bodies corresponding to the number of conceptions the person has had ; and lastly, by the rudiments of children having actually been found enclosed in them, which, from some obstruction, had never got into their proper place. That from the ovaria it passes into the open end of the fallopian tubes, and thence conveyed into the womb,

we conclude, firstly, from not having discovered any other communication between them; secondly, from children having been found in the tube itself, which never had reached their destined place; and, finally, from children having been found in the cavity of the belly, which must have been dropped between the ovaria and the mouths of the tubes. Generally the conception passes into and adheres to a part of the womb, where it is nourished and grows, so as in about ten weeks to be as large as a hen's egg. Within the cavity of this substance, the child is discoverable, suspended in water by a small thread inserted into its navel.

As the conception enlarges, the part adhering particularly to the womb becomes of a spongy nature, seemingly well calculated to

draw blood from it. This *cake* (*placenta*) becomes, at full time, from six to eight inches in diameter, composed of a great number of blood-vessels ; these uniting together on one side, form the navel string, which is in fact nothing but three blood vessels twisted together, serving to convey nourishment to the child, and to keep up a circulation between it and the mother.

With the growth of the child, the womb also enlarges ; the *membranes* containing the waters, stretch more and more ; the *waters* themselves accumulating, protect the child from injuries, favor its regular growth and formation, at the same time that they guard the mother from the pain its movements would otherwise occasion.



The *child* thus confined in the womb, differs in several respects from children somewhat advanced in age, but in none more particularly than in the *circulation of their blood*, the *state of the lungs*, and *structure of the head*.

In persons who have breathed, the whole mass of blood passes regularly through the lungs and then through the body, but in an unborn child, the heart and blood vessels are so modified, as not to send more blood to the lungs than is just sufficient for their nourishment: hence they are much firmer than the lungs of those who have once breathed, and will generally sink in water: after birth, the lungs being expanded by respiration, the blood is freely transmitted through them, and all these peculiarities of the circulation are

soon obliterated, with a cessation of the passage of the blood, through the navel string.

The bones of the *head* not being joined together, and indeed not being fully formed, admit of a degree of motion, and are frequently lapped over each other, and moulded in a surprising manner in laborious deliveries.

As the *womb* increases during the time of pregnancy, it first enlarges at its body, and, from its increased weight, sinks down into the cavity of the basin: hence, if a woman is examined during this period, the mouth of the womb will be discovered lower than natural, and will feel heavier to the touch: at or about the third month, the womb becoming too large to be confined within the

cavity of the bason, rises up above its brim, and then its orifice being higher is more difficultly felt: this difficulty increases as the woman advances till labour comes on. During this enlargement of the womb, its neck becomes entirely obliterated, it being all stretched out into the general distention. A remarkable circumstance of the womb is, that notwithstanding its great distention, it suffers no diminution in its thickness, it being no thinner at the time of delivery than before impregnation: this is owing to its becoming much more spongy, by the general enlargement of its vessels. The sudden contraction of the womb makes its sides considerably thicker soon after delivery, the vessels not having yet returned to their original size; in a little time, however, it returns to its natural thickness.



## LECTURE XXV.

*Of the symptoms of conception. Directions for avoiding many diseases during pregnancy; and the method of conducting natural births.*

**A** Married woman, who is otherwise healthy, being affected with an *obstruction of her menses*, has good reason to suppose herself pregnant.

From the great *sympathy* subsisting between the womb and different parts of the body, any material change taking place therein, will often be felt elsewhere: hence *swelling and shooting pains through the breasts*, as well as *sickness at stomach, longings and unnatural appetites*, have been considered, and frequently *are signs of pregnancy*: all these,

however, with *head-achs, tooth-achs, lividness under the eyes, &c.* frequently fail, as they may all be induced by an obstruction of the periodical discharges from disease: nevertheless, when their obstruction and these symptoms arise from pregnancy, the person generally enjoys better health, in other respects, than when they originate from other causes.

These sympathetic affections generally subside, or at least considerably abate, about the third month, when the womb may be distinctly felt rising above the iliac bones: this also, as well as the before mentioned symptoms, is by no means a *sure* test of pregnancy, and indeed there appears to be no unequivocal sign, whereby that state can with certainty be determined, till between the fourth and

fifth months, when the *child quickens*, that is, when its motions are *distinctly* felt.

For the *Diseases* of pregnancy, it certainly would be very improper for midwives to be too free in prescribing : that belongs to the province of the physician, nevertheless *the means of preventing the many disorders incident to that state* cannot be too fully understood by you ; for, by your friendly interference, many *vulgar errors* may be timely counteracted, and much comfort enjoyed by the sex during their nine months journey. No *error* has perhaps more generally crept in with the sex, than the belief of *all* their disorders in that state, being owing to too great a quantity of blood, from the obstruction of its usual evacuation ; hence *blood-letting* has been so uni-



formly advised for their relief, and by many thought necessary even when no complaint existed: nothing however can be more absurd; for the loss of appetite, so common in the early stages, very little favours the redundancy of blood; besides, when we calculate the whole quantity of the menses that would have been discharged for nine months, (which cannot be estimated above sixty or seventy ounces) and compare it with the weight of the child and its appendages, (which is, at least, to three times that amount) we should rather suppose that women wanted *more*, instead of *less*, blood than they have. It was a maxim with old Hippocrates, that "Bleeding produces miscarriages." I do not pretend to say that bleeding is never necessary during pregnancy: its *indiscrimi-*

*nate* use is what I wish to be discountenanced, and that it never should be performed but by the particular advice of a skilful physician.

The *Bowels* of pregnant women should always be kept regular; and if they are costive, which is very apt to be the case, from the pressure of the womb upon the lower part of the intestines, it generally may be remedied or prevented, by the free use of vegetables and ripe fruits, and occasionally, if necessary, by administering a mild injection.

Instead of *tight lacing*, which has been done by some, with an expectation that, by pressing the child down, they would ensure to themselves a more easy delivery, women should be advised to wear

jumps or straps to their petticoats, going over their shoulders, to prevent them from hanging too heavily upon the womb: they serve not only to afford a present comfort, but to prevent the womb from being pressed down over the spare bones, causing what is called a pendulous belly, which always tends to induce difficulty in delivery. When the belly does become *pendulous*, it ought to have a swathe secured around its lower part, and be supported by straps going over the shoulders.

Women with child should live upon a light diet, but eat frequently; they do not, however, appear to be hurt by satisfying even their absurd and extravagant appetites; still we need not apprehend any bad consequences from crossing them. In the advanced



stages, they ought to *lie down* to rest themselves frequently in the course of the day.

Whether the *Imagination* of a woman can have any effect upon the child, or not, is still a question. Whether it has or not, it becomes our duty to discourage the idea; for in not fearing its effects, we deprive it of its greatest influence, (if it has any) and at least save women from many an anxious thought, and many an hour of distress.

In the early months, before the womb has arisen above the brim of the basin, its pressure, not uncommonly, produces a *suppression of urine*; this also sometimes arises from the urine being too long retained, whence the bladder, being overstretched, loses its power

of contracting: in either case, if a change of posture does not remove the difficulty, the water should be drawn off by the catheter; and I see no reason why this instrument may not as well be introduced by a woman, when there is no other disease attending, as by a physician: the operation is very simple; the patient being either seated, or laid on her side, with the knees separated, the instrument made blood warm and dipped in sweet oil, is to be carefully insinuated into the orifice of the canal, and gently pressed forward in the course of it till it reaches the bladder, when the urine immediately follows without any more trouble; but should any *impediment* to the *easy* entrance of the instrument occur, immediately desist and call in the aid of a physician.

At the end of the thirty-ninth week, the womb, from some unaccountable law of nature, exerts itself to get rid of its contents, not only by its own contraction, but also by the assisting power of the whole of the surrounding muscles of the belly, &c.

When women come near to the time when they expect to lie in, they are apt to consider every little uneasiness in the bowels, or pains in the back, as approaching labour: hence you often will be sent for when there is no real occasion for you. There are some *false pains* so nearly resembling the true pangs of labour, as to require some judgment to distinguish them. In *real pains* the belly generally flattens, and there is a sense of weight and bearing down upon the neck of the womb,



accompanied with *the shews*, a glutinous, slimy discharge from the parts, sometimes streaked with blood: these circumstances seldom or never attend the false pains. *False pains* are, very often, almost continual, or at least very irregular, and seldom have intervals of complete ease between them; whereas true pains, which generally begin in the back, and afterwards seem to surround the whole of the lower part of the body, and frequently shoot down the thighs, have regular intermissions, and come on harder and stronger as the labour advances: and, if the patient is examined, the mouth of the womb will be found settling down and gradually dilating, the membranes containing the waters, bulging forwards, &c.

When false pains originate from costiveness, that must be obviated by mild injections, and afterwards, in case they should continue, they should be allayed by twenty or thirty drops of laudanum, as the case may require: if they arise from gripings in the bowels, the anodine alone will be sufficient.

LABOURS may be divided into four classes; first, *natural*, where the *head* presents first to the birth and is delivered *without* any artificial assistance, *within* twenty-four hours: second, *laborious*, when the *head* presents, but the delivery is protracted beyond twenty-four hours, or *assistance* becomes necessary: third, *preternatural*, when *any other part* except the head presents to the birth; and fourth,

*complicated*, when attended with *floodings*, *convulsions*, &c.

Before we proceed to the management of Labour, we should attend to the *dress* of our patient. Her hair should be put up snug and tight; her clothes so fixed, that the part exposed to get wet may be removed soon after delivery without much exertion or fatigue; and she should have on stockings, that she may sometimes walk about between her pains. Her *bowels* ought also to be attended to: if she has not lately had any thing pass them, she should have an injection immediately given to her; this will not only favour the relaxing of the parts, but prevent unpleasant occurrences that might otherwise happen during the progress of delivery.



Women have been delivered in a variety of *positions*, such as standing, lying on their backs, sitting, and standing on their knees: the most common position, however, is, either that between sitting and lying on their backs, or lying on their side: when they are in the former posture, the only movable bone of the whole basin, the rump bone, is so much pressed upon by the weight of the woman's body, as must certainly tend to retard delivery. The most easy situation, and that which is also most convenient for the operator, appears to be for her to lie on her *left side*, with her back near the edge of the bed, and her knees drawn up and separated by a pillow. It would be adviseable to have her delivered on a *separate bed* from the one she is to lay in, so that she may be removed, im-

mediately after, into a dry, comfortable situation: for this purpose, then, a little cot ought always to be procured, if possible.

In the beginning of labour, the contraction of the womb, which accompanies every pain, pressing generally upon its contents, naturally bears hardest upon the least resisting parts; hence the mouth of the womb is gradually dilated: as this dilatation is encreased by a repetition of pains, part of the bag, containing the fluid in which the child floats, is pressed, in form of a bladder of water, into the opening, stretching it in the manner of a wedge, acted upon by the superincumbent power of the pains; preparing the way (in a natural case) for the bulky and more resisting head of the child.

As the labour advances, the waters gather more and more, and usually, by the time the mouth of the womb is fully dilated, the membranous bag breaks by the force of the pains, and the waters are discharged by a sudden gush. This terminates what is called the *first stage* of labour.

Frequently a remission of the pains follows the discharge of the waters, but this is of but short duration. The pains soon return, but often somewhat different from what they were at the commencement; for now, in place of general distressing pain in the lower part of the body, seemingly unfixed as to any end, they assume a more encouraging and determinate nature, bearing down and attended with a sense of a dispo-



sition in the womb to get rid of its contents.

The membranes being broken, and the waters evacuated, the head now falls down into the cavity of the basin, and by the continuation of the pains, is forced forward, taking its natural turns, till at length it passes through the bones, and presses hard upon the external soft parts, which, gradually dilating, permit its passage through them; when, usually, after a short respite, another pain expels the shoulders, and the body and hips soon follow.

The course of a natural labour, as here described, you will not find to hold good in every case, but diversified in a variety of particulars: thus instead of the waters being preserved till the full

dilatation of the orifice of the womb, you will often find them spontaneously discharged long before that period : and at other times, (though very seldom) you will find the membranes, with the waters, not ruptured even after the head has passed through the mouth of the womb. Instead of a temporary suspension of pain upon the discharge of the waters, you sometimes will find the child expelled by the continuation and force of the same pain whereby they were broken : in other cases, when the child does not immediately follow the flow of the waters, yet the body will be born by the power of the same pain whereby the head is freed from the external parts ; and in other cases again, where there has been some little respite after the birth of the head, it not unfrequently happens, that

the shoulders and body are discharged at once.

The womb having now got rid of so great a proportion of its contents, generally is free from pain for a little while, but in contracting itself to its former size, it meets at length with a still further impediment to its reinstatement; its powers again are called into action; pains return which soon effect an expulsion of the after-birth: this ending the third stage, terminates the labour.

Here a question naturally arises, *What are we to do all this while?* How are we to conduct ourselves, what attention must we pay our patient, and what assistance can we afford her?

Having prepared the bed, &c.



as directed, our patient's pains becoming considerably hard; she naturally will be led to lie down while they are upon her, at which time it will be proper for us, when the pain is going off, to ascertain, by a careful *examination*, the state of the labour, how far the orifice of the womb is dilated, the forwardness of the waters, and whether the *head* of the child (known by its roundness, hardness, and firm resistance to the touch, discoverable even before the waters are pressed forward or the womb opened) is the presenting part: if it is, every encouragement should be given, that all things appear to be doing well: but we should be very cautious how we give encouragement of a speedy delivery, lest thereby we wear out the woman's patience before the process has gotten through with: indeed our

greatest care must here be directed towards keeping up our patient's spirits and preventing her from looking out too soon for an end of her distresses ; and we may assure her, as in truth it is the case, that generally, the *longest labours* have the *shortest gettings-up*, and that *short labours* give *long afterpains*. Upon these principles, we ought not to hurry the woman into bed, but as long as she finds herself able to be about, let her keep up.

The pains continuing, after some little time, more or less, according as they may be, it will be prudent to *examine again*, to find how matters are going on ; but we should be careful not to examine, at least not very critically, during the continuance of a pain, for fear of rupturing the membranes, whereby the opening of


the womb would have to be dilated by the pressure of the child's head, which, from its bulk, pressing *upon* the orifice, would not answer the purpose so easily and quickly as the bag with the waters that are insinuated *into* it, and enlarging during every pain. A premature breaking of the waters always portends a more tardy delivery.

The first stage of the labour having considerably advanced, and the pains becoming more severe, it will be prudent for the woman to be fixed in a proper position for delivery, viz. lying on her left side, with her back near the edge of the bed, and her knees drawn up and separated as before directed. She should be properly supported by some of her *female friends*, a few of whom are always



welcome companions upon such occasions, not only on account of the assistance they afford in enabling her to bear her pains to more advantage, but also as their cheerful conversation supports her spirits, and inspires her with confidence. There is nothing, however, for *us* to do, but like dutiful handmaids of nature, to wait with patience till the breaking of the waters, announcing the end of the first stage, calls upon us for further attentions.

But *not always* upon the breaking of the waters, is our *immediate* interference necessary: it will, however, be advisable for us then to attend to the progress of the head, and when we find it has passed through the bones and presses hard upon the external soft parts, putting the *perinæum* upon



the stretch ; then, and not till then, is our assistance required, and here the only aid that we can give is, gently to support the perinæum with the palm of the hand, or the two thumbs, lest the head should be pushed forward so fast as to endanger its tearing. When the pains are very strong, and the head appears to be rapidly advancing, we should make a considerably firm resistance to its progress, and instead of urging the woman to make use of extraordinary exertions to forward the birth, as is too often the case, we should rather dissuade her from it, by warning her of the consequences that may follow : nor even where the business goes on more slowly, should our attention to this part be neglected ; since a laceration of it is one of the most unfortunate accidents that could

happen, particularly as a reunion thereof can never after be effected.

A few pains, at most, now will clear the head from these parts ; when after, perhaps, a little abatement, they are renewed and soon force out the shoulders, during which also, we must not neglect the perinæum, which still will be much upon the stretch and in some danger of being injured. After the shoulders are born, we are not (as some are too apt to do) to lay hold of the child and extract it, but with becoming patience still wait till nature shall deliver it into our hands : we may, and indeed it will be proper for us, to support the body of the child, so as, when it is naturally expelled, to be ready to take it, and directly to turn its face from towards the mother, to prevent its



being suffocated, by having its little mouth filled with the discharges that sometimes follow immediately upon its birth.

The child being wrapped in a warmed flannel, and a flannel cap put on (to protect its head from the too sudden impression of the cold air, which otherwise is very apt to give it the snuffles) it should be permitted to lay, without being separated from the mother, till we have a *full* evidence of the change in the circulation of the blood being completely made ; not merely by the child's crying, but by the pulsation in the navel string entirely ceasing : then the cord may be firmly tied with a waxed thread in two places ; one, about three fingers breadth from the navel, the other an inch further up : the child may then be separated by

cutting between the ligatures ; the first of these secures the child from the loss of blood in case the circulation should return in the cord ; the other is to prevent its bleeding to the detriment of a second child in case of twins, whose afterbirths are sometimes united.

Some advise tying the cord and separating the child immediately after it is born, particularly if it cries heartily ; but surely these must have but a very limited idea of the great change that takes place in the body of their little charge, when it first begins to breathe, or they cannot believe but that it must require some little time for its establishment : indeed the gradual cessation of the circulation in the cord after a few minutes, proves nature to be as fully adequate to the accomplishment of this

as of the other part of her work ; nor ought we more to presume upon regulating her movements. It is very true that children *generally* survive such treatment. This indeed proves the powers of nature in bearing up against injuries, but to me affords no arguments for our inflicting them. If many lives are not lost, it is highly probable that the foundation of many diseases is laid by such premature conduct.

The child being separated, we must apply our hand upon the woman's belly, to ascertain whether there is not *another* child, if there is *not*, the womb will be felt low down in the body, contracted in the form of a hard, round ball ; but if there *is*, the swelling will not be much less than before the birth of the first child.



In case of twins, after the delivery of the first, the head of the other child, generally, soon falls down into the basin, and follows the same course as the first, and should be managed in the same way.

After the division of the navel string, our next attention is to be turned towards the expulsion of the *afterbirth*, (this is considered as the third stage of labour) and often, by this time, we will find it either discharged, or separated and laying loose in the vagina ; if not, we may leave it entirely to nature, or at most to pull but very gently upon the cord in time of a pain. When it appears to lie in the passage and not to come forward easily, we may introduce a finger, and bring its edge down, whereby it may be extracted without any dif-

ficulty. It should be drawn away with the greatest caution, to prevent part of the membranes being left behind, and also to bring away the clots of blood, which otherwise might be the cause of troublesome *afterpains*.

Nothing can be more hazardous than attempting to hurry away the afterbirth, by pulling hard upon the cord, for we thereby not only risk breaking the cord, thence losing a proper conductor, in case manual aid should afterwards become necessary to bring it away, but we may produce a partial separation of the cake, with a rupture of the vessels, inducing a dangerous flooding, or else, as has sometimes happened, we may pull the womb down through the external parts, turning it inside outwards.

The woman having got through with her labour, is to have her wet clothes removed, and to be put into a dry bed, have a warm cloth applied to her to absorb the discharges that follow, and have a napkin bound around her; but great care should be taken that it be not drawn too tight; a slight pressure, to support the now relaxed muscles, is all that is needful.

## LECTURE XXVI.

*Of laborious, preternatural, and complicated labours. Of the treatment of the woman and child during the month, and of still-born children.*

THE observations upon labour, made at our last meeting, apply strictly to what are called na-



tural cases, those where the head presents, and delivery is accomplished within twenty-four hours, without artificial aid. Instances now and then occur, in head presentations, where it is protracted beyond that period : this may be owing to a variety of circumstances, all which, and the means of relieving them, have been particularly pointed out to you, but as it would be advisable, in all such cases, to call in the aid of a physician, I shall omit repeating them here. You may startle at the ideal loss of reputation that you may sustain by thus calling for assistance, when perhaps nothing but *time* is required for the accomplishment of the business: but you may rely upon its being to your advantage in the end. You should remember, that *prudence* is the ground-work of a midwife's repu-

tation. If you do not now request assistance, and any unfavourable circumstances occur, you are sure to meet with blame ; but even should all go well without help, you may be reputed for your hardiness, you will not be commended for your care.

When upon your early examination, in the commencement of labour, instead of the head, known by the marks before-mentioned, you find some other part presenting to the birth, you should immediately refer the case to the care of a physician. Notwithstanding, when on that subject, I was particular in directing the manner of conducting every *preternatural* case, and you performed on the machine every variety of operation ; still you may recollect, I considered this as a part of

the business, well for you *to know* but not politic for you to practise ; I shall therefore wave any re-consideration of it at this time.

Preternatural *adhesions of the afterbirth, floodings, miscarriages, and convulsions*, are all to be considered as diseases, and out of your province ; therefore, notwithstanding what may have been said and what you may know about them, you are by no means to prescribe for. I cannot however omit again enforcing it upon you, to aid physicians (when occasion may require) to overcome the prejudices of women against cold applications in certain cases of flooding, the whole principle of their opposition to this remedy being founded merely upon its efficacy. They are fearful of its suddenly checking the discharge, when that is the very



object aimed at. Did my limits admit, I could repeat a number of cases, in support of what the general experience of others have proved, that they may be used with as much safety, and oftentimes with much more success, than any other means. If women have a dread of water, there can be no great objection to a small proportion of spirits or of vinegar being added ; but by all means let it be *cold*.

I cannot conclude without repeating, in short, a few remarks upon the *management of women during the month, so as to avoid many of the diseases incident to that period*.

In the first place, the woman, ought, if possible, to lye-in, in a lofty, airy apartment, remote from the noise of the street. She should

(after having been put into a dry bed as before directed) be permitted to have a few hours quiet repose, unmolested by the visits of either friends or formal acquaintances. After a few hours, the child should be applied to the breasts, to draw off the milk if they have any in them, or to solicit its gradual secretion, if it has not yet come, thereby preventing the many inconveniences arising from the sudden flood of a great quantity at once into the breasts. The mother should always set up *in bed* while suckling, and whenever she eats : by this means she will favour the natural discharges from the womb, which when permitted to stagnate, are often the cause of the most distressing diseases. With the same intentions, she should also get out of bed, within twenty-four hours, or at

furthest two days after delivery ; (if nothing in particular should render it improper) at which time her bed is to be made up and sheets changed. Her cloths should be frequently changed, and every care taken to remove all the offensive matters which seem so disposed to accumulate about lying-in women. Her *drinks* should be of the mildest, cooling kind, such as gruel, toast-water, barley-water, tea, &c. her *diet* chiefly of vegetables, as panado, sago, tapioca, chocolate, &c. with ripe fruits, but with very little if any wine or spices :—After some few days, she may indulge in boiled meats, and so gradually resume her former diet. Her bowels should be kept regular ; something should pass them every day, which, if it does not take place naturally, must be promoted by mild injections,



as of warm water with a little sweet-oil or hogs-lard and molasses ; or if injections are objected to, she may take a little castor-oil, manna, or rochelle salts. The *room* should be kept temperate, and by no means over-warm. All heating drinks, or an accumulation of bed-cloaths, and indeed every thing that would heat her or promote a sweating should be carefully avoided : upon the same account, the *curtains* should be drawn up, so as to let her have every advantage of fresh, free air. By these means she will go clear from many of the inconveniences common within the month. The manner in which many women are cooped on these occasions, leaves no difficulty in accounting for the many diseases, child-bed fevers, agues in the breast, &c.

with which they are so often afflicted.

When women, by a kind of false tenderness, are carefully pent up within close-drawn curtains, and kept in a constant perspiration, who can be surpris'd, that they should often be taking cold? for even turning in bed then must be dangerous; the necessary exposures from sitting up, in attending to the calls of nature, or for suckling their child, must always be a great risk; the getting out of bed, the height of imprudence; and the least breath of cold air will almost certainly disorder them.

When the woman's *after-discharges* are moderate, or even very *scanty*, no disorder attending, no means should be used to increase them, excepting the getting up

often, and continuing longer and longer out of bed each time ; this will favour their evacuation when accumulated in the womb ; their stagnation there, and not their suppression, being the source of danger. When they are copious, the woman continuing well, they need no remedy ; but when they are in *excess* and appear to induce weakness, and do not moderate by keeping in a horizontal position, apply immediately for medical aid.

The milk ought not to be permitted to stagnate in the breasts, but should be drawn off as often as four or five times a day. In case the breasts should become hard or knotted, they may be rubbed with warm olive oil or goose grease, and afterwards covered with a plaister composed of oil and bees-



wax ; or, those failing, they may have a cool poultice, made with bread and lead-water, or cloths wetted with lead-water, constantly applied to the part till the complaint is removed.

The nipples are sometimes so pressed in, as not to be taken hold of by the child. They may be drawn out by cupping-glasses, or, what generally answers the purpose equally well is, to take a common black bottle, with a smooth mouth, fill it with warm water, then empty it, and immediately apply the mouth of the bottle over the nipple ; as it cools, the nipple will gradually be drawn out, so as to be laid hold of without any more difficulty. Women's nipples being drawn out by sucking, at the same time losing, in a degree, the matters wherewith they are

naturally covered and protected, and being afterwards, again pressed down by the women's cloaths, are very apt to crack open in different places: this is often avoidable, and frequently cured by carefully wiping them dry, after the child has done fucking, and wearing a wax ring, or leaden cap\* upon them, so as to permit them to retain their shape; having them at the same time, either covered with a solution of the cooling emollient feeds, particularly of quinces, or anointed with a little

\* These rings are made by having a piece of bees-wax as large as half a dollar and near half an inch thick, perfectly smooth, through which is to be made a hole sufficiently large to take in the nipple. The leaden caps might, perhaps, with more propriety, be called hats, as they exactly resemble them in shape, the rim being half an inch wide and the bowl large enough to receive the nipple, perforated with several little holes, to permit what milk may be discharged to run freely out.

beef's marrow, or an ointment made by melting equal parts of white wax and spermaceti with as much sweet oil as to make it of a proper consistence.

Having thus followed the woman through the month, let us return to the child. We left it wrapped up in warm flannel till the woman could be first accommodated : now our little prize must be attended to ; it must be washed with warm water and soap, have its navel string wrapped up in a piece of dry linen rag and laid upon its belly, where it must be secured by a flannel belly-band, bound *only moderately* tight around the body of the child. The child must, in other respects, be warmly and comfortably dressed.

In regard to the *dress* of chil-



dren, this one principle should always be had in view, that the looser and easier it is, the better ; and that every binding that tends to cramp their motions or oppresses their bodies, equally tends to injure their health. There cannot, however, be any great objection to securing their little hands from rubbing their eyes ; a trick that many of them are very much given to. In fixing on their cloaths, as few pins should be employed as possible ; and indeed in no case should they be used where strings can as well be substituted in their place.

The first washing, it was observed, should be with *warm* water. In the after-washings, which should be at least once every day, the heat of the water should be gradually diminished, so as by the

third week at furthest to make it evidently *cooler* than the child's body ; and, after a little while, if we would secure it against the vicissitudes of weather in our variable climate, we should have it dipped in *cold water* every morning. By this treatment, two great points in preserving the health of children are obtained at once, viz. cleanliness and hardiness. Man may truly be said to be the creature of habit ; by use he may be brought to take even poisons with impunity ; so, by a careful gradation, may infants be rendered, in a great degree, proof against the usual hurtful effects of cold.

This inestimable preservative, however, requires some caution in its application, to obtain its best

effects. Children should be merely dipped in the water, but not continued in it for any length of time, (and if they are very weak, the water should have a proportion of common salt, as three or four ounces to a gallon, dissolved in it) and upon their coming out, they should be wrapped in a flannel, and have their bodies well rubbed before they are dressed.

Besides the general bath, the folds in the skin, as of the neck, the arm-pits, the groins, behind the ears, &c. should be washed out several times in the course of the day, with cold water, to prevent their chafing, particularly in fat children. If, notwithstanding, these parts should chafe, instead of simple water, they may be washed



frequently with cold hyson tea, or a weak solution of sugar of lead, or of white vitriol, (in the proportion of fifteen or twenty grains to half a pint of rain water) and have them dusted with a little dry flour or calamine powder.

Another main article in preserving the health of children, is, the early habituating them to exercise and free air. If grown persons can hardly support themselves without exercise and fresh air, how can it be supposed that tender infants (whose growth is to be expanded, and circulation extended, by the sole power of their own strength) can possibly prosper without them? Their constant uneasiness when kept still, and the agreeable satisfaction they express upon being

dandled about, fully prove the utility of that measure ; while the great and partial mortality among them in crowded places, clearly shews their necessity of the purest atmosphere.

In respect to the diet of children, there is nothing equal to their mother's milk, and where any substitute or addition thereto is wanted, that which approaches the nearest to it, is the best : none, perhaps, is better than cows milk, diluted with water and sweetened, or a little salted when it appears to curdle much upon the stomach. Bread and every other more substantial food in any form, requires a degree of digestion which the stomachs of infants, in their early days, are no ways calculated to

perform ; hence, when they are stowed with pap or panado, &c. they are so often afflicted with a train of complaints in their little bowels.

It is a common thing with nurses, almost immediately upon the birth of the child, to give it some purgative to carry off the black matter contained in its bowels, and if its mother's first milk does not answer that purpose, or if she has not yet got any, or the child sucks an older milk of a nurse, this certainly is a very proper step. With this intention, a little manna and water, molasses or syrup of roses, may be repeatedly given till it has its effect, or the babe may take a teaspoonful of a weak infusion of rhubarb in water every



hour till it purges. Costiveness, that may occur afterwards, will be best relieved by suppositories or mild glysters.

The treatment of the *diseases* of infants being the proper business of physicians, I shall pass by noticing here. But, as in cases of apparently *still-born* children, the necessary means of their recovery would often come in too late, were you to wait till a physician could be procured, I cannot omit again calling your attention to them.

It not unfrequently happens, that children do not, for some little time after they are born, shew any signs of life by crying or even breathing. Upon such occasions,

I have often set their respiratory organs in motion, by blowing a sudden blast of air into their mouths. Should this not succeed, the child should be immersed in a bowl of warm water, and have its body rubbed over with the hand, while the circulation in the cord should be supported or promoted (if it should have stopped) by wrapping it in a warm flannel. These means being continued for a few minutes, without any appearance of life, and the pulsation in the navel string appearing to be entirely and irrecoverably stopped, it may be tied and cut. The child still continuing in the warm bath, is, by your blowing through a quill fixed into one of its nostrils, while the other and its mouth are kept perfectly closed, to have

its little lungs dilated; then by pressing on its belly and breast, the air must be driven out again, when, in like manner, they may be filled and discharged repeatedly, imitating natural breathing as near as you can; this should be continued for a long time, unless the child should sooner show some signs of life, by gaping &c. after which signs, if it should not still breathe *freely*, it may be excited by a little spirits or snuff applied to its nostrils, or by flapping it on its buttocks.

It sometimes happens with still-born children, that their countenances are of a dark livid colour, from a stagnation of blood; in these cases it is necessary to divide the navel string immediately, and



let it bleed a little before tying it; if this does not revive it, its lungs must then be inflated as above directed; by a perseverance in which, many children have been recovered, to the no less astonishment of despairing friends than enjoyment of their disconsolate mothers.

Before we part, let me caution you against that scandalous disposition to defamation, so prevalent among persons of the same profession. Whatever may be your opinion of those, who have not had like advantages with yourselves, still they are entitled to your compassion and tenderness; your mild carriage will ensure their affections, your instructive conversations may improve their practice, and excite in them a

laudable spirit of further enquiry. In regard to yourselves, would you be respected by others, shew a deserving claim thereto, by your respect one towards another; if *you* speak *lightly* one of another, wherefore can ye expect the *world* to speak *well* of you.

Permit me to recommend to your particular attention, the calls of the poor, “*He that hideth his face* (from them) *shall have many a curse.*” It was a saying of a celebrated physician, that the “poor” were his best patients, because “God was their paymaster.” They are said to be the footsteps whereby to ascend to the apartments of the rich; but let not this sordid motive be the predominating principle of your actions; let that be fix-

ed upon a more noble, a more solid basis, the desire of doing good, and you will have abundant cause to acknowledge that “ *He that giveth unto the poor shall not lack.* ”

F I N I S.