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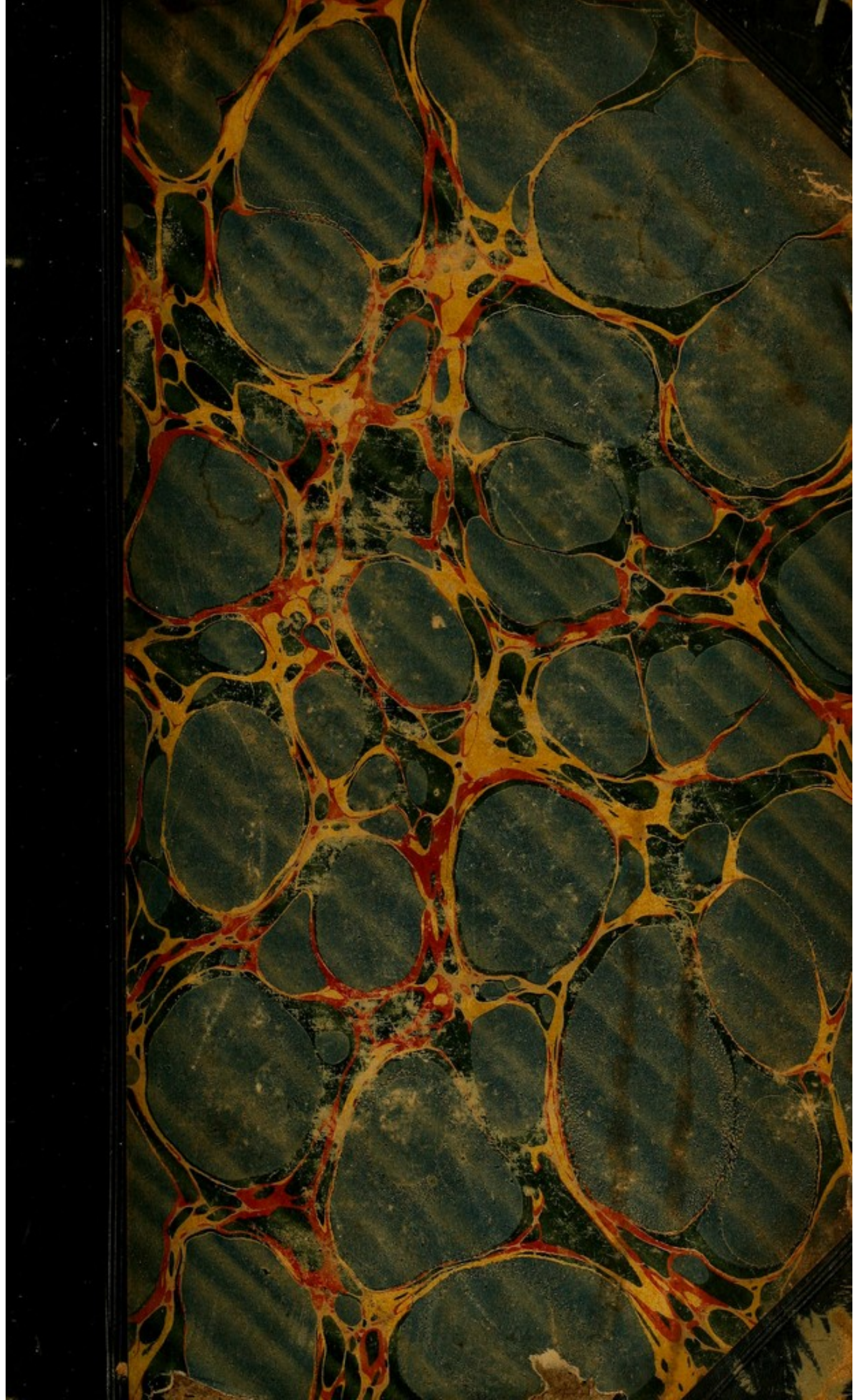
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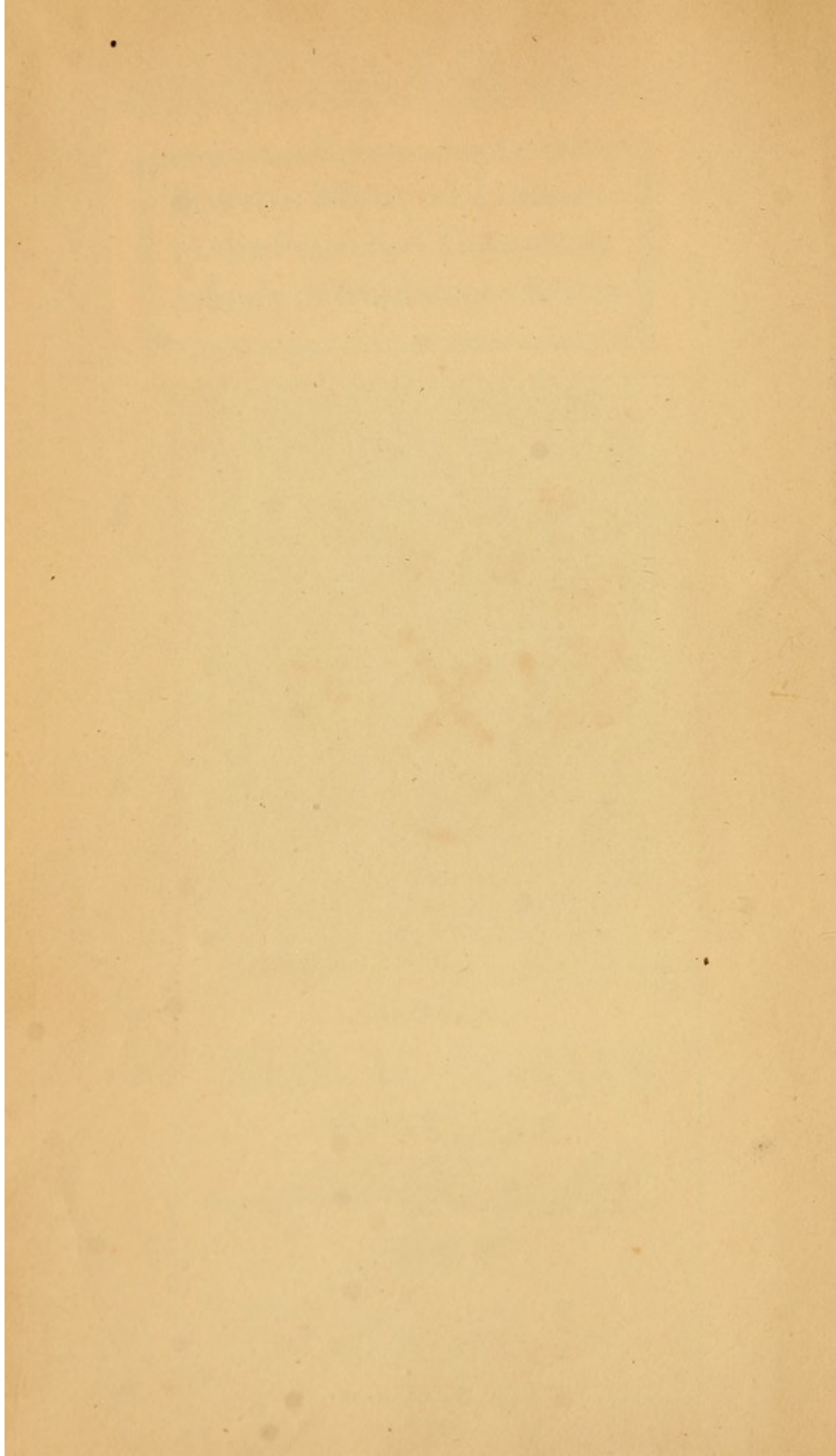
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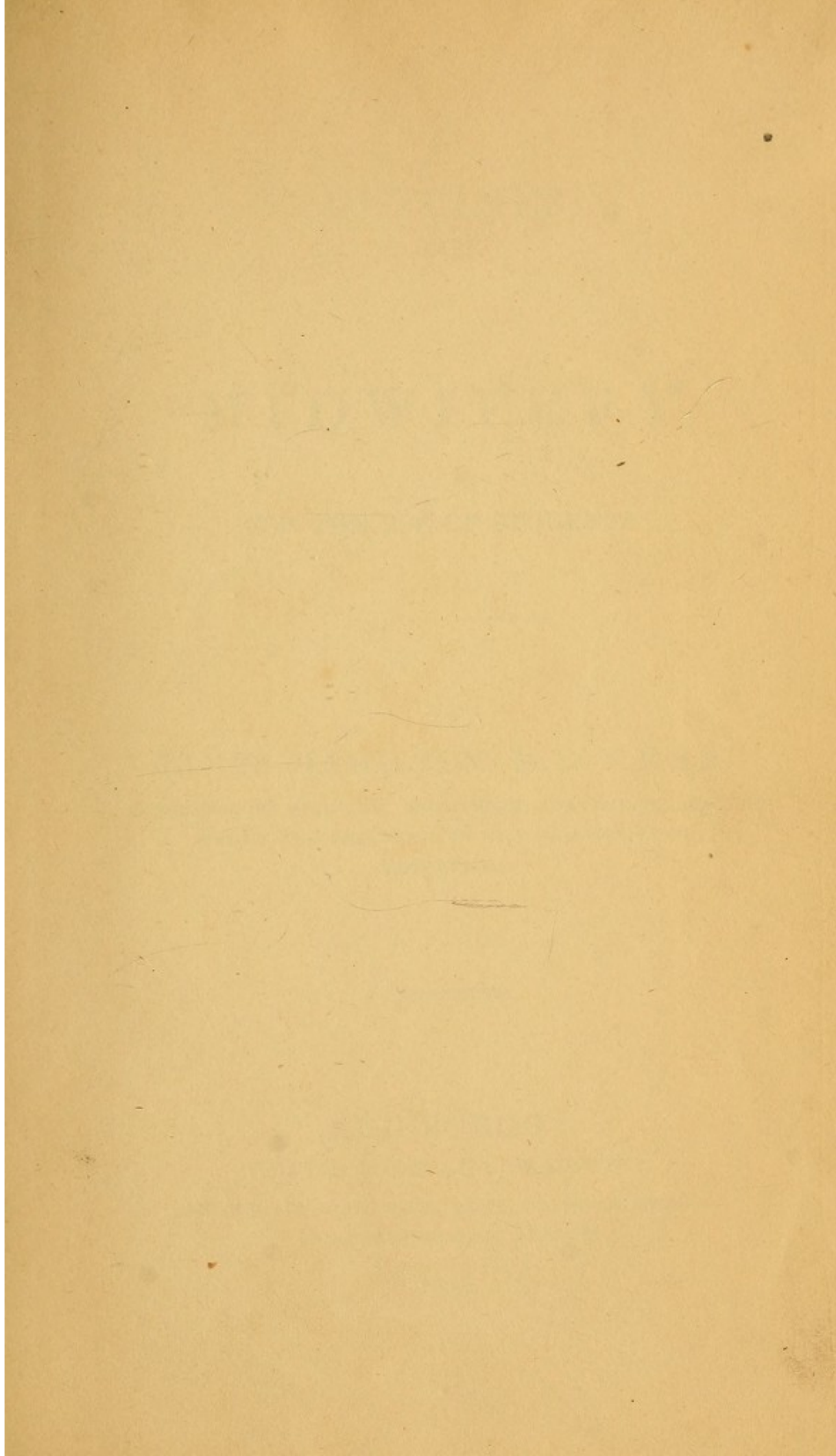
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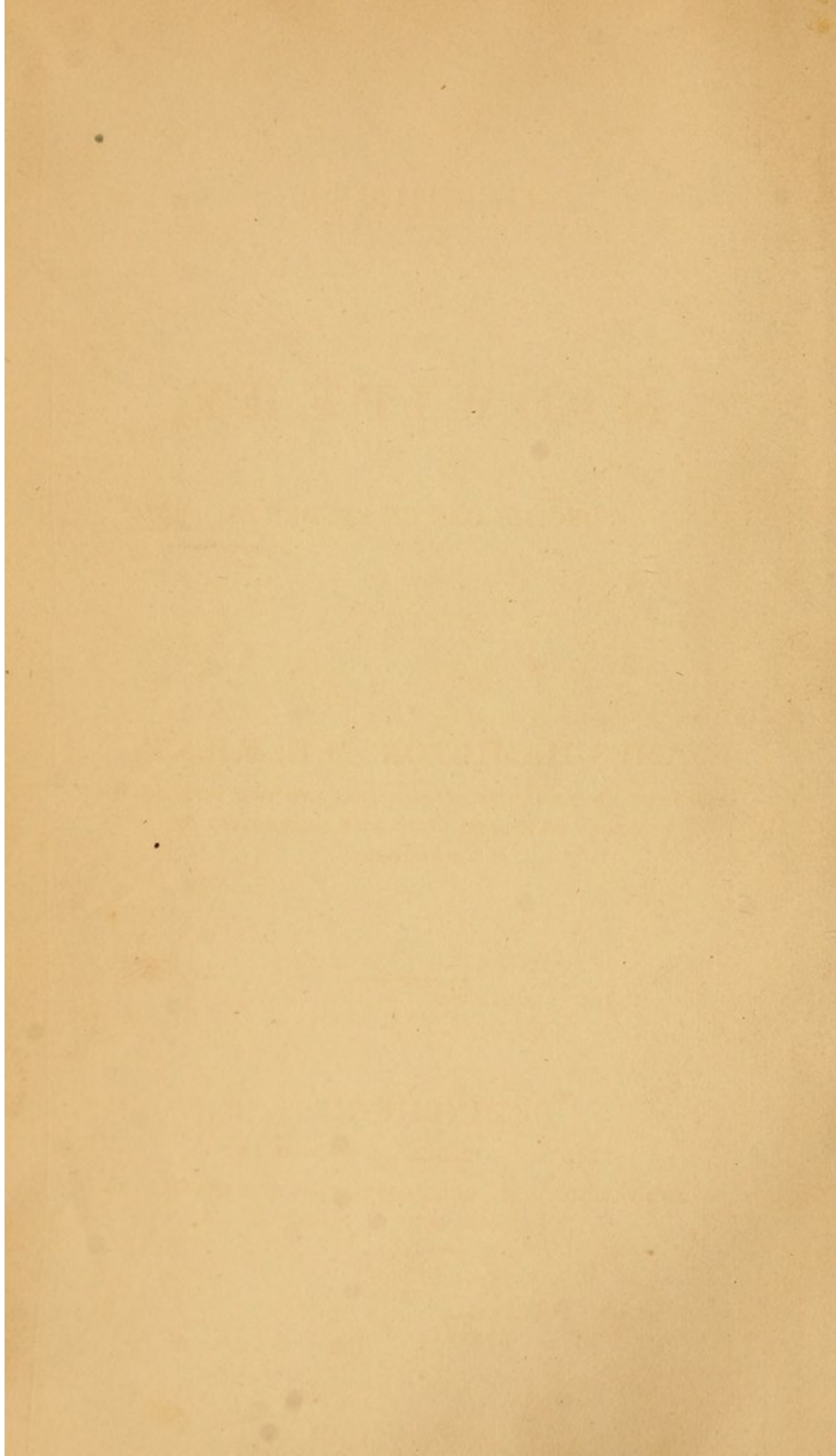
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LIBRARY OF THE







OUTLINES
OF
MIDWIFERY,

FOR THE USE OF STUDENTS.

BY
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OUTLINES
OF
MIDWIFERY.

PART I.

ANATOMY AND PHYSIOLOGY OF THE UTERUS.

SECTION I.

Of the Pelvis, relatively to the Situation and Structure of the Uterus in the Unimpregnated State.

THE Womb in the unimpregnated state is situated within a cavity at the lower part of the belly. This cavity, lined with fleshy parts, which are plentifully supplied with blood-vessels and nerves, is made up of certain bones. These, when cleared of all that covers and lines them in the living body, and separated from the last joint of the back-bone to which they are attached behind, and from the thigh-bones, which are fixed to their fore part, have a distant resemblance to a basin, and hence are called the Basin, or, in the Latin language, the Pelvis.

Four bones make up the pelvis of a grown person, viz. the Sacrum, or Sacred Bone, and

the Coccyx, or Rump Bone behind, and the Innominatum, or Nameless Bone, on each side, making up the sides and the fore part.

The Sacrum, or Sacred Bone, is joined to the last joint of the back in such a manner, that, in the erect posture, its upper part projects forwards, and the rest of it, together with the rump-bone, are inclined backwards. Its remarkable parts are the *Base*, which is its upper part; the *Promontory*, which is the fore edge of the base; and the internal surface called *Hollow*. It is firmly wedged in between the nameless bones by an immovable articulation.

The Coccyx, or Rump Bone, is made up of three or four small pieces of bone, forming a range, which is fixed to the point of the sacrum. These, in young women, are joined by gristle, and are quite moveable; but, after the thirtieth year, in general, the gristles disappear; all the pieces, together with the sacrum, are strongly fixed to each other, and the range loses one half of its length.

The Innominatum, or Nameless Bone, on each side, is firmly attached to the upper half of the sacred bone. At their fore part, the two nameless bones are strongly glued together, so that no part of the bones, making up the cavity of the pelvis, is naturally capable of separation. Each nameless bone consists, in children, of three pieces, joined by gristle; and although in grown persons these three pieces form one bone, yet, for the sake of distinguishing the several parts

of the bone, the names of the different pieces into which it had been divided are retained.

Each Innominatum, therefore, is divided into three parts, viz. the *Ilium*, or Haunch or Hip Bone, the *Ischium*, or Seat Bone, and the *Pubes*, or Share Bone.

Ilium, or Haunch or Hip Bone.—It spreads upwards and outwards, and forms the side of the lower part of the belly. Its upper edge, called *Spine*, is somewhat semicircular, except towards the fore part, where it becomes irregular. The under part only belongs to the pelvis, properly so called. Above it forms a ridge, named *Linea innominata*. Between this ridge and its spine, the smooth hollow surface is called *Iliac Region*. Under the linea innominata, the bone is scooped out in the form of an arch, to allow of the safe transmission of certain important blood-vessels and nerves, which arch is termed the *Sacro sciatic Notch*.

The *Ischium*, or *Seat Bone*, extends from below the fore part of the ilium to the bumpy part on which the body rests while sitting. This part is covered with gristle in the living body, and is named the *Tuberosity* of the ischium. Behind the tuberosity there is a sharp projection called the *Spinous process*; and at the fore part of the tuberosity, a small branch runs up to meet a similar branch from the pubes. This is styled the *Ramus*.

The *Pubes*, or *Share Bone*, constitutes the

smallest portion of the innominatum. Both pubes are joined together at their fore part, and make up the space between the groins. Their upper edge, which is a continuation of the linea innominata, forms a sharp ridge, called the *Crista*, and the thick part joined to this is called the *Body*. From the surface, by which the one is joined to the other, a small projection, called *Ramus*, inclines backwards, and proceeds downwards to meet the ramus of the ischium.

In the middle of the outside of each innominatum, there is a deep round hollow called *Acetabulum*, fitted to hold the head of the thigh-bone, and between this and the surface, by which the share bones are joined, there is an oval opening, called *Foramen Thyroideum*, which, in the living body, is covered with a strong membrane, and therefore cannot be felt.

The remarkable parts of the pelvis, (in the united state of its bones,) are the *Brim*, the *Outlet*, the *Cavity*, the *Sacro-iliac Synchondrosis*, the *Symphysis Pubis*, the *Arch of the Pubes*, and the *Sacro-sciatic Ligaments*.

The *Brim* of the pelvis is formed by the fore edge of the base and promontory of the sacrum behind, by the linea innominata at the sides, and by the crista pubis before. When the body is in the erect posture, it lies in so slanting a direction, that its back part is between two and three inches higher than its fore part. It is of an oval form, and, in the living woman, measures generally under four inches from the promontory of

the sacrum to the top of the pubes, not more from the distant points of the linea innominata on each side, and between four and five inches from where the sacrum and ilium are joined to the extremity of the linea innominata, next the crista pubis on the opposite side. In the skeleton these dimensions are, of course, larger.

The *Outlet* lies also in a slanting direction when the body is erect; but its back part, which is formed by the coccyx, is between two or three inches lower than its fore part, which is formed by the union of the share bones. The outlet, like the brim, is of an oval figure, and nearly corresponds with it in dimensions; but its widest part, being between the coccyx and pubes, is opposed to the narrowest part of the brim. The narrow part of the outlet is between the tuberosities of the ischia, and commonly measures between three and four inches.

The *Cavity* of the pelvis is the space between the brim and the outlet. It is generally about six inches deep behind, four at the sides, and between one and a half and two at the fore part. Its width is greatest from side to side, from the brim down to the spinous processes of the ischia. These narrow it so, that from that point its greatest width is from the sacrum and coccyx to the opening formed by the rami of the pubes and ischium on each side.

The *Sacro-iliac Synchondrosis* is the joint by which the ilium and the sacrum are united.

The *Symphysis Pubis* is that opening at the

fore part of the pelvis, which is formed by the separation of the rami of the pubes, and of the ischium.

The *Sacro-sciatic Ligaments* are two strong sinews, or bands, at each side, connecting the ischium and sacrum, and making up part of the outlet of the pelvis.

SECTION II.

Of the Uterus and its Appendages.

THE Uterus, in the unimpregnated state, is a small part like a pear flattened, having a hollow within it called its cavity, not larger than what is barely capable of holding a small almond. It is situated within the very middle of the pelvis, between the bladder and the straight gut, connected to the ilium on each side by doublings of skin, called broad ligaments, attached by its fore part which is flattened, to the urinary bladder, fixed below to the vagina, and in contact behind with the straight gut. The part which is placed downmost, and which hangs into the vagina, is named its *Mouth*, or *Os Uteri*, or *Os Tincæ*; the half next that is termed its *Cervix*, or neck; the remaining half its *Corpus*, or body; and the line between the two upper corners its *Fundus*, or bottom. The *Cavity*, like the external surface, is of a triangular shape; and in each corner there is an opening. On the surface of this cavity

there are innumerable open orifices of minute blood-vessels, from which, it is believed, the periodical discharge issues. The substance of the unimpregnated womb is very fleshy and compact, (though the direction or course of its fibres is not accurately defined,) and is supplied with numerous blood-vessels, lymphatics, and nerves.

The blood-vessels are from the Spermatic and Hypogastric. They run in a spiral and tortuous direction, and communicate very freely and extensively with each other. The nerves are from the Intercostal, the Mesocolic plexus, and the Sacral. The lymphatics, though small, are numerous: they follow, in general, the course of the blood-vessels, and terminate variously,—many of them in the iliac and sacral glands, some in glands situated about the lumbar vertebræ, and some in the glands of the vagina.

The appendages of the womb are the *Broad Ligaments*, the *Fallopian Tubes*, the *Round Ligaments*, and the *Ovaria*.

Broad Ligaments.—These are, in fact, doublings of the peritoneum. That membrane, after covering the urinary bladder, and the whole of the uterus not in contact with that viscus, passes back towards the sacrum, and forming folds, connects the uterus to the sides of the pelvis. It forms, in fact, a diaphragm across the brim of the pelvis, by which the contents of the abdomen are retained in situ; and, consequently, in ascites,

the substance of the uterus, the ovaria, the rectum, the vagina, and the urinary bladder, are, in the ordinary erect and sitting posture, placed underneath the collection of watery fluid.

Fallopian Tubes.—These are two conical pipes extending from the upper corners of the womb, along the border of the broad ligaments. By one extremity they communicate with the cavity of the uterus by very minute orifices. Their other extremity hangs loosely on the inferior surface of the peritoneal sac, and is fringed. They are highly vascular, and evidently muscular.

Round Ligaments.—These are formed by a congeries of vessels. They proceed, on each side, from the upper corner of the uterus, along the anterior surface of the broad ligaments, and terminate at the groins.

Ovaria.—These are two small bodies like nutmegs flattened, placed on the posterior surface of the broad ligaments, at the distance of an inch on each side from the upper corners of the womb. They feel, in the dead subject, like pretty firm glands,—are highly vascular,—have no cavity,—and have no direct communication with the cavity of the uterus.

SECTION III.

Of the Vagina, the External Organs, and the Contiguous Parts.

THE Vagina is the canal which leads from the external parts to the womb. By its upper extremity, it embraces the uterus, and, by the other, it opens between the rami of the pubis, forming what is called the *Osificium externum*. It is placed between the urinary bladder and rectum, to both of which it is connected, though more intimately with the former than with the latter. As it lies in a slanting direction, its anterior surface is shorter than its posterior. It is not in contact with the rectum throughout its whole extent, for, within about three quarters of an inch of its external extremity, it gradually separates from the gut, so that, externally, there is a distance of from one to two inches between the orifices of those parts.

The Vagina is composed of three layers or tunics,—one of condensed cellular membrane; one of muscular fibres, and one of mucous membrane. This latter is that which can be felt on introducing the finger: it is rugous, is highly vascular, and, in health, is constantly lubricated with a fine mucus. The length and breadth of the Vagina vary in different subjects. Its blood-vessels, which are numerous, are from the hypogastric, and also from the *pudica communis*, with a few

branches from the hæmorrhoidal. A congeries of those vessels surrounds its external orifice in the form of a net-work ; besides which, there are a few muscular fibres which, together, have the power of constringing it. In virgins, the orifice of the Vagina is more or less narrowed by a thin membrane, called the Hymen ; and when this membrane is destroyed, as after marriage, three or four minute triangular bodies are seen within the orifice, called *Carunculæ Myrtiformes*, which appear to be the incipient rugæ of the Vagina.

The EXTERNAL sexual organs consist of the *Labia*, the *Clitoris*, and the *Nymphæ*. The contiguous parts are the *Mons Veneris*, the *Meatus Urinarius*, the *Perineum*, and the *Anus*.

The mons veneris covers the pubes, and is consequently placed between the groins. It is formed chiefly by a quantity of fat being accumulated between the outer surface of the pubes and the skin.

From the lower part of the mons veneris the *Labia* begin, and pass downwards to the perineum. They seem to be folds or doublings of the skin, with a quantity of cellular and fatty matter interposed. Externally they are rounded ; but their internal surface is flattened, and resembles that of the inner surface of the lips of the mouth, being supplied with numerous fine mucous follicles. The union of the labia next the perineum is called the inferior commissure ; and between that and the lower edge of the orifice of the Vagina there is slight indentation

before child-bearing, which some anatomists have called the fossa navicularis.

On separating the labia, a small part like a pimple is observed just underneath their upper commissure. This is the *Clitoris*, situated on the symphysis pubis. The part which projects is named the glans, the loose skin which surrounds its upper part the prepuce; and anatomists show two crura, and two pair of muscles, one following the course of the crura, and the other lying under the insertion of the former, and proceeding downwards, surrounding the meatus urinaris, and the orifice of the Vagina.

The Nymphæ are two small folds of skin which are continued from the prepuce of the clitoris, and terminate on the internal surface of the labia. They are highly vascular, and have on their surface numerous follicles furnishing a thin mucus.

The Meatus Urinarius is situated between the nymphæ, in a direct line from the glans of the clitoris, and commonly about an inch lower than that part. As there is occasionally some pretty distinct lacunæ surrounding the meatus, it is more easily, in many instances, recognised by the finger than by the eye, for it communicates, when touched, the feel of a thickening of the skin, like half of a small garden-pea. From this opening, the urethra extends along the internal surface of the symphysis pubis to the neck of the bladder, forming a straight, and short, and pretty wide canal.

Between the inferior commissure of the labia, and the verge of the anus, the interposed part is called the Perineum. It is composed of the common teguments, and certain muscular fibres, called transversales perinei.

The anus is the extremity of the rectum. It is surrounded by a proper sphincter, and also, in common with the meatus urinarius and orifice of the vagina, with the levatores ani. muscles.

SECTION IV.

Changes on the Uterus, in consequence of Impregnation, observable at the full period.

THE most important changes upon the womb at the full period of pregnancy, are, in its situation, its figure, its volume, the relative seat of its appendages, its structure, and its contents.

Instead of being placed within the cavity of the pelvis, it apparently occupies the whole of the belly, its fundus reaching as high as the ensiform cartilage, while its orifice extends to the apex of the sacrum, unless in cases of deformity of the pelvis.

Although its precise figure varies according to original structure, and to the nature of its contents, and of the circumambient parts, it resembles, upon the whole, that of an egg, the cervix forming the smaller end.

Generally speaking, the contents of the gravid

uterus, at the full period, seldom exceed ten pounds avoirdupois ; but instances have occurred where they have weighed nearly double that quantity. The ordinary volume of the uterus at the full period of pregnancy may be estimated at from twelve to thirteen inches from the orifice to the fundus, and from nine to ten inches from side to side at its broadest part.

There is a great change in the relative seat of the appendages of the uterus at the full period. The broad ligaments are no longer to be distinguished. The round ligaments, which are greatly increased in size, pass down to the groins from the anterior surface of the uterus ; and the fallopian tubes and ovaries are seen clinging to the sides of the uterus. As to the fallopian tubes, they seem lengthened, they have an antrum towards the fimbriated extremity, and, like the other parts of the uterus, their vessels are much more numerous, and are much larger. In one of the ovaria, there is a corpus luteum, which is both tangible and visible.

The structure of the gravid uterus is so extremely loose, that all its component parts are visible, and that it may be very readily torn by mechanical injuries communicated from its cavity. The size and number of its blood-vessels are enormous ; its nerves are apparently enlarged ; its muscular fibres are more distinct, and its cellular substance, by which all the parts of its structure are connected, is loose and yielding.

The volume of the vagina is enlarged during

the progress of pregnancy as much, in proportion, as that of the uterus, and its orifice is rendered much more dilatable.

SECTION V.

Contents of the Uterus at the Full Period of Pregnancy.

THE ovum consists of what are called the secundines, a certain quantity of watery fluid, and the infant. The secundines comprehend three membranous layers, the placenta, and the navel-string.

Of the three layers composing the membranes, that which lines the uterus is called decidua, and is highly vascular, being supplied by blood from the vessels of the womb. It contributes principally to connect the placenta to the uterus.

The placenta is a highly vascular spongy mass, most commonly of a rounded shape, of about four or five inches diameter, and from one to two inches thick at its centre, gradually becoming thin at its circumference. By one surface, which is lobulated, it is glued to the uterus, while the surface next the infant is covered with the middle and inner layers of the membranes, and into that surface the navel-string is inserted. It is most usually situated at the fundus of the uterus; but has been found attached to every different part from the fundus to the orifice.

Nothing can be more simple than the structure of the placenta. It is a sponge, into the cells of which the spermatic and hypogastric arteries of the uterus pour their contents, while over the surfaces of the same cells the minute ramifications of the umbilical arteries of the foetus are distributed. From those cells the blood is taken up by the spermatic and hypogastric veins of the uterus, while the umbilical arteries of the foetus end in veins, which, at last, unite into one great trunk,—the umbilical vein.

The middle layer is called the chorion, and is firmly attached to the decidua throughout its whole surface, excepting at the part at which the placenta is interposed. At the full period it contains no visible blood-vessels.

What is called the amnion, which is the innermost layer of the membranes, forms the lining of the cavity that contains the infant. It is equally destitute of blood-vessels (in the latter months) as the chorion, and, like it, is extended over the umbilical chord.

Between these membranes, which form a kind of sac, or bladder, and the infant, a watery fluid is interposed, called the liquor amnii; and this varies in different cases, in quantity and transparency, apparently independent of the state of health of the infant. The most ordinary quantity is about an English pint.

The infant is connected to the placenta by the umbilical chord, which is a vascular string generally of the thickness of an ordinary-sized finger,

and extending from two to three feet in length. This chord is attached to the centre of the abdomen of the infant, and joins the placenta sometimes at its edge, sometimes about its middle, but more frequently between those two points. It consists of two arteries, which are continuations of the internal iliacs of the foetus, a vein double the size of the arteries, a quantity of jelly contained within the cells of a net-work, which connects the blood-vessels with the sheath of the chord, and that, as already stated, is formed by the chorion and amnion.

The infant is so placed as to take up the least possible room, its limbs being folded together, while its spine is so bent that the head is inclined down towards the knees,—thus being moulded into an oval figure, of which the vertex forms one extremity, and the nates the other. Relatively to the mother, the head, in ninety-seven or ninety-eight cases out of the hundred, is placed towards the cervix uteri, and the sides towards the spine and parietes of the abdomen respectively. The limbs are commonly towards one side of the backbone, and the body towards the other, so that every woman feels, especially in the latter months, a greater weight at one side of the belly than at the other.

In cases of plurality of children, each infant is included in a sac composed of a distinct amnion and chorion, and each has an individual navel-string; but sometimes the vessels of the placentaë, where there are twins, communicate with each

other. There is only one decidua, whatever number of foetus there be contained in utero.

The weight of the infant (at the full period) varies from five pounds avoirdupois to between thirteen and fourteen pounds; but the most ordinary weight of a healthy well-formed infant is seven pounds. The length of the person of the infant varies from eighteen to twenty-two or twenty-three inches.

Certain peculiarities, independent of the imperfections of structure, are discovered in the foetus. Thus, in the heart, there are three peculiarities, viz. disproportionate size of the eustachian valve; an oval opening in the partition between the auricles, called foramen ovale, and a large vessel leading directly from the pulmonary artery to the aorta, the canalis arteriosus. In the liver there are two peculiarities, viz. the great size of the left lobe, apparently owing to the blood returned by the umbilical vein being chiefly distributed through that lobe, and the canalis venosus, which is a vessel leading directly from the vena portæ to the larger of the venæ cavæ hepaticæ.

SECTION VI.

Of the Progressive Changes upon the Uterus from Impregnation to the Full Period.

ALTHOUGH opportunities of ascertaining the

state of the uterus in the very early periods of pregnancy have rarely occurred, yet, as the conception is frequently expelled at different periods after the fourth week, and as suicide has sometimes been committed by individuals who were young with child, the progress of the changes which follow conception has been pretty nearly ascertained.

The cervix and os uteri are glued up by a tough jelly within a day or two after conception ; and the cavity of the uterus is filled with a fluid, into which vessels shoot from its surface, which gradually form a membrane that lines the body and fundus, and completely shuts up the neck. Some time elapses before the conception is lodged within this membranous sac. That it passes through one of the fallopian tubes is unquestionable ; it consists of the embryo, surrounded by a transparent fluid, and contained within a minute sac made up of the amnion and chorion. After being lodged in the uterus it adheres to one point, and there the placenta is formed. Between the remainder of its surface and the membrane which lines the uterus, (and which is the decidua,) there is a covering, originally discovered by Dr. Hunter, called the decidua reflexa.

By degrees, as its contents enlarge, the uterus expands, its vascularity, at the same time, increasing ; but it seldom happens that it begins to emerge from the pelvis sooner than between the third and fourth month, and at the end of four calendar months its size is not larger than that

of an ordinary sized Florence flask, being of the same globular shape, as the cervix is little altered, and is attached to it like a stalk.

From this period the shape of the uterus gradually changes from the globular to the oval form, the cervix progressively expanding, and the fallopian tubes and ovaries approaching to the surface of the uterus, so that at the end of five months the fundus may be felt mid-way between the pubes and umbilicus: At six months, it is as high as the umbilicus: At seven months, it reaches to the middle point between the navel and the ensiform cartilage, with which latter part it is in contact at the end of eight months; and from that time it becomes apparently stationary. The expansion of the cervix is by no means uniformly regular, as has been alleged by many respectable authors.

By the industry of anatomical collectors, specimens of the appearance of the contents of the uterus at every different period, from the end of the first month up to the full term, have been preserved, and, therefore, a general estimate may be formed of the progressive increase of size of the infant. But as it is usually impossible to ascertain the exact moment of conception, and as infants born at the full term, even in different pregnancies of the same individual, vary greatly in size, it is obvious that there can be no definite standard established, by which the dimensions of the infant at the various periods of pregnancy can be precisely determined.

In the following enumeration, it is, therefore, to be particularly noticed, that there may be many exceptions to what is to be regarded as merely the more general law.

Between four and five weeks the embryo appears of the size of a common fly. Its length at six weeks is about an inch and a quarter; at two months, two inches; at ten weeks, about two inches and a half; at three months, fully three inches; at four months, it exceeds five inches; at five months, between eight and nine inches; at six months, eleven or twelve inches; at seven months, between fourteen and fifteen; at eight months, between sixteen and seventeen; and at the full period, from seventeen to twenty-two inches.

The weight at the full period, as already stated, varies from five pounds to twelve or thirteen avoirdupois, but the ordinary weight is between six and seven pounds.

SECTION VII.

Generation.

THE facts which the observations and experiments of physiologists have ascertained, respecting this interesting process, may be comprehended under the following heads:—

Firstly, In all perfect animals the union of the sexes is necessary.

Secondly, Whatever impedes the access of the semen masculinum to the uterine cavity, or its retention, for a time, in that cavity, prevents conception.

Thirdly, Women, in whom the orifice of the fallopian tubes, either at the uterine or fimbriated extremity, has been discovered to be imperforate, have been uniformly found to have been barren.

Fourthly, The conception is originally formed in the ovarium, and some time elapses before it is lodged in the uterus.

Fifthly, In the perfect animals, the embryo resembles, in external appearance and internal structure, both parents so exactly, that, in some parts of the world, as in the West Indies, the gradations in the offspring between the European and the African are so definite, as far as the fourth generation, as to be actually recognised by law.

The explanations of this wonderful process, by which the existence of all animated nature is continued, may be divided into theories and hypothesis.

Of the former there can be only three, for the embryo must be produced by the power either of the male parent or of the female parent, or of both united; and when the whole phenomena are carefully considered, this latter opinion appears the most plausible.

With respect to the hypotheses, or of the conjectures which have been formed to explain the process of generation, it may be truly said that they are all in the highest degree unsatisfactory.

SECTION VIII.

Of Superfetation: Influence of the Mother's Imagination upon the Infant; and Monsters.

It was formerly imagined that women were capable of conceiving even although pregnant, that is, that a woman, a few months advanced in pregnancy, might again conceive, and, consequently, might have, at the same time, in the womb two infants of different ages. It is wonderful that so preposterous a notion should have been still entertained after the phenomena of conception has been minutely investigated, more especially, as no fact in favour of such a doctrine could be derived from the quadruped.

When it is considered, that, shortly after impregnation, the cervix and os uteri are closed up,—that the cavity of the uterus is lined with an impervious sac,—that the uterine orifices of the fallopian tubes are covered by that sac,—and that the relative situation of the ovaria and tubes is altered, the impossibility of superfetation cannot be doubted.

It has long been a subject of popular belief, that the corporeal frame of the infant in utero is

liable to be altered by the imagination of the mother, although the slightest reflection on final causes would convince any person of the injurious consequences to society which might result from such a power.

Innumerable instances might be cited, where mental distress and bodily suffering had occurred in the greatest degree during pregnancy, without affecting either the health or the form of the infant; while it could not be difficult to bring forward evidence, that deformed, or monstrous infants, have been born of mothers, who could recollect no particular cause of alarm or anxiety.

Monsters, although not frequent in the human subject, it is well known now and then occur; and however distressing they may be to the feelings of individuals, have contributed very much to the elucidation of the animal economy. They may be divided into the five following classes:—

Firstly, Monsters with redundant parts, of which many singular instances are preserved in the collections of the curious.

Secondly, Monsters with defective parts. Of these, every variety has been discovered, from those in which the brain, or heart, or lungs, have been altogether wanting, to those in which there has been a deficiency of a single finger or toe.

Thirdly, Monsters with misplaced parts. This

class is by no means so frequent as either of the former, and, in general, the deviations have been confined to the contents of the thorax or abdomen.

Fourthly, Monsters, in which there is a combination of the characters of the three former classes. For example, two infants, joined together by the sternum, have been found each to want the upper part of the cranium. Again, in some cases where the abdominal viscera have been protruded at the umbilicus, the anterior part of the urinary bladder has been wanting.

Fifthly, Monsters which bear a resemblance in external character to two different species of animals, of which the most familiar example is the domestic mule, or the animal produced by the union of the horse and the ass.

If every deviation from the ordinary appearance or structure of the species to which the individual animal belongs be considered a monster, the cause of monstrosity may, in some instances, as in that of the club-foot, for example, be mechanical, that is, some circumstance tending mechanically to alter the shape of the embryo in utero. But, in general, monsters must be originally formed at the time of conception.

SECTION IX.

Supposed Uses of the Secundines.

THAT the decidua forms the medium of communication between the mother and infant cannot be doubted.

As to the placenta, it probably serves both to communicate the vivifying principle which breathing supplies after birth, and to furnish nourishment to the embryo, though the proofs in favour of the former of those powers are much more convincing than those in support of the latter.

Thus, in the *first* place, the whole blood of the foetus is distributed with the same care over the surface of the cells of the placenta, as the blood of the natus is over the cells of the lungs.

Secondly, The interruption to the return of the blood through the umbilical vein proves as speedily mortal to the foetus, as the stoppage of breathing by closure of the wind-pipe does to the natus.

Thirdly, The blood returned by the umbilical vein, as was first clearly pointed out by Professor Jeffrey of Glasgow, is of a more florid colour than that of the arteries.

Of the other use of the placenta, viz. supply-

ing nourishment to the foetus, the proofs are negative rather than positive, for there is no other apparent source of nourishment ; and a very large proportion of the blood returned from the placenta circulates through the liver before being conveyed to the heart.

The amnion and chorion are the proper membranes of the embryo ; for, in cases of extra uterine conception, they are always found enclosing the foetus ; and, in cases of plurality of children, each foetus is contained within a distinct sac, composed of a proper amnion and chorion.

Formerly it was imagined, that the liquor amnii contributed towards the nourishment of the infant ; but, in the latter months, at least, it cannot serve such a purpose, because the health of the infant does not seem to be influenced by its quantity or its purity, and because, in its chemical qualities, it resembles excrementitious fluids.

SECTION X.

Uses of the Peculiarities of the Foetus.

IN consequence of the ordinary position of the infant, (its head being towards the cervix uteri,) not only are the larger parts of the infant forced foremost, but also is the risk of the navel-string being compressed much diminished. In cases of twins, the head of the one infant is placed towards the breech of the other.

The first of the peculiarities which requires notice, is the state of the bones of the cranium. By the compression of the brain, of which this admits, the infant is thrown into a profound sleep during its progress in birth, so that its struggles cannot injure the parent. By this contrivance, too, different sizes of the head are adapted to the passages.

It is unnecessary to offer any conjecture respecting the use of the *membrana pupilaris*, as it is commonly invisible at the full period of utero-gestation.

From the state of the lungs previous to birth, physiologists have felt puzzled in ascertaining the circumstances by which the process of breathing commences; and it must be admitted, that there are strong objections against the explanations which have been commonly given. The pressure of the atmospherical air, the sensation of cold or pain, and the change in the circulation, (the several alleged causes,) are all inadequate to the effect.

May not, therefore, this important process be more probably attributed to the stimulus communicated to the superficial nerves of the teguments of the face, of the nostrils, of the fauces, and of the larynx, &c. by which the action of the intercostal muscles and diaphragm must be excited?

Perhaps the precise mode of circulation of the blood through the foetus has not yet been clearly ascertained, though there can be no doubt that a

large proportion of the blood received into the right ventricle of the heart passes directly through the canalis arteriosus into the aorta, without previously circulating through the lungs. But whether the foramen ovale permits the blood to pass from the right auricle into the left, or serves for the transmission of the blood from the vena cava descendans into the left auricle, seems to be a question still undecided.

The great magnitude of the liver was, in former times, held to be a proof that the infant is nourished by the liquor amnii, physiologists having overlooked the very obvious fact, that the blood circulating through the liver of the foetus is chiefly furnished by the umbilical vein, and not by the chylopoetic viscera. The liver seems, in the foetal state, to perform the important function of preparing the blood returned from the placenta for the nutrition of the infant.

SECTION XI.

Duration of Pregnancy.

SINCE the time of Aristotle, up to the present day, it has been questioned whether the term of pregnancy in women be limited, or be occasionally extended to an indefinite period. One who merely reasons upon the subject might suppose, that, in a matter of such public notoriety as births in every district of the world must be, the dura-

tion of pregnancy should have been long ago ascertained beyond the possibility of doubt.

When the writings of the eminent lawyers, who taught and published during the sixteenth century, and whose elaborate researches contributed so much to the restoration of ancient learning, are consulted, it is found that names of the greatest celebrity are ranged on the opposite sides of this question; and it must appear singular, that during the great number of years which have elapsed since their time, the experience of mankind has not elucidated this important subject. If the members of any of the learned medical associations had furnished a register containing the date of the last appearance of the catamenia,—of the period of quickening,—and of the actual delivery of the patients they had attended, a body of evidence might have been collected, which would have been quite satisfactory. This having been neglected, individual practitioners naturally claim the privilege of deciding on this and other controverted points according to their own views and experience.

If reasoning from the analogy of the more perfect animals were admitted in the discussion of this question, the subject would be little doubtful; for, talking generally, every different species of our domestic quadrupeds has a particular period of pregnancy. Thus, the ewe carries its young five calendar months, and the cow nine calendar months; but both ewes and cows occasionally exceed that period; and it is a well-

known fact, that the more calves which a cow bears the longer is her pregnancy protracted.

But it would be unfair to decide so important a question on any other foundation than that of facts; and if human testimony can be believed, several of the most respectable of the profession have attended cases where they had no doubt that pregnancy had been protracted even beyond ten calendar months. According to the established law of the consistorial court of Scotland, (called the Commissary Court,) the duration of pregnancy is limited to ten calendar months; and no child capable of being reared is considered to have been born before the completion of seven calendar months.

PART II.

PARTURITION.



I. NATURAL LABOUR.

SECTION I.

Arrangement of the different kinds of Labour.

By the term Labour, or act of Parturition, is meant that action of the womb by which its contents are expelled at a period when the infant can live independent of the parent. There are four kinds of labours, viz. *Natural*, *Laborious*, *Preternatural*, and *Complex*. As in by far the greatest number of cases the head of the infant is forced foremost, and the delivery is completed with safety to the mother and child within twenty-four hours from the commencement, such cases are termed *Natural*. When the delivery, notwithstanding the head of the infant being forced foremost, is protracted beyond twenty-four hours from its commencement, it is styled *Laborious*. In some cases, other parts than the head of the infant are advanced towards the passage, and such labours are called *Preterna-*

tural. And under the title of *Complex Labours* are included all cases where the infant, or mother, or both, are exposed to hazard from circumstances which do not happen in the former classes.

In all labours there are certain progressive advances; and from the pains of child-bearing having been familiarly compared to the toils of a journey, these changes have been named stages of labour. These are three in number; the *first* consisting of the opening of the mouth of the womb; the *second* of the actual passage of the infant; and the *third* of the separation and exclusion of the secundines.

SECTION II.

Phenomena of the First Stage of Labour.

IN some cases previous to the commencement of labour, there is a great change in the feelings of the woman, and in the apparent bulk of her belly. Sometimes shivering or trembling, or a bowel-complaint, usher in labour: sometimes there is a watery or slimy discharge, slightly tinged with blood, issuing from the vagina for a day or two before labour; but more often labour commences by pains in the belly, at first irregular in their recurrence, and short in their duration. These pains, which, in fact, are the contractions of the womb, by degrees increase in frequency and force, and gradually open its

orifice, partly by the thickening and shortening of all its component fibres, and partly, by the protrusion of the membranes with some of the liquor amnii like a soft wedge, through its edges.

The duration of this stage does not, in general, exceed twelve or fourteen hours; and its most tedious part is the dilatation to such an extent, that a crown-piece could be introduced through the opening of the orifice of the womb. But cases, from time to time, occur, where, from the premature discharge of the liquor amnii, or natural toughness of texture, or a band of the neck not having been expanded, or great relaxation of all the contents of the pelvis, a much longer time would be required to complete this stage if the natural powers were alone trusted to.—In some rare cases, the opening of the womb goes on imperceptibly, for weeks, or for days, previous to the commencement of pains; and in such cases this stage is completed in a few minutes.

SECTION III.

Phenomena of the Second Stage of Natural Labour.

THE head of the infant, which, in natural labour, passes first, is of an oval form, and is so constructed as to permit of diminution by pressure, which serves two most important purposes, viz. inducing a profound sleep during its passage

through the mother, and accommodating it readily to the apertures through which it must pass.

In the greater number of cases, the head measures a little more than five inches from the vertex to the chin, and a little more than three and a half inches from the parietal protuberance on the one side to that on the other. Its circumference, at its largest part, viz. the extreme points being the vertex and chin, measures from thirteen to fifteen inches, and when the extreme points are from the root of the nose to the hind head, fully an inch less.

The shoulders are so placed, that their widest part is in the direction of the narrowest part of the head, and their circumference may be estimated at thirteen inches. The circumference round the haunches is fully two inches less.

In the living woman, the apertures of the pelvis are very different from what they appear in the skeleton. The opening at the brim, indeed, is oval, but the widest part is a line drawn on either side, from the top of the sacro-iliac synchondrosis to the point where the linea innominata and crista pubis meet on the opposite side, and this commonly measures nearly five inches. From the promontory of the sacrum to the symphysis pubis the distance is under four inches.

The outlet of the pelvis (in the living woman) seems completely filled up by the muscles, common integuments, &c.; but the orifice of the vagina, in the progress of labour, is capable of being

so dilated, that a line drawn from the point of the coccyx to the arch of the pubes may be extended almost indefinitely, while a line from the one tuberosity of the ischium to the other measures under four inches.

The cavity of the pelvis measures, in depth, from six to eight inches behind ; from three and a half to four and a half at the sides ; and from one and a half to two and a half in front. Its width from side to side, as far as the spinous processes of the ischia, is nearly five inches, and from the sacrum to the symphysis pubis about an inch less. From the apex of the sacrum and coccyx the dimensions cannot be estimated, the opening of the arch of the pubes being opposed to those points.

The parts lining the pelvis, (in the living woman,) supposing the uterus and vagina removed, are the rectum, which, entering by the left side of the promontory of the sacrum, passes along the hollow of that bone and the coccyx ; the urinary bladder and urethra, which are fixed to the internal surface of the pubes ; the levatores ani muscles, which, on each side, line the pelvis from round its brim, and apparently fill up its outlet ; the obturatores interni muscles, which, rising from round the foramen thyroideum on each side, pass out in the form of a tendon at the sacro-sciatic notch, and the pyri-formes, which, at each side, rise from the lower part of the sacrum and coccyx, and follow nearly the same course with the former.

The outlet (in the living woman) is strengthened by the sacro-sciatic ligaments, which are two strong sinews connecting the ischium and sacrum on each side; the quadratus; the gemini, and the three glutei muscles, and by the muscles which attach the thigh-bone to the pelvis, viz. on each side the obturator externus, the pectinealis, and the triceps, to which are added the sphincter ani, the transversales perinei, and the common teguments.

As the head of the infant is oval, and as the apertures through which it has to pass are of the same form, it is obvious, that, unless the one oval be adapted to the other, the infant could not be expelled. In natural labour, the head is advanced in such a manner as to occupy the least possible space; for the chin being pressed down upon the breast, the vertex is forced foremost, by which the head is brought into the shape of a compressed cone, the base of which is a line drawn from the root of the nose to the occiput, which measures from four and a quarter to four and a half inches, bisected by a line, extending from the one parietal protuberance to the other, measuring from three inches and a quarter to three inches and three quarters.

The uterine contractions after the rupture of the membranes, and consequent discharge of the liquor amnii, being much more powerful than formerly, and occasioning a considerable degree of pressure and bearing down, force the head of the infant into the pelvis with the vertex fore-

most, and the face passes along the sacro-iliac synchondrosis at either side. When the vertex comes in contact with the coccygei muscles, the face turns into the hollow of the sacrum, and the occiput into the arch of the pubes. Every successive pain now pushes the vertex upon the orifice of the vagina, and forces out the soft parts at the outlet of the pelvis, in the form of a swelling, constituting what is called the perineal tumour, by which the orifice is gradually opened; and the chin of the infant, receding from the top of the breast, on which it had hitherto rested, the vertex mounts up towards the pubes of the parent; and, in fact, the head (of the infant) passes through the external parts in the shape of a compressed cone, of which the vertex being the apex, the base measures what has been already specified.

After the head is born, and the pains returning, the face of the infant is turned towards one thigh of the parent; and the shoulders being pressed down, the one into the hollow of the sacrum, and the other into the arch of the pubes, the body of the infant is expelled in a slanting direction up towards the abdomen of the parent; and this is commonly followed by the discharge of some watery fluid, with a few coagula of blood.

The time required for this process varies in different women, and in the same woman on different occasions, according to the force and frequency of the pains, the size of the infant's head, the depth of the pelvis, the dilatability of the

coccygei muscles, and sacro-sciatic ligaments, and external parts. It is, generally speaking, more tedious in the first than in subsequent labours.

SECTION IV.

Phenomena of the Third Stage of Labour.

IN ordinary cases, some time elapses between the birth of the infant and the separation of the secundines. If, during this interval, the state of the abdomen be examined, it will be found, that its parietes are relaxed, and that the uterus is contracted into a rounded form.

By and by one or more pains, which the patient terms griping or grinding, take place; the navel-string becomes tense and lengthened; and if it be gently pulled by the placenta, is found advancing, commonly with a gurgling noise, and preceded by the discharge of some coagulated blood. It is so thrown off, that the membranes are flapped over its lobulated surface.

In more than the majority of cases, the placenta is thus expelled by the natural efforts within less than an hour after the birth of the infant; but sometimes these are inadequate to its expulsion, and it is retained in the uterus or in the vagina.

In the former case, the causes of its retention are the uterus not contracting properly after the birth of the infant, or contracting irregularly in

its middle, (which is termed the hour-glass contraction,) or the placenta being indurated, so as to adhere strongly by a portion more or less to the surface of the uterus.

Its retention in the vagina can only arise from the contraction of that part. Sometimes after being separated from the uterus, and being partly thrust into the vagina, the cervix and os uteri strongly grasp and retain the placenta.

SECTION V.

Rules for the Management of the First Stage of Labour.

1. DEPRESSION of spirits at the commencement of labour is a temporary symptom, and seldom requires any interference, for cordials at that time are, in most instances, injurious.

2. Shivering or tremblings are also of temporary duration, and commonly yield to the application of flannels to the pit of the stomach, and bottles of hot water to the feet. If such means fail to give relief, a dose of the ammoniated tincture of valerian, properly diluted, or of any other safe stimulant, may be prescribed.

3. Vomiting occasionally occurs during the first stage of labour, and may commonly be regarded as a favourable symptom, as it sometimes tends very materially to promote the dilatation of the os uteri. If it proceed from disordered

stomach, some means of clearing that organ should be adopted, such as an infusion of chamomile flowers, &c. But if nothing else but clear phlegm be thrown off, venesection, or a half-grain opium pill, according to circumstances, will be necessary, provided the vomiting continue beyond a certain time.

4. But, in general, the only points to be attended to while the first stage is proceeding, after ascertaining that labour has actually commenced, relate to ventilation, the due regulation of the diet, quiet, and the preparations for delivery. When the mouth of the womb is so much opened, as to be capable of permitting the passage of a crown-piece, the patient is to be put into the position in which she is to be delivered, viz. on her left side, in bed.

5. If, at the end of twelve hours from the actual commencement of labour, the os uteri be not completely dilated, measures are to be forthwith adopted to secure that object as quickly as possible ; because the protraction of the first stage beyond twelve or fourteen hours is productive of many untoward circumstances, such as exhaustion, morbid determination of the blood to various parts, and debility of the uterus, with all its consequences.

6. Blood-letting, the exhibition of opiate glysters, and supporting the os uteri during the pain, are severally necessary, according as the cause of protraction is the premature rupture of the membranes, or the natural toughness of the

os uteri, or the unexpanded state of a circular band of fibres of the cervix uteri, or relaxation of all the soft parts lining the pelvis.

SECTION VI.

Rules for the Management during the Second Stage.

7. ON the rupture of the membranes, and consequent dilatation of the os uteri, the advancing part of the infant ought to be carefully examined, lest one or both hands, or the navel-string, be pressed down along with it; and the progress of the head should be watched till it come down upon the external parts.

8. In the meanwhile, the pain of the back is to be relieved by counter-pressure on the back part of the sacrum; and cramps of the lower extremities are to be removed by the application of a tight ligature round the calf of either or both legs.

9. When the head has cleared the coccygei muscles and sacro-sciatic ligaments, and begins to press on the orifice of the vagina, the continued and unremitting attention of the practitioner is imperiously required, in order to prevent any laceration of the external parts. With this view, counter-pressure, during every pain, must be carefully applied to the parts upon the stretch; and a quantity of purified lard, proportioned to

the state of those parts, should be rubbed upon them during the intervals between the pains.

10. Immediately on the protrusion of the head of the infant, it must be ascertained whether the navel-string be twisted round its neck; for in that case it cannot be too soon slackened or disentangled.

11. With this precaution, the protrusion of the shoulders of the infant should be trusted to the labour-pains, supporting the perineum with the left hand, and with the right bending up the infant towards the abdomen of the mother. A soft cloth is to be applied instantly upon the birth of the infant.

12. The state of the abdomen is now to be carefully examined. If there be no other infant in utero, the parietes abdominis will be found relaxed, and the uterus itself contracted into a spheroidal body. But if another infant remain, the parietes abdominis continue on the stretch, and the shape of the uterus is still oviform.

13. The infant, provided it have breathed freely, is now to be separated from the parent; for which purpose the cord is to be tied by means of two ligatures, and divided between them. A cordial, adapted to the circumstances of the patient, ought then to be administered.

SECTION VII.

Rules for the Management of the Third Stage of Labour.

14. As soon as it is ascertained that the secundines are separated from the uterus, their expulsion may be assisted by gently pulling by the cord. But any attempt of this kind might be followed by inversion of the uterus, if made while the placenta remains attached to the uterus.

15. Should hæmorrhagy, in any degree at all serious, follow the birth of the infant, the secundines ought to be immediately extracted by art; and, at any rate, if the natural powers do not throw them off within an hour after the birth of the infant, the same practice is to be had recourse to.

16. By tracing up the cord with two fingers at the anterior part of the pelvis, it can be readily determined whether the placenta be retained within the uterus or vagina. If in the former, the cause of retention must be carefully ascertained.

17. Atony of the uterus is readily distinguished by the want of pains, and the bulky state of the womb; and it may be removed by the application of heat, or friction, to the abdomen, or by the exhibition of a stimulant glyster.

18. Irregular contraction of the uterus is known by the unequal form of that part, and by the

cord, on being pulled by, readily yielding, but instantly receding on the pressure being taken off. If there be no hæmorrhagy, an opiate may be administered previous to the introduction of the hand.

19. Morbid adhesion of the placenta to the surface of the uterus is indicated by hæmorrhagy following the birth of the infant, and, in most instances, by pains without any lengthening of the cord. The appropriate assistance, in this case, cannot be afforded too promptly. With this view, the right hand is to be passed into the uterus, conducted by the cord kept on the stretch by the left hand; and the substance of the after-birth is to be so pressed upon, without insinuating the fingers between its surface and that of the uterus, as to separate all those parts which are separable without laceration of the womb. The detached portions being extracted by pulling by the cord, the uterus is to be forced into contraction before the right hand be withdrawn from within it.

20. When it is found that the after-birth is in the vagina, there can, in general, be no difficulty in extracting it, by steadily pulling at the cord, provided it be pulled in the proper direction.—It is very rarely necessary, in such cases, to introduce the whole hand.

21. In those cases where the cervix and os uteri grasp the after-birth after it has partially entered the vagina, the difficulty may commonly be overcome, by the insertion of two fingers of

the right hand into the substance of the placenta at the root of the cord.

22. If, unfortunately, the navel-string be separated from the placenta, there ought to be no delay, whatever the cause of retention may be, in carrying up the hand into the uterus, for the purpose of emptying it, and of promoting its contraction.

II. LABORIOUS LABOUR.

SECTION I.

General Observations on Laborious Labours.

WHEN the head of the infant is pushed foremost, and the labour is not completed within twenty-four hours from its actual commencement, the case is styled laborious, and it may terminate in one of three ways.—Thus, the natural powers may at last complete the delivery; or, though these fail, it may be possible for the practitioner to complete the delivery by mechanical means, with safety both to mother and child; or, it may be impossible to draw the infant alive through the natural passages. These three several terminations constitute three different orders of laborious labours.

Between the two first and the third orders there is a very important distinction, both in the

cause and in the event ; for while, in the two first, the chief cause of protraction is diminished, or deficient force of labour-pains, and the event, under proper management, is generally favourable, in the latter order, the cause is an actual disproportion between the infant and the apertures through which it should pass, and the event must be unfavourable to the infant, or to the parent, or to both.

But although deficient action of the uterus be the chief cause of the two first orders of laborious labours, it is not the only one ; for sometimes, along with it, there is a slight increase of the usual resisting powers, though never to such an extent that it cannot be overcome by a longer than usual continuance of the ordinary pains. It may be very confidently affirmed, that the deficiency of action of the uterus in the two first orders of laborious labours is owing to some mismanagement, and, therefore, generally arises from some error on the part of the practitioner, or some misconduct on the part of the patient. Thus, deficient action of the uterus is the effect of general debility,—of depressing passions of the mind,—of debility of the uterus itself,—or of interrupted circulation of the blood,—all which may be prevented by due attention.

General debility never interrupts the progress of labour unless when artificially induced. Women, for example, in the last stage of pulmonary consumption, and also during the struggles of death from acute diseases, such as typhus

and pneumonia, bear the infant with the utmost facility. But when a woman, at the commencement of labour, has been overheated, or fatigued, by ill-directed exertions to quicken the pains, the necessary exhaustion interrupts the progress of labour.

Fear or despondency have an influence upon the uterine action, which is not easily explained. But as the fact is certain, it is the bounden duty of the practitioner to guard against the occurrence of such affections.

Debility of the uterus is the natural consequence of its having been prematurely excited into action, as by the rupture of the membranes at the commencement of labour; or by the officious and premature interference of the practitioner; or by the first stage of labour having been allowed to continue beyond twelve or fourteen hours.

Interrupted circulation of the blood is the effect of the contractions of the uterus, the diaphragm, and the abdominal muscles, wherever the circulating fluids of the individual exceed their due proportion. But as this effect of labour can be readily recognised, and immediately counteracted by venesection, it can never happen under the care of an attentive practitioner.

The increase in the resistance which may take place during the first two orders of laborious labours, may be occasioned by pendulous belly, rigidity of the membranes, unfavourable position of the child's head, and unyielding state of the soft parts at the outlet of the pelvis. It is, how-

ever, a fact which may be depended upon, that, under proper management, these causes may generally be so counteracted as to afford only a temporary obstacle, not protracting the delivery to the time which constitutes laborious labour.

SECTION II.

First Order of Laborious Labours.

THE cases comprehended under this order have been called Tedious Labour. They are distinguished from those of the two other orders by the following marks:—

1stly, The pains continue to advance the infant steadily, although slowly.

2dly, The strength of the woman continues unimpaired.

3dly, The state of the passages feels natural in every respect.

4thly, The action of the heart and lungs is healthy, the skin cool, and neither head-ache, nor pain, nor retension of the abdomen, are present.

Under those circumstances, the practitioner is warranted in trusting to the natural powers; while, at the same time, he adopts the suitable means to support the strength, to increase the force of the pains, and to remove any resistance. With these views, due ventilation, suitable

nourishment, occasional change of posture, and perfect quiet are to be directed.

If trifling ineffective pains prevent rest, an opiate should be given; but as medicines of that description are always hazardous, the utmost caution and circumspection should be observed in their use. Both their safety and their utility should be well considered before having recourse to such means.

Formerly it was imagined, that certain medicines are capable of increasing the force of the labour-pains, by a specific power or influence on the uterus itself; and, in America, it is at present believed, that the ergot of rye, (*secale cornutum*,) given in doses of from half a drachm to a drachm, has the power of exciting such violent uterine contractions, as even to prove fatal to the infant. But the evidences on this subject are most unsatisfactory.

Stimulating glysters have been often employed for the same purpose; but the cases where they can be useful happen so rarely, that, in the course of nearly forty year's practice, no such instance has fallen within the Author's observation.

Friction of the abdomen has been within these few years recommended by Dr. Power. The theory upon which the practice is founded has not been satisfactorily established; and the evidence in support of its efficacy seems still rather doubtful.

The means for increasing the force of the labour-pains must, therefore, be so contrived as to counteract the causes of its diminution. Thus, for

general debility, cordials are required;—for the depressing passions, inspiring the patient with favourable hopes, (and hence the apparent efficacy of many superstitious practices;)—for debility of the uterus, rest;—and for interrupted circulation of the blood, venesection.

For the purpose of removing the resistances to be overcome, change of posture, the rupture of the membranes, counter-pressure, blood-letting, and the liberal use of unctuous applications, are severally necessary, according as the resistance arises from pendulous belly, toughness of the membranes, unfavourable position of the child's head, and rigidity of the soft parts of the parent.

Face presentations were, in former times, supposed to be cases of great danger, requiring the most active interference. But if due attention be paid at an early period of the labour, such cases terminate safely both to the mother and infant, though the sufferings are somewhat more than usually severe. In mismanaged cases, the use of the lever, or even of the perforator, may be necessary.

SECTION III.

Second Order of Laborious Labours.

CASES belonging to this order are distinguished from those included under the former section by the following marks:—

1stly, The pains no longer seem to have any influence in advancing the infant.

2dly, The strength of the woman begins to decline.

3dly, The action of the heart and arteries becomes accelerated; the heat of the surface is increased; and thirst and restlessness, and sometimes head-ache, and other untoward symptoms, take place.

From the third order, the cases under consideration are distinguished by the head of the infant filling the cavity of the pelvis; by there being no apparent disproportion between the infant and the apertures through which it has to pass, and by the absence of all evidences of swelling and inflammation of the parts in contact with the infant.

In the management of such cases, the great object should be to find a substitute for the labour-pains; and two mechanical contrivances have been employed for this purpose. The one is called the forceps; and is, in fact, when properly constructed, a pair of artificial hands, which enables the practitioner to draw forward the infant with perfect safety both to it and to the parent, both supplying the place of the uterine contractions, and adapting the infant's head to the apertures.

The other instrument consists of a single blade, called the vectis, or lever, calculated to press on the head of the infant, and to increase the efficacy

of the labour-pains ; but as it is quite ineffacious when the uterine contractions are suspended, and as, in the hands of an inexperienced practitioner, it may do considerable injury both to the infant and to the parent, it should only be employed in certain cases where there is a slight degree of narrowness at the brim of the pelvis, or where the face of the infant is forced foremost.

SECTION IV.

Rules for the Use of the Forceps.

IN using the common short forceps, the general rules are, that the head of the infant be completely, or nearly so, within the cavity of the pelvis : that the instrument be applied over the ears, so that its convex edge pass along the hollow of the sacrum, the one blade being the exact antagonist to the other : that the instrument be moved in the direction of from blade to blade during a pain, or, now and then, if there be no pains, that the head be brought out in such a direction as to take up the least possible room, and that the perineum be carefully defended from injury.

There are three standard cases in which the short forceps are applicable, viz. where the face is in the hollow of the sacrum ; where it is under the pubes ; and where it is to either side of the pelvis.

I. In the first of those cases, the patient being placed on her left side, two fingers of the operator's left hand are to be carried up so as to touch the right ear of the infant; and the right-hand blade of the forceps, previously warmed and lubricated, is to be insinuated between the fingers and the infant's head, so as to be conducted over the ear. The fingers being withdrawn, the instrument is to be held with the left hand, and two fingers of the right hand are to be carried up to the left ear of the infant; and supporting the former blade with the right thumb, the left-hand blade is to be so introduced, (adapting the lock of the one to that of the other,) that it shall be the exact antagonist to the former one. In thus introducing the two blades of the forceps, the utmost gentleness and caution are required.

Withdrawing now the fingers of the right hand, the instrument is to be carefully locked; and in working now and then with the right hand, while the left supports the perineum, moving the instrument from side to side, the handles are to be inclined backwards till the occiput be fairly in the arch of the pubes, when they are to be bent up towards the abdomen, in a degree proportioned to the lengthening of the infant's head, and to the depth of the pelvis at the back part.

II. In the second case, or where the face is turned under the pubes, the instrument is to be applied precisely in the same way as in the for-

mer case ; and in extracting, the object being to make the anterior fontanelle the projecting part, the handles of the instrument are, at first, to be inclined towards the pubes, and, after the occiput is protruded, towards the coccyx.

III. It is very seldom necessary to apply the forceps in the third case, that is, where the face is to either side of the pelvis ; but when, from the occurrence of convulsions, or other untoward symptoms, this is indispensable, the blade to be first introduced should be that which is adapted to the side of the head under the pubes ; and it should be that which will have its convex edge towards the face of the infant ; and the second blade being properly applied, the infant's head is to be gradually drawn forward, turning the face into the hollow of the sacrum, and the occiput into the arch of the pubes ; after which, the operation is to be completed in the same manner as in the first case.

Sometimes it is useful to employ a lengthened pair of forceps ; but as, in operating with that instrument, the parts of the woman in contact with its blades must inevitably be pressed upon in a degree proportionate to the length of the instrument and the extent of its motion, or, in other words, to the force of the operator in working with it, it is a very hazardous expedient in the hands of the inexperienced.

SECTION V.

Third Order of Laborious Labours.

CASES included under this order are to be distinguished from those hitherto treated of, by the labour-pains having little influence in advancing the infant, in consequence of there being an evident disproportion between the mother and child. This disproportion may arise from the state of the infant, or of the parts lining the passages, or of the bones of the pelvis.

The obstacles from the infant are unusual size, congenite hydrocephalus, tumour attached to the base of the cranium, monstrosity, malposition, viz. the largest part of the head being impacted within the narrow part of the brim or cavity of the pelvis, and one or both arms passing down along the side of the head.

Excrescences in the uterus, or attached to its orifice, schirrhosity of the cervix uteri, enlargement of the ovarium, tumours between the vagina and the pelvis, collection of stools in the rectum, cicatrix of the vagina, swelling of the soft parts lining the pelvis, and malformation of the external parts, are the several obstacles which arise from diseases of the passages.

The bones of the pelvis may be naturally too small, or may be so disproportionate as to diminish the apertures; or, there may be upon their internal surface one or more exostoses; but the most common obstacle from the state of the bones arises from their shape being altered by rickets or malacostion,—the former occurring during childhood, and the latter after adult age.

When the bones are thus softened, and their shape altered, they become bent in various forms and degrees. In the greater number of instances the brim is alone affected; and this happens from the jutting in of the promontory of the sacrum, and of one or more of the lumbar vertebræ, or from the flattening of the bones of the pubes.—In these cases, the outlet of the pelvis is little affected, and the depth of the cavity is much diminished.

But, sometimes, while the brim and cavity are nearly in a natural state, the outlet is rendered defective by the advance of the apex of the sacrum and coccyx, or by the approximation of the tuberosities of the ischia. This latter change of relative situation may, however, take place without being accompanied with the former.—This is remarkably exemplified in more than one preparation in the Author's possession, particularly in one pelvis presented to him by his friend, Dr. Kellie of Leith, where, notwithstanding such an approximation of the pubes, as to destroy the arch and to reduce the brim to less than an inch

in its short diameter, the cavity is scarcely half the natural depth, and the outlet is very little defective.

When, from the diseased state of the bones, and their altered shape, both the apertures of brim and outlet are diminished, the depth of the cavity is always more or less increased, which adds greatly to the resistance. This is owing chiefly to the approximation of the innominata, the pubes being forced forwards, and the rami and tuberosities of the ischia being made to approximate towards each other. In proportion as the promontory of the sacrum and lumbar vertebræ advance forwards, the narrowness, from those united causes, must be more or less. When the apertures, though narrowed, are of the same dimensions on each side of the pelvis, it is said to be deformed; but when one side is wider than the other, it is called a distorted pelvis.

The cavity of the pelvis may be affected in another way still, viz. by one or both acetabula being forced inwards. In one preparation in the Author's possession, both acetabula are thus forced in, evidently in consequence of the extreme weakness of the bones of the pelvis. In another of his preparations, one of the acetabula encroaches on the cavity of the pelvis, in consequence of a preternatural enlargement of the head of the thigh-bone. The shape and probable capacity of the apertures of the pelvis are to be ascertained by means of the practitioner's fingers, as all the instruments which have been proposed as pelvimetres are apt to give an erroneous result.

It is, however, unwarrantable to class any case under this order of laborious labours merely on account of a disproportion in the apertures of the pelvis; for the infant may be immature, or of a remarkably small size, and, therefore, when the deficiency of space is not very considerable, the labour should be allowed to proceed, till some of the unfavourable symptoms which result from its protraction manifest themselves, that a fair chance may be given to the efforts of nature.

With the ordinary progress of such symptoms every practitioner ought to be intimately acquainted. The patient commonly first complains of headach, followed by thirst, heat of the surface, and other febrile symptoms. By and by swelling, with great tenderness of the belly, takes place, with urgent desire and ineffectual efforts to make water. Sometimes, at this period, violent shiverings, or excessive vomiting, come on, accompanied with a ghastly look and great despondency. The discharge from the vagina now becomes offensive; and there is a sense of great tightness within the pelvis, with such tenderness of the parts, that the gentlest examination gives pain.

Uncontrollable restlessness, with an affection of the breathing, soon follow, and low muttering delirium quickly succeeds, terminating in a fatal faint or convulsion.

The most certain evidence of the injurious protraction of labour, is tenderness of the abdomen or of the vagina; but in some delicate in-

dividuals, a marked and alarming affection of the head precedes those symptoms.

SECTION VI.

Treatment of Cases belonging to the Third Order of Laborious Labour.

THREE expedients have been proposed for the cases comprehended under this order of laborious labours, viz. lessening the head of the infant, called embryotomy, or embryulcia;—cutting through the parietes of the abdomen into the uterus, called hysterotomy, or the cæsarian section;—and dividing the bones of the pelvis at the symphysis pubis, named, after its inventor, the Sigaultian operation.

I. The first of these operations is to be had recourse to in all cases where the infant cannot be brought alive through the natural passages, and where there is sufficient room to allow of its safe extraction in its lessened form. The operation consists of two parts, viz. opening the head, and extracting the infant; and where there is considerable disproportion, a certain interval of time should be allowed to intervene between those two parts of the operation.

In opening the head, the circumstances to be attended to are to make the opening sufficiently large; to remove the whole of the brain and cera-

bellum; and to cover the ragged edges of the torn bones with the scalp.—In extracting the mangled infant, the great objects should be, to guard against the possibility of hurting the parent, and to accommodate the infant to the passage.

II. The second expedient, viz. the cæsarian operation, ought never to be sanctioned, unless the deficiency in the apertures of the pelvis be such, that a mangled infant, at the full time, cannot be extracted through them with safety to the parent. The cases, therefore, where this operation is necessary occur very seldom.

In the performance of this operation, the following circumstances are to be attended to. *First*, The temperature of the apartment should be raised to 84° of Fahrenheit's scale. *Secondly*, The external incision should be made on the outer edge of the linea innominata on either side; and beginning two inches above the umbilicus, it is to be extended downwards for six inches. *Thirdly*, The incision in the uterus should be made in its fundus, and should be five inches in extent. *Fourthly*, When the foetus and secundines are removed, it may be useful to pass a stitch through the wound of the uterus; and, at any rate, the divided parietes abdominis are to be carefully sewed together, and the whole belly to be supported by a suitable bandage.

III. As to the third expedient, viz. the Si-

gaultian operation, the objections against it are so cogent, that it has only been performed once in Great Britain, and that under circumstances which appear to have been highly unjustifiable.

In cases of defective pelvis, where the apertures are contracted in a slight degree, so as just to prevent an infant, at the full period, from passing alive, experience has established the utility of the induction of premature labour : But in adopting or recommending this practice several precautions are to be attended to.

First, The necessity for the operation must be unequivocally ascertained by competent witnesses.

Secondly, Before the operation is attempted, a milk-nurse must be provided for the infant.

Thirdly, The earliest period at which premature labour ought to be induced with this view, is seven and a half calendar months after the probable period of conception.

Fourthly, The membranes of the ovum are not to be ruptured till the os uteri is fully dilated.

Fifthly, From the time that uterine contractions begin, the practitioner should keep in constant attendance on the patient till the delivery be completed.

III. PRETERNATURAL LABOUR.

WHEN any other part of the infant than the head comes foremost the labour is called Preternatural. Such cases are divided into two orders, viz. *first*, where the lower extremities come foremost; and, *secondly*, where any other part of the infant than the head or lower extremities is advanced to the passage. The former comprehends presentations of the feet,—of the knees,—of the breech,—of a single foot,—and of the feet and breech. The latter comprehend presentations of the neck,—of the shoulder,—of the arm,—of the back,—of the breast,—of the loins,—of the side,—and of the belly. To these, some authors add presentations of the side of the head.

It may be suspected that the labour is preternatural if the membranes come down in an unusual form, or if no part of the infant can be felt after the mouth of the uterus is pretty well opened, although the woman be laid on the back while she is examined. But the only certain method of determining the nature of the case, is by feeling carefully the part of the infant which is advancing.

The only cause of preternatural labour which can be understood or prevented, is the premature bursting of the membranes, and consequent discharge of the waters.

SECTION I.

First Order of Preternatural Labours.

IN the cases comprehended under this order, the uterine contractions, if sufficiently powerful, may complete the delivery with safety to the parent, though the infant is always in jeopardy, in consequence of the pressure upon the navel-string.

For the treatment of this order of laborious labour, it is necessary to recollect, that the infant, in all preternatural labours, occupies the least possible space when the belly, the breast, and the face pass successively along the sacro-iliac synchondrosis of either side, and, therefore, that it is to be brought in that direction in every preternatural case.

Footling Cases.—The patient must be put into such a posture, that the weight of what is contained within the uterus may not burst the membranes till the mouth of the womb be so much opened as to allow the infant to be forced through it without injury.

When the feet are protruded, they are to be wrapped up in a soft warm cloth, and are to be drawn down in a zig-zag direction during a pain, if there be pains ; and, if not, now and then always holding by that part which has come out last.

When the infant is extracted as far as the thighs, its belly is to be gradually turned toward the near sacro-iliac synchondrosis, if its toes be not precisely to the pubes or sacrum ; and if they be, towards the left sacro-iliac synchondrosis.

Whenever the navel-string can be reached, it should be slackened, in order that the circulation through it may not be interrupted.

After the infant is protruded as far as the belly, the delivery must be completed as expeditiously as possible. For this purpose, the arms must be disengaged, by passing up two fingers to press on the elbow of that arm which is next the sacro-iliac synchondrosis ; and then bringing down the other in the same way, the head must be drawn into the cavity of the pelvis ; and two fingers of the left hand being introduced into the mouth, while with the right hand the nape of the neck is grasped, the face is to be brought into the hollow of the sacrum, and making the back of the infant turn up towards the belly of the mother, the face is to be disengaged ; after which the head readily follows.

Knee Cases.—If the knees be not in the cavity of the pelvis when called in, the feet should at once be brought down, and the case treated as a footling case.

If the knees be in the pelvis, they must be allowed to advance till the feet drop out, taking care to give such support, while they are within

the vagina, that they shall not press injuriously on that part, nor on one another.

Breech Cases.—When the breech advances readily through the pelvis, no unusual assistance is necessary till it be protruded; and then the navel-string is to be slackened, and the belly gradually turned towards the nearer sacro-iliac synchondrosis, or to the left one, allowing the feet to drop out spontaneously.

But if the breech do not readily pass through the pelvis, assistance must be given by means of two fingers, or of the forceps, according to circumstances.

If the breech, after the os uteri is fully opened, and the pains have for some time been vigorous, do not enter the pelvis at all, the feet ought to be brought down; but that will, under proper management, be very seldom found necessary.

Single Foot Cases.—Very moderate pressure must be made on the presenting limb, till the infant advance so far that two fingers can be passed up to press on the outside of the thigh that is retained; and then alternate pressure must be made on either side till the breech be protruded. The navel-string must then be slackened; and after the retained foot has dropped out spontaneously, the case is to be finished as a footling one.

Breech and Feet.—As soon as this is discover-

ed, first one foot and then the other should be gently drawn down; after which all difficulty is removed.

SECTION II.

Second Order of Preternatural Labours.

As the ordinary labour-throes cannot expel the infant when in any of the positions included under this order, the modern practice is to bring down the feet in all such cases, and this is called turning. Many years ago, indeed, the late Dr. Denman discovered, that in some cases of this kind strong labour-pains pushed aside the original presenting part, and forced down the breech. But the hazard of waiting for this effort is too great to be risked, unless under very particular circumstances.

The operation of turning before the water which surrounds the infant is drained off, is both easier for the operator, and safer for the patient, than after the membranes are burst; and hence the importance of being able to ascertain the exact presentation at an early period of the labour.

When the membranes are entire, the right hand is to be used in turning. It is to be passed very cautiously through the external parts into the womb; the membranes are then to be burst, and the feet of the infant are to be brought down.

In cases where it is necessary to turn the

infant after the water is drained off, a large dose of laudanum must be previously given. The right or left hand, according as the belly of the infant is towards the belly or the back of the mother, is to be employed; and in carrying it forward in search of the feet, the utmost gentleness and caution are required, otherwise the uterus may be burst. When the foot or feet are taken hold of, they are to be secured in the passage, by means of a piece of broad tape; and then the former presenting part is to be slowly pushed back, that the infant may be made to turn upon itself, as it were, and not to be forced against the womb.

IV. COMPLEX LABOURS.

By Complex Labours, are meant cases where some unusual or untoward accident, not enumerated under the former kinds of labours, takes place.

The most ordinary cases of this kind are where the pelvis is uncommonly large,—where there is a rupture at the navel,—where there are more than one infant in the womb,—where flooding happens,—where convulsions come on,—where the navel-string is protruded,—where the womb bursts,—and where the infant is monstrous.

SECTION I.

Cases where the Pelvis is too large.

WHEN, from the great width of the haunches, this is suspected, the circumstances to be guarded against are the infant being forced down before the passages be prepared for it, or the whole conception being expelled at once, or the infant being born while the patient is so situated that it may be injured. All these accidents are to be guarded against, by keeping in attendance from the first threatenings of labour,—by promoting the dilatation of the os uteri, if there be strong forcing pains during the first stage,—and by supporting the uterus itself, as well as the vagina, and retarding the progress of the infant, as circumstances may render necessary.

SECTION II.

Cases where there is a Rupture at the Navel.

IF the rupture have disappeared before labour, there is the risk, that, by its suddenly returning after delivery, fainting and flooding may be induced. This is to be guarded against by applying a compress and roller before delivery, and tightening it the moment the infant is born.

If the rupture be evident when labour com-

mences, and if it seem to be affected by the labour-pains, (known by its colour becoming purple,) turning must be had recourse to before the membranes give way. But many women, with irreducible umbilical hernia, bear their children without any untoward accident.

SECTION III.

Cases of Plurality of Children.

IN general, the presence of a second child in utero is not ascertained till after the birth of one infant, and is then known by the bulk and hardness of the belly, distinguishable whenever the first infant is expelled. Sometimes two infants have been found in the passage at the same time.

Whenever a second infant is discovered in utero, the navel-string belonging to the after-birth of the first born must be strongly tied; the infant that is born must be marked; and, if there be time for it, the woman should be bound with a roller.

If the patient be not exhausted by her previous sufferings, the practitioner may wait an hour for the occurrence of pains, provided he have ascertained that the head or breech of the second infant present. Should pains not recur within the hour, he is to introduce his right hand into the uterus, and bring the infant by the feet.

In all cases where there has been much suffer-

ing during the first part of the labour, or where the second infant is in any of the postures comprehended under the second order of preternatural labours, turning must be had recourse to whenever the woman has recovered from the shock of the first delivery. After the birth of the second infant, the state of the uterus is to be again examined, lest there be still another infant. It is always to be recollected, that after the birth of twins, triplets, &c. there is great risk of hæmorrhagy on the separation of the placentæ.

SECTION IV.

Uterine Hæmorrhagy during Labour.

Loss of blood from the uterus, commonly styled flooding, may take place either before or during the commencement of labour; or during the second stage; or between the birth of the infant and the separation of the placenta; or soon after the expulsion of the placenta.

The morbid effects of flooding vary according to the rapidity and to the quantity of the discharge, and to the peculiar constitution of the individual. Pallidness, faintness, sickness, and feebleness of the pulse, commonly first take place: then ringing of the ears, tremors, dimness of sight, oppression at the precordia, cold clammy exudation on the surface, low delirium, great restlessness, and convulsions. But

all those symptoms do not always occur in any individual case; for women have repeatedly sunk without any previous delirium or convulsive affection, and within a minute or two after having spoken with a firm tone of voice, and after the pulse at the wrists had been distinctly perceptible. In other cases, repeated convulsions have taken place, followed by insensibility, which has continued for days, and yet the patient has eventually recovered. In some rare cases, the blood accumulates within the uterus, between its parietes and the membranes of the ovum, and the patient sinks without any apparent flooding. This may be suspected, if there be pallidness, faintness, sickness, feebleness of pulse, and great oppression of breathing, with sense of excessive distension of the belly, as if it were going to burst.

It may be truly said, that it is extremely difficult to form an accurate prognosis of the event of such cases; but the prudent rule is to consider every individual in danger who loses, during any part of labour, a greater quantity of blood by flooding than could be safely drawn by means of the lancet in any violent inflammatory disease.

First. Flooding previous to or at the very commencement of Labour.—This is owing to the partial or total separation of the placenta; and that may be occasioned by mechanical injury, or by the expansion of the cervix uteri, in consequence of the placenta being attached over that part; and it should be the first duty of the practitioner to

ascertain to which of those two causes the discharge is to be attributed.

In both cases the patient is to be put to bed,—to be kept quiet and cool,—to be restricted from all stimulants of every description,—and to have a starch and laudanum enema administered. If the placenta be not over the os uteri, the practitioner must continue in attendance as long as there is the slightest discharge. When the placenta is over the os uteri, the discharge, in most cases, occasionally remits for the first few days; and, under such circumstances, an English pint of any styptic fluid may with great advantage be thrown up the vagina, by means of a common bag and pipe, every time that the discharge threatens.

Whenever the flooding recurs in a violent degree, whether from the accidental separation, or from the position of the placenta over the os uteri, recourse should be had to the operation of turning, before symptoms of exhaustion actually take place.

Upon some rare occasions, where the placenta had been separated accidentally, the artificial rupture of the membranes has proved successful; but the practice is too hazardous to be ventured upon as a general rule. Plugging the vagina by means of a sponge, recommended by speculative practitioners, is contrary to all principles of sound theory, and has been found by experience to have been fatal in its result.

Secondly. Flooding, during the Second Stage of Labour,—seldom or never occurs in such a degree as to require active interference.

Thirdly. After the Birth of the Infant, previous to the expulsion of the placenta, flooding not unfrequently happens. It arises from the partial detachment of the after-birth, and requires the immediate extraction of that substance.

Fourthly. Perhaps the most alarming case of *flooding* is that which occurs *after all the three stages of labour* are completed, because it so often proceeds insidiously, in consequence of the blood being accumulated within the vagina or uterus, or both.

The symptoms which denote this internal flooding should be impressed on the mind of every practitioner, as the least delay in attending to the accident may prove fatal. The patient complains of a continued uneasiness in the back and lower part of the belly,—she feels faintish or sickish, and the pulse at the wrists becomes feeble. Where these symptoms are disregarded, giddiness, singing of the ears, dimness of sight, sickness, delirium, oppression at the precordia, or violent convulsions, with coldness of the surface, and ghastly pallidness, follow with more or less rapidity. This alarming case may be at once distinguished by examination per vaginam. It is owing to imperfect contraction of the uterus.

In the treatment, the most active measures are

to be promptly adopted. The accumulated blood is to be removed,—the uterus is to be forced into contraction, by mechanical compression, or by dashing cold water on the naked belly, according to circumstances,—and its permanent contraction is to be secured by the application of a firm roller, and the injection of stimulating liquors per vaginam.

The strength, in all cases of exhaustion from flooding, is to be supported by means adapted to the exigency of the individual case; and, hence, stimulant friction of the surface, and the internal use of ardent spirits, and of large doses of opium, followed up by the usual diffusible stimuli, are severally necessary.

SECTION V.

Convulsions during Labour.

THESE may be dreaded, if the patient complain of violent pain in the head, or of crampish pain of the stomach; or, if she be overpowered during the second stage of labour with heavy sleep, which is scarcely interrupted by the labour-throes; or, if she become suddenly delirious, as if in a dream. Sometimes violent tremors, during the second stage of labour, have preceded the convulsion.

The phenomena of the fit resemble those of epilepsy; but the face is generally more turgid

or livid, and there is commonly a greater degree of action of the muscles which move the tongue and lower jaw, so that the tongue is forcibly protruded and retracted, with a hisping noise, attended with frothing at the mouth, frequently tinged with blood. The duration of the fit varies from a few minutes to an hour; and sometimes the sensibility returns whenever the fit ceases; while, in other cases, the patient remains in a state of comatose stupor till roused by another fit.

All the symptoms mark an increased determination of blood to the head; and such cases may, with great propriety, be regarded as analogous to sanguineous apoplexy. Although the event in any given case must be doubtful, yet, under proper management, this affection is more alarming than really dangerous.

Copious venesection and immediate delivery are the means to be pursued in those cases. Opiates have almost invariably proved fatal. If the fits continue after delivery, the subtraction of blood must be repeated; the whole head is to be covered with a blister, and a powerful purgative is to be administered.

SECTION VI.

Falling down of the Navel-String.

THE navel-string may be felt protruding be-

fore the presenting part of the infant, while the membranes remain entire; or it may not come down till after the discharge of the liquor amnii.

In the former of those cases, if the patient have formerly had a child, the operation of turning should be performed as soon as the state of the os uteri will permit. But if it be the patient's first pregnancy, all that, in general, can be safely done is, whenever the membranes give way, to hold up the cord above the brim till the head of the infant completely fill the cavity of the pelvis.

When the cord comes down after the discharge of the liquor amnii, a variety of treatment is necessary, according to circumstances, such as reducing the cord, and preventing its return by means of a plug; or drawing it into such a relative position, that the circulation through it shall not be interrupted; or expediting the delivery by means of the forceps. On no account should the operation of turning be attempted.

SECTION VII.

Rupture of the Uterus during Labour.

THIS dreadful accident may be the effect of mechanical injury, such as a fall, or a blow, or a convulsion,—or of the ill-directed efforts of

the practitioner to alter the position of the infant,—or of the inordinate contractions of the uterus itself. It is only under the latter circumstances that the rupture can be prevented, for there are certain signs which denote its probable occurrence. These are violent and almost unremitting labour-throes,—resistance to the progress of the infant from undilated os uteri, or malposition or extraordinary size of the foetus, or disproportion or rigidity of the passages,—and a feeling of crampish or excruciating pain in some part of the belly, during the short interval between the uterine contractions.

When the accident has actually taken place, it is denoted by the labour-pains suddenly ceasing, by there being an excruciating pain in the belly, aggravated by pressure, or by the slightest movement of the woman, together with a remarkably altered state of the abdominal tumour, accompanied with pallidness, sickness, faintness, and other marks of extreme exhaustion, generally with more or less discharge of blood from the vagina, and most commonly with recession of the infant.

Although it has been alleged, that, in some cases of ruptured uterus at the full period of pregnancy, the woman has survived, though left entirely to the resources of nature, assisted by palliative means, experience has proved what might be expected from reasoning, that, generally speaking, the only chance for saving the patient is the extraction of the infant through

the natural passages if practicable, and, if not, through the parietes of the abdomen.

In cases of such inordinate and unremitting action of the uterus during labour as seem to threaten laceration, the object of the practitioner should be to suspend the labour-throes, and to remove the obstacles which retard the advance of the infant.

SECTION VIII.

Cases where the Infant is Monstrous.

HAPPILY such cases are of rare occurrence, and they seldom prove injurious to the parent during labour.

Redundant monsters form an exception to this remark; for where they have attained the full growth, they must be expelled with considerable difficulty. It is not easy to explain those cases, where such monsters have been born entire, without much suffering on the part of the patient. Thus, in the Author's possession, there are two preparations; one consisting of a double-infant, with a single face and two heads joined together, and the other of two complete infants, adhering by the sternum, each of the ordinary size at the full period; both of which monsters were, he understands, thrown off by the natural efforts, and both are certainly quite entire.

The practice in cases of infants monstrous in bulk, must be varied according to circumstances, always bearing in mind that the safety of the mother is to be chiefly attended to.

PART III.

DISEASES OF WOMEN.



I. DISEASES IN THE PUERPERAL STATE.

SECTION I.

Condition of the Woman after Delivery.

THE most superficial observer cannot fail to remark certain ordinary changes which follow delivery, such as the sudden relaxation of the parietes of the abdomen, in consequence of the diminished size of the uterus, the sanguineous discharge from the vagina, and the depression, more or less, of the general strength. But the medical observer discovers other and more important changes. The circulation of blood is greatly altered by the removal of the pressure from the diaphragm, and from all the blood-vessels passing through the abdomen; and the nervous system, partly from this cause and partly from emotions of the mind, is rendered so susceptible of impression, that it is readily affected by circumstances which, in an ordinary state of health, could have no malign influence.

Two other most important changes follow delivery.—The one is the reduction of the uterine system to the state in which it was previous to conception, and the other is the secretion of milk. The former is accomplished by means of an increased activity of all the absorbents connected with the uterus, vagina, &c.; the other, or the secretion of milk, is effected by means of a new action of the glands of the mammæ, for which purpose an increased flow of blood is determined to those parts. While the reduction of the uterus is going on, there is no natural tendency to inflammation in that part; but it is otherwise with the mammæ. It must, at the same time, be remarked, that the sympathy between the mammæ and the uterus is such, that inflammatory affections of the former may affect the latter.

The process of reduction of the uterus, as well as the secretion of milk, proceeds differently in different individuals. In robust women, such as in the healthy peasantry of this country, it advances much more rapidly than in delicate relaxed habits.

But it may be truly said, that, in all ranks, certain untoward symptoms are to be dreaded during the first ten days after delivery. These are faintings, floodings, inflammatory affections of the chest or belly, cramps of the stomach or bowels, fevers, and affections of the mind.

SECTION II.

Ordinary Management of Lying-in Women.

IMMEDIATELY after delivery a suitable cordial is to be given, (as already advised); the belly is to be firmly and equably compressed by means of a well-adapted roller, and the body-linen should be carefully shifted. Quiet, due ventilation, keeping the apartment at a regular temperature, (not exceeding 60° of Fahrenheit's scale,) and great moderation in diet, ought to be strictly enjoined. Regular attention must be paid to the state of the bladder and of the bowels; and the external parts are to be bathed, at least, daily, as long as there is any uterine discharge, with warm spirits and water.

Whenever there is any mark of approaching secretion of milk, the infant should be applied to the breast, if the patient is to give suck; and, if otherwise, suitable means are to be adopted to discourage the formation of milk.

In the better ranks, it is seldom that the patient ought to be taken out of bed sooner than on the third or fourth day after delivery; and any attempt at the erect posture should be discouraged as long as the uterus remains bulky.

It is of great consequence that lying-in women, in the rank alluded to, should be visited daily by a medical practitioner for the first ten days at least; and at each visit the state of the pulse, of

the belly, and of the cleansings, should be carefully inquired into.

Whenever the pulse exceeds considerably the natural standard after the patient has recovered from the immediate fatigue of delivery, it indicates some present or approaching indisposition, unless it obviously proceed from the secretion of milk.

If the belly be pained on pressure, or if it feel generally hard or swelled, the case requires the most serious attention.

As to the cleansings, the red-coloured discharge continues naturally no longer than from three to four days; and when the colour is altered, the smell is not excessively offensive, although the parts are apt to be fretted or excoriated. Any deviation in those respects marks some morbid change.

SECTION III.

Injuries in consequence of Delivery.

1. *Emphysema*—now and then happens during labour, in consequence of a minute laceration of the larynx. Its appearances are frightful, for the face, neck, and shoulders, and even the arms, are suddenly swollen to a great degree, while the voice becomes inaudible, and the patient experiences very considerable distress. This affection may be readily recognised by the crackling of

the skin, which may be perceived on pressing the swelled parts.

This disease seldom requires any active treatment, as it gradually disappears, though left entirely to the resources of nature.

2. *Laceration of the Perineum*—when it does not include the sphincter ani, requires chiefly the application of surgical dressings, evening and morning, till the reunion be effected.

When the sphincter ani is torn, unless the utmost possible attention be paid to promote healthy granulations, by keeping the divided parts in constant contact, and by the application of varied stimulants, with other suitable means, callosities form, and the disease becomes incurable.

3. Sometimes one of the *Labia* gives way during the exit of the infant's head. By proper dressings, this may be generally healed in the course of a few days. If neglected, a little flap of skin forms, which is apt to be productive of much irritation, and the inconvenience of which can only be remedied by the removal of the projecting flap.

4. In some cases, the posterior extremity of the vagina is separated from the perineum, by which the natural support of the uterus is greatly weakened. If neglected at first, the reunion can be seldom effected.

The same remark may be applied to another degree of the same accident, viz. where the laceration of the posterior extremity of the vagina is extended to the gut, so that a communication is opened between the two passages. Careful surgical aid may, where the constitution is sound, contribute much to the alleviation of this accident, if had recourse to at an early period.

5. A partial separation of some of the muscular fibres on the posterior part of the vagina sometimes occurs, without any laceration of the mucous membrane of that part; the consequence of which is, that a portion of the rectum, distended with gas, is apt to be protruded through the orificium vagina. This accident admits of no permanent cure; but the inconvenience may be palliated by the daily use of the cold bath, and, in some rare cases, by means of a pessory.

6. *Inversion of the Uterus*—was formerly not an uncommon accident after delivery; but as it was always the effect of mismanagement in the extraction of the placenta, it is now rarely met with.

There are two degrees of this accident, which may be distinguished by the terms Complete and Partial Inversion. By the former, is meant the inversion of the whole of the uterus, with its protrusion through the external parts, so that the fundus reaches almost as low as the knees of the patient,—a case which has occurred in this

city at least six times during the last half century. As it must require an extraordinary degree of brutal force to tear out the uterus to this extent, the case would appear incredible, were it not authenticated by a preparation in the Author's possession. This accident commonly proves almost immediately fatal.

Partial inversion of the uterus, consists of the inversion of more or less of that portion of the body and fundus, which had extended above the brim of the pelvis during the latter months of pregnancy. It appears in the form of a round tumour, (of a larger or smaller size,) protruded through the external parts, accompanied with violent pressure and bearing down, and excessive hæmorrhagy with its consequences.

If active measures be promptly had recourse to, the reposition of the uterus may be safely effected.

7. *Incontinence of Urine*—may arise from paralysis of the neck of the bladder, in consequence of the severity of labour, or from mechanical injury, that is, either laceration or ulceration of the bladder and vagina. By the introduction of the catheter, the nature of the case is readily ascertained.

In the former case, the affection is merely temporary, and it soon yields to external stimulant applications, such as a blister on the sacrum, &c.

But loss of substance of the bladder, either

from laceration or from ulceration, is one of the most distressing consequences of labour; for if it be mismanaged, or overlooked for a very few days, the patient is doomed to incurable incontinence of urine for life. Various mechanical contrivances, indeed, have been invented for the purpose of lessening the inconvenience of this infirmity. In recent cases, the injury may be repaired by proper surgical aid.

8. *Retention of Urine*—now and then follows delivery. If it be not relieved by fomenting the parts, and by the exhibition of large and repeated doses of the spiritus ætheris nitrosi, the use of the catheter must necessarily be had recourse to.

9. A very rare and alarming consequence of delivery was first described in the fifth volume of the London Medical Observations and Inquiries, page 89. It is the rupture of one or more blood-vessels within one of the labia, occasioning a sudden enormous swelling and distension of the part.—The livid colour, the increased heat, and the hardened and circumscribed state of the swelling, enable the practitioner readily to distinguish this accident. It requires merely palliative means, and it generally terminates in sloughing and suppuration. In one case, which the Author attended several years ago, the effused blood was reabsorbed.

Somewhat analogous to this affection is a swelling, apparently from effusion, of the cellular

membrane, interposed between the extremities of the vagina and of the rectum. It presses out the perineum, and appears to extend above an inch upwards. At first, it is hard and painful, occasioning more or less constitutional irritation; and, when neglected, it gradually degenerates into a chronic swelling. Suppuration has not happened in any case which has fallen under the Author's notice.

The treatment is sufficiently obvious. In the active stage, the repeated application of leeches and warm fomentations, with diaphoretics and laxatives, must be prescribed. The cicuta poultice allays the pain more certainly than opiates by the mouth. Mercurial frictions, and a continued course of laxative neutral salts, are the means to be adopted in the chronic state of the disease.

10. *Separation of the Bones of the Pubes*—is also a very rare occurrence, though it is occasionally met with. It is distinguished by excruciating pain, both in the front and back part of the pelvis, being induced on the slightest movement of the body, and by the pubes rasping against each other when either lower extremity is raised. This separation may be the effect either of mechanical violence, or of inflammation and ulceration of the capsular ligament, and its treatment must be conducted accordingly.

11. *Inflammation of all the parts lining the*

Pelvis—is apt to follow laborious labour. The first symptom commonly is a violent rigor, followed, as usual, by increased heat, and great pain in the affected parts, together with the ordinary symptoms of extensive internal inflammation. At first there is often no suppression or diminution of the lochial discharge. If these symptoms be overlooked, the inflammation gradually extends to the abdomen, with such aggravation of distress that delirium and death soon follow.

It is obvious, that the most active measures are necessary to arrest the progress of this alarming affection. An infusion of tobacco as a glyster, together with purgatives and diuretics, and continued fomentation of the lower part of the belly, if called at the commencement of the disease, should be recommended. After a certain progress has been allowed to take place, before medical advice is resorted to, recourse must be had to the subtraction of blood, and to all the other means commonly employed in cases of violent inflammation of internal parts.

12. A most dangerous modification of inflammation, in consequence of labour, has been confounded with the disease called phlegmasia dolens. It is inflammation of the iliac veins, and their branches, on either side; and it is sometimes an idiopathic, and sometimes a symptomatic affection, that is, it is sometimes occasioned by mechanical injuries during labour, and some-

times after delivery, by suppuration of the vagina or labium, or even by exposure to cold.

This disease steals on insidiously without any marked rigor or excruciating pain, though sometimes there is a deep-seated uneasy feeling in the groin, or along the femoral vessels. In general, the first symptoms which excite alarm are swelling of the lower extremity, with extreme exhaustion of the living powers. At first there is no pitting on pressing the limb, though in the course of the disease there is. Fatal event is apt to take place suddenly. On dissection, it is found, that the iliac and femoral veins, with the trunk of the profunda, have their coats thickened, and their cavities filled with coagulated blood or lymph.

From phlegmasia dolens this disease is to be distinguished by the following marks:—*First*, There is no regularly marked rigor nor pain in the small of the back, nor circumscribed swelling in the inguinal region at the commencement. *Secondly*, The pain is in the direction of the femoral vessels, and does not extend to the lymphatics on the posterior part of the limb. *Thirdly*, The swelling does not proceed from above downwards, but from below upwards: And, *Fourthly*, The surface of the limb has not the milky whiteness which attends phlegmasia dolens. It may be added, that this is generally a fatal disease.

If the first symptoms of this affection be overlooked the case is desperate; and even under the most active management this affection is a most

dangerous one. It is to be treated upon the same principles as other cases of inflamed veins.

13. *Paralysis of the Lower Extremities*—occasionally follows delivery. It is commonly a temporary affection, and requires chiefly local remedies, especially cupping and blistering the posterior part of the sacrum, and stimulating friction of the affected limbs.

14. In countries where *Bronchocele* is endemic, it is alleged that it is sometimes excited by the stress of labour. The established remedy for this affection, the *Iodine*, ought to be employed with great caution in the puerperal state.

SECTION IV.

Complaints which take place soon after Delivery.

1. VIOLENT *Rigors* or *Tremors* in some irritable constitutions occur within a few minutes after the completion of labour. Their progress ought to be instantly arrested by means of powerful cordials and opiates.

2. *Faintings* are also apt to occur soon after delivery. They are most commonly the effect of the sudden removal of pressure from the diaphragm, the abdominal viscera, and the great blood-vessels passing along the spine; but some-

times they are occasioned by internal uterine hæmorrhagy, or by the rupture of some of the larger arteries within the chest or abdomen. Besides, cases have been met with where faintings after delivery have proved fatal, although on dissection no morbid appearance could be discovered.

When fainting threatens,—after the ordinary precautions of ascertaining that there is no uterine hæmorrhagy,—of removing the bolster and pillows, so as to lay the head and shoulders low,—of opening the windows of the apartment, so as to admit freely a current of atmospherical air,—and of applying firm pressure to the abdomen,—the face, and superior extremities, are to be rubbed with any stimulating liquor which is readiest at hand; and suitable cordials are to be administered whenever the patient is capable of swallowing. After the faintings have ceased, some medicine, calculated to diminish the increased susceptibility of the nervous system, should be prescribed, and should be continued for a few days.

3. *After-pains*—seldom occur after a first labour, but are generally troublesome after every subsequent delivery. They resemble uterine contractions, in spontaneously recurring at intervals, and in not being excitable on pressure. They often continue for two or three days, and are commonly aggravated during the first few times that the infant is applied to the breast. These

circumstances distinguish them from other affections.

Firm compression of the abdomen, and the internal use of opiates, and other antispasmodics, are the means to be employed for relieving those pains.

4. *Irregularities of the Lochial Discharge*—require particular attention. That discharge at first resembles blood: next bloody serum; and when the milk is fully formed it appears milky: then it becomes brownish or greenish, with an offensive smell, and is so acrimonious as to fret the parts: gradually it turns inodorous, and of the colour of the ordinary leucorrhœal discharge, diminishing in quantity, till, at last, it ceases entirely. But the progress of these changes is not uniform even in the same women in different lyings-in; and the slightest over-exertion for the first three weeks is apt to occasion a return of the bloody discharge. Both the duration and the quantity also vary in different cases without materially affecting the health, except that, so long as the discharge continues, very slight circumstances may produce enlargement, or inflammation of the uterus, and other complaints.

Redundant lochia may, in most cases, be treated upon the same principles as passive hæmorrhagy; and, therefore, the means for moderating the discharge must be adapted to the habits and constitution of the individual.

Sudden suppression of the Lochia within the

first week after delivery, which may be occasioned by exposure to cold, by passions of the mind, and by irregularities of diet, is always followed by very alarming symptoms. These are shivering, violent pain in the lower part of the belly, great heat of the surface, excessive rapidity of the pulse, thirst, head-ache, and other febrile symptoms.

This affection is to be distinguished from other disorders which it imitates,—*first*, by the suddenness of the attack: *secondly*, by the rapid frequency of the pulse: *thirdly*, by there being no pain, distinctly perceptible on pressure, in the parietes of the abdomen; and, *fourthly*, by the uterus not feeling enlarged, hardened, and exquisitely tender.

If this disorder be neglected for the first few hours, it generally terminates in acute inflammation of the peritoneum, or of the uterus; but if treated actively at the commencement, it commonly yields readily.

Fomentation of the lower part of the belly, continued for an hour at a time, and repeated every five or six hours,—doses of opiates combined with antimonials,—and the exhibition of a turpentine glyster, are the means to be employed at the commencement of the disease. Venesection,—the application of leeches to the abdomen, or to the groins,—the tobacco glyster,—and brisk purgatives, combined with diaphoretics, are severally necessary where the symptoms have been allowed to go on for some hours.

Deficiency of the Lochial discharge, when unaccompanied with any untoward symptom, requires only due regulation of the diet, and one or more doses of some mild laxative. If attended with sense of fulness in the uterine region, it is to be treated as a lesser degree of the former disease.

5. *Milk Fever*.—This occurs at some time between the second and fourth day after delivery. It is preceded by an uneasy fulness of the breasts, and is ushered in by rigor, followed by a hot fit, and the ordinary febrile symptoms, with excessive painful distension of the mammæ. By degrees the symptoms subside, in consequence of a copious diaphoresis, or of spontaneous diarrhoea, or of a discharge of milk from the nipples.

By the progress of the symptoms milk fever is distinguished. It was formerly believed, that, in all other febrile and inflammatory affections occurring in the puerperal state, the secretion of milk suddenly ceases; but experience has now shown, that, even in the last and fatal stage of such disorders, the secretion of milk sometimes continues.

Nothing is more simple than the treatment of milk fever. If the patient is to give suck, the breasts are to be drawn by natural or artificial suction, some mild diaphoretics are to be given, and low diet is to be enjoined. Where the patient is not to nurse, the lactiferous ducts are to be rendered pervious, some gently stimulant

plaster is to be applied to the mammæ, and repeated doses of brisk purgatives are to be administered.

6. *Phlegmasia Dolens*.—This very curious disease occurs at various periods after delivery, and is ushered in with the ordinary febrile symptoms, followed by pain in the small of the back, with a sense of uneasy stiffness and fulness in the inguinal region, aggravated by pressure. By and by the upper part of the limb begins to swell; and the swelling extends to the corresponding labium pudendi, and progressively to the whole limb, so that, commonly within forty-eight hours from the invasion, the thigh, leg, and foot are swelled to double the usual size. The appearance of the limb is quite characteristic. It is of a milky whiteness, is shining and elastic, (that is, not pitting on pressure;) and hard knotty bumps can be distinguished on the posterior part of the leg in the course of the lymphatics, as the swelling gradually subsides. The progress of convalescence, when left to nature, is both slow and imperfect, for weakness and thickening of the limb to a certain degree continue for years. In the worst-managed cases, the disease does not terminate fatally; but supervenient diseases, such as pneumonia, have, in some cases, cut off the patient when labouring under this affection.

Sometimes after the swelling has subsided in the one limb it proceeds to the other; and there can be no doubt that the same limb has been

more than once affected in the same individual in different lyings-in. One instance only of the disease, appearing in one of the superior extremities, has fallen within the observation of the Author.

By dissection, it has been ascertained that this disease is owing to inflammation and swelling of the internal inguinal glands, which may be excited by mechanical injuries during labour, by inflammation communicated from a neighbouring part, by the absorption of acrid lochia, and by exposure to cold.

The treatment must be varied according to the progress of the disease. At the very commencement, purgatives, combined with diuretics, the continued fomentation of the affected groin with flannels wrung out of hot vinegar, and due attention to the state of the lochia, have been generally found to check the progress of the disease. The subtraction of blood, by means of the lancet, or of leeches, or both, must be added to the above remedies, if the hot painful elastic swelling have taken place. But if the swelling have begun to subside, instead of the blood-letting, a large blister is to be put over the inguinal region, and stimulating friction, with a suitable roller, are to be applied to the affected limb.

7. Fever from the Retention of the Placenta.

This is, in the present day, a very uncommon disease, as the necessity of extracting the placen-

ta, within a short time after the birth of the infant, is now very universally acknowledged and acted upon. But when the after-birth is allowed to remain above a day or two within the uterus after the separation of the infant, a very offensive discharge issues from the vagina, quickly followed by rigors, head-aches, nausea, and vomiting, excessive fætor of the breath, and great sinking of the living powers. The disease commonly proves fatal within a very few days, and recovery has seldom been known, especially after the rigor has taken place.

There can be no difficulty in distinguishing the disease, and as little in deciding upon the treatment. The putrid mass must be extracted,—antiseptic injections must be frequently thrown up into the uterus,—most powerful cordials must be administered,—and the whole surface must be sponged, every now and then, with some diffusible stimuli combined with vinegar.

SECTION V.

Ephemera, Miliary Eruption, and Typhus.

1. *Ephemera*.—This febrile disease, popularly called in this part of the island the Weed, is apt to occur at any time during lying-in, or even during the secretion of milk. It invades suddenly, in the form of a violent rigor, accompanied with pain of the head and small of the back,

nausea and thirst, with great rapidity of the pulse. By and by the hot fit succeeds, sometimes attended with oppression at the precordia, and even delirium. After a certain time, a copious perspiration breaks out; and, in proportion as it proceeds, the symptoms of pain of the head and back, of oppression, and of inordinate action of the heart and arteries, gradually subside; so that, at the end of a few hours, the patient is almost again in her ordinary state of health.

The diagnostic marks of this disease are,—*first*, the suddenness of attack: *secondly*, the extreme irregularity of the action of the heart and arteries: *thirdly*, there being no fixed acute pain, aggravated by pressure, or by taking in a deep inspiration. No danger whatever attends this disease.

Exposure to cold, irregularities of diet, passions of the mind, irritation in the primæ viæ, and fatigue, seem to be the chief exciting causes of ephemera.

In the treatment of this disease, the great object should be to promote and to conduct the diaphoresis, and to remove that increased susceptibility of the nervous system, on which the tendency to the disease apparently depends.

2. *Miliary Eruption*.—Generally speaking, this is ushered in by the same symptoms as ephemera, but they commonly occur in an aggravated degree; and, in particular, there is a shrinking of the features, and an oppression at the chest, dur-

ing the hot stage, which sometimes are truly alarming. Previous to the breaking out of the sweat, there is an universal prickling of the skin; and when the diaphoresis takes place, there is an acid exhalation from the surface, similar to that occasioned by the fumes of hot vinegar. If the brow and upper part of the thorax be now examined, an eruption of minute vesicles, like millet-seeds, in some cases, of a reddish purple colour, and, in other cases, of a pearl colour, may be perceived. When touched, they communicate the feeling of particles of sand diffused underneath the cuticle. The eruption continues out for an indefinite time in different cases; and although the oppression is relieved upon its appearance, it is by no means critical like the sweating stage of ephemera.

Considerable debility attends this eruption, which confirms the opinion now generally entertained of its nature, viz. that it is the effect of confined impure air, of irregularities of diet, and of inattention to personal cleanliness.

Various modes of treatment are necessary in different cases; but, in general, free ventilation, sponging the surface every six hours with tepid vinegar and water, cooling laxatives, and mild cordials, are to be prescribed.

Occasionally the miliary eruption appears as an accidental symptom in violent febrile and inflammatory diseases in the puerperal state. It is not unfrequently accompanied with numerous purple marks, like the stripes of a horse-whip.

Under such circumstances, it seems to be an imperfect effort of nature to relieve the excitement of the system. Accordingly, during the first half of the last century, when lying-in women were confined within heated apartments, and stimulated with spices, &c. this modification of the disease was a very prevalent one.

In those instances of symptomatic miliary eruption, the treatment must of course be adapted to the circumstances of the individual case.

3. *Typhus*, in the puerperal state, is, in this part of the world, a rare occurrence. Besides the ordinary symptoms of the disease, there are three peculiarities which attend it during lying-in. These are,—*first*, a circumscribed dusky erysipelatous efflorescence about the wrists, or knuckles, or ancles, seldom occurring sooner than about the twelfth or thirteenth day: *secondly*, an elastic indolent swelling of the abdomen; and, *thirdly*, a copious deposition in the urine resembling curdled milk. The treatment is to be conducted upon general principles, with a due reference to the puerperal state.

SECTION VI.

Inflammatory Diseases during Lying-in.

1. *Inflammation of the Uterus* is a rare occurrence, probably in consequence of the actions

necessary for removing those parts of the uterine system which had been added during the progress of pregnancy. When it does happen, (which is commonly within the first week after delivery,) it is marked by the usual febrile symptoms, together with excruciating pain in the lower part of the belly, and total suppression of the lochia. But the great diagnostic, on which reliance is to be placed, is the peculiar state of the uterus when felt through the parietes of the abdomen. It is hard, enlarged, and exquisitely painful to the touch.

In some cases, this disease proceeds rapidly to gangrene, and, in other cases, suppuration slowly goes on; and, after a very tedious illness, the patient eventually struggles through. Nothing can be more uncertain than the event after the disease has continued for a few hours.

Blood-letting, the administration of a tobacco glyster, fomentation with hot vinegar, diuretics and purgatives, are severally necessary, according to the urgency of symptoms during the stage of active inflammation. If suppuration supervene, the strength is to be supported, and the symptoms palliated by the appropriate means.

2. *Peritonitis*.—Acute inflammation of the peritoneum is a much more frequent occurrence than inflammation of the uterus. It is ushered in by nearly the same symptoms, and is chiefly distinguishable by the seat and extension of the pain, for the pain is in the parietes of the abdo-

men, and is diffused over the whole, or a considerable portion, of these; so that there is commonly swelling of the belly, with aggravation of pain on the slightest touch; and the uterus is not tangible, or, at any rate, seems neither indurated nor painful in the very few instances where it can be felt.

When peritoneal inflammation proceeds uninterruptedly, it most commonly proves fatal, effusion preceding that event; but occasionally suppuration takes place, and the matter is discharged at the umbilicus.

This affection is to be treated very much in the same way as inflammation of the uterus; but in certain stages and modifications of it, a large blister to the surface of the abdomen, and the internal use of the digitalis, have been found beneficial.

3. *Enteritis* sometimes steals on very insidiously in the puerperal state, beginning in the form of cholic; and, accordingly, it requires great practical discernment to distinguish the one from the other. The safe rule is, to consider the case to be enteritis whenever, with obstinate constipation, the pain in the belly is aggravated by pressure. No dependance can be placed upon the state of the pulse, as fatal event has been known to occur where the pulse had never exceeded 90 in the minute during the first stage of the disease.

While the ordinary means for subduing the inflammation are to be actively employed, parti-

cularly the repeated exhibition of tobacco glysters, two cautions are essentially necessary, viz. to avoid as much as possible indulging the patient in diluent beverages, and to delay the exhibition of laxatives by the mouth till the pain have been completely subdued.

4. An anomalous affection, which seems to bear some analogy to enteritis in its nature, though not in its symptoms, has occasionally fallen under the Author's notice. It appears within a day or two after delivery in the form of very considerable swelling and hardness of the abdomen, accompanied with febrile symptoms, without any obstruction in the bowels, and without any irregularity of the lochia. In more than one case there have been intermittent pains, like after-pains, for the first day or two; but the abdomen can be pressed upon without occasioning any uneasiness. The swelling of the belly so perfectly imitates the state of the uterus after the birth of one infant where there is a second in utero, that, in every case which has fallen under the Author's observation, he has deemed it incumbent upon him to examine per vaginam. He has uniformly found the uterus not more enlarged than it is at that period after delivery.

After the disease has become distinctly marked, the febrile symptoms have increased, and have been attended by great irritability of the stomach, and rapid declension of the living powers. From the very beginning there has, in

every instance, been a torpor of the mind, which could not be accounted for; and for several hours before death the patient has been delirious. This affection commonly proves fatal.

As to the nature of this disease, there is some reason to conclude that it arises from a torpor of all the minima vasa within the abdominal cavity; but the Author's experience is too limited to enable him to form a decided opinion on the subject. The appearances on dissection have not been ascertained.

With respect to the treatment, powerful purgatives and diuretics,—stimulant friction and fermentation of the abdomen—and, in the latter stage, every variety of cordials, have been employed without any benefit. The Author has had no opportunity of trying the effect of mercurial frictions; for in every case to which he has been called, the patient, with one exception, has died within forty-eight hours.

5. *Pneumonia*.—This is not an unfrequent disease in the puerperal state, and is commonly sufficiently well marked, though all the symptoms enumerated by nosologists will not be found to concur in any single instance. Thus a fixed pain in any part of the chest, aggravated by inspiration, if accompanied with frequency of the pulse, and if not excited by external pressure, marks inflammation of the pleura, although there be no cough.

For the treatment of pneumonia in the puer-

peral state, the most active measures are to be unremittingly pursued, for the determination of blood to the mammæ, in consequence of the secretion of milk, evidently keeps up the tendency to the disease. In a few, apparently desperate, cases, where the disease had been mismanaged, the patients were saved, as was believed, by means of large and frequently repeated doses of digitalis.

6. *Phrenitis* is not a very unfrequent occurrence in the puerperal state. It begins with watchfulness, frequency of pulse, increased susceptibility of seeing and hearing, and hurried mode of speaking; all which may be readily overlooked, as the patient makes no complaint. Head-ache, with throbbing at the temples, then comes on; and this is soon followed by outrageous delirium, accompanied with frequent endeavours to get out of bed, and to spit upon the attendants. The features seem natural, and the ordinary secretions and excretions, with the exception of the milk, go on as usual, and food and drink are readily swallowed.

In general, the delirium occurs within forty-eight hours after delivery, and it continues, without rest or interval, for three or four or five days. A sudden change then takes place; for the delirium ceases,—the features of the face shrink amazingly,—the pupils become greatly dilated, and a pearly film covers the eyes,—a clammy sweat breaks out on the upper parts of the body,—

the lower extremities become cold,—subsultus tendinum supervene, and the patient sinks in a few hours.

Phrenitis is to be distinguished from mania by the period of attack, the incipient symptoms, and the total incoherence of ideas. It commonly proves fatal; and although in a very few cases, which have fallen under the Author's notice, a conversion to mania has unexpectedly taken place, the change has only served to protract life for two or three weeks.

Severe suffering during labour, affections of the mind, and irregularities of diet, seem to be the principal exciting causes of phrenitis.

By means of blood-letting, purgatives, diuretics, and preparations of camphor, the progress of this disease may be checked, if early attended to; but if the delirium be allowed to come on, little can be expected from medical treatment.

7. *Erysipelatous affections* are occasionally met with in the puerperal state, and must be treated according to the general principles.

SECTION VII.

Malignant Puerperal Fever.

THIS disease, which has attracted much attention within these few years, commonly appears within from twenty-four hours to the third or fourth day after delivery, beginning with shiver-

ing, sometimes preceded by vomiting of bilious matter, followed by more or less pain of the belly; uneasiness of the forehead over the eyebrows; frequency of pulse, and marked anxiety of countenance. Soon after these symptoms, the belly becomes swelled and intolerant of pressure, and is accompanied with an affection of the breathing, as if the patient were afraid of taking in a full inspiration.

Along with these symptoms there is insomnolency, with a somewhat flushed face and sunk eyes. The skin, in some cases, is of the ordinary temperature: more often it is hot and dry: very rarely it is covered with partial clammy sweat. There is commonly thirst; but the patient is so dejected, and unwilling to be disturbed, that she seldom asks for drink. The cleansings continue to flow as usual, and sometimes an imperfect secretion of milk begins.

Within a few hours from the attack, spontaneous diarrhoea comes on, followed by relief of the symptoms, and especially by subsidence of the swelling of the belly, and a corresponding favourable change in the state of the breathing. But generally a relapse soon takes place; for the pain of the belly returns, sometimes preceded by shivering, and always followed by tumefaction, and uneasiness of breathing. The pain occurs in various degrees of severity, and in some cases shifts from the belly to the chest, and is then accompanied with harassing cough. The frequency of the pulse increases as the disease continues.

At first, it varies from 100 to 110 : in the second and third days, that is, after the relapse, it is from 120 to 130 : after which it can scarcely be counted. The exhaustion of strength proceeds with great rapidity ; so that, in the majority of cases, the patient sinks on the fourth or fifth or sixth day after the attack ; vomiting of coffee-coloured fluid (sometimes in large quantities) preceding, for a few hours, the fatal event.

Puerperal fever may be distinguished from other diseases by the progress of the symptoms. It differs from peritonitis and inflammation of the uterus by the lochial discharge continuing to flow ; and also by the particular condition of the abdominal tumour, by the appearance of the countenance, and by the state of the breathing. It is a most dangerous disease, especially when it occurs in hospitals, in which it sometimes appears as an epidemic. Happily it is of rare occurrence among the better ranks of society.

The exciting cause of puerperal fever seems to be a peculiar miasm ; and from many facts which have been communicated to the Author, on the best authority, and from many which have fallen under his own observation, he has no doubt that the disease is infectious in particular conditions of the atmosphere.

There is scarcely an acute disease for which a greater variety of alleged infallible remedies has been published, and yet every candid practitioner must admit the distressing mortality of the disease. Perhaps, in many instances, those who

have blazoned forth their success in the treatment of puerperal fever, have deceived themselves by mistaking the disease. It is impossible, on any other supposition, to account for such opposite remedies as ipecacuan emetics,—preparations of valerian,—the carbonate of potass,—the rectified oil of turpentine,—calomel purges, with mercurial frictions,—and the subtraction of large quantities of blood, with fomentations of the belly, being severally asserted to be certain cures for this alarming malady.

According to the Author's experience, the disease ought to be treated as fever produced by extensive and peculiar inflammation, accompanied with extreme debility of the system.

SECTION VIII.

Spasmodic Diseases and Fluxes in the Puerperal State.

1. *Cramp of the Stomach*, marked by excruciating pain, deadly sickness, extreme frequency and feebleness of the pulse, ghastly countenance, and clammy sweats on the upper parts of the body, sometimes happens within a fortnight after delivery. Its attack is sudden, and its progress to fatal event so rapid, that death has taken place within five hours from the first threatening. The fatal event is sometimes preceded by one or more convulsions.

The exciting causes appear to be cold, or acid drinks, and emotions of the mind.

Powerful antispasmodics are to be administered both by the mouth and by the anus from the first threatening of this most painful and alarming disease ; and flannels, soaked in heated ardent spirits, must be kept applied to the region of the stomach ; and when the symptoms do not readily yield, successive sinapisms must be put upon the lower part of the spine, the inside of the thighs, and the soles of the feet.

2. *Cholic* is a more frequent spasmodic affection in the puerperal state than the former disease. It is not always, as has been already mentioned, easily distinguished from enteritis ; but wherever, during the intervals between the fits of pain, the belly can be pressed upon without giving the patient much uneasiness, it may be concluded that the case is cholic. Exposure to cold, irregularities of diet, but more frequently accumulations of indurated fæces, are the exciting causes of this disease.

In the majority of cases of cholic, the symptoms are relieved by means of warm fomentations, laxatives, combined with opiates, given by the mouth, aided by carminative glysters. In the violent degrees, the tobacco glyster must be had recourse to.

3. *Diarrhœa*, when in a violent degree, occurring within a few days after delivery, is, especially

in the lower ranks, a very alarming disease, and requires the most active treatment. If alternated with uterine hæmorrhagy, which it sometimes is, venesection should be premised; after which, opiates, and other means for allaying the inordinate action of the intestines, must be carefully employed.

4. *Cholera* is not a common occurrence in the puerperal state; but when it does take place, it requires the most serious attention, as it occasions very rapid exhaustion. Large and repeated doses of opium are the chief means to be relied on.

SECTION IX.

Diseases of Nurses.

1. *Marasmus* is sometimes the consequence of nursing. It begins with thirst,—occasionally voracious appetite,—sense of weariness in the loins, and general langour. Emaciation, with progressive declension of muscular strength, follow; and, if nursing be persevered in, œdematous swelling of the feet at night, and profuse sweating towards morning, supervene. The remedy is obvious. The attempt at giving suck is to be abandoned, and suitable tonics are to be prescribed.

2. *Weakness of Sight*, with relaxation of the

eye-lids, also are occasionally the effects of nursing in some delicate women, and require the same treatment.

3. Nurses are extremely liable to excoriation and ulceration of the nipples. This local affection, though apparently trifling, is productive of much suffering, and sometimes resists all means of cure, terminating in the total destruction of the nipple.

Various means are found useful in different cases and in different degrees of this affection. Thus, where the excoriation is confined to the apex of the nipple, the progress may not unfrequently be checked by washing with lime-water, or with a solution of some of the metallic astringents, and keeping the part covered with any mild unctuous substance, or dusting with some astringent powder. Where there are deep chops or fissures at the root of the nipple, some powerful stimulant application is necessary, such as the compound tincture of Benzoin, or Riga balsam, or the citrine ointment; and where ulcerations have actually taken place, more powerful means still are required, for the ulcerations should be touched with the nitrate of silver, or the sulphate of copper, and dressed with some suitable liniment. Much relief, in some cases, is afforded by the use of the shield with the cow's teat, though there are many infants who cannot draw the milk through that contrivance. In cases where the ulcerations have been neglected, and

prove extensive, nursing must be given up, and the old-fashioned remedy of the litharge ointment applied.

When the nipples are not sufficiently prominent, or where the lactiferous tubes are not free, an imitation of the Dutch breast-glass, made of tin-plate, should be kept constantly worn.

4. The *mammæ* of nurses are liable to *inflammation*, both of the phlegmonous and of the glandular kind.

In the former case, there is more or less superficial redness, with increased heat and thickening of the part; and, according to circumstances, resolution or suppuration take place within a few days. The treatment is too obvious to require particular notice.

But inflammation of the glandular part of the mamma is generally ushered in with symptoms of constitutional irritation, together with swelling and induration of the whole breast; and at first, in many instances, there is no superficial redness, though there is perceptibly an increased degree of heat. The progress, when left to nature, is very different in different cases; for sometimes an abscess forms near the surface, which, in due course, bursts and heals. More frequently the process of suppuration goes on slowly and painfully; considerable indurations form, and a deep-seated abscess is at last discovered within the glandular part of the breast. In some cases, after a tedious and severe course of symptoms,

the whole mamma becomes œdematous ; and nothing like a collection of matter can be felt on examination, though there is really such a collection situated at the very base of the mamma.

In some individuals a succession of abscesses forms, and keeps up a great degree of constitutional irritation, insomuch that the hectic fever, which attends, ends in the gradual sinking of the living powers, and eventually in death. In other mismanaged cases, sinuses and callosities form, and for a long time injure the health of the patient.

The treatment of glandular inflammation of the mamma must be varied, according to the circumstances of the individual case, two great objects being kept steadily in view, viz. to allay the local irritation, and to support the general strength. For the former purpose, fomentations, emollient and cicuta poultices, and giving a free outlet to the matter, are severally necessary ; and for the latter, a due regulation of the diet, with tonics and cordials, according to the constitution, must be prescribed. When troublesome sinuses and indurations have formed, a slight course of mercury, sometimes, proves highly beneficial, after the several sinuses have been laid open.

Three errors in the treatment are particularly to be guarded against, viz. *first*, Attempting to have the breast sucked after the glandular inflammation has begun : *secondly*, The application of metallic astringents after evidences of suppuration have manifested themselves ; and,

thirdly, Delaying giving a free outlet to the matter when formed.

SECTION X.

Diseases aggravated by the Puerperal State.

1. It has been a popular notion, that pregnancy retards the progress of *Phthisis Pulmonalis*; but this opinion is unfounded; for pregnant women, labouring under pulmonary consumption, not unfrequently are seized with premature labour, and sink in the course of two or three days. When they carry the infant to the full time, they seldom survive the month.

Perhaps the popular error upon this subject may be, in some measure, explained, for phthisis in women is, in many instances, slow in its progress; and where there is ulceration of the lungs, the pressure of the enlarged uterus upon the diaphragm, during the latter months of pregnancy, may lessen at least the discharge from the ulcerations; and, hence, the improved health for a few weeks before delivery may be accounted for.

It need scarcely be remarked, that in the last stages of phthisis pulmonalis no other than palliative means can be attempted.

2. *Dropsical affections*, not dependant upon pregnancy, are always aggravated after delivery,

though for a day or two a favourable change sometimes takes place. Thus, in several instances which have fallen under the Author's notice, where, from the irregularity of the pulse, the oedematous swelling, and other symptoms of broken health, there was every evidence that dropsy had existed previous to pregnancy, the blood discharged along with the placenta has congealed firmly, and the patient has seemed convalescent for two or three days; but suddenly great frequency and irregularity of the pulse, with laborious breathing and delirium, have come on, and have rapidly proved fatal.

3. *Lues Venerea* sometimes seems during pregnancy to have little influence on the general health; but immediately after delivery, in many cases, its ravages are rapid and extensive, the living powers sinking almost hourly; so that for a day or two before death, (which event not unfrequently happens within a week,) it is almost impossible to approach the patient, in consequence of the extensive decomposition or mortification of several parts.

Nothing but mercurial preparations, with large doses of opium and powerful cordials, can afford any chance of relief.

4. *Mania*.—Those who have a hereditary predisposition to this deplorable malady are liable to its attack while lying-in.—Accordingly, in France, it has been calculated, that in the public

receptacles for female lunatics, one-eleventh part of the patients have become affected with the disease while in the puerperal state. The proportion in private practice is alleged to be still greater, being one-seventh part.

It seldom begins sooner than a week after delivery, and generally steals on insidiously, under the appearance of fright, or eccentricity of thought or conduct. Its more usual form is that of melancholia; and when outrageous delirium takes place, it is most commonly found to proceed from some mismanagement on the part of the attendants, such as thwarting the patient's wishes, &c. This latter modification is distinguished from phrenitis by the patient being quite sensible to external impressions, acquainted with all the surrounding objects, and capable of being reasoned with or awed into submission.

This affection is, in much the greater number of cases, only of temporary duration, requiring chiefly palliative and soothing treatment. Where there is outrageous delirium, the strait-waistcoat must be resorted to as a temporary expedient; and where, in melancholia, the patient seems weary of life, she must be immediately removed from her ordinary residence and attendants, and put under the management of those who are accustomed to the treatment of such cases.

By a suitable regulation of the non-naturals, and by the use of camphor, and other medicines calculated to lessen the susceptibility of the nervous system from immediately after delivery,

the occurrence of this distressing malady may generally be prevented.

II. DISEASES IN THE UNIMPREGNATED STATE.

SECTION I.

Arrangement of the Diseases of Unimpregnated Women.

FROM the peculiarities in the corporeal frame of women, the diseases to which they are liable, in common with the other sex, are so modified as to require an appropriate treatment. Besides the sexual diseases, therefore, it is necessary to give an account of the most ordinary affections of the general system which are met with in women; but, of course, sketches only can be offered, referring to teachers of the practice of physic for minute details.

The sexual organs of women (in the unimpregnated state) are liable to diseases in common with, or in consequence of, those of other parts, and also to diseases peculiar to themselves. Under the former head may be classed inflammation, itching, and swelling; and under the latter, a great variety of affections, which are to be noticed in due order.

SECTION II.

Inflammation, Itching, and Swelling of the Sexual Organs.

1. BOTH the external and internal parts of the uterine system are apt to become *inflamed* on the application of any of the ordinary causes of inflammation, and also from sympathy with contiguous parts. From the great delicacy of texture of those parts, the consequences of inflammation are sometimes very distressing, and, therefore, the most active means for the treatment are absolutely necessary.

In the lower ranks, and especially in very young women, foul and malignant ulcerations of the external parts not unfrequently occur, and are seldom permanently cured unless the patients be sent into a well-regulated public hospital.

2. *Itching* occurs under two different modifications, and it is not easy to decide which is the more distressing. The more common form is that of itching, relieved upon rubbing the part; and the other is, where, along with itching, there is a burning tingling sensation, which is converted into sharp pain when the part is touched.

This malady is always a sympathetic one, depending on some morbid condition of the cuticular hallitus, or on some disease of the affected or neighbouring parts. The former cause is so

obscure, that it can only be conjectured. The latter causes are to be ascertained by actual examination. Increased determination to the minima vasa of the parts,—the herpetic eruption,—certain varieties of leucorrhœal discharge,—minute excrescences upon the labia,—stone in the bladder,—incipient schirrhous of the uterus,—and ascarides in the rectum are the most ordinary causes. In the lower ranks, inattention to cleanliness and vermin may be suspected. A very rare modification arises from what may be styled a local degree of the morbus pedicularis. In one case which fell under the Author's notice, the pediculi, of a very minute size, and of a whitish grey colour, issued from the skin on its being scratched.

The treatment must be adapted to the particular cause of the complaint; and where that is not obvious, which frequently happens, in elderly persons especially, a variety of remedies must be recommended, such as the warm bath,—the several narcotic infusions, by way of lotions or fomentations,—sponging with the mineral or vegetable acids, with the internal use of mezereon or sarsaparilla, or some of the vegetable tonics. Unctuous applications are most commonly injurious.

3. *Swelling* is the effect of extravasated blood, or of œdema, or of hernia. When either labium is swelled, slightly red and painful, if it communicate a hard knotty feel, and if there be no

symptoms of intestinal hernia, it may be concluded that there is an extravasation of blood from the rupture of one or more minute blood-vessels. Suppuration generally follows, and is to be promoted by the usual means.

Œdematous swelling extends to both labia, and is marked by the absence of pain, and the semi-transparency of the swelled parts. It is to be considered as the effect of a disease of the general habit, which requires the chief attention.

Four different kinds of hernia occasion more or less swelling of one of the labia, viz. the ordinary inguinal and femoral hernia, the hernia of the foramen thyroideum, and the hernia cystica. The two first of these species of hernia are generally easily enough distinguished, and require the usual treatment. The hernia of the foramen thyroideum is a very uncommon case, and is to be ascertained by tracing its peculiar seat. The hernia cystica is also an uncommon disease, characterized by a flow of urine on pressing on the swelled part. For this latter disease, the daily use of the cold plunge-bath is the principal remedy; and, at any rate, no surgical operation is advisable.

Another species of hernia, which swells the inferior part of either labium, together with the perineum, is occasioned by a portion of the ilium being pushed down, at the peritoneal depression between the uterus and rectum, and passing between the rectum and vagina. This case can only be distinguished by accurate examination.

There is no difficulty in reducing the protruded gut ; and little other treatment is required than keeping the patient, for a few days, in the horizontal posture.

SECTION III.

Diseases of the External Parts.

1. *Malformation* is a rare occurrence, and can only be remedied where it is occasioned by the cohesion of the labia from an early period of life. This is known by there being a semi-transparent narrow line, extending from the orifice of the urethra to the perineum. On dividing this line, the confined parts burst forth.

2. *Enlargement of the Clitoris* sometimes occurs as a congenite affection ; but in this part of the world, at least, the disproportion soon disappears without any surgical means being required.

3. *Elongation* of one or both *Nymphæ* sometimes proves very troublesome ; in which case the elongated parts can be safely removed.

4. *Excrescences*, connected by a narrow neck, now and then sprout from the internal surface of the labia, and are to be removed by means of a ligature.

5. *Warty Excrescences* sometimes cover the labia. If they do not yield to the ordinary dressings, such as the application of the savine powder, or red precipitate, a liniment, made by mixing one part of a strong solution of the sub-acetate of lead with two parts of the cream of cow's milk, generally removes those excrescences in the course of a short time.

6. *Steatomatous* and *Encysted Tumours* occasionally are imbedded in one of the labia, and generally require a surgical operation. *Schirrhosities* are also found now and then to be seated in those parts, and should, when practicable, be removed by the ligature, or by the knife, before the contiguous parts are involved in the disease.

SECTION IV.

Diseases of the Urethra and Urinary Bladder.

1. *Caruncles*, or *Minute Fleshy Excrescences*, sometimes sprout out on the internal surface of the urethra, and occasion more or less pain both in passing water and immediately after it. This local affection can only be ascertained by a careful examination, and may be removed, in most instances, by the use of a bougie.

2. *Calculus of the Bladder* is a very rare disease in women, because the urethra is so short and

wide, that any ordinary nucleus is readily discharged. By examination, it is easier to ascertain the existence of a stone in the bladder in women than in the other sex. It is seldom that any cutting operation is required in the extraction of a calculus from the bladder of a female, because the urethra is so safely dilatable.

Symptoms resembling those of the urinary calculus frequently occur in women of all ages, and are generally sympathetic affections, yielding, after the original complaint has been removed, to the use of cicuta or other narcotics.

3. *Catarrhus Vesicæ* is not an unfrequent disease in women. It is characterized by the urine depositing a large proportion of mucus of various degrees of tenacity. In some cases, this mucus has an offensive smell, and a puriform appearance; and sometimes it is discharged in such quantities, that it forms one-third of what is passed from the bladder at any single call. The causes of this affection are mechanical pressure on the bladder from tumours, or enlarged uterus, but more frequently some disorder of the chylo-poetic viscera. In some cases, the disease continues after the original complaint has ceased.

The treatment, in the former cases, must be varied according to the cause. In the latter cases, the internal use of lime-water, or of the uva arsi, combined with cicuta, or of the copai-vi balsam, or other gummi resinous substances,

or of the cubebs, or some of the oxides of iron, are severally found useful.

4. *Schirrhosity of the Bladder* sometimes occurs in elderly women, and is a very distressing and painful disease. It may be suspected, if there be very frequent desire to pass water, while only a table spoonful or two are discharged at a time, and while there appears no mechanical obstruction. It is readily ascertained by examination.

Palliatives alone can be suggested in those unfortunate cases; and even the most powerful opiates in the latter stages prove of little avail in allaying the agonizing pain.

SECTION V.

Local Diseases of the Vagina and Uterus.

1. *Imperforation and Rigidity of the Hymen* are only discoverable by examination; and the inconvenience arising from them is easily removed by a slight operation.

2. *Indurations and Enlargement of the Carunculæ Myrtiformes* also require, in married women, the aid of surgery.

3. *Cohesions of the sides of the Vagina* must

be treated according to circumstances. Cases every now and then occur where no attempt to remove the adhesions could be hazarded.

4. *Prolapsus of the Vagina* occurs in various degrees, being sometimes in the form of a circumscribed swelling, not larger than a cherry, immediately underneath the meatus urinarius: in other cases, being a swelling at one side, protruding through the labia; and in the greater number of instances, being like a spheroidal elastic tumour, pressing upon the perineum, and projecting considerably outwards when standing or walking. By examination, these different degrees are ascertained. The cause, in some cases, is mere relaxation of the vagina; and in other cases, it is rupture of the muscular coat of the posterior surface of that canal, (as already mentioned,) or the separation of its posterior extremity from the perineum.

For the relief of this local disease, various means are required according to the cause; but, in general, the daily use of the cold plunge-bath, and of a well-adapted bandage, afford the principal means of relief.

5. *Calculous Concretions* have been sometimes discovered in the vagina, and are readily removed.

6. *Polypous Excrescences* sometimes sprout from the mucous membrane of the vagina, and are

to be treated in the same manner as similar affections of the uterus.

7. *Warty Excrescences*, connected by a spongy vascular substance, have been found surrounding the upper extremity of the vagina and os uteri, forming a pretty large mass. The symptoms produced by this disease are so similar to those of other affections of those parts, that it is only by examination that its true nature can be ascertained. The treatment consists in gradually removing the excrescences by manual assistance, and in the application of savine ointment to the seat of the disease.

8. *Prolapsus Uteri*.—This very common disease occurs, in every variety of degree, from where the uterus falls a little lower than natural into the vagina, to where it is completely protruded without the external parts. In those latter cases, it is always greatly enlarged, so that, when standing or walking, it appears like a large excrescence hanging between the thighs. As the os uteri always forms the apex of the tumour, there is no difficulty in distinguishing this disease by proper examination.

It was formerly imagined, that prolapsus uteri was occasioned by relaxation of the broad ligaments; but it is now generally admitted, that it is owing chiefly to relaxation of the vagina, or of the muscles lining and filling up the outlet of the pelvis. The disease is not dangerous, but,

in delicate constitutions, it is often extremely distressing.

In slight degrees, especially in young subjects, this affection may be cured by the use of the cold bath, tonic medicines, &c. But in much more than the majority of cases, all that can be done is to palliate by means of certain mechanical contrivances calculated to support the contents of the pelvis. Pessaries have been generally employed for this purpose; but there are not many cases where it is either necessary or safe to wear such instruments. If possible, the mechanical contrivances should be adapted for external use. In some bad cases of women advanced in life, it might be justifiable to make the sides of the vagina cohere by a surgical operation.

9. *Polypous Excrescences of the Uterus.*—Women of every age and rank, from puberty upwards, are liable to this local disease, and neither celibacy nor marriage seem to have any influence in producing it. The excrescences are of different textures in different cases, some being as soft as a clot of blood, and others as hard as the firmest steatom; and between these extremes there is every gradation. There is the same variety in the size, as some polypi have excited such symptoms as to lead to ascertaining their existence, when not larger than a kidney-bean, and others have remained undiscovered till larger than the head of a new-born infant. But what-

ever be the texture or the size, these excrescences adhere to the uterus by a narrow peduncle.

At first, the symptoms produced by polypous excrescences are occasional violent uterine hæmorrhage, sense of pressure and bearing down, and leucorrhœal discharge. By and by symptoms of broken health, manifested by prostration of strength and œdematous swellings, take place; and if the polypus be allowed to remain, fatal event follows, sometimes with unexpected rapidity. In many cases, those alarming symptoms occur, without such a degree of previous hæmorrhagy as could account for them; which has led the Author to suppose, that they arise from the absorption of the morbid matter secreted at the root of the polypus.

Considerable danger attends this disease; and although the only remedy is a surgical operation, the event is always somewhat uncertain; for instances every now and then occur, where, although the result of the operation appears quite successful, in the course of a short time after the removal of the polypus, inflammation of some internal part supervenes, and proves fatal, notwithstanding the most active assistance.

In performing the operation for the removal of polypous excrescences two precautions are indispensable, viz. to avoid including any part of the uterus in the ligature, and to desist from tightening it (the ligature) whenever the least pain is excited by the endeavour to do so.

10. *Watery Tumour* of the uterus is a disease described by authors, but which has been seldom ascertained in the living patient, and still more seldom detected in the dead subject. The involuntary discharge of watery fluid per vaginam in women who are not pregnant, preceded by a very perceptible circumscribed enlargement in the lower part of the belly, resembling the uterus about the sixth month of pregnancy, and followed by a complete subsidence of the abdominal tumour, have been supposed to proceed from a sac forming within the uterus, and secreting a watery fluid. In more than one case where these symptoms recurred several times in the course of a protracted chronic ailment, (in unmarried women,) which eventually proved fatal, nothing whatever to explain the phenomena could be discovered on the most careful dissection. It was supposed that the sac had been absorbed previous to death. Such cases apparently admit of no remedy.

11. *Chronic Enlargement* of the uterus is not an unfrequent disease, and it occurs equally in virgins and in married women. A considerable progress in the enlargement commonly happens before much inconvenience is experienced. But, at last, pressure and bearing down when in the erect posture, with difficulty in passing the fæces and urine, lead to an investigation of the case.—The uterus is found not only enlarged in various degrees, but also apparently displaced. This

latter circumstance, however, is always owing to the pressure of the circumambient parts, and may generally be influenced by the posture of the patient. It is this disease which constitutes the retroversion and the antiversion of the uterus in the unimpregnated state, as described by authors. It is readily distinguished by examination, the uterus being found more or less enlarged, and neither indurated nor painful.

Exposure to cold, and the use of metallic astringent injections per vaginam, have appeared to be the exciting causes of all the cases of this disease which have fallen under the Author's notice. The disease, though occasionally tedious in its progress, is by no means dangerous.

For the treatment of this affection, the daily use of the warm sea-water bath, and the internal use of preparations of cicuta, or of muriate of lime, or of preparations of iodine, or of neutral salts, or of mezereon, have been severally found successful. After the enlargement begins to decrease, a course of electricity, in addition to the other means, has always seemed to accelerate the cure. In several instances, individuals labouring under this disease had been subjected to the full influence of mercury before falling under the Author's care; but no benefit whatever had occurred from the practice.

12. *Fungous Excrescence* of the os uteri may be suspected if there be occasional violent hæmorrhagy, particularly about the period of men-

struation, though it can be distinguished only by examination. At first, it seems confined to one portion of the os uteri; but gradually it affects the whole circumference, increasing in size as it advances; till at last it forms a large excrescence, from which a constant ichorus discharge proceeds, with frequent hæmorrhagies to an excessive degree, which at last exhaust the patient.

Experience having proved that none of the ordinary astringent and caustic topical applications, and that no internal medicines, have any effect in checking the progress of this alarming disease, excision of the morbid parts may be a justifiable resource in its early stages; and it is not improbable, that the success from this practice has led foreign practitioners to recommend the same method in other affections of the uterus, in which it can be of no avail.

13. *Fungus Hematodes* of the uterus is a very fatal disease. By this term is meant an excrescence within the cavity of the uterus, having a granulated surface like that of a cauliflower, and adhering by a broad base. It occasions almost all the symptoms of cancer, and is only distinguished from it by examination. The excrescence has been removed, which, in some cases, is done without difficulty by pressure with the fingers, but has soon again sprouted out, and has gone through the ordinary fatal course.

14. Along with enlargement of the uterus in

some very rare cases, minute spheroidal bodies, which, though transparent, are incompressible, are discovered half projecting upon its internal surface. This affection is attended with pain of the affected part, occasional hæmorrhagy, and great constitutional disorder, which generally end fatally. In one case, under the Author's care, the disease yielded in the course of eight weeks, apparently in consequence of the daily use of the warm bath, and of a dose of sulph. potassæ cum sulphure, with the injection per vaginam, evening and morning, of a strong metallic solution.

15. *Steatomatous Tumours* occasionally form in the substance of the parietes of the uterus, and as their size increases, the cavity of the uterus becomes enlarged. In a preparation of this kind in the Author's possession, where the steatom was in the anterior part of the uterus, the cavity seems capable of containing a large hen's egg. This affection is not cognizable during life.

16. An unequal projection of different sizes is occasionally discovered on the posterior part of the uterus, resembling in shape the tubera, which form upon the surface of the liver, but differing from tubera in being of a more resisting texture, and in being pained on pressure. From the cases which have fallen under the Author's notice, it appears to him that the following is the progress of this fortunately rare disease:—At first,

there is a slight enlargement of the uterus, with a little thickening and tenderness of its posterior surface, occasioning a sense of bearing down on making any unusual exertion, and an obscure gnawing pain towards the back part of the pelvis. In the progress of the disease, the posterior surface of the uterus becomes more and more unequal, till at last a distinct projection like a walnut, or even larger, can be felt on examination per anum. At this stage of the disease, the patient can neither stand nor sit upright, such is the continued uneasiness in the back part of the pelvis. It is remarkable, that in this, as well as in several other of the local diseases of the uterus, the catamenia continue to flow as usual.

In the early stages of this disease, the progress has been generally checked by the means employed in cases of chronic enlargement of the uterus; but, in the latter stages, that is, after the circumscribed projection has taken place, no means of treatment have hitherto proved successful.

17. *Lymphatic Concretions* sometimes form within the cavity of the uterus, and accumulate there. In one case of that kind, the enlargement of the uterus was found equal to that of a child's head; the os uteri had its edges as thin as in the first stage of labour, and the cervix uteri was completely expanded. The contents were drawn out piecemeal, and consisted of a solid white substance, like the strongest lymphatic polypus,

apparently in a state of life and growth, adhering to the surface of the uterus, but having no evident vascular texture. A new formation in the progress of a few months took place, which was again removed, and, after successive formations, the patient at last sunk. The symptoms which attended this curious disease were occasional excessive hæmorrhagies, such pain as to require the largest opiates at least twice in the twenty-four hours, and a progressive broken state of health. The patient lingered on in a miserable state of existence for some years. Permission to ascertain the appearances after death was not obtained. The patient was an unmarried lady, nearly fifty years of age.

In a few other cases, the substances in question were thrown off by an effort of nature, and the patients eventually recovered. Probably what were called moles, or false conceptions, in former times, were merely instances of this disease. It is evident, that nothing but palliative means can be employed in such cases.

18. A very curious change of texture in the uterus sometimes occurs. Its parietes thicken to the extent of at least an inch, and the cavity enlarges, so that a finger can be pressed into it through the os uteri. Its substance, at the same time, becomes soft and spongy, and totally altered in structure. The disease is unaccompanied with pain. Its symptoms are a continued draining of serous fluid (which is occasionally tinged

with blood) on the slightest exertion, attended with pressure and bearing down, with impaired health, gradually ending in dropsy. It is by examination, however, that the disease can alone be distinguished. On passing the finger into the uterus, the least pressure occasions an oozing of blood.

No remedy has yet been discovered for this affection of the uterus; and in several cases to which the Author has been called, every variety of tonic and alterative medicine, and of topical stimulants, had been had recourse to without benefit.

19. *Schirrhous and Cancer Uteri*, the most deplorable affections to which women are liable, occur much more frequently than several of the diseases described in the preceding detail. No age, from twenty years upwards, is exempted from this malady; and women in every condition of life seem equally liable to it. The first approaches are generally insidious, and the progress is often slow; so that a medical man is seldom consulted till the disease has made a considerable advance. Occasional pressure and bearing down, leucorrhœal discharge, now and then darting pains across the pelvis, with irritation about the urinary bladder and external parts, are the first symptoms which excite alarm.

It is the common opinion, that there are three stages in cancer uteri, viz.—*first*, a thickening and hardness of the substance of the uterus, call-

ed the indolent tubercle : *secondly*, the schirrhous state, marked by pain on pressure, and by occasional stinging burning pains in the part, though quiescent ; and, *thirdly*, the cancerous stage, characterized by ulceration and the discharge of acrimonious ichor, with constant agonizing pain. But the phenomena of the two latter stages alone can be depended upon as distinguishing this disease ; for every now and then cases of induration and thickening of the uterus, accompanied with some of the symptoms of incipient schirrhosity, too, yield to a course of warm sea-bathing, and of laxative neutral salts.

Both in the phenomena and in the progress of schirrhosis and cancer uteri, there is great variety in different cases. Thus, in some instances, the general health rapidly declines ; dropsical affections, with laborious breathing, and with delirium, quickly succeed ; and life is destroyed in the course of a few months. In other cases, the general health remains for a long time little impaired ; but constant local irritation and pain embitter life. Sometimes excessive uterine hæmorrhagy supervenes, and threatens instant dissolution. In many cases, great irritability of the stomach attends ; and sometimes involuntary startings, while in bed, disturb the short slumbers produced by opiates. Where life is much protracted after the cancerous stage has begun, the vagina, the bladder, and the rectum are progressively affected with thickening and ulceration ; and sometimes for weeks before death all these

parts communicate with each other, the urine, and the fæces, and ichorus matter being constantly discharged per vaginam.

There can be no difficulty in distinguishing schirrhous and cancer uteri, if the state of the parts be examined. As to the treatment, all that can be done is to alleviate the sufferings by means of varied opiates, and such topical applications as are calculated to lessen the quantity or acrimony of the discharge, and to prevent the disease extending to the neighbouring parts.

Within these few years, some foreign practitioners of eminence have cut out the diseased portion of the uterus, by introducing a metal tube into the vagina, calculated to receive the part to be removed, and, through this, carrying up a scoop-shaped knife to complete the operation. By means of styptic applications and sponges dangerous hæmorrhagy is prevented. Notwithstanding the alleged success of this method, a prudent practitioner would hesitate in recommending it, both on account of the immediate hazard of the operation, and, also, because experience has long ago shown, that where the diseased parts of schirrhous mamma were alone extirpated, leaving the sound part of the gland, no permanent cure was accomplished.

A still bolder experiment than that adopted by foreign practitioners was made in this city within these two years, for the diseased uterus was actually removed, after dividing the parietes of the abdomen from the ensiform cartilage to the

symphysis of the pubes. When the several steps of such an operation are maturely considered, it can scarcely appear surprising that the patient in that case survived only a few hours. After dividing the parietes of the abdomen, before the uterus can be cut out, the bladder must be dissected off,—the spermatic arteries and the uterine hypogastrics must be tied,—the upper part of the vagina must be brought together; and the only possible means of counteracting the effects of opening the peritoneal sac, which forms a sort of diaphragm across the pelvis, must be stitching the bladder to the rectum.

20. After death, the uterus has been found to be more or less ossified; and calculous concretions, and worms too, have been discovered in its cavity; but it is unnecessary to dwell on such uncommon cases.

SECTION VI.

Diseases of the Ovaria.

1. ENLARGEMENT of one of the ovaria occurs at every period of life, from puberty to advanced old age, and varies greatly in its progress and in the symptoms which it induces. It usually first appears in the form of a circumscribed moveable tumour, situated in the lower part of the abdomen, towards one side; and although it has been accidentally felt when not larger than a goose's

egg, its size is commonly greater than that of an infant's head before the patients are aware of its existence. Sometimes the first evidence of the disease is a general fulness of the lower part of the belly, which renders it inconvenient for the patient to stoop, and which occasions a sense of uneasy distension after meals. Œdematous swelling of the foot and ankle of one side are apt to take place towards night.

After the disease has manifested itself, in some cases it remains stationary for years, neither injuring health nor shortening life. In other cases, it rapidly increases in size, makes injurious pressure on the neighbouring parts, and gradually undermines the constitution. In some of those cases, deep lancinating pains come on, followed by febrile symptoms; while, in other cases, the enlargement, although enormously distending the belly, produces, at least for a time, little inconvenience of any description. Thus, some women have continued to enjoy tolerable health for between twenty and thirty years after the belly had become distended nearly as much as in the latter months of utero-gestation; while in others, the progress of the disease to fatal event has not occupied more than eight or ten months from the first appearance of indisposition. The disease proves fatal, occasionally by inducing hectic fever, but most commonly by universal dropsy.

On examining the progress of enlargement, it is, in some cases, found that the surface of the tumour is quite equable, but is hard and unyield-

ing: in other cases, a fluctuation can be perceived in it; and in others, there are inequalities, and indurations of various sizes, with very obscure degrees of fluctuation.

All these varieties are elucidated by the appearances on dissection, which prove that there are the following several modifications of the disease:—

First, A collection of condensed and indurated and laminated matter, forming masses, connected by a softer substance. This has been styled schirrhosity; but as these indurations are apt to form bony nodules, and have never appeared in a state of ulceration, they cannot be considered to be of a schirrhous nature.

Secondly, A simple distension of the investing coat of the ovarium, with interstitial fluid, in greater or smaller quantity, and of various degrees of tenacity, from that of serum to that of melted calf's-foot jelly.

Thirdly, A collection of sacs, with pretty thick coats, of different sizes, varying from that of a gooseberry to that of a child's head, or even larger, and containing fluids differing from each other both in colour and consistence.

Fourthly, A collection of hydatids, of various sizes, is sometimes found complicated with the former variety, and sometimes independent of it.

Fifthly, In some cases, there is a single large sac, containing a dark brown or deep black fluid. This is a modification of what the French call *Melanose*.

Besides these varieties there are other complications; for, in some cases, indurations, cysts, hydatids, and even fatty tumours, are interspersed. It is remarkable, that in some cases where one of the ovaria is very much diseased, the other remains in so healthy a state as to allow of repeated impregnation.

It is extremely difficult to distinguish enlargements of the ovary from other diseases. When the size does not exceed that of a child's head, the diseases with which it may be confounded are indurations in the mesentery, affections of the caput cœcum coli, and even schirrhosity of the pylorus. In greater degrees of enlargement, diseases of the omentum, ascites, and the pregnant uterus, may be severally mistaken for diseased ovarium.

Although complicated cases every now and then occur which puzzle the most experienced of the profession, it is, in general, always easy to distinguish both ascites and pregnancy from an affection of the ovary. When the fluctuation can be felt equally over all the abdomen, if the general health be unimpaired, the probability is, that there is dropsy of the ovary if the catamenia be regular; but in doubtful cases tapping decides this point, for in dropsy of the ovary the col-

lapsed sac can be distinctly felt through the parietes of the abdomen after the fluid has been drawn off.

Even in cases where there is pretty strong evidence that there is an enlarged ovarium, examination per vaginam ought to be insisted on before any active means are advised. The unimpregnated uterus, in such cases, is found situated pretty low in the pelvis, and can be readily moved backwards and forwards with the finger.

The prognosis in diseases of the ovary is drawn with as much difficulty as the diagnosis, for nothing can be more uncertain than the changes which the disease undergoes. Thus, in many instances after the enlargement has made a certain advance, it remains stationary for a number of years. In other cases, after having been for a long time inactive, it suddenly enlarges, and proceeds rapidly to its fatal termination. Where there are cysts, the internal surface is apt to inflame, and suppuration follows. This is marked by a deep-seated pain, with more or less fever according to the extent of the inflammation. The matter, in some of those cases, finds an outlet through the parietes of the abdomen, and the patient recovers, at least for a time. In a few cases, the disease has spontaneously subsided after attaining a certain size. Nothing satisfactory has been discovered respecting the causes of this disease.

As to the treatment, the indications of cure should be to reduce the swelling, or to retard its

progress. Various remedies have been employed for the former of those purposes, of which the muriate of lime and the conium maculatum have, according to the Author's experience, been the most useful. In several cases where the enlargement exceeded the size of a child's head, the tumour disappeared after a few months course of warm sea-bathing,—percussion of the diseased part, evening and morning,—and the internal use of the muriate of lime. In those cases, it is probable that the disease was an example of the second variety.

For the latter purpose, a cataplasm, made of groundsel, or of cicuta, or of a combination of both, with firm compression of the abdomen, and riding on horseback, have, in several instances, appeared to a certain extent beneficial.

In the more advanced stages of the disease no other than palliative means can be advised.—When there is a very distinct fluctuation, without inequalities or indurations, tapping may protract life, and preserve the health for some years. But when there are indurations, and symptoms of impaired health, no other than temporary relief can be expected from that operation.

Excision of the diseased parts has been sometimes recommended by the inexperienced; but it has always appeared to the Author that there are the following objections to the practice:—

First, In the early stage of the disease, it is

impossible, in the living subject, to distinguish enlargement of the ovarium from other diseases.

Secondly, There are no marks by which it can be foreseen, in any case, whether the enlargement is to remain stationary for years, or to increase, and to injure health, or to shorten life.

Thirdly, It is impossible to determine *a priori* whether there be adhesions between the diseased ovarium and the neighbouring parts ; and yet if there be such adhesions, an operation must probably prove fatal.

The validity of those objections has been fully established by the result of four operations performed within these three years in this city. In the *first* case, after the abdominal parietes were divided from the ensiform cartilage to the pubes, it was discovered that there was no disease of the ovarium, although several practitioners had pronounced that there was. In the *second* case, both ovaria proved to be diseased ; the larger tumour was cut out ; the other was left to go through its progress ; but the patient, for the time, recovered from the operation. The enlarged ovary, in the *third* case, was found attached to the circumambient parts by numerous adhesions. It was, nevertheless, removed, and the poor woman survived *fifty-five hours*. Similar appearances were discovered in the *fourth* case after the whole extent of the abdominal cavity had been cut

open. The diseased parts were not disturbed, the operator contenting himself with sewing up the divided parts as fast as possible. The patient recovered.

2. *Inflammation of the Ovaries* sometimes occurs in the unimpregnated state, and terminates in suppuration, which, it is alleged, has proved fatal; but there is no symptom, in the living subject, by which the disease can be distinguished from other deep-seated inflammatory affections.

3. The same remark is applicable to another disease of the ovary, only discoverable after death, viz. a collection of bones, teeth, fat, and hair, which are demonstrably not the remains of a foetus.—In very old women, too, the ovary has sometimes been found greatly enlarged, and almost entirely converted into bone.

SECTION VII.

Schirrhus and Cancer of the Mamma.

SOMETIMES a circumscribed induration in the glandular part, productive of no uneasiness, gives the first warning of schirrhus of the mamma; but, generally speaking, enlargement of the breast, inequality of its surface, with retraction of the nipple, or occasional itching, with a slight

oozing of blood or serum from that part, are the first circumstances which occasion alarm. In the progress of the disease, the skin of the mamma becomes puckered; stinging burning pains pass through it; ulcerations sooner or later take place, discharging at first a sanious fluid, and by and by an acrimonious matter, exhaling a most offensive odour. The edges of the ulcerated part are thickened, indurated, and livid; and its surface is very unequal, in consequence of irregular cavities being interspersed with hardened tubercles, from which granulations sprout out. The axillary glands become swelled and indurated, sometimes even before the ulceration begins.

As these changes in the local disease proceed, symptoms of emaciation and debility steal on, and the spirits, as well as the health, of the individual are broken down by the continued agonizing pain of the diseased parts. The progress of this affection is as various in different individuals as that of schirrhous of the uterus.

Previous to the cancerous stage the diagnostic of schirrhous mamma is established with great difficulty. It may, indeed, be said, that a hard incompressible painful slippery tumour, seated in the glandular part of the breast, especially if its surface be unequal, marks the beginning of schirrhosity: and that, when, with the retraction of the nipple, there is a puckered appearance of the skin, with an adhering hard tumour underneath, and occasional pains darting through it, the disease is in a state of activity.

But every case in which there is any considerable deviation from those symptoms may be regarded as doubtful. In particular, the following modifications of diseased mamma are not to be considered as unequivocal instances of schirrhus, though they approach too nearly to that affection.

First, A general enlargement of the breast, with an evident hardness in the glandular substance, which is not distinctly circumscribed nor defined.

Secondly, A hardened tumour, adhering to the skin, situated in the neighbourhood of the nipple, without any depression or puckering on the surface of the breast.

Thirdly, A general enlargement of the breast, with innumerable hardened glandular bodies of an oval shape, and varying in size from that of a garden-pea to that of a pigeon's egg, which bodies are tender when pressed upon, and always feel pained at the approach of menstruation.

Fourthly, A hard, incompressible, moveable, slippery tumour towards the edge of the glandular part of the mamma, from which the patient feels no pain unless when it is pressed upon.

It is unnecessary to say any thing on the prognosis of this disease, for it is well known,

that when left to nature it sooner or later proves fatal.

While it is now generally admitted by the profession, that nothing but extirpation can give any chance of cure in cases of schirrhous mamma, considerable variety of opinion has prevailed respecting the proportion of operations which terminate successfully. Perhaps too much importance has been attached to such calculations; for it is quite evident, that, in any given case, the practice must be decided by weighing maturely the chances for or against the individual patient.

When there is no general swelling of the breast, no puckering of the skin, and when the induration is moveable,—when, although the nipple be retracted, and the skin puckered, the induration does not adhere to the pectoral muscle,—and when there is no affection of the axillary glands, if the patient have a healthy constitution, there is every reason to expect a favourable result from the operation.

On the other hand, when the whole breast is enlarged, together with much puckering of the skin, and where the surface of the induration feels unequal, as if tuberculated, the issue of an operation must be very uncertain, though there are some cases where life might be protracted for a considerable time, after such symptoms have appeared, by means of a succession of operations.

In the ulcerated stage of the disease, it has generally been deemed improper to attempt any

operation; but from the temporary relief procured by the use of caustic applications in this deplorable stage in the hands of empirics, it has long appeared to the Author, that, by means of the knife, the sufferings might occasionally be relieved, and the patient's life might be protracted.

With respect to the operation, the great objects should be to remove the whole glandular part of the mamma, and even the most minute part which is diseased, and to secure the union of the divided parts without the intervention of suppuration.

There is a modification of this disease which begins in the skin, and has been called the *Cutaneous Cancer*. Its first appearance is that of little distinct flat circular hardnesses of the skin, of a light scarlet colour. Though perfectly distinct and circumscribed, they are accompanied with an induration of the surrounding skin, which gradually increases till the whole breast become enlarged and hardened, attended with burning stinging pain. A slight exudation takes place from one or more of the hardnesses, followed by a thin scab. Gradually the disease spreads, and ulceration follows, putting on the true cancerous appearance. Although there is a great aggravation of pain, with much constitutional irritation, the subsidence of the swelling of the breast, at this stage of the disease, holds out delusive hopes, which may impose on the practitioner as well as on the patient. But the

progress goes on, and life is gradually exhausted. Sometimes the œdema of the upper extremity, connected with the diseased mamma, ends in gangrene, which cuts short the sufferings of the patient. This modification of the disease has hitherto proved incurable.

SECTION VIII.

Irregularities of Menstruation.

1. THE ordinary phenomena of menstruation are briefly these :—The discharge commences at the age of puberty, which varies according to climate and the constitution of individuals.—In most cases, it is preceded by symptoms of disordered health. When it appears, it resembles venous blood; but it never congeals, and it has a peculiar smell. It continues, in the majority of cases, in temperate climates, to flow for three or four or five days. It recurs periodically every lunar month,—and hence its Greek and Latin name,—that is, there is an interval of twenty-eight days between the first appearance of one period and the commencement of another. During pregnancy, and while giving suck, this discharge is suspended. It thus continues to recur in most women, during health, (in this country,) till towards the fiftieth year.

Such are the ordinary phenomena of menstruation; but there are occasional exceptions, for, in

in some women, the recurrence is every three weeks, or not sooner than every five or six weeks : in some it continues only each period for a day or two ; and in others for six or seven days. In some, it spontaneously ceases between the thirtieth and fortieth year ; while in others it is protracted to the fifty-third or fifty-fourth year ; and in some nurses it continues to recur as usual.

With respect to the source of this discharge, there can be no doubt that it proceeds from the internal surface of the uterus, passing guttatim through the os uteri. It seems to be a secretion from the uterine arteries.

It is a popular opinion, that, during each menstrual period, the constitution of women is peculiarly affected ; and this seems fully established by the phenomena of some surgical diseases, such as fractures, ulcerations, &c. It is also generally believed, that irregularities of menstruation influence more or less the general health, which explains the importance attached to those affections by medical men, as well as by the public at large.

2. *Deficient Menstruation*, or *Amenorrhœa*, consists of two species, viz. *Emansio* and *Suppressio*. By the former is meant the ordinary period of puberty having passed without any menstrual discharge, while, at the same time, there are certain morbid symptoms. These are discolouration of the face ; depression of spirits ; prostration of strength ; torpor or disinclina-

tion to move; drowsiness; depraved appetite for food; various modifications of indigestion; more or less general œdema; short dry cough; breathlessness on the slightest exertions; palpitations of the heart, and other nervous symptoms. In some cases there are headaches, with occasional bleeding at the nose.

Although all these symptoms do not invariably occur in every case, many of them do, and, besides, other complications are now and then met with. From the colour of the countenance, the disease has been styled Chlorosis; and it has been frequently confounded with incipient phthisis pulmonalis, and with the symptoms produced by intestinal worms. From the former, it is distinguished by the dulness of the eyes; the indigestion; the almost constant slowness of the pulse; the colour of the skin; the absence of distinctly marked hectic fever, and the cough being short and dry, commonly excited by exertions, or by palpitations of the heart. From the latter, it is still more easily discriminated by the absence of all those local and sympathetic irritations which arise from the presence of worms. *Emansio mensium* is never a dangerous disease, unless when complicated with affections of the liver or lungs.

As the phenomena of the disease can be best explained upon the supposition, that it is owing to a torpor of the lymphatics, while, at the same time, there is an increased activity in the minute arteries, accompanied with uterine irri-

tation, the objects to be held in view, in the treatment of this disease, should be to increase the action of the lymphatic system, and to allay uterine irritation. In slight cases, purgatives, with the several preparations of iron, will be found sufficient; but in more serious cases, a course of warm bathing, and of any of the neutral salts, such as the Harrowgate water, furnish the proper means. In cases of long standing, the digitalis must be first prescribed, and then a course of tonic medicines, with a suitable regulation of the diet, exercise, &c.

Suppressio, viz. the suspension of the discharge, after it has been fairly established, is commonly supposed to be productive of certain morbid symptoms, such as headach, eruptions on the face, discharge of blood from the lungs or stomach, and cedematous swellings. Some authors have alleged, that epilepsy and mania have also been produced by suppression; but the evidence upon this point is extremely equivocal. There can be no doubt that suppression occasionally occurs without any deviation from the ordinary health; though it must, on the other hand, be admitted, that affections of the skin, and of the alimentary canal, with the corresponding sympathies, have followed suppression, and have ceased on the discharge being restored. It is, however, to be remarked, that the menses are frequently suppressed in consequence of diseases of the system; in which case, indeed, the morbid symptoms precede the suppression.

As to the causes of suppression, in some individuals very slight circumstances, such as transient emotions of the mind, exposure to cold, irregularities of diet, and change of residence, even although the distance be inconsiderable, occasion a temporary suppression.

In the treatment, the first duty of a practitioner is to decide whether the suppression be primary or secondary. If the symptoms of bad health have succeeded to the suppression, it is to be regarded as primary, unless the patient be pregnant, a circumstance to be very particularly investigated.

For the cure of this irregularity there is no specific medicine, notwithstanding the popular prejudices on this subject; and, therefore, the means must be adapted to the circumstances of the individual case, and should be calculated to promote the general health, and to relieve the prominent symptoms.

3. *Dysmenorrhœa, or Painful Menstruation.*—Some women are liable to much suffering during every menstrual period. In such cases, previous to the discharge, violent bearing-down pains, like those of miscarriage, accompanied with great derangement of the stomach and bowels, come on, and continue for hours. When the flow begins the pains gradually cease, but are apt to return if the patient attempt the erect posture. Along with the ordinary discharge, small fibrous sub-

stances, or thin skinny films, are commonly thrown off.

This irregularity of menstruation sometimes takes place at puberty, and continues to harass the individual so long as she menstruates. In other cases, it occurs after the patient had been, perhaps for years, regular, and arises apparently from uterine irritation, or from some accidental interruption to the flow at an ordinary period. From the former cause, it occurs occasionally in young married women; and hence they are led to suppose that they have had a succession of early miscarriages; but a little examination decides this point. The skinny films passed during painful menstruation, after being soaked in water, appear vascular, but have both surfaces equally smooth; whereas the portions of the decidua, discharged during early miscarriage, have one surface rough like Brussel's lace.

The distressing symptoms attending dysmenorrhœa are to be palliated by warm fomentations, and various preparations of opiates and antispasmodics.

4. *Menorrhagia*, or excessive flow of the menses, occurs in two different states of the system, viz. in a state of plethora, and in a state of relaxation. In this latter condition of the system, it appears under two modifications, for there is sometimes a greatly increased flow during the ordinary period, or the discharge continues to flow for several days beyond the usual time.

This irregularity, when attended by a state of plethora, should be treated like cases of active hæmorrhagy; and, therefore, the subtraction of blood by the lancet, and nauseating doses of medicine, are the chief remedies to be relied on. The topical application of cold is a very doubtful remedy; and, therefore, where it is absolutely necessary to stop the discharge quickly, the use of the sponge and the T bandage is the safer mode of treatment.

When the discharge of coagula of blood accompanies menorrhagia, the state of the uterus should be carefully examined, for it will commonly be found, that, under such circumstances, there is some organic affection.

Menorrhagia, in a state of debility, requires the use of powerful tonics, nourishing diet, and cold bathing. When it is complicated with petechiæ sine febre, active means for stopping the discharge, and for supporting the strength, are first to be employed, and afterwards a course of the ammoniarate of copper.

5. *Leucorrhœa*.—All discharges from the vagina which are not bloody are comprehended under this title. The following five varieties of the disease chiefly occur:—

First, The discharge of a limpid glary fluid, more or less tenacious, something like the white of an unboiled egg, which drills away gradually from the patient, occasioning little inconvenience.

Secondly, A discharge similar in appearance, which comes away, in sudden gushes, on making any exertion.

Thirdly, The discharge of a gellatinous colourless fluid, which congeals firmly when cold, and which comes away like the former in gushes.

Fourthly, The discharge of a serous like fluid, resembling, in some cases, milk and water; in other cases, being greenish coloured like whey, and now and then having a slight tinge of brown.

Fifthly, The discharge of yellow sulphur coloured fluid, accompanied with local heat and irritation, and with much smarting in making water, and resembling the discharge of gonorrhœa.

The three first varieties are supposed to be connected with a relaxed state of the glands of the vagina or cervix uteri, and are sometimes kept up, at least if not excited, by disorders of the primæ viæ, or by ascarides in the rectum. Those varieties of the complaint are by no means dangerous; and, indeed, they are sometimes beneficial to the constitution; for it has been found, on checking them by topical remedies, in the form of astringent injections per vaginam, that violent headaches, obstinate cutaneous eruptions, or chronic enlargement of the uterus, have quickly succeeded.

In the treatment, therefore, the great objects should be to restore the healthy action of all the parts concerned in digestion,—to promote general health,—to counteract the local effect of the discharge by the use of astringent lotions evening and morning; and if, after these means have been employed, the discharge still continues to be troublesome, a course of some mineral styptics may be ventured on.

The fourth variety is perhaps the only one which is, properly speaking, connected with irregularities of menstruation; for, in the individuals who are liable to it, there is generally both a scanty and imperfect flow at the usual periods,—that is, the discharge is pale coloured like bloody serum, and is in small quantity. Such patients usually have a pasty complexion and relaxed habit. This variety of leucorrhœa, therefore, depends on some unhealthy action of the uterine vessels, the nature of which is perhaps beyond our knowledge.

Every kind of medicine has been tried for the cure of this disease, viz. the various preparations of mercury and of iron, the several gummi resinous substances, the mineral acids, the metallic styptics, the vegetable bitter astringents and stimulants, as cubebs, &c. with warm bathing and cold bathing, and change of climate; but, in many instances, every remedy has failed, and the disease has continued in a greater or lesser degree through the whole menstrual period of life.

The inconveniencies from this complaint are

best alleviated by nourishing diet, with a liberal allowance of red wine ; great attention to the state of the bowels ; the daily use of the cold plunge-bath ; and now and then a course of the muriate of lime, with some light bitter.

The fifth variety is evidently connected with an inflammatory state of the mucous glands, of the cervix uteri or vagina, or both ; and this may arise from exposure to cold, from uterine irritation, or from the infection of gonorrhœa ; and at the beginning of the disease, it is often quite impossible to ascertain the true cause.

Fortunately this difficulty is of little consequence in the treatment, for, whatever be the cause, the first object to be aimed at is to remove the inflammatory action of the glands in question. For this purpose, blood-letting, by means of the lancet, and also topically by leeches, purgatives, and diuretics, with low diet, and the use of the warm bath once or even twice a-day, are to be recommended. If, by perseverance in these means for eight or ten days, the appearance of the discharge change to that of the white of an unboiled egg, nourishing diet, tonic medicines, and cold bathing, will soon complete the cure.— But if the discharge continue of a sulphur colour, with an offensive smell, mercurial preparations, with a decoction of sarsaparilla, or of mezereon, must be had recourse to, and the use of the warm bath must be continued.

Anomalous cases of leucorrhœa occasionally occur, and require a variety of treatment.—

Whenever such discharges come on in women who have ceased to menstruate, there is reason to fear some organic affection of the uterine system, and, therefore, examination per vaginam is indispensable.

SECTION IX.

Sterility.

THIS may be the consequence either of the woman not conceiving though married, or of her not being able to retain the conception till it have an organized form.

First, Inaptitude to conceive may arise from some affection of the general habit, or from some unhealthy condition of the uterine system. But it is not easy to determine what diseases of the general habit may prevent conception; because women labouring under every variety of chronic affection, not excepting paralysis of the lower extremities, have been known to become pregnant. Certain irregularities in menstruation, indeed, are accompanied with barrenness, and these may be influenced by the state of the general system.

With respect to those modifications of diseases of the uterus which are productive of barrenness, there is also considerable uncertainty; for pregnancy has taken place where there was malfor-

mation of the external parts; laceration of the perineum; communication between the vagina and the bladder, and the vagina and the rectum; tumours attached to the os uteri; enlargement of one of the ovaria, and even schirrhosity of the cervix uteri. When there has been found a closure of either extremity of the fallopian tubes, it has always been ascertained that the individual had been barren; but this malformation is not cognizable during life.

Secondly, Inability to retain the conception till it have an organized form, is, with difficulty, distinguished from dysmenorrhœa; but where the ordinary period is exceeded by a week or two once or twice a-year, and the individual suffers violent pains, like those of dysmenorrhœa, only upon those occasions, there is reason to believe that such symptoms are caused by an early miscarriage.

All that can be done in cases of sterility is to promote the general health; to correct any irregularity of the catamenia; to remove any local disease of the vagina or external parts, and to restore vigour to the uterine system.

SECTION X.

Hysteria.

THIS disease, as its name imports, is supposed

to be sexual. It consists of two modifications, which may be characterized by the titles of *Regular* and *Irregular Hysteria*.

1. *Regular Hysteria*.—This occurs in distinct paroxysms, or fits. These usually begin with a pain in the left side, gradually extending over the abdomen, attended with a rumbling noise in the bowels, commonly with eructations, and sometimes with sickness and vomiting. The sensation of a ball in the throat, called the *globus hystericus*, now supervenes, accompanied with involuntary fits of crying and laughing, with convulsive motions of the whole body, and with a copious discharge of limpid urine. These symptoms are followed by drowsiness, or faintings, or great oppression, with sometimes violent pain in the head, as if a nail were stuck through the skull. That there is uterine irritation during the paroxysm, is evident from the turgescence of the mamma.

These attacks occur most frequently about the approach of the menstrual periods. They are easily distinguished by the progress of the symptoms; and they are not dangerous, excepting in persons of a very full habit, in whom there is a risk of the rupture of some of the internal blood-vessels.

The treatment must be adapted to the particular circumstances of the individual case. The use of the pediluvium, of powerful purgative glysters, and of carminatives, (though not in a

spiritous form,) may be safely recommended in every case. Blood-letting, sinapisms, and purgatives by the mouth are necessary where there seems considerable determination to the head.

2. *Irregular Hysteria* occurs only in weak irritable women, and is characterized by great inequality of temper and mutability of mind. Palpitations of the heart, with sense of suffocation from the globus, violent trembling, fainting, and even apparent asphyxy, being produced by very trifling emotions of the mind.

There are no regularly marked paroxysms; but individuals affected with this disease are subject to every modification of chronic indisposition. Accordingly, symptoms of palpitation, of jaundice, of nephritis, of paralysis, of various degrees of spasm, of enteritis, of rheumatism, and even of febrile affections, are imitated by this disease. In all such cases, however, it will be found, that there is some incongruity in the progress, or in the combination of the symptoms of the disease imitated; but it is often extremely difficult to draw the line of distinction, so that cases every now and then occur which puzzle the most experienced of the profession.

Irregular hysteria seems to be a sympathetic affection, occasioned chiefly by disordered functions of the digestive organs; and, therefore, in the treatment, the first indication to be fulfilled is to restore the healthy actions of all the chylo-

poetic viscera; and when this is accomplished, and not sooner, the ordinary means of invigorating the general system are to be had recourse to. When fits of palpitation, or fainting, or spasm take place, the ammoniated tincture of valerian, or preparations of camphor, or of asafoetida, ought to be immediately administered, as it is of great importance to stop at once the progress of such complaints.

III. DISEASES TO WHICH WOMEN ARE LIABLE IN COMMON WITH THE OTHER SEX.

SECTION I.

Diseases affecting the Alimentary Canal.

1. *Spontaneous Salivation.*—By this is meant an unusual flow of saliva, unaccompanied with fever, and occurring without the previous exhibition of mercurial preparations. This seems to be a critical discharge, for when checked by opiates and styptic lotions excessive vomiting is excited. In the treatment, therefore, after the operation of a powerful emetic, laxatives and diuretics are to be advised; and, in addition to those means, if they do not soon moderate the salivation, a succession of blisters must be prescribed.

2. *Dipsosis*, or excessive thirst, when a chronic affection is dependant upon some morbid state of the sense of taste. This may arise from a local disorder of the gustatory organs, or from some condition of the general system affecting those organs by sympathy.

Under the former head, may be classed a diseased state of the mucous membrane of the tongue and fauces from inflammation. And under the latter, are comprehended certain disorders of the stomach, as an overload of stimulant or indigestible food or drink, or a morbid secretion of saliva, emotions of the mind, fatigue, exposure to excessive heat, profuse evacuations, viz. hæmorrhagy, cholera, and diarrhœa, and increased flow of urine as in diabetes, colliquative sweating, and even the secretion of milk in nurses.

The treatment must be adapted to the cause of the complaint; and, therefore, when there is a local disease of the organ of taste, blood-letting, or blisters to the throat, stimulant gargles, and laxatives are severally required.

When it is a sympathetic affection, emetics, followed up by a course of vegetable bitters and lime-water or of the mineral acids diluted; or drinks consisting of farinaceous mucilages, and glysters containing weak animal mucilages, are to be recommended according as the cause of sympathy is—a diseased secretion of the gastric liquor; or indigestion; or as it arises from profuse evacuations; or from increased secretion of urine, as in diabetes.

3. *Limosis*, or an impaired excessive or depraved appetite for food. This comprehends voracity, want of appetite, depraved appetite, and heartburn.

First, Voracity is sometimes a natural infirmity, but more often it is dependent upon some organic change, or disordered function. It is unnecessary to say any thing on the former of these. The latter is occasioned by various affections of the stomach, or duodenum, or alimentary canal, and sometimes by some change in the brain, as in hydrocephalus, and it is to be treated accordingly. It seldom occurs in women in any other form than that of a temporary symptom, depending on worms or other causes of crapulous affections.

Secondly, Loss or want of appetite, without any apparent affection of the stomach. This, like the former species, when not an original defect, arises from some disorder of the gustatory organs, depending on local causes, or on sympathy. The former are to be distinguished by the appearance of the tongue and fauces; and the appropriate means are to be pursued according to the modification of the local affection.

As to the causes which, by sympathy, occasion loss of appetite, they are numerous, such as emotions of the mind,—particularly depressing passions,—various disorders of the stomach and bowels,—sedentary life, with impure air,—and

the several acute diseases. Voluntary indulgence in abstinence also soon destroys the relish for food. The treatment, in all those cases, must be varied according to the nature of the case.

Thirdly, The appetite for improper or indigestible substances, called Pica, is a more common disease of women than either of the former affections. This has been commonly attributed to some disordered state of the stomach or bowels; but there is reason to conclude, that it is rather owing to some diseased condition of the organ of taste, which may arise from irregular habit, but is much more frequently owing to sympathy. Thus, it is a common attendant upon chlorosis and upon pregnancy, and it is one of the symptoms occasioned by worms. The treatment is obvious. Moral means are to be employed, where pica is the effect of voluntary indulgence in unnatural articles of diet; and where it is owing to sympathy, suitable remedies are to be suggested for the relief of the original disease.

Fourthly, Heartburn, or impaired appetite, with a gnawing and burning pain in the stomach, and a tendency to faint. This affection occurs in different degrees of violence; for sometimes there is merely a burning uneasy sensation in the stomach soon after meals: in other cases, there is, along with this feeling, an eructation of watery fluid, sometimes insipid, and, at other times, extremely acrid, called waterbrash; and,

in other cases still, these symptoms are accompanied with nausea, anxiety, coldness of the limbs, failure of the strength, and tendency to faint.

In slight degrees, all that is required is, to make the patient abstain from those articles of food or drink which seem to excite this unpleasant feeling. In the more violent degrees, besides strict temperance and great attention to the selection of the food, the bowels must be kept regularly open; and some antacid, combined with a bitter, should for some weeks at least be taken shortly after every meal. For the most violent degrees of this affection, more active means are required, such as emetics, a course for a time of animal diet, and also of lime-water, or some preparation of the oxide of bismouth, or of the mineral acids, or of light bitters, according to different constitutions and habits.

4. *Flatus*, or impaired appetite, with an accumulation of wind in the stomach or intestinal canal and frequent regurgitations, is always a symptomatic affection, arising from some state of the stomach or bowels, which prevents the food from undergoing the healthy process of digestion. Accordingly, it is a very common disorder both in women and children, and it is generally a symptom of dyspepsia, cholera, cholic, hysteria, and all other affections depending upon disorders of the stomach and bowels. It is also sometimes the consequence of depressing pas-

sions, or of the debility occasioned by protracted fevers.

When it seems a temporary affection in women and children, it is readily enough removed by the use of the medicines called carminatives; and, in other cases, the original complaint on which it depends requires the chief attention.

5. *Emesis*, or nausea, retching, and vomiting, seem to be the effects of some peculiar state of the nerves of the stomach, for they are excited by emotions of the mind,—by sympathy, not only with those parts which are naturally connected with the stomach, as the tongue, fauces, pharynx, œsophagus, &c. but also with disorders of every part of the body, from the skin to the brain and cerebellum,—and by the contents of the stomach whenever these prove irritating, whether from their acrimonious quality, or from their undergoing a morbid change instead of the ordinary process of digestion.

These different degrees of emesis are in many cases useful efforts of nature. Thus, nausea moderates inflammatory affections and hæmorrhagies, and produces such relaxation of the simple solids, as facilitates the passage of gallstones and the reduction of herniæ. Retching restores the equilibrium of circulation after every degree of faintness or syncope: and vomiting not only throws off noxious or poisonous matters from the stomach, but also, in some cases, detaches excrescences from internal parts, and pro-

motes the absorption of matter from deep-seated abscesses. These, though the most obvious, are not to be considered as the only salutary effects of those natural efforts of the stomach to throw off disease. It is only, therefore, when those symptoms occur in a violent degree, or where they continue longer than seems safe, that it is necessary for a medical man to interfere.

Nausea may be moderated by mild cordials and the horizontal posture; but retching and vomiting require an accurate adaptation of the means to the exciting causes. Accordingly, effervescing draughts, emetics of different kinds, cordials, opiates, external stimulants, and even the subtraction of blood from the epigastric region, are severally necessary in different cases, besides the very obvious precaution of attending to the diseases, which, from sympathy, either excite or keep up the vomiting.

6. *Dyspepsia*, or the appetite fastidious, the food digested with difficulty, and habitual costiveness,—is one of the most common chronic affections to which women in crowded cities are liable. The ordinary symptoms are thirst, want of appetite, waterbrash, heartburn, flatulency, sickness, with occasional vomiting and costiveness. These symptoms are common to the disease in both sexes. But, besides these, there are some symptoms to which women are more usually liable, and others to which they are exclusively subject. The first are, capricious appetite,

depression of spirits, sallowness of the complexion, dulness of the eyes, sense of universal lassitude, spasmodic or wandering pains in the back, loins, or limbs, headach, drowsiness, flushing of the face after meals, emaciation, and swelling of the feet and hands.—The second are, eruptions of the face, short dry cough, fluor albus, palpitations at the heart, or the feeling of flutter in the belly, apparently from an inordinate action of the aorta. Irritations of the urinary organs are also occasionally met with in this affection.

Several of the complaints above enumerated attend cases of organic diseases of the stomach, of the duodenum, of the liver, and other of the abdominal viscera, and even of the heart and great blood-vessels; and it is, therefore, of the first importance to distinguish dyspepsia from organic affections. This is to be done by a careful examination of the whole of the abdomen, at a time when the stomach and bowels are empty, and by ascertaining the appearance of the stools and urine, and also, the state of the pulse and of the breathing when the patient is in the horizontal posture.

The prognosis, in all cases of dyspepsia, should be guarded, not only because there may be organic affections slowly going on, which cannot, at first, be detected in the living subject; but also, because there can be no certainty that the patient, in any given instance, will submit to

those privations which are necessary to cure this disease when it has been of long standing.

It is admitted by the profession at large, that dyspepsia is owing to a diseased condition of the secreted fluids of the stomach; and, from all the phenomena, there seems good reason to conclude, that this morbid change depends upon the nerves rather than upon the muscular fibres of the part. Accordingly, in no other way can the operation of the exciting causes be explained; for affections of the mind, and all debilitating complaints, as well as intemperance, and especially the abuse of spiritous liquors, prove the exciting causes of this disease.

For the treatment of dyspepsia, when an idiopathic complaint, the objects to be held in view are to palliate the urgent symptoms, and to restore the healthy condition of the fluid secreted into the stomach. The former of these indications is best fulfilled by a variety of emetics and laxatives, for the purpose of thoroughly clearing the primæ viæ. The latter object is to be attained by due regulation of the diet and exercise, with attention to adapting the clothing to the state of the weather, and by the use of such medicines as are calculated to restore the healthy secretions of the stomach, and other parts concerned in digestion, such as preparations of antacids and bitters, with gentle aperients to secure regularity in the evacuations from the bowels.

7. *Cholic*.—It is unnecessary to remark, that

by this term is meant griping pain in the bowels, chiefly about the navel, with sickness, and either costiveness or scanty dejection of fæces. This very common disease has been divided into different species, as ileus, rachialgia, cibaria, flatulenta, constipata, and constricta. All these varieties are occasioned by a spasmodic affection of some part of the intestinal canal, with a derangement, or inversion, of the usual peristaltic motion, in consequence of which the secretions throughout the whole surface of that canal become diseased, and various sympathetic affections of the other chylopoetic viscera are induced. The principal exciting causes are, exposure to cold, irregularities of diet, affections of the mind, acrid or poisonous or indigestible substances received into the stomach or bowels, diseased secretions from the liver, pancreas, &c. accumulations of indurated fæces, introsusceptio, and herniæ.

In many cases, it is difficult to distinguish some of those modifications of cholic from enteritis; but wherever there is any doubt, the prudent plan is to treat it as an inflammatory disease.

First. Ileus, the first variety, is chiefly characterized by the griping pain and vomiting being accompanied with costiveness, retraction of the navel, and spasms of the muscles of the belly. In alarming cases feculent matter is vomited. The chief disease with which it may be confounded, (on the supposition that there is neither enteritis nor hernia,) is that occasioned

by the impaction of a gall-stone; but in that latter disease the pain is towards the stomach, and not in the region of the umbilicus; and fæces are readily discharged through the anus by means of purgative glysters. The violent degrees of this affection are always to be considered highly dangerous. In the fatal cases, inflammation in a greater or lesser degree is uniformly discovered after death; but this is supposed to be most frequently the effect of the original disease.

Besides the ordinary exciting causes of cholic, as already enumerated, extraneous substances obstructing the course of the gut, such as stones of fruit, pieces of glass, &c. and intromission and twistings of the bowels, have been discovered on dissection in cases of ileus.

In the treatment, two objects are to be kept in view, viz. to remove the spasm, and to relieve the symptoms which it had induced. With the former view, venesection, where the circumstances warrant the practice, the warm bath or warm fomentations, full doses of opium combined with calomel or some other laxative, and the tobacco glyster, varying or repeating these means according to the exigency of symptoms, are to be directed. Strong emetics, dashing cold water on the naked belly, the injection of a full stream of warm water into the intestines by means of a powerful syringe, and forcing into the stomach some pounds of quicksilver, were *formerly* recommended in alarming cases of ileus.

Although, while the spasm continues, it is cer-

tainly improper to administer laxative medicines by the mouth, there can be no objection to indulging the patient, when the thirst is excessive, in the liberal use of a very weak solution of the phosphate of soda. When the painful symptoms subside, a purgative glyster, consisting of a strong decoction of senna, with rectified oil of turpentine, should be administered.

When, by the above means, the urgency of the disease is allayed, there is no difficulty in relieving the symptoms which had been produced. For this purpose, burned brandy or other cordials, occasional opiates in a solid form, mild nourishment, in small quantities at a time, and some of the demulcent aperients are to be prescribed.

Secondly. Rachialgia, or the painters, or Devonshire cholic, is characterized by the pain being at first dull and remitting, but progressively growing more violent and continued, extending to the back and arms, and at last producing paralysis. There are two varieties, or, perhaps, degrees of this cholic, the one acute, the other chronic. It is only to the former that women and children, generally speaking, are liable, as the latter may be said to be peculiar to artificers habitually employed in the use of lead and its several oxides, such as plumbers, painters, glaziers, paper-stainers, porcelain painters, printers, &c.

In the acute variety, the pain is from an early period accompanied with sickness, though some-

times a day or two pass before retching and vomiting occur. When the violence of the pain increases, almost all the external muscles, at least those of the extremities and of the abdomen, feel sore on pressure. The seat and extent of the pain, and the obstinate constipation, readily distinguish the disease from every other.

The exciting cause of rachialgia is well known to be the poison of lead, which may prove deleterious if inhaled, or swallowed, or even applied to the skin. In the greater number of cases of the disease in women and children in this part of the world, the cause is found to be the effluvia of oil-paint, from dwelling or sleeping in apartments recently painted. In countries where cider or small wine form the ordinary beverage at meals, the poison is apt to be introduced through these drinks, from their being sweetened by means of the superacetate of lead. When proper treatment is early adopted in the acute form of this disorder, it proves only of temporary duration, unless a large quantity of the poison has been swallowed.

As to the treatment (of the acute variety) of rachialgia, the practice is very simple.—A large dose of opium, in a solid form, is to be instantly administered; warm fomentations are to be applied to the pit of the stomach, or flannels wrung out of a decoction of cicuta; and if the pain do not cease within four hours, the opiate is to be repeated. When the spasm yields, some mild laxative by the mouth should be prescribed.

After the violence of the disease is subdued, a course of warm bathing, and of laxatives combined with bitters, ought to be advised.

Thirdly. Cholica Cibaria is not an unfrequent disease in women and children. The pain is accompanied with headach, nausea, dizziness before vomiting, and great fulness in the region of the stomach, and it commonly terminates in a griping looseness. There are three forms of the disease, the *crapulosa*, which is merely surfeit; the *efflorescens*, where an eruption like nettle-rash breaks out on the surface, accompanied with a sensation of intolerable itching; and the *comatosa*, which is attended by stupor, or loss of memory, or great anxiety, with difficulty of breathing, &c.

In all these three varieties, the first object is to expel the contents of the stomach and bowels, by means of a quickly acting emetic and a purgative glyster. After the operation of those remedies, the warm bath, or fomentations, according to circumstances, are to be employed.—In the efflorescent variety, the disease is commonly excited by certain articles of food, such as kernels of fruit, shell-fish, &c.; and in such cases, after the violence of the symptoms is conquered, a course of alkaline medicines, with bitters, and the daily use of the warm bath, will be found useful. In the comatose variety, the vomitings and spasms are followed by a lethargic state, often ushered in by a convulsion. Such cases

happen after eating some of the poisonous mushrooms, or vegetables, such as water-hemlock, &c. In those alarming cases, after exciting full vomiting, external diffusible stimulants, applied by friction to the surface, with a succession of sinapisms to different parts, and suitable cordials, are to be recommended.

Fourthly. Flatulent Cholic.—This variety generally attacks suddenly, and is marked by—acute pain, extending to the pit of the stomach, often impeding respiration, accompanied with great fulness and flatulency, which are relieved by pressure, bending the body forward, or the spontaneous discharge of wind,—and obstinate constipation.

This variety is apt to occur in hysterical women and in young children, after eating unripe fruits and flatulent vegetables; and, however alarming the appearances may be, it is seldom dangerous. The treatment in women should be the immediate exhibition of a large dose of the ammoniated tincture of valerian, and of a powerful purgative glyster. In children, an emetic, consisting of the sulphate of zinc, must be directed, previous to giving carminatives, and laxative glysters, or suppositories.

Fifthly. Cholica Constipata.—In this variety, the griping pain is severe, and the costiveness obstinate, and the belly is much distended, though there is little flatulency. Sometimes there is

vomiting of fæces, and the costiveness is accompanied with bloody strainings. When the disease does not prove fatal, it terminates in a free dejection of indurated fæces.

This is not an uncommon affection in delicate females, and, in many cases, it is extremely difficult to distinguish it from ileus or enteritis.—Generally speaking, it steals on in a more insidious form than either of those two diseases; and at the beginning there is no fever, and the pain of the abdomen is not aggravated by pressure. When a discharge of fæces is procured, the diagnosis is readily established, because, in the colica constipata, the fæces are scanty, are in the form of small balls, of a dark colour, and of a hard earthy consistence, and have scarcely any smell.

In the treatment, the great object is to procure the discharge of the accumulated fæces. For this purpose, repeated laxatives, and plentiful diluents to soften the mass, and afterwards glysters, containing tobacco combined with some purgative medicines, are required. These means are to be continued as long as any indurated lumps are discovered in the alvine discharges. When the bowels are fully unloaded, a course of medicines, calculated to restore the healthy action of the intestinal canal, must be prescribed.

Sixthly. Cholica Constricta—is distinguished from the former cases by a sense of stricture in some part of the gut, with the feeling of wind

passing through it, and by the bowels being tardy, discharging with difficulty small liquid stools. In many cases, this disease arises from a stricture in the gut; but it sometimes happens in women in the better ranks of society, from the habitual use of drastic or irritating purgatives, and there is a very simple method of distinguishing such cases. The patient is to be fed for twenty-four hours, or longer, on some farinaceous food, such as rice-pudding, &c. and is then to have a moderate dose of cold-drawn castor oil. If there be no stricture, the stools pass in a congestive form. This variety of cholic requires such means as shall keep the bowels clear, and shall allay any irritation on their internal surface.

8. *Constipatio*.—By this is meant obstinate retention of the fæces in the intestines. There are two forms of the disease distinguished by the appearance of the stools. When they are congestive and voluminous, the disorder is termed *Constipation*; and when hard, slender, and scybalous, it is called *Obstipation*. Constipation is the more frequent variety in the male, as it most usually occurs in those of a robust frame, and is supposed to be owing to an increased action of the absorbents, with a diminished irritability of the intestinal fibres. But women are also liable to this disorder.

It requires the same treatment as the cholica constipata. But as it is unaccompanied with sickness and vomiting, a more liberal allowance of

diluents, for the purpose of softening the mass, may be given, and the patient can, without inconvenience, swallow every now and then half a drachm of castile soap. A dose of castor oil is to be given, after a sufficient quantity of diluents has been drank; and if the stomach can bear it, a dose of a strong decoction of senna, with some carminative, should be taken every two or three hours. If a free discharge of fæces do not follow, in consequence of the exhibition of a turpentine glyster at the end of twenty-four hours from the commencement of these means, the tobacco enema must be administered.

The other form of the disease, termed *Obstipation*, occurs chiefly in those in whom the temperament is weakly, and whose life is sedentary. It is, therefore, a common complaint in women, especially in those who are advanced in years.—In many of those cases, the parietes of the abdomen are found to be greatly relaxed.

For the cure of obstipation, it is at first necessary to advise a dose of the blue pill at bed-time, and of turkey rhubarb in the morning, for a few times, at suitable intervals, and then to regulate the diet, and to keep the bowels clear by means of any mild aperient. As it is of consequence to promote the action of the abdominal muscles in such cases, some contrivance for that purpose must be suggested. Thus, walking, spinning, and riding upon an easy pony or donkey, &c. may be advised. Where there is any degree of relaxation of the parietes of the

abdomen, a well-fitted belt is to be worn night and day.

9. *Diarrhœa*.—By this term is meant frequent copious and liquid evacuations from the intestines; and, according to the appearance of the evacuation, the disease has been divided into varieties, such as the *feculent*, the *bilious*, the *mucous*, the *chylous*, the *lienteric*, the *serous*, the *tubular*, and the *gypsious*. Both women and children are liable to all those modifications of diarrhœa, (with the exception of the gypsious, which is a very uncommon disease;) but in the present section, the varieties which occur during infancy and childhood are passed over.

Diarrhœa is occasioned by an inordinate degree of the peristaltic motion of the guts, with an increased or diseased secretion of the fluids poured into the intestinal tube; and from the sympathy between the intestinal fibres and the glands on the surface of the intestines, there is reason to conclude, that these two causes are mutually dependent on each other, or that an inordinate peristaltic action excites an increased and depraved secretion from the surface of the intestines, while any such morbid or superabundant secretion accelerates the peristaltic motion. It may be said, therefore, that whatever tends to occasion a superabundant flow of secreted fluid into the intestinal tube, or to irritate the intestinal fibres, excites diarrhœa; such are emotions of the mind, exposure to cold, diseased secretions from

the liver, or spleen, or pancreas, imperfect digestion in the stomach, or duodenum, the presence of any irritating substance in the bowels which is not sufficiently powerful to produce cholic, and chronic inflammation of the mucous membrane of any portion of the alimentary canal.

The great objects to be aimed at in the treatment of diarrhoea should, therefore, be to alter or to lessen the diseased secretions, to remove any irritating cause, and to allay the inordinate peristaltic motion of the intestines. Keeping these indications in view, the particular means must be suited to the several varieties of the disease. Thus, *Feculent* diarrhoea commonly cures itself. *Bilious* diarrhoea, which may be regarded as a lesser degree of bilious cholic, requires the use of demulcent diluents and neutral salts dissolved in a large quantity of water. *Mucous* diarrhoea is, in this country, generally excited by exposure to cold, and is analogous to catarrh. It occurs chiefly in delicate women in the higher ranks of life, and requires for a few days low diet, confinement to bed, and occasional doses of Dover's powder. *Chylous* and *Lienteric* diarrhoea more usually occur during infancy and childhood, and are to be considered under another head. *Serous* diarrhoea is generally a critical evacuation, and is rather to be encouraged than checked, unless where it proves excessive or chronic. *Tubular* diarrhoea, that is, where the dejections are whitish, viscous, inodorous, and membranous like tubes, is not an unfrequent disease in debi-

litated women as well as in children. In the cases which the author has seen, this variety, which is supposed to be owing to a diseased secretion from the villous membrane of the great guts, has generally been occasioned by the abuse of drastic purgatives, and has chiefly required means calculated to allay the irritation of the affected membrane. The *Gypsious* diarrhœa is not an ordinary disease of women or children.

The following general directions are to be given respecting the non-naturals, in all cases of diarrhœa, where the disease is not evidently a harbinger of death. *First*, The diet ought to be of the mildest description, and should be administered in small quantities at a time. *Secondly*, The surface should be kept warm by a suitable adaptation of clothing, and, therefore, flannel should be worn next the skin, shifting it every twelve hours. *Thirdly*, As little exercise as possible should be taken while the complaint continues: and, *Lastly*, The utmost possible attention to ventilation of the apartments appropriated to the patient is indispensable.

10. *Cholera*.—By this is meant excessive vomiting and purging of bilious matter, attended with anxiety, gripings, crampish pains in the legs, and great prostration of strength. It is readily distinguished from dysentery by the appearance of the stools, and from bilious diarrhœa by the vomiting, the cramps in the limbs, and the great prostration of strength. It is chiefly dangerous in

delicate and elderly women and very young children.

Cholera is well known to be epidemic in this part of the world during hot and dry seasons, and it is generally supposed to arise from an increased and diseased secretion of bile; but the phenomena of the disease are the consequence of an unusual stimulus applied to the extremities of the nerves of the alimentary canal, because the same symptoms are produced by swallowing certain acrimonious poisons, such as the oxymuriate of mercury, &c.

In the treatment of this very painful and alarming disease, the indications to be fulfilled are, (unless where poison is the exciting cause,) to allay the irritation of the bowels, and to promote the evacuation of the offending matter.—The former object is to be attained by the use of opiates repeated according to circumstances, and of fomentations kept applied to the abdomen. The opiate should be given in a solid form; and if rejected by the mouth, may be administered (in six grain doses) by way of suppository.—Whenever the vomiting is allayed, diluents, consisting of weak animal or vegetable mucilages, must be given in as large quantities as can be retained. Cordials, or diffusible stimuli, are, in elderly females especially, indispensable in violent degrees of the disease.

11. *Jaundice*.—This disease is defined to be yellowness of the eyes and skin, the fæces white,

the urine saffron-coloured and communicating a saffron dye, and the flow of the bile obstructed. It consists of two varieties, the idiopathic and the symptomatic.

By idiopathic jaundice is meant every case where the disease occurs, without any previous signs of broken health. It begins with langour, nausea, disorders of the stomach and bowels, occasional sense of uneasiness about the stomach, and drowsiness. The yellowness of the skin soon appears, accompanied with the peculiar characteristic of the stools and urine. Sometimes a degree of feverishness attends at the commencement; and in some cases the disease occurs without any previous warning, suddenly supervening to a fit of violent retching, or of great agitation of the mind. In such cases, it is attended with a fixed pain in the stomach.

There can be no difficulty in distinguishing idiopathic jaundice. It is commonly a temporary affection unattended with danger.

Whatever can obstruct the passage of the bile from the liver, or gall-bladder, to the duodenum must occasion jaundice; and, therefore, a spasmodic affection of the ductus communis chole-dochus, a thickened state of the bile and biliary calculi, are considered to be the chief exciting causes.

For the cure of jaundice, the exciting causes are to be removed, and the healthy condition of the blood is to be restored. In order to fulfil the former indication, the exciting cause must

be ascertained by a careful investigation, and the appropriate means of counteracting it must be suggested. When there is pain on the region of the liver or duodenum being pressed upon, it is to be concluded that there is an impacted gall-stone, in which case, bleeding, opiates, and fomentations are to be directed.

In many instances, it is difficult to distinguish whether the exciting cause be spasm of the ductus communis or viscidities of the bile; but, fortunately, the same practice is useful in both cases. An emetic, calculated to excite much nausea, is to be first given; and this is to be followed up by repeated doses of powerful purgatives, consisting of preparations of calomel, rhubarb, and senna. Riding on horseback, or in an ill-hung carriage over a rough road, when the strength will permit, will be found to contribute towards the cure.

As to the second indication, there can be little difficulty after a free discharge of bile has been procured. It is to be fulfilled by due attention to diet and exercise, and by a course of neutral salts combined with bitters.

Symptomatic jaundice is commonly the effect of chronic inflammation of the liver, in which case it is always preceded or accompanied by a tuberculous eruption of the face, called acne. This is a very hopeless disease, and seldom yields to any remedy; but unless the progress be much advanced, it is always proper to make a fair trial of a course of mercury.

SECTION II.

Diseases affecting the Vocal and Respiratory Organs.

1. *Aphonia*.—Loss of voice occasionally occurs in cases of complicated bad health, in females of the better rank especially. It is to be regarded as a sympathetic affection of the nerves of the vocal organs; but it is not always possible to ascertain the primary cause. In the greater number of cases which have fallen under the Author's notice, it appeared to be connected with some affection of the alimentary canal; but in a few cases, the exciting cause has been alleged to have been some violent agitation of the mind, or a severe catarrhal and rheumatic affection.

When aphonia has continued for any length of time, there is not much probability of its being relieved by medicine, though now and then it yields through the natural powers of the constitution. It would appear, that, after the branches of the recurrent nerves distributed to the glottis and larynx have ceased for a time to perform their functions, they become in some measure permanently paralytic.

But in cases of short standing, an endeavour is to be made to restore the voice by such means as are calculated to induce a healthy action of the chylopoetic viscera, such as preparations of

mercury, of varied purgatives, bitters, &c. and by local stimulants, calculated to influence the recurrent nerves, viz. stimulant friction, blisters, electricity, and galvanism.

2. *Dyspnœa*.—By this is meant permanent difficulty of breathing, with a sense of weight on the chest. It consists of two varieties, the Chronic and the Exacerbating.

First. Chronic Dyspnœa—is defined, the breathing uniformly short and heavy, mostly accompanied with a cough. While, in this disease, the contractions of the heart amount to the ordinary number during a fraction of time, as a minute, the action of the lungs does not bear the usual proportion, being more frequent, though, at each inspiration, the quantity of air admitted is less than usual.

This affection arises in some cases from natural structure, and requires no medical aid, as many such individuals enjoy tolerably good health. In other cases, it is owing to some accidental injury, or to inhaling calcareous or metallic matters or noxious vapours, for which the appropriate remedies are to be employed; and, occasionally, it depends on a phlegmatic or cachectic habit, or on oppressive fatness, and these are the varieties most commonly met with in women.

Phlegmatic dyspnœa is attended with a pallid face, a relaxed cold skin, and great torpor, both

bodily and mental. The urine is scanty, and the evacuations from the bowels irregular. In the more violent degrees of this disorder, especially in women who have had a large family, the case may be mistaken for hydrothorax; but the equable and regular state of the pulse, especially when the patient is in bed, distinguishes at once this disease.

The great objects in the treatment must be to invigorate the simple solids, and to promote the action of the lymphatic system; and the means must be varied according to the circumstances of the individual case. Thus, a few doses of the blue pill and rhubarb, followed up by preparations of iron, and of squills and mild aperients, with nourishing diet and regulated exercise, are sometimes found successful. The sulphate of copper, with light bitters, is, in some cases, preferable to preparations of iron.

The second variety, called dyspnœa pinguedinosa, should, in many instances, scarcely be called a disease, for many squat corpulent persons have habitual shortness of breathing, rendering them incapable of taking very active exercise, and, nevertheless, live to a good old age. Such individuals are called pursy, and ought to be enjoined great abstemiousness in diet, regular exercise, and constant attention to the state of the bowels. In violent degrees, the case is to be treated as that of obesity.

Secondly. Dyspnœa Exacerbans—is defined to

be sudden and irregular exacerbations of dyspnœa, accompanied with deep stertorous, painful, and suffocative breathing, relieved by the erect posture. This modification of dyspnœa, when not dependant upon some organic disease, is always to be considered as sympathetic; but on many occasions it is extremely difficult not only to determine whether it is owing to sympathy or to an organic affection, but also to decide whether the disorder be dyspnœa exacerbans or asthma. The organic diseases, in which there are sudden attacks of suffocative breathing, are affections of the heart, aneurisms of the larger blood-vessels, peripneumony, especially bastard peripneumony, empyema, dropsy of the chest, and enlargement of the liver, or of some of the other contents of the abdomen.

It is only during the intervals between the fits of breathlessness that the line of distinction can be drawn, and that may be done by a minute attention to the state of the heart and to the condition of all the chylopoetic viscera. From asthma, dyspnœa exacerbans is to be distinguished by the great irregularities of its attack, and by the facility with which it is excited by trifling circumstances, such as agitation of the mind, &c.

Powerful diffusible stimuli, with sinapisms to the region of the stomach and purgative glysters, are the means to be adopted for the relief of the alarming symptoms, unless there be livor of the face and turgescence of the vessels of the neck,

which require immediate venesection, whatever the state of the pulse at the wrists may be. After the urgent symptoms have ceased, appropriate means are to be advised for removing the sympathetic affections, and for promoting general health.

3. *Asthma*.—By this is meant difficulty of breathing coming on at intervals, with a sense of straitness in the breast, and sibilating respiration at the beginning of the paroxysm, without cough, or with an uneasy cough, and towards the conclusion of the fit with a free cough, often attended with a copious expectoration of mucus.—These symptoms are usually preceded by languor, flatulency, headach, sickness, the discharge of pale urine, and disturbed sleep, with a sense of straitness and fulness about the pit of the stomach.

There are two varieties of the disease, the convulsive, which has been called *asthma siccum*, and the humoral, or what has been named the *asthma humidum*.

Both varieties of asthma are distinguished from dyspnoea,—*first*, By the preceding symptoms of languor, flatulency, headach, &c. : *secondly*, By the attacks being periodical ; and, *thirdly*, By their being invariably accompanied with sibilating respiration.

First. Convulsive Asthma.—This has been commonly supposed to arise from a spasm of the

bronchiæ; but all the phenomena of the disease seem to show that it is owing to some peculiar affection of the branches of the par vagum. Accordingly, the exciting causes, where there is no organic disease of the lungs or thorax, are exposure to cold and moisture, inhaling noxious vapours or dust, debilitating evacuations, passions of the mind, violent exertions of the voice, intemperance, irritations in the primæ viæ, and the repulsion of cutaneous eruptions, or the sudden disappearance of œdema from the extremities; and it is more reasonable to conclude, that all those different causes occasion an affection of the extremities of the par vagum rather than a spasm of the bronchiæ. Although many individuals live to an extended old age with occasional attacks of this disease, the event, in any given case, must be always precarious.

With respect to the treatment, it is necessary, in the *first* place, to relieve the sufferings during the paroxysm; and, *secondly*, to endeavour to prevent or retard the return of the disease. With the former view, the subtraction of a small quantity of blood is, in some very rare cases, absolutely necessary at the commencement of the attack; but the chief reliance is to be placed on the use of antispasmodics and external stimulants, with the pediluvium, and other means calculated to remove the exciting causes, such as emetics, the warm or the vapour bath, and purgative glysters.—In debilitated females, if the face be pallid and the surface cold, opiates

may be given with great advantage ; but wherever there seems an obstruction to the circulation within the cranium, such medicines are most prejudicial. After the paroxysm has been subdued, its return is to be prevented, or retarded, by regulating the diet, the clothing, the exercise, and the actions of the chylopoetic viscera.

Secondly. Asthma Humidum—apparently depends upon a morbid secretion of fluid from the surface of the bronchiæ, most generally in consequence of previous repeated attacks of inflammation of the lungs, or other causes of debility of the respiratory organs. Like the convulsive asthma, it may be excited by exposure to cold, inhaling of noxious vapours, irritations of the primæ viæ, emotions of the mind, &c. There is always a risk that this disorder may terminate in hydrothorax, or some other modification of dropsy.

For the relief of the humoral asthma, a powerful emetic must be first given ; immediately after which a large sinapism is to be applied to the very top of the spine, and some of the diffusible stimuli, calculated to promote expectoration, should be prescribed, while, at the same time, the patient is occasionally to smoke stramonium. On the alleviation of the symptoms, a large blister is to be applied to the sternum, and preparations of squills and mild aperients are to be directed. The patient ought to be kept strictly quiescent in bed for two or three days after the

complete cessation of the paroxysm. The return of the fits is to be prevented by the same attentions to the non-naturals as in convulsive asthma, with the addition of occasional courses of the vegetable or mineral tonics.

SECTION III.

Fevers.

1. *Hectic Fever.*—The approaches to this disease are generally insidious. It is ushered in by a chilly fit, soon succeeded by dry burning heat, with a florid colour in the cheeks, thirst, and very frequent pulse; the tongue appears smooth and shining, and of a bright scarlet colour; the bowels are confined, the urine is scanty and high coloured, with a red branny sediment, and sometimes an oily film on its surface. Gradually a remission takes place, preceded by a little moisture on the skin; but during the remission the pulse continues quick, the face is particularly pale, the eyes have a pearly whiteness, and there is considerable prostration of strength. Generally there are two exacerbations and remissions within the twenty-four hours; and commonly during the evening exacerbation, the patient experiences a great degree of uneasiness and restlessness, and a pretty profuse sweat follows the hot fit. There is neither head-ach nor confusion of the sensorium commune,

for, on the contrary, the mind is active and even cheerful. As the disease advances, the symptoms become aggravated,—thus, the shivering is more violent, and sometimes recurs even during the hot stage; the sweating, especially after the evening exacerbation, proves excessive and exhausting; emaciation rapidly takes place; the skin grows hard; the eyes appear sunk; the belly is drawn inwards; diarrhoea alternates with the morning sweats; the lower extremities become œdematous; aphthæ cover the tongue and fauces, and death soon follows. The progress is commonly so slow, that the fatal event may be prognosticated even weeks before it happens.

Although hectic fever has been confounded with intermittent and even continued fever, the diagnosis is established without difficulty; for besides that the phenomena of hectic fever, taken altogether, are peculiar, the disease differs from intermittents in the quickness of pulse continuing during the remissions, and from continued fever in the faculties of the mind remaining unclouded and unimpaired.

Hectic fever is always to be considered as a sympathetic or symptomatic affection, for it is found to attend obstructions of the mesenteric glands, indurations of the stomach and other chylopoetic viscera, excessive habitual evacuations, irregularities of diet, the depressing passions, and all affections of the body (both externally and internally) which are accompanied with the formation of purulent matter. Many emi-

gent practitioners have supposed that the disease cannot occur without the formation of pus; and hence it has been a generally received notion, that all the phenomena of the disease are occasioned by the absorption of purulent matter; but this opinion cannot stand the test of scientific investigation. The prognosis in hectic fever must be regulated by the nature of the complaints of which it is the effect, but it is commonly a most dangerous disorder.

The indications of cure are to remove or relieve the disease on which hectic fever depends, and to palliate distressing symptoms. On the former indication it is unnecessary to offer any remarks. As to the latter, the chief symptoms requiring palliation are, the morbid heat, the profuse sweating, and the increasing debility. Frequent sponging with tepid vinegar and water, the use of diluted mineral acids, and mild nourishment, with Iceland moss in the form of jelly, are the means which are usually employed with this view.

2. *Continued Fever*.—Of the three diseases comprehended under this title, it is only necessary to notice Typhus and Synochus, for Cauma seldom or never occurs in this climate.

First. Typhus—is characterized by languor, lassitude, and other signs of debility, followed by rigor, commonly frequent pulse, and increased heat, weakness of the limbs, a certain degree

of temporary confusion of thought, and derangement of the functions of the chylopoetic viscera, without any primary or local affection. It occurs in two different degrees of violence, termed *mitior* and *gravior*.*

Besides the progressive course of the symptoms, there are three diagnostic marks by which both degrees of typhus are distinguished, viz. dull tensive wandering pains through the limbs during the chilliness, a peculiar want of expression of the countenance, and a tightness of the tendons of the wrist throughout the disease. The prognosis must be regulated by the symptoms. The earlier the affection of the head occurs the greater is the danger. The absence of thirst when the skin is hot and the tongue dry, and the appearance of petechiæ, are also alarming symptoms. Tympanitic distension of the abdomen, impeded respiration, and convulsions, are generally the harbingers of death.

There can be no doubt that typhus is occasioned by a miasm of a peculiar nature, apparently produced by the decomposition, or what is styled the corruption of animal bodies, both

* Although, in lecturing, it is necessary for the purpose of making the reasoning on the causes of fever intelligible, to give a minute detail of the phenomena of Typhus *Mitior* and *Gravior*, it is deemed superfluous to do so in these Outlines.—The same remark applies to the description of the general phenomena of inflammation, and of the symptoms of some of the more ordinary inflammatory diseases, as pneumonia, &c.

during life and after death ; and it is now ascertained that this miasm is both infectious and contagious.

In the treatment of typhus, there are three indications of cure to be kept in view, viz. *first*, To check the progress of the disease : *secondly*, Where this cannot be done, to support the living powers ; and, *thirdly*, To palliate distressing symptoms.

For the first of those purposes, emetics, cold effusion, and blood-letting, have been recommended ; but the subtraction of blood on the invasion of typhus is generally inadmissible, at least in females. The second indication requires attention to ventilation, to personal cleanliness, to the regulation of the diet, and, in the low stage of the disease, to the careful administration of suitable cordials.

As to the third indication, the chief symptoms which are to be palliated are excessive vomiting at the beginning, delirium, both in the early and in the advanced stages, insomnolency and restlessness, an elastic distension of the belly, and retention of urine, (which are pretty frequent symptoms in women and children,) aphthæ, convulsions, and abrasions of the skin ; and for these several symptoms the appropriate means must be adopted. Such are, a weak solution of the subacetate of lead for the vomiting : the subtraction of blood from the temples, and cold applications to the shaved head, for delirium in the early stage ; and for the same symptom in the

latter stages, a blister to the nape of the neck, warm fomentations of the lower extremities, and the internal use of camphor; for the insomnolency and restlessness, sponging the surface with tepid water, and the tinctura opii camphorata; for the distension of the belly, spiritous embrocations of the abdomen, and blisters upon the course of the dorsal ganglia of the intercostals, with turpentine glysters; for the retention of the urine, the use of the catheter; for aphthæ, detergent gargles; for convulsions, sinapisms and powerful diffusible stimuli; and for abrasions of the skin, the soap-plaster, or hot dressings.

Secondly. *Synochus* is the most common form of fever which appears in Great Britain. It begins with languor, aching of the limbs, disinclination to make any exertion, followed by shivering or sense of coldness, with nausea or actual vomiting, with white tongue: soon after which, giddiness, with headach and tingling of the ears, with a feeling as if the whole body were bruised, and with a tendency to tremors, are experienced. These symptoms, after one or more days, are succeeded by increased heat of the surface, flushed face, frequent and often strong and hard pulse, an anxious countenance, or uncontrollable restlessness, with an uneasiness in breathing, and oppression at the precordia, and an aggravation of the headach, or violent pain in the chest, or abdomen, or in both, or in the limbs.

It has been a commonly received notion, that synochus is a compound of synocha and typhus; but all the phenomena unequivocally show that it is typhus mitior, accompanied with inflammatory affections of different viscera, as supervenient or accessory diseases. It is found that those accessory symptoms commonly appear between the second and the fifth day; and different viscera are affected apparently according to the constitution or circumstances of the patient, and to the state of the weather. It has been calculated, that in three-fourths of the cases the head is thus affected; in one-half, some of the contents of the abdomen; and in one-third, the thoracic viscera. Sometimes two or more organs are disordered, as the head and stomach, or the head, stomach, and thorax, but more frequently a single organ.

It is probable that the exciting cause of synochus is the same with that of typhus mitior; and that the symptoms of local congestion or inflammation, where they are not confined to the head, are owing to some affection of the spinal nerves.

The treatment, in cases of synochus, must be conducted upon the same principles as that of typhus mitior, with due attention to the accessory symptoms. When these affect the head, the subtraction of blood, by the application of leeches to the temples, or by cupping the nape of the neck and shaving the head, and applying cold lotions, must be advised on the first threatening of the symptoms. The use of the lancet, in the female subjects of this disease, is seldom

necessary, unless where the case has been mismanaged during the first two or three days.—When the local pain is in the contents of the thorax, cupping in the course of the dorsal vertebræ, and blistering on the sides of the chest, with the use of diaphoretics, should be directed; and if the abdominal viscera form the seat of pain or congestion, besides fomentations, diaphoretics, and laxatives, a large blister is to be applied over the cauda equina. *Handwritten: - Had Latin you day -*

SECTION IV.

Inflammatory Affections.

1. *Ionthus Varus*.—This is an eruption on the face, which occurs pretty frequently in women, and although not dangerous, it never fails to occasion much anxiety. It may be defined,—red, hard, pimply, distinct, gregareous, tumours upon the face, sore to the touch, with sometimes a little fluid oozing from their surface. There are two varieties of the disease:—In the one, the pimples are solid, with a broad base, and of a bright red colour; and in the other, the apex of the pimples is marked with a black dot, and when squeezed a grub-like concretion is expelled from them.

It has been long known that these eruptions on the face, although apparently local affections of the sebaceous glands, really arise from sym-

pathy, in consequence of disorders of some of the contents of the abdomen, especially of the liver; but there is reason to believe that they are also, through the respiratory nerves, connected with the state of the lungs, for many individuals affected with it thus have a most offensive breath, notwithstanding the utmost attention to the due regulation of the functions of the stomach and bowels.

The indications of cure are quite obvious, viz. to relieve the disorder with which the eruption sympathizes, and to remove the local affection.—*1st*, When the liver or spleen are diseased from previous irregular habits, medicine can be of little avail. If the eruption seem to depend upon some deranged state of the digestive organs, a course of Harrowgate water, or other mild neutral salt, must be advised. These were, probably, the cases in which Dr. Darwin recommended five grains of rhubarb, and a quarter of a grain of tartar emetic, to be taken every night at bed-time; and if the respiratory organs be affected, a course of Plummer's pills and sarsaparilla form the appropriate remedies.

2dly, After the affection of the general system has been relieved, topical applications for the removal of the eruption may be ventured upon. While the fact, that certain cosmetics have occasionally proved highly deleterious is fully established, the reason has, perhaps, been little understood. It seems to be, that the portio dura of the seventh pair of cerebral nerves dis-

tributes most extensive ramifications over the whole surface of the face, while its origin is the same with that of the par vagum. This explains the danger resulting from the use of certain metallic oxides; and, therefore, the safe topical applications are diluted vinegar, tar-water, or tar-ointment, weak infusion of cicuta, or very weak solutions of the oxymuriate of mercury, or subacetate of lead, or nitrate of silver, in some demulcent vehicle, as the almond emulsion, &c. A powder composed of camphor, magnesia, and chalk, or suboxide of zinc, has, in some cases, seemed particularly useful.

2. *Erythema*.—Of this there are two varieties, the *Œdematosum* and the *Erysipelatosum*.

First. Erythema Œdematosum—is an affection of the skin, of a scarlet colour, spreading widely and deeply through the cellular membrane, which often imperfectly suppurates, sloughs, and becomes gangrenous. It occurs in dropsical cases, and is the effect partly of the distension of the skin, and partly, perhaps, of some morbid change in the effused fluid. In the treatment, the objects must be to support the general strength, and to allay the irritation of the local disease.

Secondly. Erythema Erysipelatosum—is a spreading inflammatory affection of the skin, with a determined edge in a serpentine direction, the part which has passed through the ac-

tion healing as the part next attacked becomes affected. At first there are heat and redness, with continuous swelling of the part, the boundaries of the inflammation being hard. These symptoms are accompanied with smart symptomatic fever. Sometimes, after a limited progress, the fever abates, and the swelling and inflammation subside; but, in other cases, the fever increases, accompanied with low delirium, the inflammation progressively spreads, and the swelling is attended with a peculiar hardened distension of the skin. In such cases, there is an effusion under the skin. Sometimes vesications appear; in other cases, large collections of matter on the surface of the muscles, and not unfrequently gangrene takes place. When the seat of the disease is the scalp, face, or neck, which it frequently is, the fatal event may happen without the intervention of gangrene; but when it is in any other part of the body, gangrene precedes death. This is the more ordinary termination of the disease where it occurs in hospitals, in which it sometimes prevails extensively; but this modification is not to be described in this work.

In private practice, the treatment must be regulated by the violence of the symptoms. In slight cases, where it is on any part of the surface excepting the face, scalp, or neck, if it begin as a local affection, without previous fever, one or more brisk doses of purgatives, with low diet, and keeping the inflamed parts dusted with farinaceous powder, are the only means required.

But where the face, scalp, or neck form the seat of this inflammation, and wherever it is preceded or accompanied by a smart symptomatic fever, copious blood-letting, brisk purgatives, antimonial diaphoretics, with a large blister to the nape of the neck, are to be had recourse to without delay. When effusion is evident, a free outlet is to be given to the matter. Occasionally, though very rarely, individuals, especially elderly women, in a state of great debility are attacked with this disease ; in which case, the most powerful diffusible stimuli, with the application of camphorated embrocations to the diseased surface, are to be employed.

3. *Pneumonitis* and *Pluritis*—may be considered under the same head, being degrees of the same affection. The disease begins with the ordinary symptoms of inflammatory fever, soon followed by pain in the chest, sometimes obtuse, and sometimes acute, aggravated by inspiration, commonly attended with cough. It resembles, in some respects, acute rheumatism seated in the muscles of the thorax ; but that latter affection may be distinguished by the pain, after a full bleeding, shifting to the joints, or extending over a greater surface than in pneumonitis, in which the pain is commonly confined to one spot. In rheumatism, too, on running the fingers between the ribs, the pain is commonly excited, which it is not in pneumonitis. Neither percussion of the thorax, nor the use of the

stethoscope are necessary for the diagnosis in the acute stage of this disease. The prognosis must be regulated by the age and constitution of the patient as well as by the course of the symptoms.

With respect to the treatment of pneumonitis, venesection at the beginning is the chief remedy; and it is to be repeated at short intervals, not only till the patient can take in a deep inspiration without pain, but also till the frequency of the pulse abate. In women and children, topical bleeding from the thorax may be advised as auxiliary means. Powerful purgatives and diaphoretics, adapted to the constitution of the individual, are next to be directed, and, at the same time, a large blister ought to be applied over some part of the thorax. In cases which have been neglected at first, nauseating doses of tartar emetic, or the digitalis, or diffusible stimuli, or successive sinapisms, or blisters, are severally necessary according to the urgency of symptoms.

4. *Catarrhus*.—This very common disorder is defined to be inflammation of the mucous membrane of the fauces, often extending to the bronchiæ and frontal sinuses, infarction of the nostrils, sneezing, and, for the most part, a mucous discharge from the nose, and cough, with a mucous expectoration. There are two species, viz. communis and epidemicus, but the latter does not require to be noticed in this work.

Catarrh, on its invasion, resembles, in some

respects, synochus; and the chief mark of distinction is, that the confusion of the head is in catarrh evidently attended with an overloaded state of the frontal sinuses, of the eyes, and of the nose. It is unnecessary to remark, that, in general, no danger attends this disease.

The disorder is owing to an inflammatory action of the mucous glands of the membrane lining the frontal sinuses and the nose, and sometimes of those of the bronchiæ. But, in many cases, the cough may be considered to be a sympathetic affection, the lungs and diaphragm being influenced through the medium of the extremities of the fifth pair of the cerebral nerves, and of the portio dura of the seventh pair. According to this view, the indications of cure should be to moderate the inflammatory state of the mucous glands, and to remove the sympathetic affection.

In slight degrees, little else is required than confinement within doors, low diet, cooling laxatives, and the pediluvium and diaphoretics at bed-time. But in more violent degrees, especially where the patient is plethoric, cupping on the nape of the neck, or venesection, with brisk purgatives and antimonial diaphoretics, with the warm bath, are necessary. As to the second indication, the cough is the principal symptom to be attended to. If accompanied with much expectoration, an emetic must be premised; after which, opiates, in various forms, with preparations of squill, may be given with advantage.

5. *Arthrosia* or *Rheumatism*.—This is usually divided into two species, the Acute and the Chronic, though, perhaps, the latter is commonly the consequence of the former.

First. Acute Rheumatism.—This is defined to be pain, inflammation, and fulness, usually about the larger joints and surrounding muscles, often shifting from one part to another, attended with inflammatory fever and with loaded urine.—When the disease affects the joints, it is apt to end in effusions into the bursæ or capsules; and these effusions are of so acrimonious a nature, as sometimes to destroy both the ligaments and membranes. But every part of the body, into which muscular fibres enter, not even excepting the heart, the stomach, and the intestines, is supposed to be subject to this disease. In some cases, acute rheumatism may be confounded with gout; but if the progress of the disease be accurately investigated, it will not be difficult to distinguish them. Besides the extent of the swelling and inflammation, which, in gout, is very much limited, there is a peculiarity in the pain in the two diseases; for while, in rheumatic affections, it is described as being gnawing with a sensation of numbness, occasionally remitting, in gout it is acute, burning, and constant. The prognosis, in general, may be favourable when the disease affects women.

As to the nature of acute rheumatism, it is evident that its seat is in the muscles and ten-

dons ; and, therefore, the peculiar pain is owing to the influence which the inflammation of the muscular fibres produces upon the filaments of the nerves of sensation distributed to them.—The exciting causes are well known to be sudden transitions of temperature.

The indications of cure are, to moderate the febrile affection, to alleviate the painful symptoms, and to restore the healthy condition of the affected parts. For the *first* purpose, venesection, diaphoretics, frequent sponging with tepid vinegar and water, with low diet, and plentiful dilution, are the chief means. *2dly*, The painful affections of the joints may be relieved, after the febrile symptoms have abated, by topical applications, such as leeches, fomentations, cataplasms composed of cicuta, &c. and blisters. While the pain continues, stimulant friction will be found injurious. *3dly*, The healthy condition of the diseased parts is to be restored by due attention to diet and clothing, with the daily use of the warm bath and of tonics adapted to the constitution, and by stimulant friction of the weakened limbs.

Secondly. Chronic Rheumatism—to which women are chiefly liable, differs from the acute, in the pain being always excited by a diminution of heat of the part, in there being a tendency both to coldness and to clammy exudation in the affected part, and in there being little pain when the part is quiescent, but great pain and feeling

of weakness when an attempt is made to move it. Besides these diagnostic marks, the absence of fever during the progress of the disease is commonly enumerated: but at the invasion there is always more or less fever. All these circumstances are explained, upon the supposition that there is either a coagulation of the interstitial fluid, or a thickening of the cellular filaments connecting the muscular fibres and their fascia, tendons, &c. which painfully distend, or partially compress, the fibres, both of the nerves of sensation and also of the muscles.

Upon these principles, in the treatment of chronic rheumatism, the chief indication is to promote absorption in the affected part, while means are to be suggested for improving the general health, and for restoring tone to the muscular fibres. For this purpose, a course of the decoction of mezereon, or of sarsaparilla, with the muriate of lime, or of some of the mineral waters containing neutral salts, with warm sea-bathing, and stimulant friction, and percussion of the affected parts, are to be advised. Firm compression of the same parts, by means of a flannel roller, where practicable, is also most useful. Ling liver-oil has been highly extolled, both as an internal and external remedy where the joints are thickened. Sometimes electricity or galvanism are beneficial. Acupunctation and animal magnetism are recommended by certain foreign practitioners.

Malacosteon, or *Molities Osseum*, resembles chronic rheumatism in many of its symptoms,

and is a disease to which women are more liable than the other sex. While the pains are similar to those of chronic rheumatism, they are seldom seated in the articulations of the limbs, and they are more diffused throughout the whole body; the general debility is greater than in rheumatic affections of the same standing; all the muscles are more wasted, and the spine is always more or less affected. The prognosis, in cases of malacosteon, must always be unfavourable, as such patients seldom recover though the disease is not immediately dangerous. With respect to the treatment in the early stages, it must be conducted on the same principles as that of chronic rheumatism; and, in the latter stages, all that can be done is to palliate symptoms.

SECTION V.

Mania.

It is doubtful which of the two sexes is the more liable to this malady, which has been variously defined. Perhaps Dr. Cullen's definition is sufficiently comprehensive:—"A false or mistaken judgment of those relations of things which as occurring most frequently in life, are those about which the generality of men form the same judgment, and particularly when the judgment is very different from what the person herself had before usually formed." There are

three varieties of the disease, viz. Mania, Monomania, and Lypimania.

First. Mania.—Generally speaking, three distinct stages of this malady may be marked.—*1st*, Headach, or a sense of heat in the head, or of burning in the bowels, pain at the stomach, a dislike for food, thirst, and constipation are commonly the first symptoms. The patient, at the same time, complains of inward agitation, of indescribable inquietude, of want of sleep, of dreams and forebodings, of involuntary alternations of cheerfulness and depression, and has sometimes temporary wandering of the mind, though she still retains her affection for her relations and friends.

2dly, The second stage is ushered in by some acts of violence and of fury, which take place spontaneously, or seem excited by some trifling cause; after which, the delirium becomes permanent, and the moral feelings are totally perverted. In some cases, however, the disease commences at once with those symptoms.

3dly, After a time, more or less protracted, the patient becomes more calm and collected, the fits of rage break out more seldom, and she is more attentive to surrounding objects. By and by the moral reflections revive, the expression of the countenance is more tranquil, the general health improves, the sleep increases, and the patient seems conscious of her situation. In some cases, the convalescence advances daily, and the

malady ceases. In other cases, the remissions are short and imperfect, and the patient either has a repetition of the paroxysms of delirium and of the intermissions, or she sinks into fatuity.

The diagnostic marks of mania are pretty evident during the acute stage; but both during the invasion and during the remission they are often extremely obscure. During the acute stage, there is a peculiar wildness in the eye, which is at once recognised, and which occasionally recurs during the remission. There is also an incapability of fixing the attention on any particular subject; and this mental affection is accompanied with progressive emaciation, insomnolency, and constipation.

With respect to the treatment, if consulted at the beginning of the disease, the first point to be determined is, whether there be any connexion between the maniacal symptoms and a disordered state of the body. If there be, the appropriate means of relief are to be pursued. When there is no bodily affection attending the first symptoms of mania, medicine can be of little avail. The endeavours must be directed to removing or preventing all external exciting causes, and to moderating the violence of symptoms. With these views, the patient is to be separated from her family, and to be steadily watched, and every means which can promote general health, and which can repress the irregular wanderings of the mind, must be adopted. Suitable diet

and ventilation, with due attention to temperature, the strictest personal cleanliness, and a proper regulation of the usual excretions, are the chief means to be employed. When the fury is outrageous, the use of the strait-waistcoat, sometimes fixing the lower extremities together by means of rollers, and still more rarely, the exercise of the whirling chair, are required. Whenever convalescence begins, some amusement should be contrived to occupy, without fatiguing the mind, and preparations of valerian or camphor, or asafoetida, for the purpose of lessening the susceptibility of the nervous system, must be prescribed. Should the remissions be temporary, or should there be evidences of fatuity, the treatment must be conducted according to circumstances.

Secondly. Monomania.—By this term is meant insanity upon a particular point, the patient being consistent and rational on all other subjects. All eccentric persons might be included under this description, and, therefore, a more accurate definition must be given. Whenever the particular subject of aberration is injurious neither to the individual nor to society, it is to be regarded as eccentricity, and not insanity. Thus, if a gentleman of independent fortune were to appear in public in a grotesque dress, he would be considered to be eccentric; but if a bishop or a judge were to put on a similar dress, he would be considered insane. Medical treat—

ment can seldom be of much avail in this variety of mania.

Thirdly. Lypemania or Melancholia.—This may be styled partial derangement of the understanding, or erroneous judgment or conduct on particular subjects, with great despondence recurring at uncertain intervals. It is difficult in many cases, especially in women, to distinguish melancholia from hypochondriasis and hysteria, not only because there is sometimes a similarity of symptoms, but also because there is no doubt that some cases of melancholia begin with hypochondriacal or hysterical symptoms. Dr. Cullen's rule for the diagnosis, though there may be exceptions, is, perhaps, upon the whole the correct one. When, in women of a melancholic temperament, "the false imagination turns upon other subjects than that of health, or when, though relative to the person's own state of health, it is of a groundless or absurd kind, the disease is to be regarded as melancholia."

In the treatment of melancholia, if consulted at the commencement, the first object should be to restore the general health; and for this purpose, the subtraction of blood from the temples, or the nape of the neck, or the external jugular, shaving the head, and applying cold lotions and repeated doses of powerful purgatives, together with dry cupping, are to be recommended. In cases of chronic or apparently confirmed melancholia, means are to be unremittingly employed

for promoting the natural functions of the stomach and bowels, and for keeping up the healthy action of all the minima vasa upon the surface of the body, and for palliating distressing symptoms.

IV. DISEASES OF PREGNANCY.

SECTION I.

Symptoms of Pregnancy.

OF these, some are peculiar to the early and others to the latter months, the former term implying the period between conception and what is called quickening, or the first sensation of the motion of the infant; and the latter, the period between that event and the time at which the child is capable of living independent of the parent, which is not sooner than the completion of seven calendar months.

First, The greater number of the evidences of early pregnancy are inductive, that is, are derived from those affections of the general health, or of particular parts of the body, which, from experience, are found to attend pregnancy in civilized society.

Such are suppression of the catamenia, sick-

ness, retching, &c. especially in the morning, with other irregularities of digestion, altered appearance of the countenance, disturbed sleep, involuntary irritability of temper, and occasionally anomalous complaints, such as toothach, spasmodic cough, diarrhœa, &c. But as many women feel no change in their general health while in the family way, and as all the symptoms above enumerated, except suppression of the catamenia, may occur independent of conception, the evidence from those complaints must always be more or less doubtful. As to obstruction, that may also arise from accidental causes. It is a popular notion, that women may continue to menstruate while pregnant; but this is one of the ancient errors which have been corrected by the improved knowledge of the anatomy and physiology of the uterine system. A woman with suppression of the catamenia may not be pregnant; but no woman who has a fœtus in utero can menstruate.

The changes which take place in the uterus and in the mammæ during the early months, have been supposed to afford more certain evidences of pregnancy from their being cognizable to the senses. Thus, the uterus progressively enlarges, and the mammæ become turgid, and have the circle surrounding the nipple altered in colour; and yet implicit reliance cannot be placed on those signs, for the early changes in the state of the uterus cannot be distinguished by examining through the parietes of the ab-

domen, and there must always be some degree of uncertainty, as well as of hazard, in feeling the uterus per vaginam, or per anum. In a first pregnancy, the altered colour of the areola round the nipple is the most unequivocal evidence of conception; but as it is always relative to the natural complexion of the individual, it requires considerable experience to recognise it. Besides, after a woman has been once pregnant, the areola continues discoloured during life. It may, however, always be concluded, that where the skin surrounding the nipple is of the same colour as that of the rest of the mamma, the woman has not conceived.

Quickening, on which women themselves place so much reliance, is a very fallacious evidence of pregnancy; for it is a fact, most unaccountable indeed, that individuals who have had a number of children, have often supposed that they had quickened when they were not in the family way.

Secondly. The inductive signs during the latter months are, the sensation of the motion of the infant, the increasing size of the belly, and the formation of milk in the mammæ. But many women have supposed that they have felt, for months too, the movement of an infant that had no existence; and the increase in size of the belly, and the appearance of milk in the mammæ, almost always occur in cases where pregnancy is imagined.—The only certain evidence, there-

fore, in the latter months, is the practitioner being able to feel the uterus, and the movements, or the limbs of the infant.

In examining for this purpose, two sources of error are to be guarded against.—*First*, On pressing the parietes of the abdomen in women who are anxious to be mothers, certain momentary twitchings of the muscles not unfrequently take place, which imitate the movements of the infant between the fourth and fifth months: and, *Secondly*, Women, who have an interest in concealing their pregnancy, can sometimes so act with the abdominal muscles as to prevent the uterus being distinctly felt even after the sixth month. In these latter cases, there is a ready way of getting the better of this manœuvre, viz. keeping the hand for a minute or two in a basin of cold water, and then suddenly applying it to the anterior part of the belly, between the umbilicus and the pubes.

SECTION II.

Diseases during the Early Months of Pregnancy.

1. *NAUSEA, Sickness, Retching, Vomiting* in the morning, with *Languor* and *Faintness* during great part of the day, occur pretty commonly during the early months of pregnancy. They begin soon after the first period is past, and are generally much aggravated after the second

period. When quickening takes place they commonly abate ; but in some individuals they continue throughout the whole course of pregnancy. In some cases, too, this seems influenced by the sex of the infant, as some women invariably continue sick to the last hour when carrying a male infant, for example, but have no sickness after quickening if the infant be female. By a due regulation of the diet, and attention to the state of the bowels, with a small bleeding once a month, the sickness during the early months of pregnancy may be kept moderate ; but if it be neglected at first it often resists every remedy.

2. *Toothach* and *Salivation* occasionally attend the early periods of pregnancy. Where there are no decayed teeth, the aching is in the gums ; and both it and the salivation may be relieved by the use of mild laxatives, and an opium patch to the corner of the jaw, or a blister behind the ear. It is not safe to extract a carious tooth till after the period of quickening ; and in irritable constitutions, it might be imprudent to attempt such an operation at any period of pregnancy.

3. *Heartburn* is a pretty common attendant on early pregnancy, and requires, besides attention to diet, some preparation of magnesia, or of the carbonate of potass, or of the oxide of bismuth.

4. *Irregular Craving* for food is always increased by indulgence. If there be morning sickness, full vomiting should be promoted by an infusion of camomile flowers; and in every case, such opening medicines should be advised as shall clear the whole track of the alimentary canal.

5. *Palpitation* and *Syncope* are most usually connected with the state of the stomach and bowels, and are generally relieved by a large dose of the ammoniated tincture of valerian, or some other diffusible stimulus.

6. *Spasmodic Pain* about the region of the stomach. This is sometimes very acute, and arises from a morbid change of the food in the stomach or duodenum, or from sudden exposure to cold. Whenever it comes on, a dose of a powerful antispasmodic, combined with an antacid, must be administered.

7. *Diarrhoea*, in the early months, is often a critical evacuation; and, therefore, unless it be accompanied with strainings, or excoriations at the anus, it is not to be checked. It may be readily moderated when necessary, by means of lime-water, or prepared chalk, &c.

8. *Costiveness* seldom occurs in the early months; and, at any rate, is always easily guarded against.

9. *Difficulty in Making Water* is sometimes a sympathetic affection, arising from a disordered state of the bowels ; but when it happens between the third and fourth month, (of pregnancy,) there is always reason to fear that it arises from that altered position of the uterus described under the next head.

10. *Retroversio Uteri*.—By this is meant such a change in the position of the uterus, that the os uteri is forced over the crista pubis, while the fundus is pushed down into the hollow of the sacrum, pressing down the rectum and the vagina. It happens only from a little after the third to a little after the fourth month of pregnancy, and, if neglected, is productive of much local and general irritation. It is readily distinguished by examination, and is, when not early attended to, a very dangerous affection. The exciting cause is mechanical pressure on the fundus uteri, which may be occasioned by a variety of circumstances.

Reposition of the uterus can alone save the patient from the impending danger, and to facilitate the operation, venesection is sometimes necessary ; and in every case the bladder must be previously emptied by means of the catheter. The horizontal posture is to be enjoined till the uterus have distinctly emerged from the cavity of the pelvis.

SECTION III.

Diseases during the Latter Months of Pregnancy.

1. *Costiveness*—is one of the most common disorders in the latter months. It is to be guarded against by the regular use of laxative medicines; and when it has been allowed to take place, it is to be treated upon the principles already explained, viz. the accumulated mass is to be softened before any means are employed for its expulsion.

2. *Diarrhœa*—is not unfrequently the effect of an accumulation of fæces in the great guts, for when that happens, a local irritation is kept up, which both accelerates the paristaltic motion of the intestines, and excites an increased secretion from their mucous membrane. Hence, what appears to be diarrhœa is merely the discharge of the drink swallowed, or of mucus tinged with feculent matter. This may be always suspected where costiveness has preceded the apparent diarrhœa, or where the fæces discharged contain minute fragments, or masses, of hard earthy stools, and the case is to be treated as one of costiveness.

But sometimes diarrhœa is excited in the latter months, by the pressure of the enlarged uterus upon the rectum, and if not checked, it is apt to

induce premature labour. The local irritation, in such cases, is to be allayed by the horizontal posture and by opiate suppositories.

3. *Hæmorrhoides*.—Under the name of piles several different affections about the anus are comprehended, such as varicose swellings of the veins, with effusion into the cellular membrane; skinny or horny excrescences situated either within or without the sphincter ani; and minute sarcomata seated in the skin surrounding the anus; and sometimes, too, small excrescences, with a narrow peduncle adhering to the gut just within the sphincter. *Fistulæ* also occasion very much the same uneasiness as the piles. As there are no symptoms by which these several local affections can be distinguished from each other, it is necessary, whenever any uneasiness is experienced about the anus, (whether in the pregnant or unimpregnated state,) to institute a minute investigation of the nature of the case.—The subtraction of blood by means of leeches, or the application of styptic or narcotic cataplasms or liniments, or the removal of the sarcomata or excrescences, must be severally directed according to circumstances.

4. *Varicose* swelling of the superficial veins of one or both lower extremities is not an uncommon occurrence in the latter months. No other than palliative means can be employed at that time; but after delivery, such remedies are to

be directed as shall impart vigour both to the affected veins and to the teguments which cover them.

5. *Œdematous Swellings* of the lower extremities still more often occur. When the swelling does not extend above the knee, and when it subsides during the night, apparently from the horizontal posture, it is a transient affection of a harmless nature, depending upon the pressure of the gravid uterus. But whenever the swelling extends to the upper parts of the body, and instead of disappearing in the morning, the face, and particularly the eye-lids, are swelled on awakening, it is to be considered as an alarming disease, requiring blood-letting, low diet, and a course of laxative neutral salts. Where these means have not been pursued, and the disease has been overlooked, permanent thickening of the cellular membrane or alarming convulsions have been the consequence. In some cases, where *œdematous* swelling of the labia to a great extent has rendered it necessary to have recourse to scarifications, the fluid has been found in a state of semi-coagulation.

6. *Jaundice* occasionally appears in a slight degree in the latter months, and is to be attributed rather to an increased secretion of bile than to any mechanical obstruction from the pressure of the gravid uterus. It requires only a few

doses of mild laxatives, calculated to act from the stomach downwards.

7. *Suppression or Incontinence of Urine*—during the last two months of pregnancy, are owing to the pressure of the uterus, and are merely temporary symptoms, requiring palliation by such means as are best adapted to remove the pressure from the brim of the pelvis.

8. *Vomiting* sometimes continues during the latter months, so that every meal is rejected in a few minutes after being taken. Although no medicine can check this, it will be found that there is one hour within the twenty-four during which the stomach can retain the food, and when that hour is discovered, the patient should only eat at that time.

9. *Heartburn* frequently is not relieved by the medicines which are useful in the early months. Under such circumstances, a preparation of the aqua ammoniæ seldom fails to palliate this unpleasant feeling.

10. *Cholic Pains* do not often occur where due attention to the state of the bowels has been paid. They require some mild laxatives combined with carminatives or antispasmodics.

11. *Cramps* of the lower extremities are owing to the enlarged uterus compressing the nerves

going to the lower extremities, and also impeding the course of the returning blood. Mechanical means are to be adopted to remove the pressure from the brim of the pelvis; and if there be evident marks of plethora, copious venesection ought to be advised.

12. An involuntary discharge of water per vaginam sometimes takes place unexpectedly in the latter months, and continues for many days, or even weeks, the patient wetting a great number of cloths every twenty-four hours. Cases of this kind are distinguished from those in which a premature discharge of the liquor amnii occurs,—*first*, by the discharge being colourless: *secondly*, by its not being accompanied by a marked diminution of the uterine tumour; and, *thirdly*, by the os uteri remaining closed with a portion of the cervix uteri unexpanded. The case, however, may be doubtful for a day or two; but if the watery discharge be truly that which surrounds the infant, uterine contractions necessarily come on whenever the whole water is drained off.

In all cases where this discharge happens, the patient must be confined to the horizontal posture, and kept upon low diet.

13. *Convulsions*.—The phenomena of this alarming disease, when it occurs during labour, have been already described, page 74. It is apt to take place during pregnancy after violent exercise or sudden agitation of the mind, or from

irritations in the primæ viæ, and also in cases where universal œdema of the surface has been neglected. The most ordinary precursory sign is excruciating pain of the head. It is at once distinguished from hysteria by the total insensibility, and from epilepsy by the previous warning.

Venesection, to a great extent, is instantly to be had recourse to, and the apparent exciting causes are to be removed or counteracted. As to the practice of forcing delivery, recommended by some respectable authors, that must be regulated by the circumstances of the individual case. If the abdomen be enormously distended, or if there be an effort in the uterus to expel its contents, the infant is to be extracted by the feet. The after-treatment is to be conducted on general principles.

14. *Pain and Swelling of the Mammæ.*—In most healthy women a certain fulness in the mammæ is experienced during the latter months of pregnancy, but little inconvenience arises from it if due attention be paid to the diet, &c. Now and then, however, one of the mammæ becomes swelled and indurated, accompanied with much local pain, and with irritation of the general habit. The most active treatment must be pursued in such cases; for experience has shown, that where suppuration goes on hectic fever supervenes, and great danger ensues. Both general and topical bleeding, with low diet, an open

state of the bowels, and appropriate applications to the mammæ, are to be directed.

15. *Extra Uterine Conception*.—It seldom happens that the evidence of this deviation from the ordinary course of nature occurs sooner than during the latter months; for, although in one of the varieties there are derangements of the stomach and bowels from an early period, there is no mark by which they can be certainly distinguished from the ordinary breeding symptoms.

When the conception is not lodged in the uterus, it is found to be either in one of the ovaria, or in the cavity of the abdomen, or in the fallopian tube; and in some rare cases, it is, perhaps, possible to distinguish the exact seat of the conception; but in general the symptoms are extremely equivocal. Such cases, when left to nature, frequently prove fatal both to the mother and the infant; but sometimes, after a tedious struggle of the constitutional powers, the extra uterine conception is thrown off by an external abscess, or through an opening into a portion of the gut. In a very few instances the infant has continued to live to the full period. The practice in all those cases must be regulated entirely by circumstances.

16. *Abortion*.—By this, which is synonymous with miscarriage, is meant the expulsion of the contents of the uterus at any period previous to that at which the infant is capable of living in-

dependent of the parent. As abortions previous to quickening are attended with different symptoms from those which occur after that period, it is necessary to treat of the two cases separately.

First. Abortions in the Early Months.—These happen most usually between the eighth and the twelfth week. Sometimes they are preceded by sudden cessation of the morning sickness, flaccidity of the mammæ, pain in the back, and a slight appearance of discharge from the uterus. But in many cases hæmorrhagy or uterine pains, or both, come on suddenly, and are followed by more or less derangement of the system, according to the susceptibility of the individual, the degree of hæmorrhage, and the severity of the pain.—The ovum is, in some cases, expelled entire, in other cases piecemeal; and sometimes a portion remains even for weeks after the foetus and a considerable part of the secundines have been thrown off.

Symptoms of miscarriage may be confounded with other affections of the uterus, such as painful menstruation, schirrhous, &c. When the previous history of the patient cannot be ascertained, examination per vaginam is necessary. In general no danger attends miscarriage in the early months, unless where it is the consequence of an acute disease; but it must be admitted, that the symptoms are often extremely alarming.

As to the causes, certain states both of the ge-

neral system and of the uterus predispose to miscarriage. Under the former head may be classed general weakness or irritability, plethora, and fatigue; and under the latter, natural or acquired irritability or debility of the uterus itself. Where these exist, the slightest circumstances prove exciting causes. Such are corporeal agitation, emotions of the mind, and irritations of the primæ viæ, or of the uterus.—Acute diseases, and whatever is capable of destroying the foetus, or of injuring the conception, excite miscarriage, though there be no previous predisposition.

In the treatment, the *first* object is to arrest the progress of miscarriage: *secondly*, where that cannot be accomplished, to relieve the symptoms; and, *thirdly*, to restore tone both to the general system and to the uterus.

1st, The suitable means for moderating the action of the heart and arteries, and for allaying uterine irritation, are to be directed; and, therefore, perfect quiescence, low diet, the subtraction of blood, if there be much arterial action, and the exhibition of opiates by the mouth or by the gut, are severally necessary.

2dly, If, notwithstanding these means, the symptoms proceed, they are to be palliated according to their severity. The most formidable is hæmorrhagy, which can be always checked when excessive by means of a sponge and of the T bandage, which is both a more immediate and a more safe method than the application of

cold, which was the ancient practice. If there be repeated returns of hæmorrhagy after it has been checked, the expulsion of the ovum must be promoted. Painful and nervous symptoms are to be relieved by means of opiates. In protracted cases, where a portion of the ovum is retained, and there is an offensive discharge per vaginam, antiseptic lotions must be injected into the womb, (by means of a common bag and pipe,) at least evening and morning, if the retained mass cannot be extracted; and the general strength is to be supported by appropriate cordials. In some of those cases of retained portions of the ovum, where the symptoms are not urgent, the occasional exhibition of a purgative glyster, or an airing in a carriage over a rough road, contribute to the separation of the retained mass.

3dly, Immediately after the miscarriage, the abdomen is to be carefully bound up, and the patient is to be treated in every respect as if lying-in, as long as any uterine discharge continues.

Where women have miscarried repeatedly in the early months, what is called the habit of abortion is induced; and this can only be counteracted by means calculated to remove the predisponent causes, and to prevent the occurrence of the exciting ones.

Secondly. Abortion after the Period of Quickening—is not a common occurrence. In its symp-

toms, it resembles (with a few exceptions) premature labour, beginning with pains and a slight discharge. In its progress, after the opening of the os uteri, the membranes burst, and the foetus is thrown off; but sometimes a considerable interval occurs before the separation of the secundines, and, in the meanwhile, violent hæmorrhage is apt to supervene.

There can be no difficulty in distinguishing such cases, particularly if the state of the uterus be examined. Considerable danger always attends, if the secundines be not thrown off within half an hour after the expulsion of the foetus.

Sometimes sudden agitation of the mind, or violent corporeal injury, occasion abortion in the latter months; but the ordinary exciting causes are the death of the foetus, or acute diseases of the general system, or inflammatory affections of parts sympathizing with the uterus.

The treatment of abortions in the latter months must be conducted very nearly in the same way as premature labour; and, in particular, the patient ought never to be left till the secundines are completely extracted.

PART IV.

DISEASES OF INFANCY AND CHILDHOOD.

As the Text Book for the fourth part of the course was published several years ago, the Author deems it only necessary in this work to give the following brief catalogue of the subjects of his lectures in that department.

I. DISEASES OF INFANCY.

Section I.—Congenite affections, comprehending diseases of the foetus in utero, affections of the head, of the thorax, of the abdomen, of the extremities, and of the skin.

Section II.—Affections which arise from birth, or from mismanagement during the month, viz. suspended animation, altered shape, with other affections of the infant's head, fractures and dislocations, affections of the navel, excoriations of the skin,

snuffles, ophthalmia, inflammation of the mammæ, erysipelas infantile, affections of the genitals.

Section III.—Ordinary management of infants and children.

Section IV.—Affections of the alimentary canal of infants, viz. yellow gum, aphthæ, constipation, sickness and vomiting, cholic, enteritis, chronic inflammation of the bowels, introsusceptio, diarrhœa, cholera, tabes mesenterica, prolapsus ani.

Section V.—Cutaneous affections of infants unaccompanied with fever.

Section VI.—Morbid symptoms produced by dentition.

Section VII.—Convulsions.

II. DISEASES OF CHILDREN.

Section I.—Cutaneous affections of children unaccompanied with fever.

Section II.—Bowel complaints of children, comprehending vomiting, diarrhœa, constipation, fever improperly called infantile re-

mittent, chorea, symptoms produced by worms, introsusception.

Section III.—Rickets.

III. DISEASES COMMON TO INFANCY AND CHILDHOOD.

Section I.—Scrofula.

Section II.—Convulsive affections, viz. epilepsy and hooping-cough.

Section III.—Exenthemata, comprehending small-pox, cow-pox, measles, scarlatina, anomalous scarlet fever, anomalous sore throat.

Section IV.—Cynanche trachealis.

Section V.—Hydrocephalus internus.

Section VI.—Dropsical affections.

Section VII.—General observations on the phenomena, causes, and treatment of the diseases of infancy and childhood.

THE END.

mittent, chorea, symptoms produced by
worms, intussusception.

Section III.—Rickets.

Section IV.—Tetanus.

Section V.—Convulsive affections, viz. epilepsy
and hooping-cough.

Section VI.—Exanthemata, comprehending small-pox, cow-pox, measles, scarlatina, anatomical scarlet fever, anaplasma rose throat.

Section VII.—Cynanche trachealis.

Section VIII.—Hydrocephalus internus.

Section IX.—Dropsical affections.

Section X.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

Section XI.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

Section XII.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

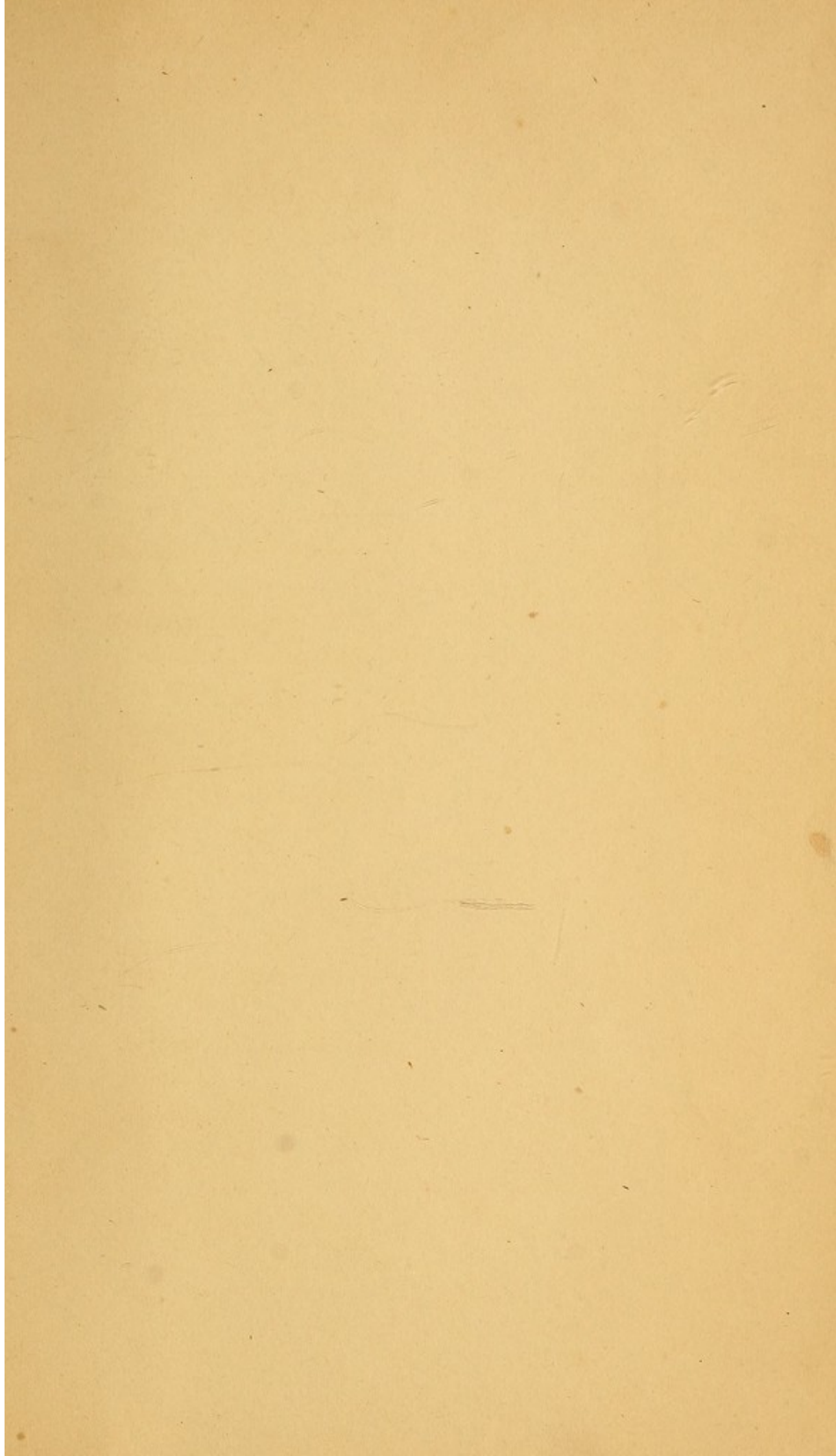
Section XIII.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

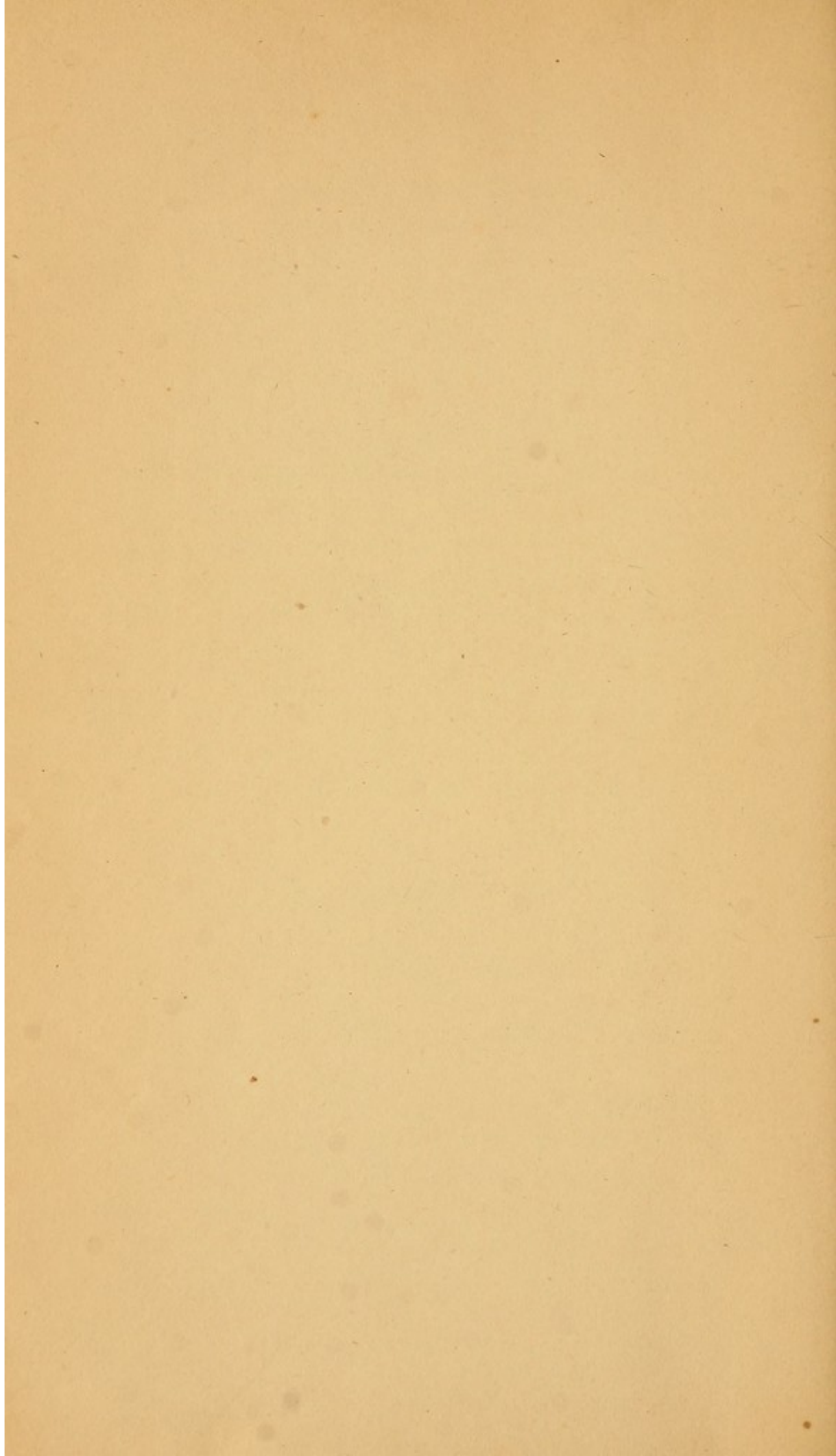
Section XIV.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

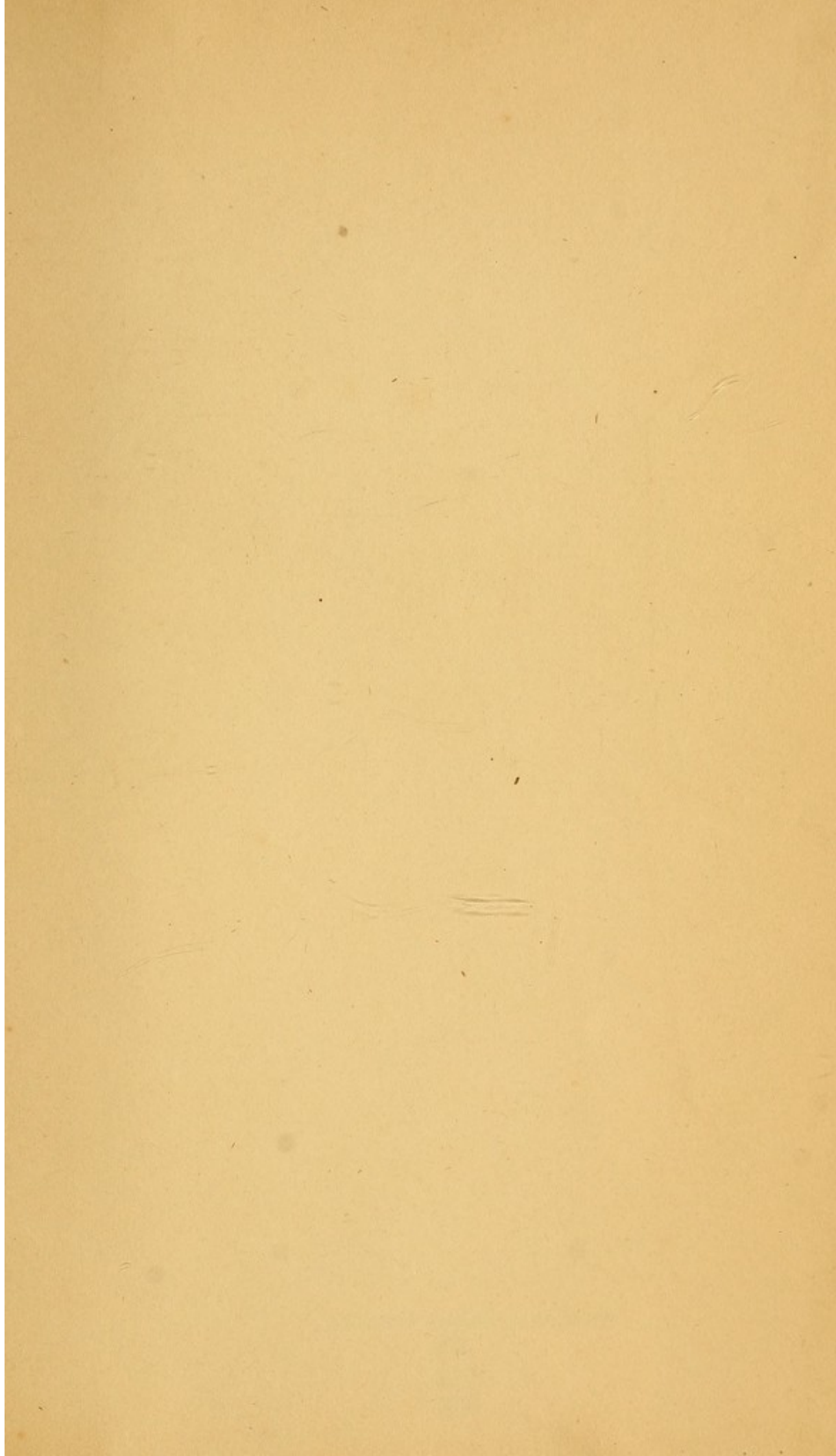
Section XV.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

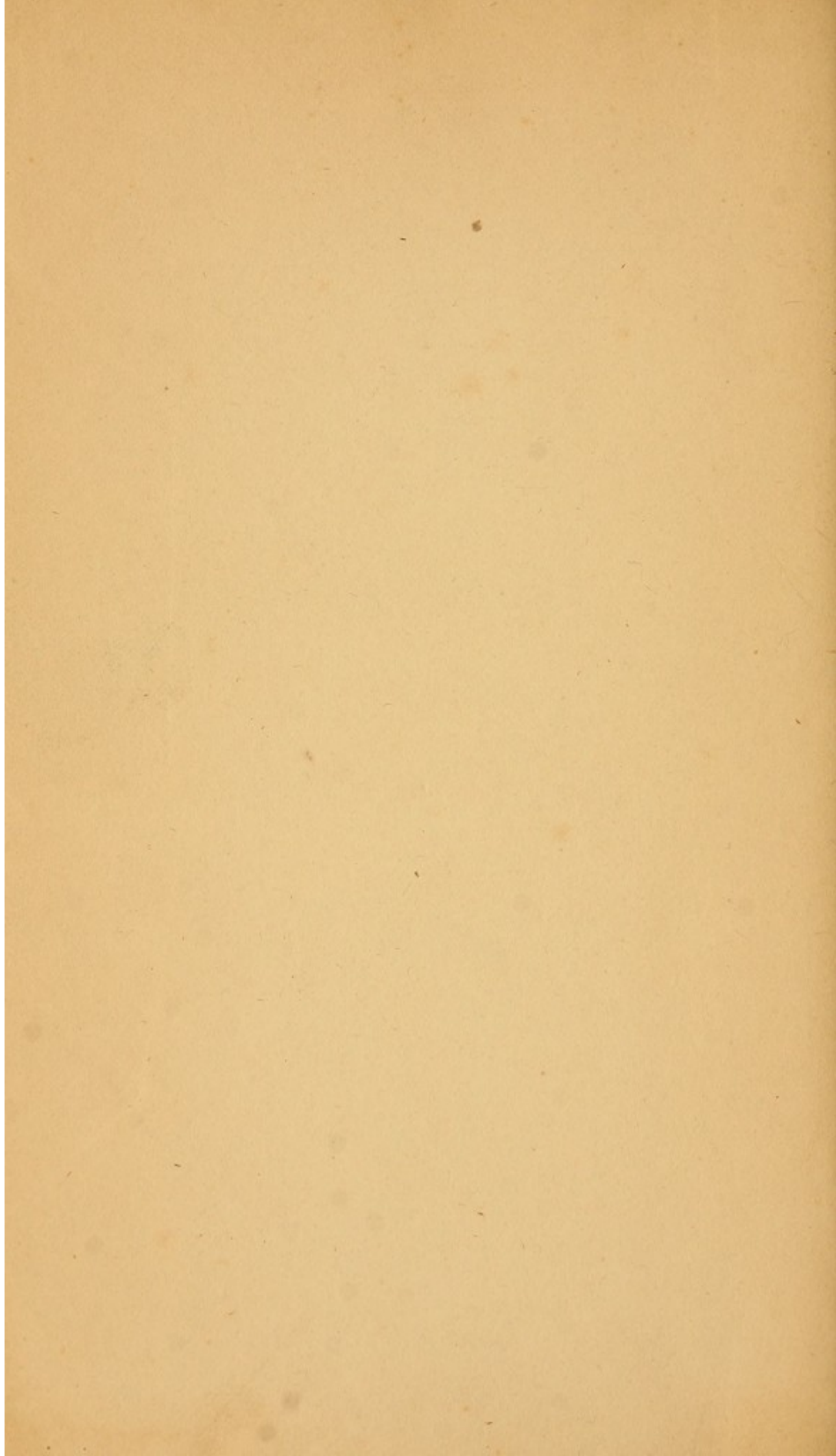
Section XVI.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.

Section XVII.—General observations on the phre- nomena, causes, and treatment of the dis- eases of infancy and childhood.









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