

FIGURE 187.—This is another deformity, in which one side is sunk below the other, and both twisted round the sacrum.

Figure 187. This is another kind of deformity, in which one side is sunk down below the other, while both are twisted as it were round the sacrum.

Figure 188. This is a section of a pelvis to show the effect of a corroding disease of another kind. The whole of this is such a mass of disease and deformity, as to preclude any particular description.

Curvature of the spine sometimes affects the pelvis, when low down, and therefore if any female is affected with it she should not marry before being examined. Several diseases and lesions of the hip-joint, and of the thigh, may also do the same, and should therefore be suspected.

In the great majority of cases, deformities of the pelvis remain unknown, till the period of delivery, and all that can be then done is to combat in the best possible way the difficulties they create. It is evident that the amount of difficulty depends entirely on the disproportion between the head of the child and the passage through which it has to be born. If the head be large and the passage small, the difficulty will be greatest, but if the head be small it may pass through the pelvis, though under its average size. The development of the head cannot be ascertained however before birth, except when it is unusually large from dropsy, and it is therefore always assumed to be of an average development, and the pelvis is compared accordingly.

The kind of assistance required in these cases depends chiefly on the measure of the pelvic diameters, though it may be modified somewhat by other considerations.

When the smallest diameter of the pelvis measures from *three inches and a half to three inches*, it is customary to leave the expulsion of the foetus to nature, and it is generally effected, though slowly and with difficulty. If, however, the patient becomes exhausted, or the head be unusually large, the forceps are generally used after waiting five or six hours. In these cases the head often becomes firmly fixed in the upper strait, so that great force is needed to dislodge it. The upper part passes through, owing to the overlapping of the bones, and the scalp then bulges out like a large tumor, from being engorged with blood and serum, but the lower, being more unyielding, remains behind. It is, therefore, impossible for the head to move either way, as it is formed like a figure 8, and held by the narrow part, as will be seen by the following figure:

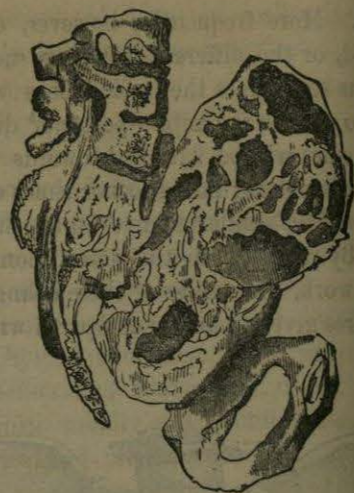


FIGURE 188.—The effect of corroding disease.

When the smallest diameter is not more than from *three inches to two and a half*, the birth is sometimes effected by nature, but with extreme difficulty. The accoucheur waits four or five hours, as in the former case, and then if no progress is made he applies the forceps, using great care in doing so. If the extraction is found impossible, with reasonable force, the head must be opened and made smaller, even though the child be living, because it is more proper to sacrifice it than to risk the life of the mother. In a case like this, however, no one person would like to decide, unless in a great emergency; there should always be a consultation if possible.

A dwarf, named Lepratt, who used to perform at the theaters was delivered with the forceps by M. Du-bois, though the pelvis only measured *three inches*. She perfectly recovered, but the child was born dead: it was of fair average size.

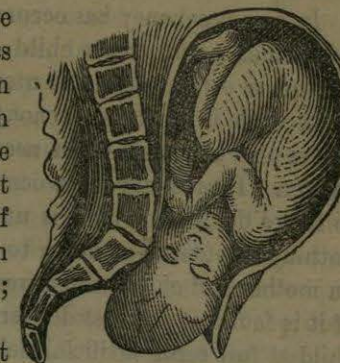


FIGURE 183.

This figure represents the head fixed or impacted at the upper strait of a narrow pelvis.

It is contended by some that the delivery may be effected, under peculiarly favorable circumstances, when the passage measures only two and a half inches, and at all events the effort should be made; but for the sake of the mother such cases should not be left long, as the chance is so small, and the risk of delay so great. When the passage is *less* than two and a half inches, spontaneous or artificial delivery is allowed to be impossible, and the only alternatives then are to dismember the child or open the mother. Which of these should be done depends on circumstances. Whenever the child *can* be brought away by the natural passages, though it be piecemeal, it always is so brought, unless the danger to the mother be greater than by the cesarian operation, in which case that operation is resorted to. By means of an instrument called the *cephalotribe*, which crushes the head, the child may be brought away, unless very large, when the pelvis only measures *two inches*. When the passage is *less than two inches*, the only resort is to the cesarean operation, which sometimes succeeds, and saves both mother and child, though more frequently the mother sinks.

The necessity of all these frightful operations is now much less than formerly, and may be done away with altogether. This important fact should be known universally, and also the means to be resorted to. In the first place, every young female should be examined, before marriage, by a competent person, if there be the slightest reason to suspect deformity; and in case the deformity is found to exist, the consequences if she becomes pregnant, must be laid before her. If, after being told this, she *will marry*, or has already done so, the means of *avoiding conception* should be placed at her disposal, so that she may not be made, of necessity, a helpless victim. These means may not be described here, though I have no hesitation in referring to them. When I know that the *life, or life-long health*, of a female, depends on her not becoming pregnant, I consider it my duty to put such means at her disposal, if she desires it. In many instances, I have known females suffer, several times, the most frightful tortures, merely to bring into the world the mangled fragments of a dismembered child, with the greatest risk to their own lives; and in others, I have known them in constant dread of becoming pregnant, because they were conscious it would be their death warrant. In such cases I leave it to *humanity*, and *common*

sense, as to whether such information should be withheld. I could not reconcile it with my notions of *duty* to withhold it.

In case pregnancy has occurred before the deformity is discovered, and it is then found that a *full grown* child cannot be born, premature delivery must be brought on; or, in other words, the uterus must be made to expel the child before the full term, while it is yet small enough to pass through the pelvis. This operation is of course only allowable when needed to preserve life, or to escape great suffering and danger. It must always be decided upon by the medical man, and performed by him, so that a description of it is uncalled for here. In Europe it is quite common, and nothing has tended so much to do away with those disgusting and horrid operations, on mother and child, which were formerly absolutely necessary in cases of deformity. If it is found at the first delivery of a female, or before, that she cannot bear a living child at full term, artificial delivery is accomplished at *seven* or *eight* months, thus avoiding all the danger to the mother, and *frequently preserving the child*. In the case of the *dwarf*, before referred to, when she became pregnant the second time, M. Dubois brought on premature delivery, and the child was *born alive*, with but little difficulty. According to statistics it appears that when artificial premature delivery has been induced, in *one hundred and sixty-one cases* only *eight mothers* have died, and all but *forty-six* of the infants were born alive. Of the whole number of children, *seventy-three* continued to live; and of the eight mothers, five died from other causes, leaving but *three* whose death resulted from the operation. Now when the fearful number of deaths from instruments, and other operations necessary at full term, is recollected, the advantage of this practice will be evident. In the cesarian operation, for instance, which is often the only remaining resort, but *one* female out of *six* recovers.

The delivery should be postponed as long as possible, so as to give the best chance for the child living. This must of course be decided upon after the size of the pelvis is ascertained. Seven months is the earliest time at which the foetus is viable, and it is much better left till eight, if the size of the parts will allow of its birth then. In case they are so small that it cannot be born even at seven months, we have our choice, as M. Chailly remarks, *between the dreadful Cesarian operation at full term, and producing early miscarriage*.

M. Dubois seems to recommend premature delivery in nearly all cases, if the smallest diameter is *under three inches*; because, as he remarks, spontaneous delivery at *full term* is then a very rare exception, and the danger and suffering to the mother is so great. He also recommends it when there are tumors, and even when the female is afflicted with any acute disease. Of course it is always necessary, before operating, to be sure the child is alive.

I knew a lady myself who had given birth, at full term, to *seven* children, all of which were torn from her with instruments, *dead*, owing to the smallness of the pelvis. When pregnant with the *eighth*, premature delivery was brought on, at my suggestion, at about *seven months and a half*. The foetus was born with comparative ease, and *lived*. But for this operation, she probably would never have been blessed with a living child at all. Since then she has avoided conception.

TUMORS IN THE PELVIS.

Tumors of various kinds are met with, both in the bones of the pelvis and attached to the soft parts. They frequently offer the most serious impediments to

delivery, and baffle the skill of the most experienced obstetricians. In fact they differ so much in their structure, their size, and their situation, that but few general directions can be given as to their management. In every case where one exists, pregnancy should never occur, if possible to be prevented, before it is removed; for though it may cause no inconvenience at other times, yet during delivery it may necessitate very serious operations, or even cause death. Some of these tumors are mere vesicles or bags, filled with fluid, and may be punctured and their contents let out, so as to make them less. Others are more or less solid but movable, and may often be supported above the upper strait till after the child is born. When they are so large as to block up the passage, and are either fixed or cannot be carried up into the womb, there is often no other choice than to either cut them out or to open the child's head—the practice being determined by the circumstances of the case. In some instances the bladder itself, distended with urine, has impeded delivery, and been mistaken for a tumor; and in other instances stones in the bladder have caused the same error.

A specimen of one of these tumors is represented in Fig. 190, and one of a polypus in Fig. 191.

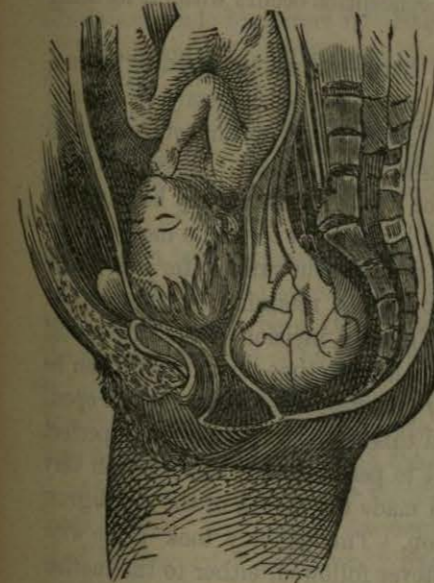


FIGURE 190.—Case of Tumor.

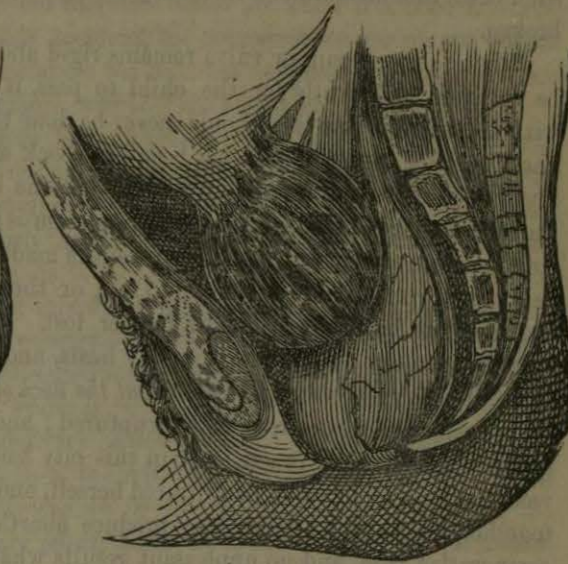


FIGURE 191.—Case of Polypus.

Figure 190 represents an ovarian tumor, which has descended before the head of the child, and completely blocked up the passage. The delivery, it will be seen, is utterly impossible in such a case, unless the tumor can either be pushed away, or reduced in size.

Figure 191 represents a case which occurred in the practice of Dr. Ramsbotham, and which terminated favorably. The polypus had a very long neck, and was forced out of the external opening by the child, which was then born with ease. I once saw a case myself, in which the labor was completely arrested by a large hard tumor about the middle of the vagina; it could not be moved, and delivery was evidently impossible while it remained. In consultation it was decided to cut it out, as there seemed but little circulation of blood in it, and its situation was favorable for the operation. This was accordingly done with but little trouble, and the child was born without difficulty in about twenty minutes after. The mother perfectly recovered.

TUMORS EXTERNALLY.

Sometimes tumors exist, externally, on the lips, or in the vulva, but as they seldom offer much obstruction, and are easily detected and managed, but little need

be said about them. They should always, however, be attended to, if discovered, before labor comes on, or better still, before pregnancy.

In some instances, the veins around the vulva become much enlarged, and resemble tumors, and sometimes even impede delivery. It is usual then to open them, and let out the blood, but not till the head is sufficiently low to press upon them and prevent dangerous bleeding.

OBSTRUCTIONS IN THE VAGINA, AND NARROWNESS OR OBSTINATE RESISTANCE OF THE VULVA AND PERINEUM.

The vagina may be partly closed by its sides growing together, or it may be united by bands and membranes stretching across; and these obstructions may be sufficient to impede or prevent delivery. Most usually they give way, and are gradually broken down by the pressure of the child's head; but if they prove too strong, after waiting a reasonable time, they must be cut through. Cases have even been known in which the *hymen* has been found perfect at delivery, and even offered considerable resistance, so as to necessitate its being cut through before the child could be born. In such cases this membrane is unusually strong, and conception occurs without its being broken.

When the perineum or vulva remains rigid and hard, so that the opening cannot be enlarged sufficiently for the child to pass, it may also be necessary to operate with the knife. But this should never be done till after every means of relaxation has been tried, and the head has been kept back as long as prudent. It is, however, always better to open a passage than to let one be *torn*, because it may be made in the most favorable place. When the perineum is allowed to be torn, the most serious consequences often ensue, and the patient is made a miserable sufferer for life. The vagina and rectum may be torn into one, or the power of retaining the contents of the intestine or bladder may be forever lost. When an incision is made, none of these evils follow; the wound speedily heals, and in a little time no trace of it can be seen. It has even been necessary to cut the neck of the womb when it would not open, to prevent the organ from being ruptured; and this has been done with perfect safety. A celebrated practitioner in this city had to perform such an operation very recently, on a female who had injured herself, and made the mouth of the womb grow together, by violent attempts to produce abortion. The delivery took place with comparative ease, and no unpleasant results whatever followed, either to the mother or the child.

CAUSES CONNECTED WITH THE CHILD, OR CHILDREN, WHICH MAY IMPEDE DELIVERY, OR MAKE IT DIFFICULT AND DANGEROUS.

Procidencia of the Umbilical Cord.

This means the escape of a portion of the cord before the child itself. It is most frequent in the irregular presentations, as they do not so fully close up the mouth of the womb, and it is most likely to occur at the commencement of labor, though not impossible at a later stage. Very often the cord descends when the membranes break, being carried down by the rush of the waters; and sometimes it is already in the sack, or bag, before the rupture takes place. This accident is comparatively frequent, being found to occur as often as once in about three hundred cases.

The causes which produce *procidencia* of the cord are most likely these: A large quantity of liquor amnii, and its sudden discharge; unnatural presentations; deformities of the superior strait of the pelvis; a very long cord; and rupturing the membranes too early. But it may also happen from other causes with which we are unacquainted.

There is seldom much difficulty in detecting this accident, because if the membranes are broken, it protrudes into the vagina, and if they remain whole it can be felt within the sack, and its pulsation will be quite distinct. Sometimes, it is true, it may be so firmly compressed between the fœtus and the walls of the pelvis, that its pulsation may be very indistinct, or even totally suspended for a time; but this only necessitates a little extra care.

Procidencia of the cord may be very serious for the child; in fact, it is a frequent cause of its death. The reason of this will be evident when the functions of the cord are borne in mind. The circulation in it is as necessary for the life of the child before birth as breathing is after, and when protruded first it can seldom escape being so pressed upon as to stop its circulation, and hence the danger. To the mother it makes no difference whatever, unless it be told and alarm her; or unless violent efforts are made to correct it. She had therefore better not know if it occurs.

If assistance is not rendered in this accident, the consequences are almost always fatal to the child, though in some instances the cord has remained hanging from the vulva several inches, for an hour or more, and still the infant has been saved.

If the fallen cord is detected before the membranes are broken, it may frequently be put back into the womb without much difficulty. The accoucheur must wait till the mouth of the womb is fully dilated, and then watch his opportunity, in an interval between two contractions, to push the cord upward, between the fœtus and the uterine walls. If he succeeds in this, as is usually the case, he must then break the membranes during the next pain, and this will bring the presenting part at once into the upper strait, and so block up the passage. To effect this manœuvre, it is requisite to introduce two or three fingers, and sometimes even the whole hand. It must never be attempted till the mouth of the womb is fully dilated, otherwise the membranes may be ruptured too soon, and the delivery be delayed, thus increasing the danger.

After the rupture of the membranes, the replacing of the cord becomes a much more difficult matter, and frequently cannot be effected at all; particularly if the head be descended far down. Every effort, however, must be made, and if unsuccessful the delivery should be hastened as much as possible. In many such cases the *forceps* are applied, and the child brought away at once, because every moment's delay increases the risk to its life.

Several different kinds of instruments have been invented to return the cord, but they are seldom at hand when needed, and none of them are so good as the hand itself.

If the return of the cord cannot be effected, and the progress of the labor will allow of it, the hand is introduced and the child turned, unless the position of the head will allow of the advantageous application of the *forceps*, in which case they are mostly resorted to. The only general rule is, to terminate the labor as speedily as possible consistent with the welfare of the mother. In spite of all that can be done, the pulsation is often found to cease, and when the child is born it is either quite dead or breathes but a few times.

A very frequent indication that the fœtus suffers from compression of the cord,

is a greenish color of the water discharged, owing to the discharge of *meconium* from the child's bowels. This is brought about, most probably, by its straining, and its efforts to relieve itself.

SHORTNESS OF THE CORD.

The cord is sometimes too short, and this may operate very unfavorably in many ways. It may keep the fœtus in the womb, and prevent it from descending to the bottom of the vagina,—it may cause the placenta to be torn away too soon, and so lead to serious flooding,—it may pull down and invert the womb,—or it may make the labor very tedious, and cause the death of the child.



FIGURE 192.



FIGURE 193.

Limbs cut off by the Cord.

Occasionally the cord can be slipped over the head, or limbs, when wound round them, and the strain upon it be thus removed. If this cannot be done, however, and the danger increases, relief may be obtained by *cutting the cord*, particularly if it be absolutely short. But this must not be done till everything indicates that the labor will probably soon terminate; and the end connected with the child must be carefully held, or tied.

In some cases the cord is not too short absolutely, but is made so by being twined round the body or limbs of the child, which are often *cut off* by it. M. Tasil saw a case where the cord round the neck had nearly severed the head; and Montgomery gives several instances in which the limbs had been amputated in this way. Two of these are represented above.

DESCENT OF OTHER PARTS WITH THE HEAD.

One Arm.—The descent of one arm along with the head may cause some delay and difficulty, but nature nearly always overcomes the impediment. It is seldom that the arm can be reduced, and therefore but little can be done at first; if the delivery be evidently arrested by it, the accoucheur must at last assist in the most feasible manner. Sometimes even it is necessary for him to apply the forceps.

The two Arms.—Even this difficulty is often overcome spontaneously, though much more rarely than the former one. As soon as it is detected, the accoucheur must endeavor to return one or both of the limbs, if the labor has not proceeded too far; and if he cannot succeed, the delivery must be accomplished as soon as possible, either by turning or with the forceps, unless there be reasonable ground for delay.

The Feet.—Either one or both of the feet may also descend with the head at first, though they usually recede and allow the head to be born alone. When they are so impacted as to prevent the delivery being completed, the accoucheur must interfere.

In most cases he will find it quite easy to push the feet above the head, and allow that to descend alone; but if this is not possible, he must introduce one hand, grasp the feet with it, and pull them down, while the other pushes the head up. This will turn the child, and if it be in no immediate danger, and the mother is not suffering, the rest may be left to nature; but if the contrary is the case, the delivery must be finished as speedily as possible. When the head is very low down, it may be necessary to use the forceps, but great care must be observed not to grasp the feet along with the head when using them.

A Foot and Arm.—The proceeding is the same as with the foot alone. If the limbs cannot be returned, the head and arm must be pushed up, while the foot is brought down.

TWINS AND TRIPLETS.

In most cases where there are two or more children, the delivery is easier than with one, because they are generally small, and the first one so prepares the way that the rest are born without difficulty. It is also a fact that twins are nearly always born before full term, and consequently are not quite grown.

The expulsion of the second fœtus usually takes place immediately after the first, though sometimes the womb stops contracting, and it is not born for half an hour or more, and it may even remain for hours or days. It is a question whether, in such a case, the second delivery should be left for nature to finish, or whether the accoucheur should terminate it sooner artificially. The most general practice is to wait only about half an hour, and then, if the womb is still inert, use friction, or other necessary means, to excite it, and accomplish the second delivery as soon as possible. If there be more than two, the proceeding is still the same.

Some difficulties may arise however with twins, which it is necessary to be prepared for. Thus the two heads may come together, and mutually impede each other. In this case the one that moves the easiest must be pushed up till the other is descended sufficiently low. One head may also descend with one or two feet; in which case, if the feet cannot be returned, the head must be pushed up, and they must be brought down. The force exerted, however, must not be very great at first, because *one may belong to each of the children*, and much injury may be done; a little gentle traction will soon detect this however, with ordinary care. If two arms, or one arm and a foot descend, the same care is also required, before pulling upon them, to ascertain that they are not parts of the *two children*. Sometimes when the head of one twin descends along with the feet of the other, they may, if small, descend together. But if this is impossible, and interference is needed, we must first try to push up the head; and if this cannot be done, *it* must be drawn upon, not the feet; because if the feet were drawn down the two children would soon occupy the passage together, body and head, and would perhaps become firmly wedged. In nearly every case one of the twins presents by the head and the other by the feet, as formerly shown.

EXCESSIVE SIZE OF THE FÆTUS, OR THE DISEASED DEVELOPMENT OF CERTAIN PARTS.

Fœtus too large.—It is very rarely the case that the fœtus is so large as not to pass easily through a well-formed pelvis, though such cases have been known. The mode of proceeding is of course precisely the same as if the pelvis were too small.

If no means will succeed in abstracting the fœtus whole, it must be made less; but nature should be first allowed full time to act with all her force.

Hydrocephalus.—This consists of an accumulation of water in the head of the child, and is usually termed watery head. The bones of the cranium will sometimes be widely separated by it, and the head be made so large that it cannot possibly be born till made less. The causes which produce this disease before birth are unknown.

In cases of hydrocephalus, the head does not descend into the straits, owing to its size, and is felt to be full and firm during a pain, but soft and yielding during the intervals, especially at the fontanelles and sutures, which are also very large. The bones are usually very wide asunder, or even totally separated as if floating in the fluid.

In some cases, when the quantity of fluid is but small, the delivery may terminate spontaneously, the head lengthening, from being so soft, and thus adapting itself to the size and form of the strait. Most frequently, however, assistance is rendered in such cases, either by the forceps, which will sometimes succeed, or by puncturing the head and letting out the fluid. This operation has been performed and the child saved, though such an occurrence can never be reasonably anticipated. Such instances, however, show that great care should be taken not to injure the brain, as that would destroy the small chance there is.

Dropsy may also occur in the chest or abdomen of the child, causing similar difficulty with dropsy of the head. If the natural or artificial expulsion of the child cannot be effected without, the part must be carefully punctured, and the fluid evacuated.

Tumors on the Fœtus.—Sometimes various kinds of tumors form on the child's body, but they are rarely so large as to prevent delivery, though they may delay it. If they should be too large, however, it will be necessary to remove them, as in the case of tumors in the pelvis.

OSSIFICATION OF THE HEAD.

Occasionally the bones of the head will be so hard, and so closely united, that they will not overlap, in which case the labor may be very difficult, unless the head is small, or the pelvis very large. If after waiting a reasonable time, there be no prospect of the labor terminating naturally, and the female is exhausted, it must be terminated artificially, as if it were a case of deformed pelvis. It is seldom, however, that the head does not eventually give way.

VARIOUS PRESENTATIONS AND POSITIONS OF THE FŒTUS, FROM WHICH THE LABOR MAY BE DIFFICULT OR PROTRACTED.

Presentations of the Face.—These are usually more difficult and longer than those of the head. They will nearly always, however, terminate spontaneously, or with ordinary assistance; but, if they should not, artificial delivery must be practiced, either by turning, if the case be not too far advanced, or with the forceps. Some of the most celebrated authors recommend that all these cases should be treated like cases of natural labor. Dr. Merriman says that in some *very favorable* instances turning may be practiced with safety and advantage; but Dr. Lee says, "My firm

belief is, that the child, even under such favorable circumstances, would have a far better chance to be born alive if the labor were left wholly to nature; or, if the natural powers were inadequate, to be extracted with the forceps." In such cases there is often too little patience, and too much interference.

The Forehead inclined against the Pubes.—In this position the labor may be long delayed, and difficult, and most practitioners endeavor to turn the head round, if they cannot bring down the feet, or else apply the forceps at once. Dr. Lee however remarks, and very properly, "From all that I have seen of these cases, I am disposed to believe that it is best to leave them to the natural efforts, and to avoid all interference, all attempts to change the position, while the pains continue regular, and the head advances, however slowly." If the labor does not progress at all, or the female becomes exhausted, of course artificial delivery is necessary.

Several *varieties* of head and face presentations may also retard labor considerably, but nature nearly always overcomes the difficulty; or if she cannot do so, mere ordinary assistance is required.

PRESENTATIONS OF THE LOWER EXTREMITIES.

It has already been remarked, in another place, that breech presentations mostly terminate spontaneously, and that but few of them require interference, in some of them even, when the pelvis is large, or the fœtus small, the delivery is effected quite rapidly. Still such presentations occasionally cause delay and difficulty, and necessitate more or less assistance.

As soon as the mouth of the womb is opened sufficiently, unless the labor is rapidly progressing without it, one of the fingers may be introduced and *hooked* over the groin, and a little gentle force exerted upon it. This will assist very much, and will often be all-sufficient. If the pelvis is too small, or the fœtus too large, and the delivery is evidently arrested, the breech must be pushed up, if possible, and the feet be brought down, as in turning. The remarks of Dr. Lee on this presentation are so plain and practical, and marked with such good sense, that I think a better explanation of what should be done in such cases could hardly be given; I will therefore quote his remarks in full:

"Having ascertained that the nates present, whatever the position of the fœtus may be, whether the abdomen look backward or forward, we cannot alter it with safety, and no change can be required to be made till the nates and lower extremities are expelled. The os uteri dilates slowly in most cases of nates presentation, but we cannot employ any means with advantage to accelerate the delivery, and in most cases, if we do not interfere, but wait patiently, they are gradually pressed lower and lower into the pelvis, and at last escape from the vagina without any assistance. If the os uteri and vagina are imperfectly dilated, and the nates are drawn down or pass rapidly through the pelvis, the child is often lost. The membranes should not be ruptured, and the expulsion of the nates should be left entirely to the natural efforts, unless the labor is protracted and exhaustion takes place. Except supporting the perineum, nothing is required in a great proportion of these cases before the nates and lower extremities have been expelled, when it becomes necessary to ascertain precisely the relative position of the child to the pelvis, to rectify this if it is unfavorable, and artificially extract the superior extremities and head, to prevent the fatal compression of the umbilical cord. If we find, after the expulsion of the nates and lower extremities, that the toes are directed forward, or that the child

has its abdomen applied to the anterior part of the uterus, with its back along the spine of the mother, we should wrap the nates and sides in a soft napkin, and turn the child very gently round during a pain, observing to which side the feet turn, till its abdomen is to the spine of the mother, and the toes are directed backward to the hollow of the sacrum, or to the side of the pelvis. In many cases the nates turn round in the passage spontaneously, so that it is not required artificially to alter the position. It is necessary always to recollect that it is possible to turn the body of the child round without turning the face round into the hollow of the sacrum, and that the chin may be over the symphysis pubis when the front of the chest and abdomen are turned backward. After the lower extremities and body of the child have been expelled, and placed in the most favorable position for the extraction of the superior extremities and head, it is necessary to proceed without loss of time to draw these through the pelvis, that the child may not be destroyed by compression of the umbilical cord. As pressure upon the cord for a very short time will in some cases kill the child, it is proper to watch closely the pulsations of its arteries. Draw the body of the child forward as far as the arm-pits, and place it over the palm of your right hand and fore-arm, and gently draw the body toward the left thigh of the mother; then pass the fore and middle fingers of your left hand along the back part of the left arm of the child to the elbow-joint, and press down the arm with your fingers along the thorax of the child, and extract it. Then transfer the body of the child and left arm to your left hand and fore-arm for support, and with the fore and middle fingers of your right hand disengage and bring down, in the same way, the right arm of the child; then pass the fore and middle fingers of your left hand into the mouth of the child, or rather over the lower and upper jaw, and at the same time place the fore and middle fingers of your right hand over the back part of the neck and occiput, and with the fingers of the two hands thus applied extract the head, in the line of the axis of the pelvis. The perineum is very rigid in some cases of nates presentation, where it is the first child, and it will be torn if the head is extracted hastily, and not drawn forward to the symphysis pubis. When you feel the pulsations of the cord beginning to cease, you may be tempted to employ greater extracting force than the neck of the child and perineum can bear, and both may be destroyed. The only method of obviating this is to press back the edge of the perineum, that the air may gain admission into the mouth of the child, and the respiration go on, when the circulation in the cord has been arrested, until the perineum is sufficiently dilated to slide back over the face, and allow the head to pass. I have seen from twenty minutes to half an hour elapse in some cases, after the cord had ceased to pulsate, before the perineum would allow the head to escape, during which time the respiration was regularly performed. This is not a new practice; it has been alluded to by some of the old accoucheurs, and some others; and the advantages to be derived from it were fully pointed out some years ago by Dr. Bigelow, in a paper published in the American Journal of the Medical Sciences, 'on the means of affording respiration to children in reversed presentations.' The object of Dr. Bigelow in this paper is to show that in many cases the life of the child may be saved by forming a communication between the mouth and atmosphere previous to the delivery of the head. If the head be low down, the fingers alone can give the necessary assistance; but if it is high in the pelvis, and is reached with difficulty, the assistance of a tube may be necessary. He recommends a flat tube, which is to be guarded, and kept within the fingers of the inserted hand.

"Where the pelvis of the mother is small or distorted, and the child large and unfavorably situated, the efforts of nature may be insufficient to expel the child, either alive or dead. The nates may become so firmly impacted in the pelvis, that they cannot advance without artificial assistance. A finger should be passed up to one of the groins, and when a pain comes on, a considerable extracting force may be exerted with it, without injuring the child; or a soft handkerchief may be passed between the thigh and abdomen, and the nates drawn down; but this cannot be done unless they have descended low into the cavity of the pelvis. Where these means fail, and it is impossible to extract the child alive, the blunt hook or crotchet must be employed. In cases of nates presentation, where the pelvis is distorted, after the extraction of the trunk and extremities, it is necessary to perforate the back part of the head, and complete the delivery with the crotchet. In presentations of the feet and knees the treatment does not essentially differ from that required in presentations of the nates."

PRESENTATIONS OF THE SHOULDER.

These are the most dangerous of all the presentations, and most frequently require assistance; in fact, the delivery can seldom be terminated naturally when the shoulder presents.

Sometimes the child will pass doubled up, as formerly explained, but this must not be too confidently expected. Dr. Lee says:

"It is now a general rule, established in all countries where midwifery is understood, that in cases of preternatural labor, where the shoulder and superior extremities of the child present, the operation of turning ought to be performed. But the hand must not be forced into the uterus, if the orifice is rigid and undilatable; it should be dilated nearly to the size of a half-a-dollar piece or more, or the margin ought to be very thin, soft, and yielding, if it is expanded to a smaller extent than this when turning is attempted. If the os uteri will not admit the extremities of the fingers and thumb in a conical form to be introduced without much force, if it is thick, hard, and unyielding, some delay is necessary, that the parts may relax, death being almost always the consequence of thrusting the hand with violence through the orifice of the uterus in a rigid and undilatable condition, whether the membranes be ruptured or not. But as soon as it will admit of the safe introduction of the hand, where you have ascertained that an arm presents, no time should be lost in completing the delivery, otherwise the membranes may give way, the liquor amnii be evacuated, and a case of little difficulty and danger be suddenly converted into one equally hazardous to the mother and child. In all cases of labor, where the first stage is far advanced without the nature of the presentation being positively determined, or a superior extremity is felt through the membranes, the patient should be kept in the horizontal position, that they may not be ruptured; and you should remain in constant attendance upon her, and be prepared to interfere the instant the necessity arises."

Speaking of the operation of turning in these cases, he remarks as follows:

"In some favorable cases of shoulder and arm presentation, the uterus is widely dilated before the membranes are ruptured and the liquor amnii discharged; and no difficulty is experienced in passing the hand into the uterus, laying hold of the feet, and extracting the child by the operation of turning. If the uterus is not contracting strongly and at short intervals, little resistance is offered to the introduction of

the hand, and the delivery may be speedily accomplished with safety both to the mother and child. But if the membranes have burst, the liquor amnii escaped, and the uterus has been contracting firmly upon the child many hours before the operation of turning is attempted, the child is often destroyed by the pressure, and the coats of the uterus exposed to great danger from contusion and laceration in passing up the hand and bringing down the feet. The shoulder and thorax become so strongly impacted in the pelvis, that great force is required to introduce the hand to grasp the feet, and much exertion necessary before the position can be changed.

In other cases of shoulder and arm presentation, the membranes burst, and the liquor amnii escapes at the commencement of labor, and the os uteri is rigid and undilated, so that the hand cannot be passed into the uterus after the labor has continued many hours. The difficulty and danger of these cases is greatly increased when the uterus is contracting with violence, and the pelvis is distorted, or a disproportion exists between the child and pelvis from any other cause. The greater number of women, if abandoned to the efforts of nature under these circumstances—the uterus having no power to alter the position of the fœtus—would ultimately die undelivered, from exhaustion or rupture of the uterus and vagina.”

Fortunately these cases are very rare, and when assistance is rendered *early*, the difficulty is readily overcome. This is a strong reason why all women especially should know what to do, because a little timely help may save much suffering, or even life.

CHAPTER LXXIV.

UTERINE HEMORRHAGE, OR FLOODING, DURING LABOR.

THIS is always a troublesome, and frequently a fatal accident. It should be carefully watched for, and attended to as early as possible—a few minutes frequently determining the recovery or death of the patient.

The chief causes of flooding are, the too early or violent separation of the placenta; insertion of the placenta over the mouth or on the neck of the womb; laceration of the womb or vagina; the bursting of a swelled vein; rupture of one or more of the blood-vessels of the uterus, and breaking of the cord.

Probably the most frequent of these causes are the premature or violent separation of the cord, and the bursting of the blood-vessels. The insertion of the placenta over the mouth of the womb, instead of on the fundus, occurs very seldom, but when it does, severe flooding is nearly certain to follow, because the placenta has then to be torn, by the expansion of the parts, at the very commencement of the labor, and probably continues to pour out blood for a long time before the child is delivered and it can be expelled. In fact, this occurrence, unless the labor terminates very speedily, is nearly always fatal to the mother, and frequently to the child also. In most cases, there is more or less hemorrhage from this cause during gestation, particularly after the sixth month, when the neck of the uterus begins to enlarge more than the placenta, and consequently tears away from it. Abortion frequently results also, if the flooding be not stopped. Madame Boivin tells us that in *twenty thousand three hundred and fifty-seven* deliveries, there were but *eight* cases in which the placenta grew over the mouth of the womb, which is equal to *one* case in every *two thousand five hundred and fifty-four*. Dr. Churchill has collected the accounts of *one hundred and seventy-four* cases of this kind, and he finds that out of these *forty-eight* terminated fatally; or nearly *one out of every three*.

The rupture of the blood-vessels may occur when they are too much engorged with blood, or when their coats are weakened and corroded by disease. Shortness of the cord may also produce a rupture of the vessels, by the strain it causes on them and on the membranes.

In many cases the flooding comes on suddenly, without any warning whatever, though most usually it is preceded by a sensation of weight, heat, and fluttering in the pelvis, pains in the thighs and back, flushed face, headache, and dizziness. The pulse also becomes irregular, the hands and feet grow cold, and the ears often ring or buzz. The only certain sign that the hemorrhage has really commenced is the appearance of the blood itself, and this often occurs, as previously remarked, without any premonitory sign whatever.

The danger from hemorrhage during labor is greatest when it commences the earliest, because it has then the longest to last. From any of the causes mentioned, it is evident that it must continue till delivery is accomplished, and therefore if it