CHAPTER V.

PELVIC PRESENTATIONS.

UNDER the head of *pelvic* presentations it is customary to include all cases in which any part of the lower extremities of the child presents. By some these are further subdivided into *breech*, *footling*, and *knee* presentations; but, although it is of consequence to be able to recognize the feet and the knee when they present, so far as the mechanism and management of delivery are concerned, the cases are identical, and, therefore, may be most conveniently considered together.

Frequency.—Presentations coming under this head are far from uncommon; those in which the breech alone occupies the pelvis are met with, according to Churchill, once in fifty-two labors, while Ramsbotham estimates that it presents more frequently, viz., once in 38.8 labors. Footling presentations occur only once in ninety-two cases. They are probably often the mere conversion of original breech presentations, the feet having come down during the labor, either in consequence of the sudden escape of the liquor amnii, when the breech was still freely movable above the brim, or from some other cause. Knee presentations are extremely rare, as may be readily understood if it be borne in mind that to admit them the thighs must be extended, hence the vertical measurement of the child must be greatly increased, and therefore it could not be readily accommodated within the uterine cavity, unless of unusually small size. As a matter of fact, Mme. La Chapelle found only one knee presentation in upward of 3000 cases.

The causes of pelvic presentations are not known. They are probably the same as those which produce other varieties of malpresentation, especially an excess of liquor amnii and slight pelvic contraction; and it is not unlikely that, in certain women, there may be some peculiarity in the shape of the uterine cavity which favors their production. It would be difficult otherwise to explain such a case as that mentioned by Velpeau, in which the breech presented in six labors.

Prognosis.—The results, as regards the mother, are in no way more unfavorable than in vertex presentation. The first stage of the labor is generally tedious, since the large rounded mass of the breech does not adapt itself so well as the head to the lower segment of the uterus, and dilatation of the cervix is consequently apt to be retarded. The second stage is, however, if anything, more rapid than in vertex cases; and even when it is protracted, the soft breech does not produce such injurious pressure on the maternal structures as the hard and unyielding head.

The result is very different as regards the child. Dubois calculated

that one out of eleven children was stillborn. Churchill estimates the mortality as much higher, viz., one in three and one-fifth. The latter certainly indicates a larger number of stillbirths than is consistent with the experience of most practitioners, and more than should occur if the cases be properly managed; but there can be no doubt that the risk to the child is, even under the most favorable circumstances, very great. Even when the child is not lost, it may be seriously injured. Dr. Rugé has tabulated a series of twenty-nine cases in which there were found to be fractures of bones or other injuries.[1]

The chief source of danger is pressure on the umbilical cord, in the interval elapsing between the birth of the body and the head. At this time the cord is very generally compressed between the head of the child and the pelvic walls, so that circulation in its vessels is arrested. Hence the aëration of the fœtal blood cannot take place; and, pulmonary respiration not having been yet established, the child dies asphyxiated. There are other conditions present which tend, although in a minor degree, to produce the same result. One of these is that the placenta is probably often separated by the uterine contractions when the bulk of the body is being expelled, as, indeed, takes place under analogous circumstances when the vertex presents; the necessary result being the arrest of placental respiration. Joulin thinks that the same effect may be produced by the compression of the placenta between the contracted uterus and the hard mass of the fœtal skull. Probably all these causes combine to arrest the functions of the placenta; and, if the delivery of the head, and consequently the establishment of pulmonary respiration, be delayed, the death of the child is almost inevitable. The corollary is that the danger to the child is in direct proportion to the length of time that elapses between the birth of the body and that of the head.

The risk to the child is greater in footling than in breech cases, because in the former the maternal structures are less perfectly dilated, in consequence of the small size of the feet and thighs, and, therefore, the birth of the head is more apt to be delayed.

Diagnosis.—Inasmuch as the long axis of the child corresponds with the long axis of the uterus in pelvic, as in vertex presentations, there is nothing in the shape of the uterus to arouse suspicion as to the character of the case. Still it is often sufficiently easy to recognize a pelvic presentation by abdominal examination, if we have occasion to make one. The facility with which it may be done depends a good deal on the individual patient. If she be not very stout, and if the abdominal parietes be lax and non-resistant, we shall generally be able to feel the round head at the upper part of the uterus, much firmer and more defined in outline than the breech. The conclusion will be fortified if we hear the fœtal heart beating on a level with, or above, the umbilicus. The greater resistance on one side of the abdomen will also enable us to decide, with tolerable accuracy, to which side the back of the child is placed. Information thus acquired is, at the best, uncertain; and we can never be quite sure of the existence of a pelvic

[1] Bull. gén. de Thérap., August, 1875.

presentation until we can corroborate the diagnosis by vaginal examination.

[In view of the greater risk to the life of the fœtus in a delivery by the breech over that by the vertex, it is advisable, when the position is determined while the membranes are still intact, to change the presentation from pelvic to cephalic by external bimanual manipulation.—Ed.]

The first circumstance to excite suspicion on examination *per vaginam*, even when the os is undilated, is the absence of the hard globular mass felt through the lower segment of the uterus, so characteristic of vertex presentations. When the os is sufficiently open to allow the membranes to protrude, although the presenting part is too high up to be within reach, we may be struck with the peculiar shape of the bag of membranes, which, instead of being rounded, projects a considerable distance through the os, like the finger of a glove. This is a peculiarity met with in all malpresentations alike, and is, indeed, much less distinct in breech than in footling presentations, because in the former the membranes are more stretched, just as they are in vertex cases. When the membranes rupture, instead of the waters dribbling away by degrees, they often escape with a rush, in consequence of the pelvic extremity not filling up the lower part of the uterus so accurately as the head, which acts as a sort of ball-valve, and prevents the sudden and complete discharge of the waters.

Often on first examining, even when the membranes are ruptured, the presentation is too high up to be made out accurately. All that we can be certain of is, that it is not the head; and the case must be carefully watched, and examinations frequently repeated, until the precise nature of the presentation can be established. If the breech present, the finger first impinges on a round, soft prominence, on depressing which a bony protuberance, the tuber ischii, can be felt. On passing the finger upward it reaches a groove beyond which a similar fleshy mass, the other buttock, can be felt. In this groove various characteristic points, diagnostic of the presentation, can be made out. Toward one end we can feel the movable tip of the coccyx, and above it the hard sacrum, with its rough projecting prominences. These points, if accurately made out, are quite characteristic, and resemble nothing in any other presentation. In front there is the anus, in which it is sometimes, but by no means always, possible to insert the tip of the finger. If this can be done, it is easy to distinguis' it from the mouth, with which it might be confounded, by observing that the hard alveolar ridges are not contained within it. Still more in front we may find the genital organs, the scrotum in male children being often much swollen if the labor has been protracted. Thus it is often possible to recognize the sex of the child before birth.

The breech might be mistaken for the face, especially if the latter be much swollen; but this mistake can readily be avoided by feeling the spinous processes of the sacrum.

The knee is recognized by its having two tuberosities with a depression between them. It might be confounded with the heel, the elbow, or the shoulder. From the heel it is distinguished by having two tuberosities instead of one; from the elbow, by the latter having one sharp tuberosity, with a depression on one side, instead of a central depression and two lateral prominences; and from the shoulder, by the latter being more rounded, having only one prominence, running from which the acromion and clavicle can be traced.

The foot may be mistaken for the hand. This error will be avoided by remembering that all the toes are in the same line, and that the great toe cannot be brought into apposition with the others, as the thumb can with the fingers. The internal border of the foot is much thicker than the external, whereas the two borders of the hand are of the same thickness. Moreover, the foot is articulated at right angles to the leg, and cannot be brought into a line with it, as the hand can with the arm. Finally, the projection of the calcaneum is characteristic, and resembles nothing in the hand.

Mechanism.—As is the case in other presentations, obstetricians have very variously subdivided breech presentations, with the effect of needlessly complicating the subject. The simplest division, and that which will most readily impress itself on the memory of the student, is to describe the breech as presenting in four positions, analogous to those of the vertex, the sacrum being taken as representing the occiput, and the positions being numbered according to the part of the pelvis to which it points. Thus we have—

First, or *left sacro-anterior* (sacro-læva anterior, S.L.A., corresponding to the first position of the vertex). The sacrum of the child points to the left foramen ovale of the mother.

Second, or *right sacro-anterior* (sacro-dextra anterior, S.D.A., corresponding to the second vertex position). The sacrum of the child points to the right foramen ovale of the mother.

Third, or *right sacro-posterior* (sacro-dextra posterior, S.D.P., corresponding to the third vertex position). The sacrum of the child points to the right sacro-iliac synchondrosis of the mother.

Fourth, or *left sacro-posterior* (sacro-læva posterior, S.L.P., corresponding to the fourth vertex position). The sacrum of the child points to the left sacro-iliac synchondrosis of the mother.

Of these, as with the corresponding vertex positions, the first (S.L.A.) and third (S.D.P.) are the most common, their comparative frequency, no doubt, depending on the same causes. The mechanical conditions to which the presenting part is subjected are also identical, but the alterations of position of the breech in its progress are by no means so uniform as those of the head, on account of its less perfect adaptation to the pelvic cavity. The mechanism of the delivery of the shoulders and head in breech presentations, moreover, is of much greater practical importance than that of the body in vertex presentations, inasmuch as the safety of the child depends on its speedy and satisfactory accomplishment. Bearing these facts in mind, it will suffice to describe briefly the phenomena of delivery in the first (S.L.A.) and third (S.D.P.) breech positions.

Position of the Child at Brim.—In the first position (S.L.A.) (Fig. 113) the sacrum of the child points to the left foramen ovale; its back is consequently placed to the left side of the uterus and anteriorly, and

its abdomen looks to the right side of the uterus and posteriorly. The sulcus between the buttocks lies in the right oblique diameter of the pelvis, while the transverse diameter of the buttocks lies in the left oblique diameter, the left buttock being most easily within reach. As in vertex presentations, the hips of the child lie on the same level at the pelvic brim, although Naegele describes the left hip as placed lower than the right.

FIG. 113.

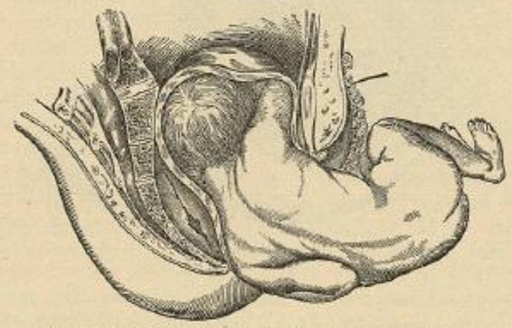
First, or left sacro-anterior position (S.L.A.) of the breech.

As the pains act on the body of the child, the breech is gradually forced through the pelvic cavity, retaining the same relations as at the brim, its progress being generally more slow than that of the head, until it reaches the lower pelvic strait, when the same mechanism which produces rotation of the occiput comes to operate upon it. The result is a rotation of the child's pelvis, so that its transverse diameter comes to lie approximately in the antero-posterior diameter of the outlet, its antero-posterior diameter corresponds to the transverse diameter of the mother's pelvis, the left hip lies behind the pubes, and the right toward the sacrum. This rotation, which is admitted by the majority of obstetricians, is altogether denied by Naegele. There can be no doubt, however, that it does generally take place, but by no means so constantly as the corresponding rotation of the vertex; and it is not uncommon for it to be entirely absent, and for the hips to be born in the oblique diameter of the outlet. The body of the child is said frequently not to follow the movement imparted to the hips, so that there is more or less of a twist in the vertebral column.

The left hip now becomes firmly fixed behind the pubes, and a movement of extension, analogous to that of the head in vertex presentations, takes place. The right, or posterior, hip revolves around the fixed one, gradually distends the perineum, and is expelled first,

the left hip rapidly following. As soon as both hips are born, the feet slip out, unless the legs are completely extended upon the child's abdomen. The shoulders soon follow, lying in the left oblique diameter of the pelvis (Fig. 114).[1] The left shoulder rotates forward behind the pubes, where it becomes fixed, the right shoulder sweeping over the perineum, and being born first. The arms of the child are generally found placed upon its thorax, and are born before the shoulders. Sometimes they are extended over the child's head, thus causing considerable delay, and greatly increasing the risk to the child. It is now generally admitted that such extension is most apt to occur when traction has been made on the child's body with the view of hastening delivery, and that it is rarely met with when the expulsion of the body is left entirely to the normal powers.

FIG. 114.



Passage of the shoulders and partial rotation of the thorax.

Delivery of the Head.—When the shoulders are expelled the head enters the pelvis in the opposite, or right oblique diameter, the face looking to the right sacro-iliac synchondrosis. As the greater part of the child is now expelled, and as the head has entered the vagina, the uterus, having a comparatively small mass to contract upon, must obviously act at a mechanical disadvantage. Still the pressure of the head on the vagina is a powerful inciter, the accessory muscles of parturition are brought into strong action, and there may be sufficient force to insure expulsion of the head without artificial aid. On account of the great resistance to the descent of the occiput from its articulation with the spinal column, the pains have the effect of forcing down the anterior portion of the head, and this insures the complete flexion of the chin upon the sternum (Fig. 115). This is a great advantage from a mechanical point of view, as it causes the short occipito-frontal diameter of the head to enter the pelvis in the axis of the uterus and the brim. If the head should be in a state of partial extension—as sometimes happens when the pelvis is unusually roomy—the occipito-mental diameter is placed in a similar relation to the brim, a position certainly less favorable to the easy birth of the head. As the head

[1] This figure, however, represents the position of the shoulders in the second (S.D.A.) position.

descends it experiences a movement of rotation, the occiput passing forward and to the right, behind the pubic arch, the face turning backward into the hollow of the sacrum. The body of the child will be observed to follow this movement, so that its back is turned toward the mother's abdomen, its anterior surface to the perineum. The nape of the neck now becomes firmly fixed under the arch of the pubes, the pains act chiefly on the anterior portion of the head, and cause it to sweep over the perineum, the chin being first born, then the mouth and forehead, and lastly the occiput.

FIG. 115.

Descent of the head.

It is needless to describe the differences between the mechanism of the second (S.D.A.) and first (S.L.A.) positions, which the student who has mastered the subject of vertex presentations will readily understand. It is necessary, however, to say a few words as to sacro-posterior positions, choosing for that purpose the third (S.D.P.), which is the more common of the two. This is exactly the opposite of the first (S.L.A.) position. The sacrum of the child points to the right sacro-iliac synchondrosis, its abdomen looks forward and to the left side of the mother. The transverse diameter of the child's pelvis lies in the left oblique diameter, the right hip being anterior. The birth of the body generally takes place exactly in the way that has been already described, the right hip being toward the pubes.

As the head descends into the pelvis the occiput most usually rotates along its right side—the rotation having been often already partially effected when that of the hips had been made—until it comes to rest behind the pubes, the face passing backward along the left side of the pelvis into the hollow of the sacrum. This change corresponds exactly to the anterior rotation of the occiput in occipito-posterior positions, and is the natural and favorable termination.

Sometimes, further rotation does not take place, and the occiput then turns backward into the hollow of the sacrum. What then generally occurs is, that the pains continue, for the reason already mentioned, to depress the chin and produce strong flexion of the face on the sternum, the occiput becoming fixed on the anterior border of

the perineum. The pains continuing to act chiefly on the anterior part of the head, the face is borne first behind the pubes, the occiput only slipping over the perineum after the forehead has been expelled.

The second mode of termination of such positions is mentioned in most works, on the authority of one or two recorded cases; but although mechanically possible, it is certainly an event of extreme rarity. The chin, instead of being flexed on the sternum, is greatly extended, so that the face of the child looks upward toward the pelvic brim. The chin then hitches over the upper edge of the pubes and becomes fixed there, while the force of the uterine contractions is expended on the posterior part of the head, which descends through the pelvis, distending the perineum, and is born first, the face subsequently following.

The mechanism of the delivery of the body and head in cases in which the feet originally present does not differ, in any important respect, from that which has been already described, and requires no separate notice.

Treatment.—From what has been said of the natural mechanism, it is evident that one of the most fruitful causes of difficulty and complication is undue interference on the part of the practitioner. It is, no doubt, tempting to use traction on the partially born trunk in the hope of expediting delivery; but when it is remembered that this is almost certain to produce extension of the arms above the head, and subsequently extension of the occiput on the spine, both of which seriously increase the difficulty of delivery, the necessity of leaving the case as much as possible to Nature will be apparent.

Having once, therefore, determined the existence of a pelvic presentation, nothing more should be done until the birth of the breech. The membranes should be even more carefully prevented from prematurely rupturing than in vertex presentations, since they serve to dilate the genital passages better than does the presenting part. Hence they should be preserved intact, if possible, until they reach the floor of the pelvis, instead of being punctured as soon as the os is fully dilated. The breech when born should be received and supported in the palm of the hand.

When the body is expelled as far as the umbilicus, the dangers to the child commence; for now the cord is apt to be pressed between the body of the child and the pelvic walls. To obviate this risk as much as possible, a loop of the cord should be pulled down, and carried to that part of the pelvis where there is most room, which will generally be opposite one or the other sacro-iliac synchondrosis. As long as the cord is freely pulsating we may be satisfied that the life of the child is not gravely imperilled, although delay is fraught with danger from other sources which have been already indicated. In most cases the arms now slip out; but it may happen, even without any fault on the part of the accoucheur, that they are extended above the head, and it is of great importance that we should be thoroughly acquainted with the best means of liberating them from their abnormal position.

They must, of course, never be drawn directly downward, or the almost certain result would be fracture of the fragile bones. We should endeavor to make the arm sweep over the face and chest of the child, so that the natural movements of its joints should not be opposed. If the shoulders be within easy reach, the finger of the accoucheur should be slipped over that which is posterior—because there is likely to be more space for this manœuvre toward the sacrum—and gently carried downward toward the elbow, which is drawn over the face, and then onward, so as to liberate the forearm. The same manœuvre should then be applied to the opposite arm. It may be that the shoulders are not easily reached, and then they may be depressed by altering the position of the child's body. If this be carried well up to the mother's abdomen, the posterior shoulder will be brought lower down; and, by reversing this procedure and carrying the body back over the perineum, the anterior shoulder may be similarly depressed. It is only very exceptionally, however, that these expedients are required.

Birth of the Head.—The arms being extracted, some degree of artificial assistance is, at this time, almost always required. If there be much delay, the child will almost certainly perish. Attempts have been made, in cases in which delivery of the head could not be rapidly effected, to establish pulmonary respiration by passing one or two fingers into the vagina, so as to press it back and admit air to the child's mouth, or by passing a catheter or tube into the mouth. Neither of these expedients is reliable, and we should rather seek to aid Nature in completing the birth of the head as rapidly as possible. The first thing to do, supposing the face to have rotated into the cavity of the sacrum, is to carry the body of the child well up toward the pubes and abdomen of the mother without applying any traction for fear of interfering with the all-important flexion of the chin on the sternum.

If now the patient bear down strongly, the natural powers may be sufficient to complete delivery. If there be any delay, traction must be resorted to, and we must endeavor to apply it in such a way as to insure flexion. For this purpose, while the body of the child is grasped by the left hand, and drawn upward toward the mother's abdomen, the index and middle fingers of the right hand are placed on the back of the child's neck, so that their tips press on either side of the base of the occiput, and push the head into a state of flexion. In most works we are advised to pass the index and middle fingers of the left hand at the same time over the child's face, so as to depress the superior maxilla. Dr. Barnes insists that this is quite unnecessary, and that extraction in the manner indicated, by pressure on the occiput, is quite sufficient. Should it not prove so, flexion of the chin may be very effectually assisted by downward pressure on the forehead through the rectum. One or two fingers of the left hand can readily be inserted into the bowel, and the expulsion of the head is thus materially facilitated.

By far the most powerful aid, however, in hastening delivery of the head, should delay occur, is pressure from above. This has been, strangely enough, almost altogether omitted by writers on the subject.

It has been strongly recommended by Professor Penrose, and there can be no question of its utility. Indeed, as the uterus contracts tightly around the head, uterine expression can be applied almost directly to the head itself, and without any fear of deranging its proper relation to the maternal passages. It is very seldom indeed that a judicious combination of traction on the part of the accoucheur, with firm pressure through the abdomen applied by an assistant, will fail in effecting delivery of the head before the delay has had time to prove injurious to the child.

Application of the Forceps to the After-coming Head.—Many accoucheurs—among others, Meigs and Rigby—advocate the application of the forceps when there is delay in the birth of the after-coming head. If the delay be due to want of expulsive force in a pelvis of normal size, manual extraction, in the manner just described, will be found to be sufficient in almost every case, and preferable, as being more rapid, easier of execution, and safer to the child. The forceps may be quite properly tried, if other means have failed; especially if there be some disproportion between the size of the head and the pelvis.

Difficulties in delivery may also occur in sacro-posterior positions. Up to the time of the birth of the head the labor usually progresses as readily as in the sacro-anterior positions. If the forward rotation of the hips do not take place, much subsequent difficulty may be prevented by gently favoring it by traction applied to the breech during the pains, the finger being passed for this purpose into the fold of the groin.

It is after the birth of the shoulders that the absence of rotation is most likely to prove troublesome. It has been recommended that the body should then be grasped, in the interval between the pains, and twisted around so as to bring the occiput forward. It is by no means certain, however, that the head would follow the movement imparted to the body, and there must be a serious danger of giving a fatal twist of the neck by such a manœuvre. The better plan is to direct the face backward, toward the cavity of the sacrum, by pressing on the anterior temple during the continuance of a pain. In this way the proper rotation will generally be effected without much difficulty, and the case will terminate in the usual way.

If rotation of the occiput forward do not occur, it is necessary for the practitioner to bear in mind the natural mechanism of delivery under such circumstances. In the majority of cases the proper plan is to favor flexion of the chin by upward pressure on the occiput, and to exert traction directly backward, remembering that the nape of the neck should be fixed against the anterior margin of the perineum. If this be not remembered, and traction be made in the axis of the pelvic outlet, the delivery of the head will be seriously impeded. In the rare cases in which the head becomes extended, and the chin hitches on the upper margin of the pubes, traction directly forward and upward may be required to deliver the head; but before resorting to it care should be taken to ascertain that backward extension of the head has really taken place.

It remains for us to consider the measures which may be adopted in those troublesome cases in which the breech refuses to descend, and becomes impacted in the pelvic cavity, either from uterine inertia, or from disproportion between the breech and the pelvis. The peculiar shape of the presenting part unfortunately renders such cases very difficult to manage.

Three measures have been chiefly employed: 1st, the forceps; 2d, bringing down one or both feet, so as to break up the presenting part, and convert it into a footling case; 3d, traction on the breech, either by the fingers, a blunt hook, or fillet passed over the groin.

Forceps.—The forceps has generally been considered unsuited for breech cases in consequence of its construction to fit the fœtal head, which renders it liable to slip when applied to the breech. The objection, probably to a great extent true with reference to most forceps, seems not to hold good when the axis-traction forceps of Tarnier or Simpson is used. Lusk strongly recommends it, and Harvey, of Calcutta, has published six consecutive cases in which he employed this method of delivery, in three with complete success. Truzzi,[1] who has written strongly in favor of the forceps in difficult breech cases, prefers it greatly to traction either by the fingers or the fillet when the breech is high in the pelvis, and recommends that, in order to secure a strong hold, the blades should be passed so that their extremities extend above the crests of the fœtal ilia. I have only used it myself in one or two cases, but in these the results were extremely good, and delivery was effected with a facility which surprised me, and I can see no objection to a cautious trial of the instrument. [A better-fitting instrument is the special breech-forceps, with oval fenestræ, flat-edged blades, and long superimposed shanks, modelled to fit the sides of the breech over the trochanters and ilia.—Ed.]

Bringing Down a Foot.—Barnes insists on the superiority of the second plan, and there can be no question that, if a foot can be got down, the accoucheur has a complete control over the progress of the labor which he can gain in no other way. If the breech be arrestd at or near the brim, there will generally be no great difficulty in effecting the desired object. It will be necessary to give chloroform to the extent of complete anæsthesia, and to pass the hand over the child's abdomen in the same manner, and with the same precautions, as in performing podalic version, until a foot is reached, which is seized and pulled down. If the feet be placed in the usual way close to the buttocks, no great difficulty is likely to be experienced. If, however, the legs be extended on the abdomen, it will be necessary to introduce the hand and arm very deeply, even u to the fundus of the uterus, a procedure which is always difficult, and which may be very hazardous. Nor do I think that the attempt to bring down the feet can be safe when the breech is low down and fixed in the pelvic cavity. A certain amount of repression of the breech is possible, but it is evident that this cannot be safely attempted when the breech is at all low down.

Traction on the Groin.—Under such circumstances traction is our

[1] Gaz. Med. Ital. Lomb., August, 1883.

only resource, and this is always difficult and often unsatisfactory. Of all contrivances for this purpose none is better than the hand of the accoucheur. The index finger can generally be slipped over the groin without difficulty, and traction can be applied during the pains. Failing this, or when it proves insufficient, an attempt should be made to pass a fillet over the groins. A soft silk handkerchief, or a skein of worsted, answers best, but it is by no means easy to apply. The simplest plan, and one which is far better than the expensive instruments contrived for the purpose, is to take a stout piece of copper wire and bend it double into the form of a hook. The extremity of this can generally be guided over the hips, and through its looped end the fillet is passed. The wire is now withdrawn, and carries the fillet over the groins. I have found this simple contrivance, which can be manufactured in a few moments, very useful, and by means of such a fillet very considerable tractive force can be employed. The use of a soft fillet is in every way preferable to the blunt hook which is contained in most obstetric bags. A hard instrument of this kind is quite as difficult to apply, and any strong traction employed by it is almost certain to seriously injure the delicate fœtal structures over which it is placed. As an auxiliary the employment of uterine expression should not be forgotten, since it may give material aid when the difficulty is only due to uterine inertia.

Embryotomy.—Failing all endeavors to deliver by these expedients, there is no resource left but to break up the presenting part by scissors, or by craniotomy instruments; but fortunately so extreme a measure is but rarely necessary.

Examination of the Child.—After a difficult breech labor is completed the child should be carefully examined to see that the bones of the thighs and arms have not been injured. Fractures of the thigh are far from uncommon in such cases, and the soft bones of the newly born child will readily and rapidly unite if placed at once in proper splints.

CHAPTER VI.

PRESENTATIONS OF THE FACE.

Presentations of the face are by no means rare; and, although in the great majority of cases they terminate satisfactorily by the unassisted powers of Nature, yet every now and again they give rise to much difficulty, and then they may be justly said to be amongst the most formidable of obstetric complications. It is, therefore, essential that the practitioner should thoroughly understand the natural history of this variety of presentation, with the view of enabling him to intervene with the best prospect of success.