Obstetrical reports / by Charles G. Ritchie.

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OBSTETRICAL REPORTS.

[AMONG the following reports I have included several cases which I attended while under the superintendence of M. Dubois of Paris, and M. Braun of Vienna, being convinced that an account of the practice of these celebrated obstetricians cannot fail to be of interest to those who devote themselves to the science and art of midwifery.]

CASE I.—*Puerperal Convulsions treated by Repeated Venesection.—Recovery.*

On the 18th of July, 1861, at 11 o'clock in the morning, a woman was admitted into the Hôpital des Cliniques at Paris, in a slightly comatose condition. She was a primipara, at the eighth month of pregnancy, and the history given by the patient was that she had suddenly been attacked with a fit of epilepsy.

When the patient was able to answer questions, it appeared that from the very commencement of her pregnancy she had been troubled with vomiting, nausea, and giddiness. When seven months gone, her face and feet had begun to swell, fifteen days later her vision became indistinct, and three days before her admission to the hospital violent headaches had commenced. She had suddenly become unconscious on the morning of admission, and, on awaking, found that she had bitten her tongue. On examining the urine, it was found to be so loaded with albumen that it became almost solid on boiling. The case was evidently one of uræmic convulsions. At half-past three in the afternoon a second attack came on; the woman threw herself about the bed and foamed at the mouth; the violent agitation was followed by stupor, during which the patient was twice bled without her knowledge. Next morning (the 19th) the patient was better; vision was more distinct, and there was less headache; the urine

was still loaded with albumen, although the deposit was not quite so dense as it had been before the venesection. Castor oil was prescribed. During the night the patient was almost completely blind, but next morning (the 20th) she distinguished objects tolerably clearly. The quantity of albumen in the urine was distinctly diminished. Nothing abnormal could be detected by the opthalmoscope. On the 21st the headache was more painful, and the urine contained more albumen; the pulse was, however, calm, and vision as distinct as on the previous day. The patient was bled to the amount of 200 grammes (℥vij.), and another dose of castor oil was prescribed, the diet consisting of soup. Next morning there was decided improvement; there was less headache and better vision, and the quantity of albumen was notably diminished. The patient complained of a feeling of cramp in the stomach, and said that she was hungry.

On the evening of the 23rd the headache got worse. A bath, and iced-water applications to the head, were ordered. The patient did not sleep at all during the night. On the morning of the 24th the headache was less, but there was still the feeling of cramp in the stomach. Labour pains had come on during the night, and succeeded each other with intervals of five minutes. The cervix uteri had almost disappeared, the os was permeable to the finger, and its lips were thin. The pulse was good; the urine was full of albumen. It was determined to rupture the membranes if the pains continued, and if the symptoms of eclampsia became more prominent. At noon the membranes were ruptured artificially; the amniotic fluid contained a quantity of meconium. The patient was delivered at 10 p.m., and at 10.45 p.m. she had another eclamptic attack. Next morning she was drowsy, but complained of excessive headache. She could scarcely see at all, and both arms were in a state of resolution, the patient being neither able to lift them herself nor to support them when lifted. Sensation was unimpaired. There was no paralysis of the inferior extremities. The urine was full of albumen. The legs were covered with cataplasms, containing a small quantity of mustard. On the 26th the patient was better. There was no epigastric pain, but headache was still severe. The pulse was calm. The patient could not make use of her hands, but could lift her arms. On the 27th (the fourth day) there was still further improvement; the headache was much relieved, and although vision was not perfect, it was tolerably good. The hands were still benumbed, but sensation in them was perfect; there was no epigastric pain; the appetite was good. On the 28th the patient complained of optical delusions; she said that she saw crows flying all about her bed. There was very little albumen in the urine. A mutton chop was ordered for dinner.

On the 29th the patient could grasp anything in her hands; there was very little headache, and a mere trace of albumen in the urine. Instead of passing a drop or two of urine every few minutes, as she had done when very ill, the patient now passed it more rarely, and in considerable quantities. The headache gradually diminished, and the patient got better. On the 2nd of August there were still some slight shooting pains in the head, and still a minute trace of albuminuria. When the patient directed her attention to any object she could not see it clearly at first; but by degrees, after looking at it for some time, she perceived it distinctly.

CASE II.—*Puerperal Convulsions treated by Large Doses of Morphia.—Recovery.*

Kath. P., aged 21, a Hungarian maid-servant very stoutly built, was admitted as pregnant for the first time, into the Lying-in Hospital at Vienna, on the 21st January, 1862. She was put into the division for pregnant women, and remained perfectly well till the 9th of March, at 2 a.m., when labour pains came on, and she was sent to the lying-in room. The head presented in the first position, and at 8 p.m. the patient was delivered of a fine healthy child. The placenta came away spontaneously ten minutes later, at which time the patient appeared as well as possible. At a quarter-past nine she suddenly became convulsed. The convulsion lasted for one minute and a half, and had many of the characters of apoplexy; it left the woman in a state of sopor which lasted ten minutes. The spasm might have been characterized as tono-clonic; it consisted partly of violent muscular quivering, partly of rigid contraction. The pulse was 104; the urine was found to contain a large quantity of albumen. Ice was ordered to the head. The second attack came on at a quarter-past twelve o'clock, and was followed by twenty minutes of sopor, during which the pulse was 120. The third attack came on at half-past one in the morning, the fourth at a quarter before two, the fifth at two o'clock. Each lasted about a minute and a half, and each was followed by sopor of a quarter of an hour's duration. After the fifth attack the patient became very restless, making efforts to get out of bed, and striking and biting at those who tried to restrain her. Two men were unable to keep her in bed, and it was absolutely necessary to have recourse to the strait-jacket. At three o'clock, one-third of a grain of morphia in solution was injected under the epidermis on the inside of each thigh. The patient immediately became much quieter, and began to answer questions put to her, although it was evident that she did so with difficulty. The pulse, which before the injection was 160, fell to

118. The sixth attack came on at a quarter-past three, the pulse being 118; the seventh at ten minutes to six, the pulse being 124; the eighth at a quarter-past five; and the ninth at half-past five; During the intervals the patient lay breathing noisily; the slightly contracted pupils obeyed very sluggishly the stimulus of light; the face was red or even slightly bluish; there was a little strabismus and twitching of the solitary muscles. The tenth attack came on at ten minutes past six, the eleventh at half-past nine. After the last attack, the urine, which was drawn off by the catheter, was again found to be full of albumen. Two-thirds of a grain of morphia was again injected subcutaneously in each thigh, so that the patient had had in all two grains of morphia. This somewhat heroic treatment appeared to have cut short the manifestations of the disease, for after the second injection there were no convulsive attacks. At 2 p.m. the patient was in a state of sopor; face red, pulse 80. At 5 p.m. she was more easily roused. At 9 p.m. she was quite sensible, and complained of pain in the right hypochondrium. The tongue was examined and found to be unbitten, as during the fits the precaution had been taken of keeping the jaws slightly apart by means of a handkerchief.

On the 2nd February the face was flushed, the pulse 120, the tongue clean; the patient was quite sensible and complained of pain in the epigastrium; there was a good deal of cough and mucous expectoration. There was a little dulness at the base of each lung, and crepitus was to be heard on the right side. The uterus was hard and well contracted; the urine contained no albumen. She was put upon quinine. She slept but little during the night, but on the third day she was decidedly better. The pulse was 96, and the skin cool; there was free expectoration. On the fourth day a good deal of consolidation was found to exist at the base of the left lung, and the breasts had become enormously distended. The cough and pain in the chest gradually diminished, and the patient left the hospital in about a fortnight —still weak, but in a fair way towards perfect recovery.

In this case the large doses of morphia had a very decided effect upon the convulsions. It is, however, difficult to understand how morphia can diminish the quantity of urea in the blood; it is more probable that it had no influence upon the uræmia, but that it rendered the nervous centres less sensitive to the poison.* In Case I. the venesection had a most marked effect in diminishing the quantity of albumen in the urine. By drawing blood, of course, the amount of urea in the system is diminished, but it comes to be a question how far poisoned blood is preferable to no blood at all.

* Perhaps the morphia acted as a simple stimulant in the way suggested by Anstie, in his work on "Stimulants and Narcotics."

CASE III.—*Hysterical Convulsions during Pregnancy.—Normal Delivery.*

A strong, healthy-looking farm-servant, 23 years of age, entered the Lying-in Hospital at Vienna on the 27th of November, 1861. She appeared the very reverse of hysterical, and she never had any pain during menstruation, which before conception had been regular. Six years previous to admission, she had been very much frightened by seeing a house on fire. Next day her menses came on, and were accompanied by a convulsion, and since that time a violent convulsion had habitually ushered in the catamenia. The patient said that on these occasions she became quite unconscious, and foamed at the mouth; there was, however, no aura epileptica. The last time her menses had made their appearance was in the end of February, and she believed herself to be bordering on the termination of pregnancy. During pregnancy she had been seized with a convulsion at each menstrual epoch. She had some uterine colic. On examination there was no bruit audible in the neck, there was no albumen in the urine, the uterus corresponded in size to the close of pregnancy. The pains became severe during the night, and next morning the patient was delivered naturally of a healthy child, without any convulsion having occurred during labour. She made a good recovery.

CASE IV.—*Placenta Prævia Partialis treated by Rupture of Membranes.—Recovery.—Remarks on rationale of such treatment.*

On the 26th of March, 1863, at one o'clock in the morning, Mrs. F., a healthy multipara, who considered herself at the eighth month of pregnancy, on rising from supper, was conscious of a gush of fluid from the vagina. Her first idea was that the waters had come away, but to her horror she found that the fluid was blood, which clotted on the floor. She therefore at once got into bed, and sent for Mr. R. On Mr. R.'s arrival, he found the bleeding still going on, with slight uterine contractions. He gave a drachm of liquor secalis, and came to ask me to see the case along with him. It was 3 a.m. when I arrived. I found the uterus reaching to several inches above the umbilicus, and somewhat tender to the touch, especially low down on the left side, the spot at which the fœtal heart's tones were best heard. The pains were trifling, but each uterine contraction was accompanied by the expulsion of a little blood. The cervix was one and a half inch in length, and was permeable to the finger. The head presented in the first position, and a small portion of placenta was to be felt, fringing the left side of the margin of the internal os.

The maternal pulse was pretty good. The patient complained of chilliness; her extremities, and indeed the surface of the body generally, were cold; and as the hæmorrhage was decidedly alarming, I resolved not to temporize, but at once to rupture the membranes. After a little difficulty, this was accomplished with the assistance of a catheter wire. At 5 a.m. I was again sent for, as there had been a considerable flow of red fluid from the vagina. This flow had been mistaken by Mr. R. for blood; but as it did not clot, there is no doubt that it was chiefly liquor amnii, enough of blood being present to tinge it. At 5 a.m., the cervix was only a quarter of an inch long, *and the placenta could not be detected by the finger.*

For the next three hours bleeding was very trifling, but as the pains continued weak, but little progress was made. At eight o'clock the pains became stronger, and at half-past ten a female child was born dead. It was extremely congested, the face especially being quite black. The placenta followed immediately, and there was no more bleeding. The patient made a good recovery.

The remarkable point about the case is, that at first the placenta could be felt, while afterwards it could not. I explain this by the gradual unfolding of the cervix, and the engagement of the head.

Fig. 1.

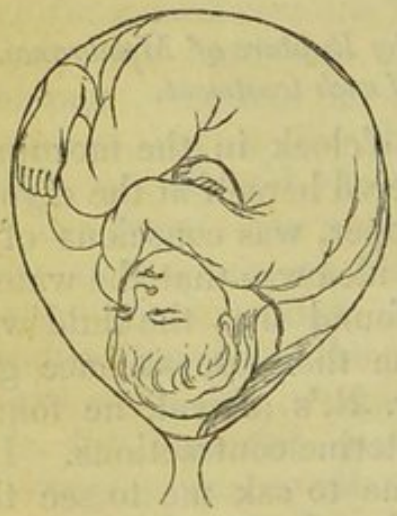


Fig. 2.

The effect of the unfolding of the cervix is well seen in the accompanying diagram. Fig. 1 represents the condition of things when I examined at 3 a.m., while Fig. 2 shows what was to be felt about 9 a.m. Any one who saw the case at 9 a.m. would have considered it as one of accidental hæmorrhage. The way in which rupture of the membranes arrests hæmorrhage in this and analogous cases is very simple, and, I think, very little understood, or at least insisted upon. As long as the membranes are unbroken, the muscular fibres of the uterus in pulling open

the internal os, pull its margin away from that portion of the membranes which is in its immediate vicinity. In other words, the tense membranes form a wedge, and the contractions, besides pushing that wedge down through the os, also pull the margins of the os up over the wedge. If the presenting part of the membranes be pushed downwards, and the portion of uterus to which it is attached be pulled upwards, it follows that these two are separated, and their points of connection, if not very elastic, are broken. When the margin of the placenta happens to be the presenting portion of the human ovum, of course its connections with the uterus are thus broken through; and as these connections are actually large vessels, bleeding is unavoidable. When we rupture the membranes, and allow the liquor amnii to escape, the uterus can no longer cause the membranes to protrude; it now acts on the body of the child, and it is the head which becomes the wedge. The uterine contractions still continue to pull the margins of the internal os open, to pull it upwards over the head of the child; but the membranes now follow the motions of the uterus, and the rupture which has been made in them enlarges at each pain, just as the os itself becomes more patent. If the placenta had been partially presenting, and of course partially detached (for the finger could not be got through the internal os unless the placenta were partially detached), it now ceases to pour out blood, because its muscular connections with the womb are no longer put on the stretch, and those which have been already ruptured soon become impervious.

Another point worthy of notice in this case, is the risk which the child runs when the membranes are ruptured prematurely. Mrs. F. had born living children at the full period. The child had certainly reached the period of viability; it was certainly alive and well at five o'clock in the morning, and yet it was asphyxiated beyond redemption five hours later. The only apparent cause of death was pressure of the cord between the hard walls of the womb and the hard body of the child.

It has been proposed by some, that in cases of hæmorrhage we should rupture the membranes in such a way as to cause as much as possible of the amniotic fluid to be evacuated. This advice has been given under the supposition that the object to be gained by rupturing the membranes is to allow of the uterus retracting as much as possible, and in this way putting an end to the bleeding. No doubt retraction of the womb is the means employed by nature for the stoppage of the open mouths of uterine vessels. The great mass of evidence, however, goes to show that in cases of low seat of placenta, the blood does not come from these open mouths, but only from

those utero-placental vessels which are actually on the stretch. If such be the case, we can expect to derive no special benefit from the evacuation of the whole of the liquor amnii. All that we want is, to keep the uterus from tearing itself away from the membranes, from the placenta, and we gain our object by evacuating that portion of the amniotic fluid which is driven down in front of the head. That once accomplished, we ought to try in every way to get the head to cork up the os, and retain the rest of the amniotic fluid, whose presence at once protects the umbilical cord, and by equalizing the pressure upon the fœtus, gives the womb more expulsive power than it would otherwise possess.

CASE V.—*Placenta Prævia Totalis treated by Water-plug and Rupture of Membranes.—Recovery of Mother.—Death of Child.*

A. W., aged 28, was admitted into the Viennese Lying-in Hospital on the 6th of February, 1862. She had already been delivered of three living children at the full time, the labour in each case being quite natural. She had last menstruated towards the end of June, 1861, and she therefore thought that she was about the eighth month of gestation. Six weeks previous to admission, she had been alarmed by a gush of blood from the vagina. She was unable to state precisely what quantity of blood might have been lost, but she was sure that it was a very large quantity, and she had been faint for several days afterwards. The bleeding had renewed itself on the morning of admission, and it was on that account that she had presented herself at the hospital.

The patient was admitted about eleven o'clock in the morning. She appeared very anæmic; she was then bleeding: and about a pound of blood was lost before she could be got into bed. The uterus reached a hand's breadth above the navel. Fœtal heart's tones were not audible; the cervix uteri was three-quarters of an inch long, permeable to the finger; its shape was that of a funnel, the wide end being the internal, the narrow the external os. Covering and stopping up the internal orifice were felt placental cotyledons, and through them a small, hard, round, balloting tumour was perceptible. An india rubber ball provided with a stopcock (colpeurynter) was introduced into the vagina, and pumped full of iced water; and as the patient was very much exhausted, wine and other stimulants were freely administered.*

The plug effectually prevented any further hæmorrhage. At

* Among the stimulants given in Vienna in bleeding cases, oil of cinnamon holds a high place. Two or three drops are given to the patient upon a lump of sugar.

one o'clock it was withdrawn; the os was wider and very dilatable. M. Braun with his finger separated that part of the placenta which was adherent to the left hemisphere of the uterus. After doing so for about two inches, he came upon the margin of the placenta, and immediately ruptured the membranes by means of a quill. The detached morsel of placenta was left hanging into the vagina, and the plug was reapplied. Uterine pains commenced, and at a quarter-past two the plug was violently expelled from the vagina. The head was found in the pelvis. Ten grains of extract of secale were ordered to be taken every hour. Uterine pains, which at first were weak and separated from each other by intervals of a quarter of an hour, became stronger and brisker. The child was born without assistance, at a quarter before eight in the evening. The placenta followed it closely; there was no more hæmorrhage than is usual in a natural delivery. The child was dead and congested. It weighed three and a half pounds. Its autopsy showed that the brain and liver were intensely congested. After her delivery the patient was in a very weak state; the pulse was scarcely perceptible at the wrist, a mere flutter being all that was to be felt. Wine and strong soups were given. Next morning she was better, and was at once put upon a course of iron. She left the hospital on the 17th, eleven days after her confinement. She said that she felt quite well, but her lips were bloodless, and she was manifestly feeble. She was enjoined to continue the iron for some months.

Here the advantage of the plug was twofold. It stopped the hæmorrhage mechanically, and it excited the uterus to contract. At eleven o'clock it would have been extremely difficult to separate half of the placenta, but at one o'clock the os was wide enough to allow the little operation to be performed with ease.

CASE VI.—*Placenta Prævia Partialis.—Transverse Presentation treated by Plug and Version.—Puerperal Fever.—Death.—Remarks on treatment of Post-Partum Hæmorrhage by Plugging.*

A woman 29 years of age applied for admission to the Viennese Lying-in Hospital on the 3rd of March, 1862. She had already been delivered of three living children, her labours having been short and easy. Her menses had appeared for the last time on the 15th of June, 1861, when the discharge was rather more profuse than usual; the first months of pregnancy were passed without any mischief, but on the 28th of February hæmorrhage set in, unaccompanied with pain. The hæmorrhage had renewed itself on the morning of the 3rd of March, and pains had also been felt; the bleeding could not, however, have been very

severe, as the patient had walked three miles in order to present herself at the hospital. She was admitted at nine o'clock in the evening. She did not then appear to be very weak, but she was bleeding profusely; the flaccid uterus was to be felt four inches above the umbilicus, but it was more developed in its breadth than in its length. A large rounded tumour was felt in the right iliac region, a smaller one in the left iliac region; the heart's tones were best heard near the fundus uteri in the median line, and small fœtal extremities were felt in front. It was evident that the right shoulder presented in the second position.* The cervix uteri was one and a half inch long, and scarcely permeable to the finger. The placenta was felt occluding the internal os, except just in front, where the membranes could be reached with difficulty. A colpeurynter was introduced and pumped full of water, causing a good deal of pain. External bleeding at once ceased, and as the uterus did not increase in size, and the patient did not become fainter, it was judged that there was no internal hæmorrhage. Pains continued, and gradually acquired strength. At 2 a.m., on the morning of the 6th, the plug was expelled, and on its expulsion bleeding recommenced. It appeared that the caoutchouc bladder was leaky, and having become flaccid, was easily pushed out of the vagina by the uterine pains. The cervix was now found to be permeable to the two fingers. Another colpeurynter was introduced, and stimulants were freely given to the exhausted patient. The pains became more severe, and at 6 a.m. the colpeurynter again came out, although it had been secured by a bandage round the thigh. The cervix had now disappeared, and the os was as large as a florin. The plug was replaced, but in half an hour was again pushed out of the vagina. At seven o'clock the os was perfectly dilated, the fœtal heart's tones were indistinguishable. Dr. Braun having placed the patient on her left side, introduced his right hand into the vagina, and having separated the membranes from the uterus for several inches above the margin of the placenta, seized the right foot, ruptured the membranes, turned the child, and brought down the foot to the vulva. The body was gradually born by the natural pains, aided by gentle tractions. Considerable difficulty was experienced in extracting the arms and head, as the placenta had wedged itself into the pelvis along with those parts. The placenta and head finally came away together, the former moulded round the latter. The child was dead. The mother was extremely pale, with a quick thready pulse. She was stimulated freely. She rallied, and on the 9th she was in a very satisfactory state, the pulse being 80, and of very fair strength. Everything went on well till the 18th of the

* *i. e.*, Head right, back posterior.

month, when the patient complained of abdominal pain, and was found to be very feverish. On the 19th the fever and abdominal pain had increased, the labia majora had become œdematous, ulcers had formed on the vulva, and the lochia were fœtid. The quickness of the pulse increased, its strength diminished, cough and dyspnœa set in, the face became pinched, the extremities cold, and the patient sank on the 25th of March; the 19th day of her confinement, the 6th of her fever. At the autopsy the whole vagina was found gangrenous, the uterus showed the usual signs of endometritis. There were thrombi in the uterine veins, and secondary abscesses in the lungs. The case illustrates one of the great drawbacks of Braun's colpeurynter, viz., its tendency to slipping. It is true that the first plug introduced was leaky, and that the second was rather smaller than usual; still, even with the most accurately fitting plug, there is always considerable risk of slipping. Perhaps Dr. Greenhalgh's recent modification, viz., the covering of the plug with a layer of spongio-piline, may possibly diminish this risk.

At the recent discussion on Dr. Greenhalgh's paper at the London Obstetrical Society, the subject of the treatment of placenta prævia by water plugs was very thoroughly ventilated. Nothing was, however, said of their utility in cases of post-partum hæmorrhage. There is a great prejudice in the minds of many against plugging in post-partum hæmorrhage, and undoubtedly, to plug the vagina and leave the case to itself would be, nine times out of ten, to convert an external into an internal bleeding. Still there is a manner of using the plug by which it becomes not hurtful, but on the contrary most beneficial. If, after emptying the womb of clots, we apply a hard vaginal plug, such as Braun's colpeurynter, and then grasp the womb with the hands on the abdomen, we have the uterus between two hard bodies, the hands of the operator and the vaginal plug, and have all the advantages of pressure and counter-pressure. If we apply the pressure without the counter-pressure, then the lower third of the womb escapes altogether, and probably remains flaccid; if the plug be *in situ*, then the pressure acting from above is equably diffused. One of the most troublesome varieties of post-partum hæmorrhage is that which not unfrequently occurs in cases of placenta prævia. The fundus uteri is firmly contracted, the womb is felt hard and firm like a cricket ball in the abdomen, and still draining continues, because the lower segment of the womb remains relaxed. In such cases we may apply cold, or we may squeeze the uterus, in vain; even ergot fails to act; but if we apply the plug, we press directly on many of the bleeding vessels, and give a stimulus to lower segment of the womb.

CASE VII.—*Placenta Prævia Partialis.—Plugging.—Rupture of Membranes.—Bleeding during Third Stage.—Death from Puerperal Fever.*

An anæmic-looking woman, 32 years of age, enceinte for the second time, and believing herself to be at the full period, entered the labour room at Vienna, on the afternoon of the 23rd of February, 1862. She had suffered from bleeding for some time, but could not say how much blood she had lost; she was in labour, uterine contractions and bleeding occurring at intervals. On examination the cervix was found long, but permeable to two fingers: on the left side placental cotyledons were felt, and on the right the membranes could be reached; the infant was presenting in the second position of the cranium; the head had not, however, engaged, but was felt high up in the left iliac fossa. At 3 p.m. the membranes were ruptured artificially with a quill, and the colpeurynter was introduced; immediately the pains, which till then had been good, stopped, the hæmorrhage also ceasing. The head remained unengaged. At half-past five on the morning of the 24th, pains returned. At first each pain was accompanied with loss of blood, but soon the head came down and plugged the bleeding points. At 6 a.m. the child, a boy, was born, it weighed five and three-quarter pounds. It was born asphyxiated, but recovered. A few moments after delivery, it was found that the patient was bleeding profusely, and that the womb had not contracted. The hand was introduced into the womb, the placenta was found loose in its cavity; it was brought away, and the uterus having contracted, the colpeurynter was again applied. It remained *in situ* till noon, when it was withdrawn. There was no further bleeding; but the patient was already blanched, the pulse still fluttered at the wrist. Wine and strong soups were given; secale was withheld, as it was feared it might induce sickness, which might prove immediately fatal. In the evening enemata of wine-soup were administered. The patient rallied a little, but she sank on the ninth day, from a bad form of endometritis, which ended in toxæmia.

CASE VIII.—*Placenta Prævia Partialis.—Plugging.—Child Alive.—Recovery of Mother.*

On the 26th of March, 1862, a primipara at the full period was admitted into the Lying-in Hospital in Vienna. She had had slight bleeding at the 4th, 6th, and 8th months. On the morning of the day of admission the waters had come away, owing to cough; the patient was unconscious of pain, and there

had been a little hæmorrhage. On examination, the head was presenting in the second position, the os was permeable to one finger, and the margin of the placenta could be felt on the left side. During the night there were no uterine pains, and bleeding was inconsiderable. At nine next morning, the os was *in statu quo*. At ten bleeding commenced, and continued till half-past eleven, when the colpeurynter was introduced. About a pound and a half of blood may have been lost during this hour and a half, and the labour had advanced so quickly, that on the introduction of the plug the os was the size of a crown piece. At half past one the colpeurynter was withdrawn. The os was found to be almost completely dilated, and the head was deep in the pelvis. Subsequent bleeding was very slight, and soon ceased entirely. A fine healthy child was born at a quarter before four; the placenta followed in a quarter of an hour. Both mother and child left the hospital quite well on the 6th of April.

CASE IX.—*Placenta Prævia Partialis.—Twins.—Rupture of Membranes.—Recovery of Mother.*

On the 2nd of April, 1862, Ann S., a primipara 21 years of age, entered the Viennese Lying-in Hospital. The last time her menses had made their appearance was in the previous May, and she thought that she had gone past her time. Two days before her admission, she had lost a considerable quantity of blood, and she was bleeding still. On examination at 9.45 a.m., the uterus was found to extend to the epigastrium, the heart's tones were on the left side, the os was about the size of a crown piece, the placenta was to be felt in front and to the right. The membranes were artificially ruptured, and within five minutes a small child was born in the first position of the breech, and was followed almost immediately by a second fœtus in the first position of the head. The placenta came away; it was single. On examining the membranes, there was found to be only one chorion and two amnions. The children were both females; the first-born weighed three and a half pounds, the second two and a half pounds. The second child died a few hours after its birth; the first lived three days. The mother made a good recovery.

CASE X.—*Placenta Prævia Partialis.—Transverse Presentation.—Turning.—Recovery of Mother and Child.*

On the 27th of February, 1862, at half-past two in the morning, I was hurriedly called to a case of labour. The patient was 37 years of age, and had had six living children. At her previous labour an operation had been performed. She believed

herself to be again at the full time. Pains had begun to be severe the previous evening at seven o'clock, and each pain was accompanied by a little blood. The membranes had ruptured an hour before I was sent for. I found a strong gaunt woman, with a tolerably good pulse. The uterus was contracting pretty regularly, once in five minutes, but its contractions were unaccompanied by pain. The uterus was more developed transversely than longitudinally, and even by an external examination it was evident that the liquor amnii had all come away, and that the child was lying transversely with its head to the left side. The child was alive, and evidently not suffering. Per vaginam, the os was found to be about the size of a crown piece, the left shoulder and placenta presenting. The placenta was felt adhering to the posterior wall of the uterus, and a piece of it two inches long and of a triangular shape, was hanging into the vagina. The bleeding was by no means alarming, and as I was anxious not to undertake the responsibility of such a serious operation as turning in a contracted uterus, without the sanctioning presence of another medical man, I plugged the vagina and sent for Dr. Linton. It was nearly four o'clock before everything was ready for the operation. The patient was brought pretty deeply under the influence of chloroform; the bladder was emptied by the catheter, and I then introduced my right hand into the cavity of the womb. The womb, however, was so closely packed, that I could scarcely move a finger in it. I therefore seized the left elbow which was the nearest, and having brought it down into the vagina, attached a lace to it; I then re-introduced my hand, and succeeded in grasping the left knee. Version was easily accomplished; the right hand pulling upon the knee, while the left, applied over the abdomen, pushed the head up and the breech down. The child, a fine big boy, was extracted without any difficulty. The placenta came away immediately, and the uterus contracted well. For a fortnight the patient was very weak and feeble, but with good nourishing diet and plenty of wine, she was soon able to suckle her child.

CASE XI.—*Premature labour.—Extraction of Placenta.—Commencing Septicæmia.—Recovery.*

A sallow-looking woman, 25 years of age, the mother of three living children born at the full time, lost sight of her periodical discharge in October, 1862, at which time she believed herself to be somewhat advanced in pregnancy. On the 2nd of January, 1863, she fatigued herself by dancing. At two o'clock next morning bleeding set in, and I was sent for. I found the abdomen to correspond in size to a pregnancy of the seventh or eighth month;

the child alive, and presenting in the first position of the head; the cervix uteri long, and the external os slightly open. Bleeding was very trifling, and there were no pains of any consequence. Anxious that the pregnancy should go on to the full time, I directed the patient to keep quietly in bed, and ordered cooling drinks and laudanum. The patient passed a good night, and next morning felt so well that she got out of bed and went about her household work, in spite of the advice which had been given her. In the afternoon she had a few pains and a little bleeding. The opium was repeated. For the next two days the pains and bleeding recurred at long intervals. At midnight on the 6th, the patient complained of violent pain in the back, which kept her from sleeping. Next morning at five o'clock she began to vomit a watery fluid, and to purge violently; down-bearing pains quickly succeeded, and a child was born at 7 a.m; it was a girl, about the eighth month. It was born asphyxiated, but after some little time it began to respire.

After having restored the infant, an operation which took about three-quarters of an hour, I found that the placenta had not come away. Crede's method was tried, but without success. Crede's method of extracting the placenta is often very efficacious. The cord is kept tight by the right hand, while the left seizing the fundus uteri slightly compresses it, and at the same time pushes the organ downwards and backwards in the direction of the axis of the inlet. As this process had not the desired effect, and as the mother began to lose a little blood, which she could ill afford, a drachm of secale was given in three doses. This treatment also failed, and at eleven o'clock, three hours after the birth of the child, I resolved to extract the placenta. The patient being placed upon her left side, the left hand, well greased, was insinuated into the vagina. The fundus of the vagina was found dilated, and there was a spasmodic stricture of the fibres of the internal os. By waiting for a minute or so this stricture was overcome, and the hand introduced into the womb. The placenta was easily separated, and brought away entire. The uterus contracted well, but 40 minims of the liquor secalis were given by way of precaution. There was no further hæmorrhage, and in the afternoon the patient was very comfortable. The child died at three o'clock next morning.

On the first day after delivery the patient had two or three fits of shivering, alternately with burning heat. There was no pain on pressing the abdomen, the lochia were natural, the skin dry, and the breasts quite empty. She was lying in a mass of filth, the debris of the delivery. Instructions were given to the nurse to change the bed-linen, and a dose of castor oil was ordered. The oil acted well, and the patient had a tolerably good night. On

the second day I found her still lying in the mess, as she had been told that it did her good. The skin was hot but moist, and the abdomen distended with gas. There was no pain on pressure, except over the right hypochondrium, and there it was very slight. The vagina was moist, but extremely hot; the external os open, and looking directly forwards. The uterus filled up the brim of the pelvis; it could be touched and moved about without causing pain. On withdrawing the finger from the vagina, it was found to be covered with a brownish fluid having a strong fœtid smell. Tepid injections were ordered, and some Dover's powder prescribed. On the third day the pulse was 136, weak, the skin moist and cold, the discharge still fœtid. Stimulants were freely given. On the fourth day the patient was very weak, and had persuaded herself that she was dying. There was no pain on pressing the abdomen, nor was there any abdominal distension. Opium and oil of cinnamon were given freely, along with hot whisky. The patient, however, who was much influenced by her mother, took a dose of castor oil, and excited herself very considerably by religious emotion. On the fifth day she was decidedly worse, so much so, that I began to fear a fatal result. Strong beef tea and sherry were given every hour, and the opium and cinnamon repeated at intervals. The patient passed a very good night. On the sixth day the pulse was 108, slightly stronger than it had been; the skin was moist. The patient took a good deal of wine, and a dose of the cinnamon mixture every hour and a half. The fœtor of the discharge had almost disappeared. On the eighth day the skin was cool and moist, the tongue clean, the pulse 84, and the countenance cheerful. She was still taking a good deal of sherry, but had omitted the opiate. At night, after having been up to make water, she had a rigor, followed by flushed face and quick pulse. She soon got over this little attack, and her subsequent recovery was rapid and complete.

This case at one time looked sufficiently alarming. The pinched face, hot skin, quick pulse, flaccid breasts, hot vagina, and fœtid discharge, constituted a train of symptoms which had an unpleasant resemblance to puerperal fever. The total absence of any local inflammation or tenderness was, however, re-assuring. The real fact was that the woman was being poisoned by her own discharges, which were collecting in the back of the vagina, and being partially absorbed. There is an unaccountable prejudice among a certain class of people, to being moved in the least after delivery. No doubt in some cases, where, for instance, much blood has been lost, the slightest movement is attended with danger. These cases are, however, very rare, and the danger of leaving the patient wet and uncomfortable in a pool of blood and amniotic fluid appears to be far greater than that incurred in alter-

ing her position, so far as to have her dry and warm. The French plan of delivering the patient on a separate bed, and afterwards carrying her back to her own one, offers many advantages. It is a plan which may very advantageously be adopted in private practice. In almost every house small iron bedsteads may be found, and brought into the lying-in room. The accoucheur can regulate its height, and in operation cases, more especially that of extraction, will find it no small advantage to be able to reach the patient from either side of the bed, or in any way that he chooses. After the birth of the child the patient is left for an hour or two in her *lit de misère*, and the accoucheur at his first visit personally superintends her removal into her clean bed. The comfort which this method offers to the patient is so great, that few who have once experienced it will willingly revert to the ordinary English custom.

CASE XII.—*Albuminuria.—Induction of Premature Labour.—Recovery of Mother.*

On the 1st of March, 1862, a woman in the 6th month of pregnancy came to consult me. She told me that she was 30 years of age, that she had married at the age of 18, and had borne four living children; then three, at the full time, dead and macerated; and lastly, about a year previous to the time I saw her, a seven months' child which had survived. The patient was a delicate-looking woman, but had no distinct marks of syphilis which I could discover. She was unable to give me any precise date as to the disappearance of the menses; but as the uterine tumour only reached the umbilicus, I judged that she could not have passed her 6th month. The child was alive. I advised the patient to wait for a month, or six weeks, and then have premature labour induced. On the 16th of March the patient came back to me, complaining of labour pains and hæmorrhage. I found the child to be still alive, the cervix uteri of its full length, and the internal os closed. I recommended perfect quiet in bed, and gave opiates. Next day the pains still continued, and were accompanied by slight oozing. The fœtal heart's tones were much slower than they had been, but believing that the child could scarcely have arrived at the stage of viability, I made another effort to postpone labour, and once more gave opiates. The pain and bleeding from the vagina continued, and during the night there was a good deal of bleeding from the nose. On the morning of the 18th, I observed a slight puffiness about the face, and found that the left leg had become œdematous. The patient then told me that her face had swollen towards the end of each of her pregnancies, and that the swelling had been most marked on the

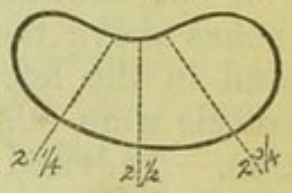
occasions when the children had been born dead. The patient had no idea whether she had passed urine for the last two days or not; if she had, which she thought probable, it had drained off along with the blood and discharges from the vagina. The catheter was passed into the bladder, and a few drops of urine, which was all that it contained, were drawn off. On examining the urine, it was found to be neutral and intensely albuminous. Microscopically, it contained a small amount of pus, but no casts. In the afternoon the patient still complained of uterine pains; I stayed with her, however, for more than an hour, and during that time she had none. The heart's tones of the child could not be heard. The oozing was inconsiderable. On the morning of the 19th, the oozing still continued; the cervix uteri was half an inch long, but permeable to the finger; the head presenting; no fœtal heart's tones to be heard. The puffiness of the face had increased, and the urine was still full of albumen. As there was now no reason for prolonging the pregnancy, on account of the child, I introduced the largest size of sponge tent into the cervix. This was done at 2 p.m. At 11 p.m. the pains had become severe and frequent, but uterine hæmorrhage had not increased. At 4 a.m. next day, a female child was born dead, face to the pubis. The child did not appear to have reached the seventh month. The placenta came away spontaneously; it was much diseased, at least half of it had been converted into fat. The mother recovered rapidly. She passed urine freely a few hours after the birth of the child. In a week the quantity of albumen in her urine was very slight; in a fortnight there was only a faint cloud on boiling and adding acid.

CASE XIII.—*Induction of Premature Labour for Deformed Pelvis.—Puerperal Fever.—Death.*

J. W., a lame girl, 18 years of age, hobbled into the Viennese Lying-in Hospital on the 11th of February, supposing herself to be at the end of her first pregnancy. She was very short, and so lame that she was constantly obliged to use a stick in walking. She was an intelligent girl, answering questions readily, and showing none of the stupidity which is so frequently met with in rachitic subjects. She complained bitterly of the cruelty of her father, who, she asserted, had knocked her down and broken her leg when she was a young girl; her stepmother, too, aided and abetted him in his cruelty. She had one brother and one sister, both of whom were well, and well-made. The patient began to menstruate at the age of 16, and continued regular until the end of May, 1861, since when the catamenia had not made their appearance. She was a small muscular woman, with immensely

prominent buttocks. Her height was 4 feet 3 inches; the circumference of shoulders 38 inches, and the circumference of pelvis 31 inches. There was no hump on the back; the patient stood habitually on the right leg, resting no weight upon the left one. The distance from the anterior-superior iliac spine to the knee was on the right side 15 inches, on the left 12 inches. The length of the leg from the knee to the heel was 15 inches on each side. The head of the femur was evidently dislocated, and partial anchylosis had taken place. The uterus rose to 2 inches above the umbilicus, and extended laterally to the outer border of each of the recti. The heart's tones and greater resistance were left; the head presented; the feet were felt on the right side. The position was evidently the first of the head. From mensuration with the finger, Professor Braun concluded that the conjugate diameter of the pelvis was $2\frac{1}{2}$ inches; the sacro-cotyloid $2\frac{1}{4}$ inches on the right side, and $2\frac{3}{4}$ on the left, and that the pelvis had something of the form shown in the diagram. By Kiwisch's pelvimeter the oblique conjugate (the distance from the promontory of the sacrum to the arch of the pubis) was shown to be $2\frac{3}{4}$ inches. If the woman's statement, as to the disappearance of the catamenia, was to be taken as a guide to the period of pregnancy, then she was probably in her 35th week, and the child weighed $4\frac{1}{2}$ lbs.; if on the contrary the objective examination was solely to be relied upon, it was more probable that the woman was in her 32nd week. There were no signs of labour; the cervix was long, and the external os closed; and it was resolved to induce labour at once. At one o'clock an English elastic catheter was introduced about an inch into the uterus, and left *in situ*. At 10 p.m. the first pains were felt, and the catheter was withdrawn; the cervix was now permeable to the finger. The catheter was re-introduced at 3 a.m. on the morning of the 12th, the pains became very strong, at 8 a.m. the vaginal portion of the cervix had disappeared; at 10 a.m. the membranes ruptured spontaneously. At 1 p.m. the skin was cool, the pulse 92, the head presenting, the os permeable to three fingers, the heart's tones inaudible. At 3 p.m. the child was born spontaneously; it was, however, dead; the skin was violet-coloured. The child was a male; it weighed 4 pounds 10 ounces, and was 16 inches long. The head was very compressible. The mother fell a victim to puerperal fever. Acute peritonitis and endometritis set in, and the patient died on the eighth day after her delivery The post-mortem examination showed, besides diffuse peritonitis, that the cervix uteri had become gangrenous. The conjugate diameter was $3\frac{1}{4}$ inches.

Fig. 3.



CASE XIV.—*Induction of Premature Labour on account of Syphilis.—Loss of Child.*

On the 21st of February, 1863, I saw a patient who had the following history:—She was 29 years of age, and had been regular up to the time of her marriage in 1858. Ten months after her marriage, she was delivered of a dead female child. It was evidently about the seventh month, and the patient thought that it had been dead for five or six weeks. A year later she was delivered of another girl, also seven months old, and also dead and macerated; it had not, however, been so long dead as the former one. In March, 1861, the patient was delivered of a six months' child, a boy, dead and macerated; she was attended during her confinement by Dr. Balfour, who afterwards put her through a course of mercury. She was, however, again confined in March, 1862, of a macerated child. The latter, a boy, was about eight months old. She again became pregnant, and when I saw her, she supposed herself to be about the eighth month. She was a healthy-looking woman, without any visible sign of syphilis. The urine did not contain any albumen. The uterus reached several inches above the umbilicus. The fœtal hearts' tones were very loud in the left iliac region. The fœtal pulse was 148. The bowels were slightly costive; there was no difficulty in micturition. I advised the patient to have premature labour induced at once; she, however, declined, and said that she must consult her friends. I next saw her on the 24th; she told me that she had not felt any fœtal movements since the 22nd, the day after that on which I first had seen her. I listened most carefully, but was unable to hear the beating of the fœtal heart. A large rounded tumour was felt in the right corner of the womb, fœtal extremities in the left; the greater resistance was on the left side, low down, but higher up on the right. The cervix uteri was soft, the external os open, and the cervix permeable to the finger for about half an inch. The rectum was loaded. A uterine douche was ordered to be taken every three hours, each douche to last a quarter of an hour. The douche was given with a common double-action enema syringe, the stream of water being directed upon the cervix uteri by means of a tube introduced into the vagina. The water was cold, with the chill merely taken off. Thirteen douches were given, but no labour pains appeared. As I was certain that the child was dead, I recommended that the douches should be discontinued. Pains came on during the night of the 12th of March, and began to be severe about eleven o'clock on the morning of the 13th. At noon the os was almost fully dilated, the membranes were elongated, like the finger of a glove. Knowing that

the child was small and dead, I ruptured the membranes; a considerable quantity of muddy, but not fœtid fluid, came away. The breech engaged itself in the first position, a little help was given from time to time, and at 1 p.m. a macerated female child was born. The placenta followed in ten minutes. No marks of disease could be traced in the child; it presented the usual marks of maceration, but there was no eruption on the skin, nor any peritonitis. The placenta was rather fatty, and in one place it contained a whitish nodule of fibrine, about the size of a gooseberry. The patient made a good recovery, although on the third day after delivery there was pretty smart fever.

The lesson which this case taught me was, never to delay a single day in inducing premature labour when the fœtus had attained the age of viability, and reached that at which its predecessors perished.

CASE XV.—*Distorted Pelvis.—Induction of Premature Labour.—Presentation of Breech.—Remarks on Means of Delivery in difficult Breech Cases.*

On the 13th of June, 1861, M. B., aged 31, came into the Hôpital des Cliniques at Paris. She was a rickety woman, and her pelvis was so much distorted that it had been necessary to perform cephalotripsy in her only previous labour. On this account she had been advised, in the event of becoming again pregnant, to apply at the hospital when she had reached the seventh month, in order that premature labour might be induced. The patient thought that she would not be at the seventh month till the end of June, and as the development of the womb corroborated her own idea, she was dismissed with an injunction to reappear at that time. She did not come back till the 12th of July; her child was then still alive, and she was ordered vaginal douches. At the second douche uterine pains came on, and were followed by a rigor; three more douches were administered; on the 11th at 11 a.m. the cervix uteri was still an inch and a half long, but the patient was fairly in labour. On the 12th at 11 a.m. the cervix had disappeared, and the os uteri was dilated to the size of a five franc piece. An extremity was evidently presenting, and on this account the membranes were ruptured artificially. At 3 p.m. the os was completely dilated, but the pains were not sufficiently strong to cause the presentation to engage. At twenty minutes past four, two grammes (℥ss.) of secale cornutum were given in three doses, at intervals of five minutes. Shortly after this the fœtal extremity became engaged, and a pelvic presentation was recognized. At 4.40., M. Dubois attempted to hook his fingers over the breech and pull it down. He did not succeed, and he therefore applied the forceps to the breech, and so extracted it. With

some trouble the arms were brought down. The head, however, could not be got to pass the inlet, the conjugate diameter of which was only 7 centimetres (2½ inches). M. Dubois therefore perforated the skull behind each ear, and thus succeeded in accomplishing delivery. The child, a boy, weighed 2050 grammes —about 4 lbs. The duration of labour was 29 hours. The patient recovered without a bad symptom.

In this case there are many interesting points. The ease with which premature labour was induced by vaginal douches, was somewhat unusual. It is not often that pains come on at the second douche. The advantage gained by using the secale was evident, but then it must be remembered that it was given for a specific purpose, viz., only to bring the presentation within reach. To have given secale and left the case to nature would, it appears to me, have been the very worst kind of practice. As to putting the forceps on the breech, there are many objections to it. The forceps cannot get a good hold on the breech, and if any great extractive power be required the instrument is almost certain to slip, an accident which may have most deplorable consequences. In most forceps, too, the points approach each other very closely when the instrument is shut. When the blades are applied to the breech, the points overtop the crests of the ilium, and may in this way press very injuriously on the child's abdomen. These, I believe, are the two great objections against applying forceps to the breech, and unfortunately they cannot be remedied by any modification of the instrument; for, if the points are made so as not to press on the abdomen, the danger of slipping is increased, and *vice versâ*. The question suggests itself, Is there any substitute for the forceps in breech cases, where immediate delivery is expedient, and when the breech is too high for the finger to be hooked over the groin? It has been proposed by some to use a blunt hook, and fixing that in the groin, to make traction upon it. There is only one objection to such a proceeding, but it is such a grave one, that it alone is sufficient to condemn the operation. The hook not only draws down the breech, but it breaks the skin, and sometimes the thigh of the child. Perhaps the best instrument of traction which can be employed, is a stout silk handkerchief. All that is necessary is, to get it passed between the thighs and the abdomen of the child, and then pull upon the two ends. It is, however, by no means an easy matter to get the handkerchief passed, when the breech is in such a position that the finger cannot reach the groin. Perhaps one of the simplest means that can be devised for the purpose is, to take a piece of thick brass wire about two feet long, and having bent it in the middle, fix both ends with a single handle. There is thus formed a loop of wire, and we can give it any curve by bending it on the flat.

Having given it a curve, nearly similar to that of the blunt hook, of which mention has been made, the instrument can be fixed on the fœtal groin, while its point can be felt to the inside of the femur. The end of a handkerchief is passed through the wire loop, and the wire on being withdrawn, of course, pulls the handkerchief with it over the femur, while being very flexible itself, it unbends and is unhooked with ease. Of course, the exact way in which the hook is employed will depend upon the particular position of the breech. It might either be passed from the inside of the thigh or from the outside, and if it were thought advisable, it might be passed over both, by merely repeating the operation with the opposite end of the handkerchief. The same instrument might be useful for getting the chain of the écraseur round the neck of the child in decapitation cases. Another little apparatus which I got made for the same purpose, consists of a strong broad ribbon, to one end of which is attached a watch-spring covered with leather. I have tried the latter instrument in practice, and found it answer very well.

CASE XVI.—*Presentation of Two Feet, Cord, and Hand.—Contraction of Brim of Pelvis.—Extraction.*

About two o'clock on the afternoon of the 24th of March, 1863, I was requested by Dr. Ranson to assist him in the extraction of a child, which was presenting by the foot. The patient was a healthy woman, 32 years of age, the mother of six children. She had never had any difficulty in her previous labours. Pains had come on at nine o'clock on the evening of the 23rd. The membranes had ruptured at ten o'clock, and Dr. Ranson had then felt a foot and the cord presenting. During the night the pains had been occasional, but no progress whatever had been made. On examination the uterus was found to be more developed in length than in breadth; the resistance was slightly greater on the right side than the left. A small fœtal extremity was to be felt in the right corner, and near that a large round tumour. The heart's tones were best to be heard about an inch above the navel, and a second roundish tumour was to be felt immediately below the navel. On examining per vaginam the left foot was found protruding, the heel directed towards the sacrum. The os uteri was fully dilated, the cord in the vagina pulsating feebly, and a little higher up the right foot and the left hand were to be felt, the former posteriorly, the latter anteriorly. After a little pulling on the left foot, Dr. Ranson, who was supporting the uterus, suddenly exclaimed that the position of the fœtus had altered. The right hand was now no longer to be felt in the vagina, the rounded tumour below the navel had slipped upwards, and the one

in the right corner had descended. The case was now simplified into one of ordinary extraction. The left arm came down along the side of the child; the right arm was brought down in the usual way. The cord had now ceased to pulsate, and the head had stuck fast in the brim. It was well flexed, but neither Dr. Ranson nor myself could manage to get it quickly through the pelvis. It was nearly fifteen minutes before we succeeded, and by that time the child was dead, beyond recovery. The placenta followed spontaneously. It was then found that the conjugate diameter did not exceed 3½ inches. The woman made a good recovery.

This case can scarcely be called one of cross birth; it appeared rather as if the uterus had been caught in the act of performing podalic version. Had the uterus gone on contracting powerfully, it is very possible that the arm might have receded, just as it did when I pulled upon the leg. The contraction of the brim of the pelvis sufficiently accounts for the difficulty experienced in extracting the head. The patient had born six children, all of which had presented by the head, and had been born alive. An hour or two of the moulding process, which constantly goes on in head presentations, had sufficed to reduce the head to a shape in which it could become engaged in the contracted brim. The same moulding had to take place in the seventh pregnancy. It was a much more rapid process, firstly, because more extractive force could be applied, and secondly, as Dr. Simpson has shown, the head is mechanically better adapted for compression, when the base of the skull precedes the vault of the cranium. Still in spite of this double advantage the child was lost, because during the fifteen minutes necessary to mould the head, the cord was being compressed.

Case XVII.—*Footling Presentation, with Prolapsus of Cord.*

On the 14th of November, 1864, a French gentleman asked me to call and see his wife, who supposed herself to be in the seventh month of pregnancy, and had been suffering pain during the night. The lady was 34 years of age, and had never before been pregnant; indeed, she had only been married eight months. On examination, I found the uterus to extend two or three inches above the umbilicus. The greater resistance was on the left side; a hard rounded tumour was felt in the right cornu; the heart's tones were to the right, and low down. The cervix uteri was obliterated; the os was the size of a shilling, and no presentation was to be felt; indeed, I was so anxious not to imperil the membranes, that I did not try much to make out the presentation. Uterine contractions recurred every ten

minutes, and during them the membranes became tense. Twenty drops of laudanum were given, and perfect rest recommended. This had the effect of calming the pains a little; but three hours later, viz., at three p.m., the os uteri was slightly larger than it had been previously. A small fœtal part was felt occasionally tapping against the presenting membranes; but I could not tell whether it was a hand or a foot. From the external examination, however, it was concluded that the foot presented in the first position. All night the pains were lively, and almost constant. The patient did not take chloroform. At 7.30 a.m., on the morning of the 15th, the os was the size of a crown piece, but very rigid. Its lips were not, however, so thin as they had been the previous evening. At eleven o'clock, in spite of the pains having continued intense and constant, dilatation had not advanced. A small fœtal part was still to be felt within the bag of waters. At noon I commenced dilating the os cautiously with the finger, and by half past one it was quite dilated, and the membranes burst. Two feet and the cord were immediately felt. The cord was pulsating well, and as it was not in the least compressed, and did not protrude from the vulva, I did not immediately interfere. The pains became very violent; the feet and legs as far as the knees were born, and as the cord now protruded and ceased to beat, I hastened to extract the child. The cord was between the legs of the child, the latter being, as it were, astride upon it. After passing the finger rapidly up to the umbilicus, to ascertain which was the fœtal end of the cord, the maternal cord was pulled upon, and the child's leg slipped through. The arms were rapidly extracted, and the head came well into the pelvis. The perineum was resistant; so I at first contented myself with getting the child's mouth born, without extracting the head. The mouth was cleared of mucus, but the infant made no attempt to breathe; and as it was perfectly white, I feared it was lost. I extracted it quickly, and after applying the usual restoratives for about half an hour, it began to breathe. The placenta came away in half an hour; there was a little bleeding both before and after its expulsion, but a dose of secale caused it to cease. The child was evidently premature; it weighed, however, five pounds and a quarter. The patient did not suckle the child herself; the breasts filled with milk, and then subsided without producing any inconvenience or feverishness. The child got a good nurse, and thrived well; the mother recovered perfectly.

CASE XVIII.—*Presentation of Head and Foot.—Remarks as to use of Forceps, in delivering the head in Breech Cases.*

On the 31st of January, 1862, at 12.30 p.m., I was called upon by a midwife, and requested by her, to visit a woman in

labour. The patient was 29 years of age, and had four times been delivered at the full time of living children; never having been more than two hours in labour. It appeared that the pains had come on at one o'clock in the morning, that the membranes had then burst, and the pains ceased. On examination the uterus was found more developed longitudinally than transversely; the heart's tones were best heard in the left cornu; the greater resistance was on the left, and small fœtal parts were also to be felt on the left side. Per vaginam the os was found to be about the size of half a crown, and perfectly dilatable, and the right foot was felt presenting. I naturally thought that it was a case of first position of the foot, that is to say, that the back of the child was turned to the left side of the mother; still it appeared strange that small fœtal parts should be felt on the left side of the womb, as, in the position supposed, all the fœtal extremities would naturally have been felt on the right side. On making a more accurate examination an hour later, it was found that the head presented as well as the foot. The posterior fontanelle was distinctly to be felt, and it was evident that the occiput was pointing towards the sacrum. Between the cavity of the sacrum and the head was the right foot; the great toe lying towards the head, and the little one against the sacrum. The pains continued extremely feeble, and no progress was made. At half-past four, the bladder and rectum having been previously emptied, I introduced my hand into the vagina. A pain came on at the moment of introduction; but after it had passed, the foot was seized between the first and second fingers, while the remaining ones were employed in pushing up the head. Version in this manner was easily accomplished. Tractions were made on the foot, and the other one having been brought down, the body was gradually expelled in the second position. A good deal of difficulty was experienced with the arms, which had slid up above the head. At length, however, the anterior one (the right) was brought down, and then the posterior one. Tractions were now made for twenty minutes, but the head could not be got to descend; it was lying in the left oblique diameter of the pelvic cavity; the occiput anterior, *i.e.*, it was descending in the second position. Fruitless efforts were now made to catch it, but at length after much pulling, it was extracted by what is known in Vienna as Smellie's modified grip—*Die Modificiste Smellische Handgriff*. This consists in resting the anterior plane of the fœtal body on the operator's left wrist and fore-arm, while the middle and index fingers of the left hand are introduced into the child's mouth, and the corresponding fingers of the right hand are applied under the occipital protuberance, while the thumb and little finger each grasp a shoulder. By a combined movement consisting of slight traction

on the lower jaw, raising of the body by means of the left forearm, a little pull on the shoulders, and a push at the occiput, the head is often easily extracted. The child was born asphyxiated; the heart, however, still pulsated. Every means was tried to induce respiration, a tube being even passed into the trachea, and the lungs forcibly inflated. All efforts were, however, fruitless, and the child died. The placenta followed closely on the birth of the infant, and there was no post-partum hæmorrhage. The patient made a good recovery. A post-mortem examination of the fœtus failed to exhibit injury about the spinal column; there was a good deal of serum in the pericardium. The lungs had all the appearance of lungs of a child which has respired freely; even when cut into very small pieces, every morsel floated. The body was covered with vibices.

Cases of simultaneous presentation of the head and foot are extremely rare, but when they do occur and are diagnosed, their treatment is simple enough. In this case the foot was the widest, and the head was, therefore, pushed upwards out of the way. Had, however, the head been the most prominent, I conceive that it would have been good practice to push the foot up, and allow the head to descend. In thinking over the case, I have often regretted that I was not contented to push the head out of the way, and leave most of the extraction to nature. There can be no doubt that the child died because the head could not be extracted quickly enough. This again was, I think, due to its non-rotation. It is a question whether the rotation might not have been effected with the forceps. Scanzoni recommends them to be used in such cases; but I have never seen them succeed where Smellie's grip failed, and the practice in the Lying-in Hospital at Vienna is never to apply forceps, except when the head precedes the body of the child. Had I, however, had the forceps at hand in this case, I should most certainly have given them a trial.

CASE XIX—*Transverse Presentation.—Cephalic Version.—Successful Results.*

On the 30th of April, 1861, a young, strong, healthy woman, entered the Hôpital des Cliniques, at Paris. The first pregnancy had occurred three years previously, and at the time of her admission into the hospital, she believed herself to be approaching the time of her second confinement. She had last seen her menses in July, 1860, and she asserted that the 15th of August, 1860, was the exact day on which she was impregnated. The veins of the leg were varicose, and she was on that account admitted before labour had actually commenced. On examination, the uterus was more developed transversely than in length; indeed, it scarcely reached higher than the umbilicus; a large rounded

tumour was felt in the left iliac region, while small fœtal parts, and what was supposed to be the breech, were to be felt in the right iliac region. The heart's tones were best heard in the mesian line. There could be no doubt that the fœtus was presenting transversely. Per vaginam, the cervix uteri was felt to be of the normal length, the external os was open, but the finger could not reach the internal os, as the upper part of the cervix was still hard and undilatable. Judging from these data, Professor Dubois gave it as his opinion, that the patient was only at the seventh month of utero-gestation. She persisted, however, for a time, as to the date of impregnation. On the 18th of May the cervix uteri was still of some length, although the patient had had uterine colic all morning; the child was still in a cross position, the head lying to the left, the breech to the right. M. Dubois performed external cephalic version (Wigaud's method), pushing down the head with the right hand, while he pushed up the breech with the left; both hands being external, *i. e.*, on the abdomen of the mother. There was plenty of liquor amnii, and the operation was of the simplest and easiest description. After its completion, it was evident to every one present that the fœtus was presenting by the head; and on examining per vaginam, the head was felt over the internal os. Next day the fœtus was found in the old transverse position, and external version was again had recourse to. On the 21st the uterus was two inches above the umbilicus, the presentation transverse; it was again changed. On the 4th of June the patient was delivered of a child, weighing 3450 grammes—7lbs. 9oz. She afterwards confessed to having had connection on the 31st, as well as on the 15th of August. If that were the correct date of her impregnation, then the pregnancy lasted 277 days; if on the contrary, her first assertion be regarded as correct, then she was pregnant 293 days. The patient caught puerperal fever, at that time epidemic, and died on the eighth day of her confinement. The interesting point in the case is, the possibility of changing the presentation by external manipulation. In every case where there is a fair quantity of liquor amnii, and where the child presents transversely, its presentation may be changed by external version. Of course, the ease with which the operation is effected, depends upon the relative quantity of fluid in the womb. If there be so much as to allow the fœtus to swim about freely within the amnion, then probably the position of the child constantly varies spontaneously. If there be a considerable amount of liquor amnii, the operation will be easy; if there be little or none, it will be impossible. If we content ourselves with changing the presentation of the child, and leaving it, we shall probably find, as in the preceding case,

that it will slip back into the old position; if, however, after performing the version, we were to rupture the membranes, and allow as much as possible of the amniotic fluid to escape, the head would probably engage in the pelvis. Perhaps the most favourable case for performing external version in the way described, would be that of a multipara whose os was somewhat dilated and tolerably dilatable, where the fœtus was presenting transversely, and where there was a considerable quantity of liquor amnii. In such a case the operation itself would be extremely easy, and the subsequent rupture of the membranes would be unattended with risk to the child.

CASE XX.—*Transverse Presentation Version.—Fracture of Femur.—Description of Extraction.*

About mid-day on the 17th of March, 1863, I was sent for to attend a person who was in labour. She was 29 years of age, and had had four children born at the full time. Two of them were born dead, but not macerated. She believed herself to be at the full period. Labour pains began only at ten o'clock at night, and continued steadily until I saw her. I found the uterus almost spherical in shape; it was impossible to say that one of its sides was more resistant than the other. A large, hard, rounded tumour was felt on the left side, and small fœtal parts were to the right. The heart's tones were best heard in the immediate neighbourhood of the umbilicus. Per vaginam, it was found that the right hand presented. The os was fully dilated, and the unruptured membranes became tense, and threatened to burst at each pain. The conjugate diameter appeared somewhat less than usual. Having secured the assistance of Dr. Linton, we put the patient under chloroform, and placed her in the ordinary obstetrical position on the left side. I then introduced my right hand into the uterus, and separating the membranes from the uterus without rupturing them, seized a fœtal part which I knew to be a knee, and which afterwards proved to be the left one. During the introduction of the hand, I, of course, kept the uterus fixed by the left hand pressing upon its fundus. When the knee had once been seized, I pulled gently upon it, and at the same time pushed the head upwards with the left hand. Version in this way was accomplished with great ease, and it was not till I had brought the knee well into the mouth of the womb, that I ruptured the membranes. As the pains were very good, I allowed the child to be expelled in the second position of the breech, by the natural efforts; and it was not till the umbilicus was born, that I interfered. As the body of the infant then became livid, and the pulsation in the cord could scarcely be felt, I used some

extractive power, and introducing two fingers as far as the elbow of the child, brought down each arm in succession. There was a good deal of difficulty in engaging the head, and I feared much that the child would be lost. By dint of pulling, however, a full-sized girl was at length born. It showed no sign of life, and was perfectly livid. The ordinary restorative means were employed; an elastic catheter was even passed into the trachea; and at length a convulsive sigh showed that our efforts were about to be crowned with success. In an hour the child was breathing well.

The placenta followed closely on the birth of the child. I have here to make a confession of an inexcusable mishap which befel me. After I had brought down the arms, and while I was trying to engage the head, I managed to break the infant's right femur. As the head had not engaged in the pelvis, I could not get a satisfactory hold of the child's shoulders, and was, therefore, pulling from its hips. I think that I was not pulling exactly in the axis of the pelvis; the patient, only partially under chloroform, made a sudden movement, threw herself away from me, and I felt the thigh-bone go in my hand. Of course, such an accident is quite inexcusable. It was a lesson to me, to take measures for keeping the patient as still as possible during the operation of extraction, and also never to pull upon the femurs if it can be avoided. I put up the broken femur in this case with a gutta-percha splint, and in three weeks it had united well. Indeed, it is perfectly astonishing how quickly fractures do unite in young infants. The mother made a good recovery.

It may, perhaps, not be uninteresting to describe here the different steps of the operation of extraction, as it is performed at the Viennese Lying-in Hospital. Whenever the first stage of a labour with breech presentation is nearly over, the patient is removed from her bed to a couch, extemporized by piling hard horse-hair cushions upon one end of an ordinary bed. The height of the couch thus prepared is about three feet; the patient lies on her back upon it, her nates just reaching to its edge, and her legs, each of which is enveloped in a sheet, hanging over, and supported on each side by a nurse. If there be no particular call for haste, the breech is allowed to be born spontaneously until the umbilicus comes into view; but supposing there is some reason for hurrying the delivery, the accoucheur proceeds as follows:—If, say, the right foot is to be reached, he envelops it in a cloth, and pulls upon it, directing his tractions very much *downward*. Whenever the knee is born, he leaves the foot and pulls upon the knee; and whenever he can get his finger into the left groin, he pulls slightly upon it with the left hand, and on the right femur with the right hand. The left foot now usually disengages itself, and

whenever it has done so, the pelvis of the child is seized by both hands, in such a way that the two thumbs of the operator are applied over the back of the child's sacrum, a cloth, of course, intervening. The operator has thus a firm hold, and he proceeds with the extraction, still pulling downwards. When the navel is born, and the umbilical cord is found to be on the stretch, it may be pulled down a little so as to make it loose. The operator still keeps hold of the child's pelvis, but when the shoulder-blades come into view, he proceeds to bring down the arms. This is a somewhat delicate operation, and I have seen many an arm sacrificed on the first rude attempts—attempts, of course, made on the dead body. The posterior arm should be the one first disengaged, and the manner in which it is done will depend upon its position. Usually it suffices to introduce two fingers as far as the elbow, and sweep it over the front of the child's body, not trying to pull it down, but as it were, to push it sideways. In other and rare cases, it is best to bring the elbow down along the back of the child. In difficult cases I have often found it very useful to get the finger over the shoulder, and pull the latter straight downward, before going to search for the elbow. The posterior arm having been born, the anterior one is sometimes so well within reach, that a finger applied to the elbow brings it down. In difficult cases, however, it is best to seize the thorax of the child, and rotate it so that the anterior arm becomes posterior. This rotation is easy, for the head has not yet engaged in the pelvis. A little pulling upon the shoulders engages the head. Great care is taken to keep it flexed, by pushing it from above, and by introducing a finger into the mouth. The subsequent proceedings in extracting the head by Smellie's modified grip, have already been described.

When I broke the child's femur, I ought not to have had hold of it at all, but to have been pulling either from the shoulders, or if it was impossible to get a good hold there, from the child's pelvis. In private practice, in England, it is manifestly inexpedient to have the patient placed in the position customary in the Viennese hospital. The operation is quite as easy when the patient is on her left side. All that the accoucheur need attend to, is to have the bed of a convenient height, and to have sufficient control over the patient to keep her in one position.

Case XXI.—*Presentation of Head.—Application of Short Forceps.*

On the 16th of January, 1862, at half-past eight in the morning, I was requested by a medical man to see one of his patients, who had been in labour with her first child since the previous afternoon. It appeared that the os was completely dilated at a quarter before six in the morning of the 16th, and that the

medical attendant had then ruptured the membranes artificially; that the head had at first gradually descended, but that from half-past six it had made no progress. On my arrival I found the patient intensely excited, the pains strong, the head in the vulva, a large caput succedaneum protruding. The fœtal heart's tones were inaudible, an examination being rendered very difficult by the disturbed state of the patient. It was not easy to make out the exact position of the head as the caput succedaneum was large and unyielding. It appeared, however, to be in the first cranial position, the occiput being directed towards the left foramen ovale, or nearly so. On introducing a couple of fingers posteriorly and to the left, plenty of space was found, and a fœtal hand could just be reached. We got the woman under the influence of chloroform. No difficulty was experienced in putting on the forceps, and while supporting the perineum with one hand, I delivered after a couple of tractions. The child's face was deadly pale, the cord being tightly wound round its neck. I snipped the cord, and extracted the child. After using the ordinary restorative means it recovered. The placenta came away spontaneously after a lapse of twenty minutes. A draught of ergot and borax was given, as there was a little bleeding. The uterus soon contracted, and the patient made a good recovery, the latter being only interrupted by a little trouble with cracked nipples.

In this case the excitement of the mother, which was almost convulsive, justified the use of the forceps, independently of the condition of the child which could not very readily be ascertained. The tight constriction of the neck by the umbilical cord may account in some degree for the great rapidity with which the caput succedaneum formed, and for the asphyxiated condition of the child. The case was one in every way fitted for Simpson's air tractor, had that instrument been at hand.

CASE XXII.—*Short Forceps.—Import of Bellows Murmur in Fœtal Pulse.—(Nabel geraüsch.)*

Mrs. B., 40 years of age, and supposing herself to be approaching the termination of her first pregnancy, sent for me on the 10th of February, 1862. On account of a constant gnawing pain in the right corner of the womb, a mixture of chloroform and oil was ordered as a liniment, but it did no good; the pain was, however, considerably relieved by leeching. At this time I was much interested to find, that although the patient had no idea that she was in labour, still true uterine contractions occurred at intervals. The pains began to be severe at 10 p.m. on the 24th, and then too the membranes ruptured. On examining at one o'clock on the morning

of the 25th, the head was found presenting in the first position. It was distinctly felt in the cavity of the pelvis, unflexed, and covered with a very thin layer of uterus. The os was far back, and could only be reached with difficulty. It was permeable to the finger, and its lips were felt to be very thin. At 3 a.m., in spite of the pains being very violent, the os was only as large as a florin. Cautious artificial dilatation with the finger was had recourse to, and at the end of an hour the os had more than doubled its size. At 6.20 a.m. the os was entirely dilated, and the head had rotated. At 7.30 the head was all but protruding, and a caput succedaneum had begun to form. At 10.30 the pains which till then had been very strong, became weak, the maternal pulse was above 110, and the fœtal tones became blowing; *i. e.*, each tone was replaced by a murmur, just as in some forms of heart disease in the adult. Forceps were applied and the head was born after a very few tractions. After five minutes, during which the womb made no effort to expel the shoulders, a full-sized living girl was extracted at 11.30. The placenta followed in half an hour; it was sprinkled with chalky-looking granules of a bluish white colour. Both mother and child did well.

I have more than once heard the fœtal heart's tones replaced by murmurs, when, on examination after the birth of the child nothing abnormal could be detected about its heart. It has been surmised that these blowing sounds are due to compression of the cord. I have attempted to produce them artificially, by compressing the still pulsating cord after the birth of the child, but have never succeeded to my own satisfaction.

CASE XXIII.—*Narrowing of Outlet by Projecting Coccyx.—Forceps.—Infantile Syphilis.*

In August, 1864, I was requested by a lady to attend her in her approaching confinement. She was above 40 years of age. She had been married thirteen years, and although she had never had a child at the full period, nor even a premature delivery, there was still reason to suppose that she had aborted several times. In 1863 her husband had undergone a course of mercury, and the result was that she had again become pregnant, and from the data with which she furnished me I thought that the 11th October, 1864, would be the 280th day of pregnancy. Pains began at midnight, between the 23rd and 24th of September, and continued pretty regularly. At 4 a.m. the os uteri was about the size of a crown piece and very dilatable, the membranes were ruptured, and the head was presenting in the first position. The sutures and fontanelle were very wide and open, the head itself being small. The coccyx of the mother was bent at a right angle with the

sacrum and os; it felt very stiff; I feared that it was anchylosed and might cause considerable difficulty by narrowing the antero-posterior diameter of the outlet. The child's heart's tones were audibly normal. At 8 a.m. the head was well in the cavity of the pelvis, and the os was no longer to be felt. From 8 a.m. until 6 p.m. the head did not advance. It was evidently impinging against the bent coccyx, and was unable to force its way past it. During all that time I kept the patient partially under chloroform. She was so much affected by it, that she told me afterwards that she did not remember anything about the pains, and still if she was roused she answered questions with intelligence. The pains were of the bearing-down character, and of fair average strength. Being curious to know their frequency, I noted during half an hour the time which elapsed between the beginning of one pain, and the beginning of the next. The intervals may be represented thus:—4½ minutes, 1½ minute, 3 minutes, 2½ minutes, 1½ minute, 2½ minutes, 3 minutes, 5½ minutes, 2 minutes, 2½ minutes. At six o'clock the pulse began to rise, and soon reached 100; the vagina became hot, and the pains, without becoming more efficacious, began to distress the patient, while I did not dare to push the chloroform on account of the weakness of the pupil. The child too was evidently suffering, for the fœtal heart had fallen to 58. I therefore put on the forceps, being convinced that before the uterus had succeeded in overcoming the obstacle presented by the coccyx the child would be dead. There was no difficulty about the operation. For three-quarters of an hour I made traction with each pain, and at length had the satisfaction of finding that I was unmistakably making progress. The head came down upon the perineum, and immediately the pains became more severe, and more prolonged. I then felt that the perineum was as thin as tissue paper, and on inspecting it found it to present not only the glistening and congested appearance of an ordinary extended perineum, but a peculiar violent coloration which I have never yet remarked, except in cases where there was reason, as in this case, to suspect syphilis. I felt that even a small head would rupture such a perineum, and as the forceps had now done all that was required of them I took them off, so that they might not have the blame of what appeared to me to be inevitable. After having removed the forceps, and while the perineum was still intact, I told the husband how matters stood, and suggested that Dr. West should be called in.

The pains, however, were now very severe, and before Dr. West arrived a living girl was born. I supported the perineum very carefully, but, as had been foreseen, it ruptured. The rupture implicated the superficial, but not the deep sphincter. Having removed the placenta, I begged Mr. Pollock to unite the torn

edges. He did so, using one deep silk suture, and two superficial ones of wire. We left the patient pretty comfortable, having given her a small dose of opium, and having directed the nurse to keep the bladder empty with the catheter. The patient passed a good night; in the morning her pulse was 72; the child, which was evidently premature, was quite well. On the third day the deep suture was removed. The child appeared very well, but I observed a small cephalo-hæmatoma on the upper posterior angle of the right parietal region. On the fourth day the mother's breasts were full of milk, but she was not at all feverish. The milk when drawn off was very yellow and rich; the child would only take it when diluted with water. On the eighth day deep red maculæ, of an undoubtedly syphilitic nature, appeared on the child's right arm and fore-arm. The cephalo-hæmatoma was as large as a full-sized gooseberry; the bony ring around it was very distinct. A mercurial bandage was ordered. The mother was quite well, and I removed the superficial suture from the perineum, the torn edges having united perfectly. A few days later, a specific ulcer appeared on the infant's palate. The child, however, seemed to thrive upon the mercury. It began to take the breast, and the mother was ordered small doses of corrosive sublimate. This treatment was continued for three weeks, at the end of which time the ulcer in the palate was healed, and the maculæ on the arm had become very pale. The mercury was intermitted, and in a few days the ulcer on the palate reappeared. The bandage was resumed and the ulcer healed. When three months old, the child was big for its age, and although delicate and somewhat waxy-looking, was yet in a very satisfactory state. It was still using the bandage, only intermitting it when the bowels acted rather more abundantly than usual. The rash on the arm was still visible. The cephalo-hæmatoma had disappeared.

CASE XXIV.—*Contraction of Brim.—Long Forceps.—Extraction of Placenta.—Post-partum hæmorrhage.*

At half past eleven o'clock on the night of the 6th of January, 1862, I was sent for to a midwifery case. The patient was a strongly built woman, 30 years of age. She had had five living children, born at the full time, the last delivery having taken place three years previously. During each pregnancy the patient had been troubled with swelling of the right leg. Her labours had always been very tedious, but never instrumental. Secale cornutum had been given in the fourth and fifth labours, before the birth of the child. During the last pregnancy the patient had not suffered more than usual. When I saw her she believed herself to be at the full time. She told me that the waters had

come away at three in the afternoon, and that the pains had begun at five. On examination I found the abdominal tumour to correspond in size to a uterus at the full period of utero-gestation, the womb more developed in length than in breadth; the greater resistance was to the left, small fœtal parts to the right, heart's tones to the left. The abdomen was mottled by little brown spots, which had come on during the second pregnancy, and had persisted ever since. The right leg was œdematous, and its veins varicose. The right labium was also very œdematous, while the left labium was of the normal size. The os was about the size of a florin, and very dilatable, the membranes were ruptured, the head was presenting in the first position. The head had not entered the pelvis, the promontory of the sacrum was easily reached, and it was found that the conjugate diameter of the pelvis did not exceed 3½ inches. The pains recurred every ten minutes; they were very slight, and did not put the os at all on the stretch. The head was evidently making no progress. The pains continued slight all night. Next morning there was no appreciable change. Ten grains of Dover's powder were ordered. At three in the afternoon, twenty-four hours after the rupture of the membranes, things were still in *statu quo*. The rectum was not quite empty, and an enema of salt and water was ordered. The enema acted well, and had the effect of increasing the pains, which soon assumed the bearing-down character. At 10 p.m. on the 7th, the os was completely dilated, the sagittal suture was nearly in the right oblique diameter of the brim, the large fontanelle posterior. There was a small caput succedaneum on the posterior and upper portion of the right parietal region. The patient was cool, her skin moist, her pulse 72. The fœtal heart's tones were lively. At one o'clock on the morning of the 8th, no progress had been made, and the caput succedaneum had sensibly increased in size. The patient was not feverish, and the fœtal heart's tones were distinct. The finger could be easily passed on the left side between the head and the pelvis, but on the right the head was jambed against the pelvic wall. The pains were strong and frequent. At two o'clock, the mother was becoming restless, the pulse was 90. At three o'clock the pains were almost constant, but much weaker than they had been; the mother's pulse was 120. She complained much during the next hour, the force of the pain diminished still more, and the mother's pulse rose five or ten beats. I therefore resolved to apply the forceps, and as I anticipated difficulty, I preferred that the patient should lie upon her back. She was placed across the bed, and chloroform was administered by Dr. Linton. The left blade of the forceps was easily slipped in, but very great difficulty was experienced in introducing the right one. When at last it was applied, I found that it was

impossible to lock the blades, and it was only after having withdrawn and re-applied the right blade twice, that it was finally got into a position which allowed of its fitting into its fellow. When the forceps had been locked, tractions were made directly downwards, and after twenty minutes' interrupted pulling, the head descended on the perineum. During its descent the head rotated slightly within the blades of the forceps, so that at last the posterior fontanelle was directly under the pubic symphysis. The pains at once became lively, and the forceps being of no further use they were removed. A little assistance was given by the finger in the rectum, and at 4.30 a.m., thirty-seven hours and a half after the rupture of the membranes, a large boy was born. The cord was remarkably thick. It was secured by a double ligature, and cut. The uterus was now found to be very large, and imperfectly contracted. It reached two or three inches above the umbilicus, and felt quite flabby. For half an hour the abdomen was kneaded by the hand, with the hope of causing the womb to contract. This was, however, of no avail. I introduced my hand into the uterus and found it full of clots, while the placenta was imprisoned by an hour-glass contraction. This contraction gave way, and the placenta was found lying almost completely detached. It was brought away without difficulty. The womb, however, remained uncontracted, and flooding became alarming. I gave secale, and again introduced my hand and cleared away the clots as well as possible. Cold was then applied to the abdomen and pudenda. As each wet cloth was dashed upon the abdomen, the womb contracted for a moment, but only to relax again. The infant was applied to the breast, which, however, it refused. Cold water was injected into the cavity of the womb, and at last permanent contraction was induced.

The child was born asphyxiated, and among the clots which followed it was a quantity of meconium. On the superior and posterior part of the right parietal region there was a large succedaneum. The mark of the left blade of the forceps was over the left lambdoidal suture, that of the right over the right eye, which was in consequence somewhat inflamed. On the posterior border of the left parietal region there was a slight indentation, probably caused by the promontory of the sacrum. The mother made a rapid and complete recovery, the œdema of the leg and labium subsiding very quickly. The child's eye was quite well in a week.

It may be asked, Why were forceps necessary in this case, when the mother had previously born five living children at the full period? The infant was above the average size, and according to the mother's account was much larger than any of the previous ones. I am far from asserting, however, that had ergot of rye been administered at three or four o'clock in the morning, the child

would not have been born. On the contrary, a stimulus would have been given to her womb, and with the little extra effort thus induced, it might have got over the difficulty. It is just as possible, however, that it might have only succeeded in rupturing itself. When during a protracted second stage of labour the pains, previously strong, become weak and infrequent, and the maternal pulse rises, we may be tolerably certain that the womb has done its best, and that true conservative midwifery points to aiding it by artificial means, instead of urging it to over-exertion. By beating a horse after it has exerted itself nobly to get the wheel out of a cart rut, we may manage to overcome the difficulty, or we may make the animal strain till it drops down dead; but the true way to succeed is to attach another horse, and accomplish easily with two what overtaxed the powers of one. The retention of the placenta and the post-partum hæmorrhage cannot be supposed to have been due to the use of the forceps, as, after the difficulty of entering the brim had been overcome, the delivery of the child was left to nature. With regard to the treatment adopted to stay the hæmorrhage, it may be thought somewhat heroic to inject the womb with cold water. I am not aware, however, that any accident is recorded as having in any instance followed such a practice, or even the injection into the womb of muriate of iron. That variety of post-partum hæmorrhage where the uterus alternately relaxes and contracts, appears to be very obstinate. It is often controlled by putting a caoutchouc bag filled with water in the vagina, and compressing the uterus from above. In this way the uterus is between two hard surfaces, and is physically unable to expand.

CASE XXV.—*Contracted Pelvis.—Cephalotripsy.—Utero-Vesical Fistula.*

On the 20th of November, 1861, a primipara was admitted into the labour ward of the Viennese Lying-in Hospital. She was at the full time; the waters had escaped about noon, but she had not been previously conscious of labour pains. Her skin was hot and dry, her pulse 84.

Pains became severe on the 22nd, and it was then discovered that a living child was presenting in the first position of the head, that the conjugate diameter was not more than 3½ inches, and that the os was dilated about the size of a shilling. Pains continued strong all night. Next morning the mother's pulse was 82; the fœtal pulse 140 strong; the os was no larger. At 11 o'clock the patient took a vapour bath, with the hope of making the os more dilatable. At 2 o'clock the pulse was 88, the fœtal heart's tones distinct. At 10 in the evening the heart's tones were 88 per minute. On the morning of the 24th, at 9 o'clock,

the fœtal heart's tones were undistinguishable, the pulse was 100, the womb was tetanically contracted, the os was still of the size of a shilling. Under those circumstances, Dr. Braun, by introducing two fingers into the os, then three, then four, and at last the whole hand, rapidly dilated it. The patient was placed upon the operating table on her back, and the head of the child was opened by means of a curved trephine, care being taken to perforate the dura mater: a curved tube of pewter was pushed through the opening thus made, the brain was broken down, and the debris washed away by repeated injections of tepid water through the tube. The cranium having been thus emptied, the cephalotribe was applied, and the head born with ease. The child was already somewhat decomposed. The placenta followed in a quarter of an hour. On the next day the pulse was 84, the abdomen swollen and tympanitic; the womb, thoroughly contracted, was to the left of the mesian line. There was very abundant fœtid discharge from the vagina, which appeared to be gangrenous. Quinine in large doses (gr. xij. per diem), and antiseptic vaginal injections were prescribed. The patient slept well, and on the morning of the 26th her pulse was 88. One of the labia majora was sloughing. On the 29th the tongue was clean, the pulse 80, the slough from the labium separated, leaving a clean under-surface, and the vaginal discharge much less fœtid. The womb reached to three inches below the umbilicus. On the 3rd of December the pulse was 68, there was incontinence, but a digital examination could detect no fistula. The patient rapidly gained strength, and on the 10th of December a more complete examination was made. It was then discovered that the parietes of the vagina were intact, but that the anterior wall of the cervix had sloughed, and in that way opened a communication with the bladder.

Case XXVI.—*Natural Labour in a case of Distorted Pelvis.*

On the 8th of November, 1861, a primipara, 24 years of age, entered the lying-in department of the General Hospital at Vienna. She was so much deformed that at first sight it scarcely appeared probable that she would be delivered at all. When three years of age, her left hip-joint had become anchylosed in a somewhat bent position. As she grew up, her left leg being useless to her, did not develop itself like its fellow, and the patient was obliged to get along with the aid of crutches. She imagined that she had become enciente on the 2nd of February, but she confessed to the possibility of impregnation at a later date. She had last been poorly on the 28th of February; in August she felt the motions of the child. Since August she had

been much troubled with white discharge from the vagina. On examination the uterus was found to reach to four inches above the umbilicus, the greater resistance was on the right side, the heart's tones were heard on the right side, and a globular tumour was felt in the right corner of the womb. There was complete anchylosis of the left coxo-femoral articulation: the femur was bent upwards at an angle of 150 degrees with the plane of the abdomen, the left knee had perfect mobility. The pelvis did not appear to be symmetrically developed, the left anterior-superior spinous process being much lower than the right. When the patient lay on her back with her legs extended, the right leg was 5 inches longer than the left. The following measurements were taken:—From the posterior iliac spine to the knee, 22 inches on the right side, 20 inches on the left; from the knee to the heel, 17 inches on the right side, 16 inches on the left; circumference of thickest part of thigh, 20 inches on the right side, 13¼ on the left; circumference of the pelvis, 30½ inches. On examining per vaginam the promontory of the sacrum could not be reached, the left half of the pelvis seemed less curved than the right half, but no great deformity was diagnosed. The speculum was introduced for the purpose of finding out the cause of the leucorrhœal discharge. The papillæ of the vagina were found enormously hypertrophied, so as to resemble wasp bings; there was also a small superficial ulceration of the os uteri. On the 13th the patient was delivered naturally, after a short labour, of a living child, weighing 5½ lbs., and measuring 20 inches in length. On the 22nd the patient left the hospital quite well, the hypertrophy of the vaginal papillæ having disappeared. The child was also quite well, and in spite of the white vaginal discharge of its mother, its eyes were quite intact.

CASE XXVII.—*Spontaneous Delivery in Case of Distorted Pelvis.*

On the 8th of November, 1861, M. D. presented herself at the Lying-in Hospital at Vienna. She had already been delivered once of a living child at the full period. The labour had been very protracted, the cause of delay being the distorted state of the brim of the pelvis, whose conjugate diameter certainly did not exceed 3½ inches. The contraction was principally due to the excessive projection of the promontory of the sacrum. She had again become pregnant, and again gone to the full time. At three o'clock on the afternoon of the 8th the membranes ruptured; at five o'clock pains came on. The child was alive, and presenting by the head; the pains continued good; the mother's state was satisfactory, and, as she had already been once delivered of a full-sized infant, it was resolved to delay interference as long as possible. At a

quarter-past four o'clock on the morning of the 11th a living child, a boy, was spontaneously expelled. It weighed 6¼ lbs., and was 20 inches long. The circumference of the head was 36 centimetres (about 14½ inches); the bi-parietal diameter, 9 centimetres (about 3½ inches); the bi-temporal diameter, 7½ centimetres (about 3 inches); the antero-posterior diameter, 11½ centimetres (about 4¾ inches); the occipito-mental diameter, 14½ centimetres (nearly 6 inches). There was a considerable caput succedaneum over the upper portion of the occipital bone and the postero-superior angle of the right parietal. On the left side of the head there was an indented mark, an inch and a half long, commencing under the parietal protuberance, and running downwards and forwards. This mark indicated the point which had pressed most strongly against the promontory. There was a little bleeding from the eyes of the child. The maternal pulse had risen gradually during the last few hours of labour, and at the moment of delivery it was 120. At nine o'clock the pulse still remained at 120; the abdomen was tender on pressure, the skin was hot and dry. Next morning the pulse was 110, and there was no abdominal tenderness; the state of the patient, however, caused considerable anxiety, as an epidemic of puerperal fever had broken out in the hospital. She was transferred to another ward, and treated with large doses of quinine, the child being nursed by another woman. She made a good recovery, and left the hospital on the 23rd, quite well. The apparent duration of labour in this case was 60 hours, and of course its actual duration must have been much longer, as the membranes ruptured before its apparent commencement. The measurements show that the fœtal head was above the average size, and yet nature contrived to squeeze it through a diameter of three inches and a half. The marks on the head showed exactly by what mechanism this was accomplished; the bi-parietal diameter missed the conjugate altogether, and the actual cranial diameter presented was one intermediate between the bi-parietal and the bi-temporal. Even this diameter was at first too much for the contracted conjugate, but at each successive pain the head was compressed laterally where it met the resistance, and elongated anterior-posteriorly, till at length the fronto-occipital diameter attained the length of 4¾ inches. Nature at length succeeded, but she had done her utmost; the feverishness of the mother, and the bleeding eyes of the child, showed that both had suffered.

Case XXVIII.—*Tetanic Contraction of Uterus.—Death of the Child.*

On the 23rd of December, 1862, I was called upon to see a woman 30 years of age, who was taken in labour. She was a

working man's wife, and she had born five living children at the full time. The first four deliveries had been followed by no accident; but after the death of the fifth child in November, 1861, the patient described herself as having "had a tumour in her belly." This was treated by poulticing and leeching, and the tumour disappeared by the end of March. In April and May she had menstruated in spite of nursing, but since May she had had no menstrual discharge. During her pregnancy the patient had been much troubled with intermittent pains in the back, a symptom to which she had never been liable on former occasions. These pains increased in severity after quickening. On the 1st of December, patient had vomited and retched without cause, and this vomiting had returned not only once, but several times every day, until that on which I saw her (23rd). The child's movements had been perceptible up to the 22nd at 7 a.m. On the evening of the 22nd there was a little bleeding from the vagina. The bleeding persisted, and I was sent for. On examination I found a uterine tumour corresponding to eight and a half months' pregnancy. No heart's tones were audible, but a loud souffle was heard to the left side of the womb. The os uteri was transversely dilated to the extent of two inches, but felt rather rigid, the membranes had burst, and the head was presenting in the second position, viz., with the occiput to the right side of the pelvis. There was a good deal of hæmorrhage, but the placenta could not be reached. The pulse was 120, and the general state of the patient very uneasy. There were no distinct pains, but the uterus was in a state of tetanic rigidity. I ordered gr. x. of Dover's powder. It acted like a charm. Pains which had been absent for two hours returned, and the child was born within an hour and a half. It was evidently an eight months' child. It was dead, but not decomposed. The placenta followed immediately. It was considerably hypertrophied, and contained little round masses of fibrous tissue. There was no further bleeding, and the patient made a rapid recovery; the milk gradually subsiding of its own accord, without unpleasant symptoms.

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