in health and strength daily, and on Jan. 16th, he was discharged.

REMARKS. This case is of interest inasmuch as it is, we believe, the first time the injection of iodine into the knee-joint has been practised in this country; but in France this appears to be a common practice for the cure of hydrarthrosis, and according to the French surgeons, it has never been followed by any bad effects, and in many cases a complete cure has been effected without ankylosis. In the present case, the patient never had a bad symptom, and he left the hospital seven weeks after the operation, without any sign of the fluid reaccumulating, and with a joint which he could use as well as ever. The operation is, of course, only admissible where there is no inflammation already existing in the joint.

KING'S COLLEGE HOSPITAL:

PARAPLEGIA FROM CANCER OF THE SPINE.

Under the care of Dr. TODD.

[From Notes by DR. WHITFORD, Resident Medical Officer.]

GEORGE C., aged 50, a man of healthy appearance, was admitted under Dr. Todd's care on December 31st, 1857, on account of paraplegia. He had lived temperately, and never suffered from venereal disease. Six weeks before admission, he had experienced great pain in the right calf and back of the thigh. There was no cramp. He lay up for a day or two, and then felt so much better that he resumed his work as a gardener. The pain, however, still continued, though not so severe, and in a fortnight shifted from the right to the left leg. About three weeks from the commencement of the attack, he found that he had entirely lost power in the legs. The pain had abated, but the legs felt numb. A fortnight before admission, the motions began to be passed involuntarily; and, in a week after this, the urine began to dribble away, so that he was obliged to have a catheter passed daily.

On admission, it was found that he had lost the power of voluntary motion in both lower extremities, and that he had partially lost sensation as high as the umbilicus. Reflex movements could be excited by stimulating the skin of the feet and legs; and this phenomenon was more marked on the left than the right side. There were occasional involuntary twitchings in the left leg. The muscles of both limbs were completely relaxed, but they could be excited to a slight degree of tension (reflex) by firm pressure. The diagnosis given was active softening of the cord, principally involving the antero-lateral columns, but affecting also the posterior.

He was placed on a water bed, as a sore was beginning to form over the sacrum; and was ordered to take three grains of blue pill, with three of soap and opium pill, three times a day. The urine was at first acid, but soon became ammoniacal and alkaline from decomposition.

He continued to grow weaker and weaker from the time of his admission, lost his healthy appearance, and became hectic; but there was no sign of any marked alteration till January 15th, when a great change came over him, and it became evident that the muscles of respiration were becoming involved, the extraordinary muscles of inspiration being thrown into violent action, the lower intercostals paralysed, and the abdominal walls rising and sinking with the action of the diaphragm. The countenance became sunken and bathed in sweat, and he died next day.

On *post mortem* examination, the spinal cord was found softened from the fourth to the eighth dorsal vertebrae. Both columns were involved, but principally the antero-lateral, which were easily washed away by a slight stream of water. Pus was found between the dura mater and posterior surfaces of the bodies of the lower dorsal vertebrae; and the body of the twelfth was affected with caries. On the front of the column, from the third to the sixth dorsal vertebra, was a mass of malignant disease; and another similar mass extended from the eleventh dorsal to the first lumbar. The bronchial glands were much enlarged, and contained cancerous deposit. Large masses of encephaloid matter were deposited in the liver.

On microscopical examination of the softened portion of the cord, it was found to contain large cells with fatty contents, compound nerve-vesicles, granular cells (apparently products of inflammation), and some large compound cells somewhat resembling those found in malignant disease. The resemblance, however, was not sufficiently decided to allow of any confident opinion as to whether the softening of the cord had been produced by malignant disease or simple inflammation. In the tumours, the cancerous structure was well marked.

ST. BARTHOLOMEW'S HOSPITAL.

WOUND OF THE ABDOMINAL PARIETES BY A POINTED PIECE OF WOOD BETWEEN THREE AND FOUR INCHES LONG AND HALF AN INCH WIDE: ITS PRESENCE IN THE WOUND NOT DISCOVERED TILL THE EIGHTH DAY.

Under the care of W. LAWRENCE, Esq.

[From Notes by W. CHIPPENDALE, Esq., House-Surgeon.]

MARY ANN F., aged 13, a young girl of ruddy countenance, was admitted under Queen's Ward, Sept. 20th, 1856. It appeared that she had been gathering elder-berries in the country, and, when in the tree, a bough broke, and she fell, the broken end grazing and injuring her abdomen. She was taken to a surgeon after a time, and recommended to be brought to the Hospital. The accident occurred on the day before admission.

On examining the abdomen, there was a wound at the lower part on the right side, about as large as a sixpence: this did not apparently extend deeply. Proceeding from this was a graze extending some distance upwards, besides a smaller one near. There was redness along the edges of the wound and the graze. The abdominal wall on the left side was tense, and exceedingly tender both to slight and deep pressure. There was also some slight fulness. The right side was softer, and pretty tolerant of pressure. The face was flushed; the tongue was covered with a thick creamy fur on the dorsum, red and moist at the tip and edges; pulse moderate, volume sharp but compressible. There was considerable heat of skin. Low diet was prescribed; she was ordered to have twelve leeches applied to the abdomen, to take acetate of ammonia with camphor mixture twice a day, and two grains of calomel with a quarter of a grain of opium every six hours.

September 21st. The leeches drew well, and she felt easier for them. There is still remaining, however, considerable tenderness and fulness about the left side of the abdomen. Pulse less sharp; tongue furred. She appears more comfortable.

September 22nd. She appears better in herself. The tongue is becoming much cleaner; the pulse is moderate in volume, and has lost its sharpness; the bowels are confined; the abdomen is much the same. A common enema was given.

September 24th. The enema relieved the bowels freely. She is very much better, and, in fact, looks to have but little the matter with her. On examining the abdomen, there is still some tenderness about the left side; and the muscles contract, and make the parts tense on pressure. There is, however, a firm lump, apparently about the region of the descending colon, as if impacted faeces.

September 28th. She appears very comfortable. Tongue clean; pulse natural. On examining the abdomen, a little supuration was noticed about the wound; and, on feeling the lump, a sharp point was detected; and, examining very particularly, it appeared as if it was a piece of wood with a sharp point. The wound was therefore enlarged with a pointed bistoury, and the end was found. Some traction was made; but the foreign body did not come readily, and pain was produced. It was thought advisable, therefore, to desist, rather than produce any fresh mischief.

September 29th. She appears none the worse for yesterday's proceeding; and Mr. Lawrence, having seen her, enlarged the wound slightly, and, with a little manipulation, extracted a piece of elder-wood, three or four inches long and half an inch wide, with a sharp point, which had run up in the abdominal wall among the muscular tissues.

October 3rd. She has progressed very favourably. There is no fresh irritation.

Original Communications.

CASE OF EXTRAUTERINE FETATION.

By W. F. FAVELL, Esq., Sheffield.

ON Friday evening, January 15th, 1858, I was summoned to attend Mrs. —, aged 37, the mother of three children, who was stated to be suffering from sickness, with considerable pain in the belly. I found, on my arrival, that she had been in her usual health all day up to 4 o'clock P.M., when she began to complain of pain, which was speedily followed by vomiting. She had been engaged during the day in assisting in the

removal of her furniture to another house; and, according to her husband's account, being a somewhat delicate woman, it was thought that the exertion consequent on their removal had induced this attack. She was not then in a condition to excite any serious apprehensions. Her pulse was good in volume, somewhat accelerated; the abdomen was slightly tender on pressure; and the pain she described as being intermittent and very severe. She had also occasional vomiting. On inquiry, I found she had not menstruated for nine weeks. The treatment consisted in the exhibition of opium with small doses of calomel; a mixture containing hydrocyanic acid; and hot fomentations to the body.

When seen by my father, about eleven o'clock on the following morning, she said she was decidedly better; the pain was considerably relieved; but sickness had continued at intervals during the night. The pulse continued tolerably good; and she expressed an opinion that if she had something to allay the sickness, she could be removed in a cab. Shortly before two o'clock, her husband came down in great haste, to say that she had been taken much worse about an hour previously, and her friends thought she was dying. On my arrival, I found that it was so. The sickness had ceased, and the pain become greatly aggravated about twelve o'clock; she was alarmingly faint; her extremities were cold; her pulse scarcely perceptible; and though brandy and other stimulants were freely administered, she died in about an hour after my arrival. The impression on our minds was, that she had died from perforation of the stomach or bowel.

A *post-mortem* examination was made the following day. On opening the abdomen, several pounds of extravasated blood were found in the cavity of the peritoneum, an immense clot filling the pelvis and extending into the abdomen on the right side. The stomach and bowels were distended with flatus and healthy. After removing the clots, the uterus and appendages were examined, when the cause of the hæmorrhage became at once apparent, viz., the existence of extrauterine foetation in the right Fallopian tube. The cyst had been developed in the tube close to the fimbriated extremity, which was dilated sufficiently to allow the passage of the end of the little finger, and plugged with coagulum. A rent existed in the cyst just within the tube, and the membranes entire, with a small foetus floating in them, still remained in the cyst, surrounded with coagulated blood. The uterus was considerably larger than in the usual unimpregnated condition. The other organs were healthy, with the exception of the right kidney, which had undergone thorough scrofulous degeneration, consisting of nothing but cavities filled with scrofulous pus, the substance of the organ having been totally destroyed. The ureter was large and thickened, and was blocked up in its whole length with cheesy matter.

REMARKS. This case is one of great interest, not only on account of the rare occurrence of the mischief which caused death, but as illustrating how serious an amount of local disease may exist, with very trifling constitutional disturbance; for so little had she suffered from the disorganisation that was going on in the kidney, that (though, as her husband expressed it, "being somewhat delicate") she had been in the enjoyment of what she considered good health, and never had any symptoms which made it necessary to consult her usual medical attendant.

SPONTANEOUS EVOLUTION IN A CASE OF ARM PRESENTATION.

By CHARLES YOUNG, Esq., Surgeon, Chilton Polden.

THE following case illustrates the opinion of Denman and others, that the change in position which occasionally takes place in presentations of the upper extremity, by means of which the child is expelled without manual interference, and which is termed "spontaneous evolution", is in reality a doubling and expulsion produced by the continuance of uterine contractions.

CASE. About three weeks previously to her confinement, Mrs. H., aged 30, pregnant with her second child, received an accidental blow in the abdomen by falling against a chair. This caused considerable pain; she did not afterwards perceive the movements of the child *in utero*, and felt a coldness and weight in the abdomen.

I was first called to visit her at 11 A.M. on the 4th instant. She had then been in pain for three hours; and the waters were discharged, together with a little dark coloured blood, a

few minutes previous to my arrival. The pains were very feeble; and, on examination, I found that the os uteri would scarcely admit the point of my finger, and was high up towards the promontory of the sacrum. Concluding from these circumstances that the labour would be a protracted one, I left her, and directed the nurse to send for me when the pains became strong and regular.

I was not summoned until 6 A.M. the following morning. The uterus was then acting powerfully; the passages were thoroughly dilated; and the child's arm was in the vagina; and, directly afterwards, the hand itself protruded from the os externum, and its flaccid feel indicated that the child was dead. With the hope of quieting the action of the uterus, which rendered turning impossible, I gave forty minims of tincture of opium. The pains, nevertheless, continued; the child gradually descended; and, in about three-quarters of an hour, the breech and one arm were expelled together, and the remainder of the body followed without difficulty.

I may remark, that the child was not quite mature; its death was, in all probability, caused by the fall which my patient suffered three weeks before her confinement, and perhaps from separation of the placenta: hence the dark coloured blood which accompanied the liquor amnii, although no hæmorrhage appeared externally at the time of the accident. Labour occurred about ten days before the expiration of the ninth month; consequently, the child was at the eighth month of gestation at the time of its death. Being immature, and decomposition having begun, it was doubtless expelled more readily than a full grown and living foetus would have been; but the mechanism of its expulsion would be similar, although, in the great majority of such cases, delivery is not to be looked or hoped for without the operation of turning, and that, if possible, before the membranes have been ruptured spontaneously.

ON THE MORTALITY OF INFANTS IN FOUNDLING INSTITUTIONS, AND GENERALLY, AS INFLUENCED BY THE ABSENCE OF BREAST-MILK.

By C. H. F. ROUTH, M.D., Physician to the Samaritan Free Hospital for Women and Children; late Physician to the St. Pancras Royal Dispensary; etc.

PART II.

[Continued from page 105.]

Physical Qualifications. The physical qualifications of a wet nurse may be summed up under the following heads:—

1. That she has good milk.
2. Hereditary predisposition good.
3. Age not to exceed 30.
4. She should not have been confined many months before the child's mother.
5. She should be of the melancholic temperament.
6. She should have not only good quality, but a sufficient quantity of milk.
7. When a wet nurse cannot be given to a child exclusively, a married woman suckling another child may be employed as an adjuvant.

1. *She should have good milk.* This point is best treated in the consideration of what are the characters of good human milk. One of the best evidences of a wet nurse's good physical constitution, is the secretion of an abundance of healthy and nutritious milk. Good human milk has an average specific gravity of 1032, varying from 1030 to 1034. It is always strongly alkaline; this alkalinity it usually retains from five to six days, when it becomes acid. To the taste it is sweet, much more so than cow's milk. When allowed to stand, it will be seen to separate into two portions. The superficial very white substance, known familiarly as *cream*, is nothing else than the oil-globules which, being of a lower specific gravity than the other portions of the milk, rise to the surface. The more transparent subjacent liquid is the *casein*, sugar, and milk. The agitation of the cream breaks asunder the oil-globules, which in this state constitute butter. If the milk, after the cream has separated from it, be kept any time, the sugar contained in it becomes converted into lactic acid, which gradually precipitates the casein as a curd. Rennet, or the mucous membrane of the stomach, and most acids, have the same effect. The fluid which now remains, technically called *whey*, contains, still in solution, a large quantity of sugar and the salts of milk, which are readily separated by evaporation.