wards during micturition at the umbilicus, welling up into the umbilical cup, filling it, and running over in such quantity that the parents had no reason to entertain any doubt as to the nature of the fluid. The urine was passed with difficulty by the urethra, and fell down from the orifice. No tumour was visible at the umbilicus; the prepuce was long, contracted, and adherent to the glans. Tincture of perchloride of iron had been applied to the umbilical aperture to produce contraction, but without avail. I operated for the phimosis according to Dr. Gordon's plan of slitting up the prepuce, as it seems to be very simple and efficacious. A nevus-needle was passed between the glans and the prepuce, and out through the prepuce at the corona. The prepuce having been grasped longitudinally beneath the needle by a pair of strong forceps, as much of it as was thus embraced was cut away by running a knife through the tissues along the lower border of the forceps. The mucous membrane was separated with difficulty from the glans, then cut freely, and its edges fixed to the skin by two sutures. Dr. Redfern saw the child lately, and has written me to say that, since the operation, the mother has been "quite pleased to see the urine projected to some distance from the body in the natural manner. Very little urine has come through the umbilicus; but at one period some blood oozed away," which was readily stopped by the application of tincture of perchloride of iron. "When I last saw it," he continues to say, "there was scarcely any appearance of ulcer or opening of any kind."

In some instances where the cure after circumcision has not proved complete, it might be necessary, in addition, to operate directly on the urachus according to the plans already mentioned; but neither in patent urachus nor in umbilical fecal fistula can we reasonably expect a cure, so long as there is an obstacle to the passage of urine or fæces by the ordinary route.

PROLAPSE OF OVARIAN CYST.

By A. W. STOCKS, M.R.C.S.,
Surgeon to the Salford Royal Hospital.

E. I., AGED 45, a fustian-cutter, pallid, slightly built, married, had three children; she was last confined about twenty-two years ago. She menstruated regularly up to two years ago, irregularly till eight months ago, and not at all since. About eleven years back, a tumour about the size of a walnut appeared at the anus when getting out of bed, becoming larger on exertion. It was accompanied by faintness and uneasiness, especially when sitting down. She was always constive, and could neither micturate nor defæcate unless she replaced the tumour manually. She had lately experienced difficulty in coition. The lump had increased in size during the last ten months, and come down always while at work, producing a good deal of pain in the hypogastrium, more particularly when she was in the upright position. She felt best when lying down. The prolapse was large, being about the size of a small cocoa-nut.

March 15th, 1872, 12 noon. When she was placed upon the operating-table, and under the influence of chloroform, for the purpose of having the simple prolapsus ani, as it was supposed to be, relieved by operation, defæcation took place, the contents of the bowel being expelled in such a peculiar manner as to lead to the further and more precise examination of the tumour. It was then discovered that the orifice of the bowel, instead of being at the most dependent part, was on the posterior aspect, and about half way between the edge of the anus and the lowest part of the prolapse. On introducing the finger into the rectum, a large mass was found to occupy the anterior fold of the prolapsed bowel, of globular shape, and capable of being encircled easily at its base. *Per vaginam*, the cervix uteri was found tilted forward and to the right side. The uterine sound could only be passed three-quarters of an inch, and a finger passed into the rectum could be easily approximated to the one in the vagina over the tumour, clearly showing an absence of continuity between the uterus above and the mass below. Moreover, on rubbing the tips of the fingers together, a hardened cord could be felt slipping between them. The conclusion, therefore at once arrived at was that this cord was the Fallopian tube, and that the tumour was a small ovarian cyst, which had fallen through Douglas's pouch, became entangled with the prolapsed rectum and protruded through the anus, dragging the uterus itself out of its normal position. It was evident that to give permanent relief it was necessary that this tumour should be removed. Accordingly, an incision was made in the anterior aspect of the prolapse parallel to the axis of the bowel, and, after breaking down some slight adhesions posteriorly, a small ovarian cyst was easily turned out. The pedicle was divided, after being secured by a strong hempen ligature, the end

of which was left hanging out of the wound, and the wound was drawn together by an uninterrupted suture. There was considerable hæmorrhage, and the flaccid bowel was left outside the anus.

At 5 P.M., she had slight vomiting, the skin was cool, hæmorrhage slight, and the prolapsed bowel was swollen. She expressed a feeling of relief and lightness about the rectum, and it was noticed that the ligature had slipped off the pedicle and lay outside the wound. The catheter was passed, and she took an opiate.

March 16th. The countenance was good, pulse 120, temperature 98.2 degs. She had vomited frequently up to 7 A.M.; most probably from the chloroform. There was slight pain in the hypogastrium and right iliac fossa.

March 17th. There was no tenderness. The prolapse was supported by a T-bandage. She went on well until the 24th, when she passed a solid motion involuntarily, as she did daily for some time.

April 5th. The tumour was much smaller.

April 9th. The prolapse was easily returnable.

April 16th. She walked about and felt more comfortable than she had done for a long while back.

April 23rd. The protruded portion of the bowel was about the size of a walnut. Defæcation was fairly under her control, and she could draw the prolapse back without manual assistance.

1875, July 15th. The prolapse still existed, but was accompanied by no discomfort in, or obstruction to, either the act of defæcation or micturition.

The tumour (the dried preparation of which is in my possession) was an unilocular ovarian cyst, and contained about $5\frac{1}{2}$ ounces of brown, slightly viscid fluid, specific gravity 1.025. The ovary and fimbriated Fallopian tube were attached to it, and on it were found marks of slight adhesions.

This extraordinary case is of perhaps more interest from its singular pathological character, rather than from any peculiar practical surgical value. The numerous factors, each of which must have furnished its own particular but necessary influence in bringing about such an unusual result as a prolapse of an ovarian tumour through the anus, will, in all probability, be long looked for ere a similar instance will be recorded.

POISONING BY TOBACCO.

By E. R. MORGAN, M.R.C.S., L.S.A., Medical Officer of Health to the Neath Union.

THE history of the following cases of poisoning by tobacco is, I venture to think, of sufficient interest to merit a place in the JOURNAL. The manner in which the poisoning was effected is, as far as my knowledge goes, quite unique, not that I mean to say poisoning by tobacco is unknown; on the contrary, I know many cases are on record. By some means or other, some tobacco got into a well, the water from which was drunk by three persons, and in each very severe symptoms of poisoning were set up, causing death in one instance; how the tobacco was discovered, will be described more fully hereafter.

It happened in a large village called Ystalyfera in Glamorganshire, which at the time was in the district over which I had jurisdiction as medical officer of health; hence I took great interest in the cases, and investigated the facts upon the spot. The other details were kindly furnished me by Dr. Thomas.

On Wednesday, March 10th, 1875, Dr. Thomas was called to visit a man, aged 55, living in a row of five houses, called "Cwmtawe". He found him lying helpless in bed with very confused ideas, unable to swallow, with complete loss of power over his lower extremities, hands trembling, and skin clammy and cold; heart's action very feeble; pulse hardly perceptible; he did not vomit, but had constant nausea: it ought here to be stated that he had been a habitual smoker for many years. With such symptoms, Dr. Thomas's suspicions were immediately aroused; and forthwith he made minute examinations in the garden for any vegetable poisons, and as carefully inquired of the wife of the patient whether she had procured any drug recently from some itinerant quack or chemist; but from these sources nothing could be elicited to account for the symptoms, and so for the time his mind was obliged to rest satisfied that the case, in all probability, was one of vegetable poisoning, but what that poison was he was then unable to say.

The same morning a child, a nephew, aged four years, was taken ill, but not with severe symptoms. However, on the next day, the doctor's attention was drawn to him. The lad was very sick, prostrated, with severe pains in the bowels; their action was arrested, necessitating the use of enemata; throat parched; pupils dilated, fixed and staring; pulse scarcely perceptible at the wrist; head thrown back, almost

amounting to opisthotonos. These symptoms continued while the prostration became worse, until on Monday, the 15th, about twelve o'clock, convulsions came on; and at 5 P.M. the same day he died.

After death, the face was bloated and the eyes suffused; the head was thrown back. There was nothing else remarkable. An inquest was held; but I regret to say no *post mortem* examination was made.

On Sunday, March 14th, a girl, aged 6, was taken ill with the same symptoms as the other two. I visited the place; and, on the fifth day of her illness, examined her, when she complained very much of her head and throat, and the former was thrown back. The face was red and swollen; the skin hot and dry. Temperature in the axilla, 103.4 deg. Pulse 95, weak. The pupils were dilated. The tongue was thickly furled; the bowels confined. After a prolonged convalescence, she recovered.

In the same house, there were the mother and six other children, but the three mentioned were the only ones affected.

According to the evidence produced at the inquest, none of those who were not taken ill partook of the water from the well in which the tobacco was found; hence the explanation of the absence of any symptoms in them. The persons in the other houses of this row procure their supply of water from a spring near a railway, two hundred yards away. It seems, however, that one other house, making two in all, also had been accustomed to get water from the well first mentioned; but, for some unexplained reason, some time before the 10th March, they likewise had taken their water from the well near the railway.

The source of water-supply to those in the house who were taken ill was a small shallow well some hundred yards away, situated near a canal; and, upon examination, I found there a shallow well cut out of a steep bank, with a feeble but persistent spring at the bottom of it.

While a sister of the deceased (the one taken ill on the Sunday) was taking water from this well on Sunday (14th), she noticed some tobacco in the water, and drank some of it; but, thinking no more of it, did not touch it nor mention the fact at the time to anyone. But next morning she spoke about it; and the same evening Dr. Thomas was made aware of this.

He immediately communicated with the police, and requested a policeman to go and remove the tobacco forthwith. This was done on the following (Tuesday) morning, and it was proved that half a quarter of a pound packet was taken out, and the tobacco shown to be of the strongest quality, viz., shag. On examining the tobacco, it was quite evident from its appearance and taste that it had been in the water for several days.

And here was, without doubt, the solution of the cause of all the symptoms, the chain of evidence being complete; but, at the inquest, though I carefully examined all the witnesses (being allowed to do so through the courtesy of the Coroner), I could not solve the other mystery, viz., how the tobacco got into the well, whether by accident or through the wilful act of some person. The jury, therefore, were obliged to find an open verdict.

INJECTION OF PERCHLORIDE OF IRON IN POST PARTUM HÆMORRHAGE, RESULT- ING IN DEATH.

By H. W. BODDY, M.R.C.S. and L.S.A.,
Cheetham Hill, Manchester.

In the absence of the usual medical officer, I was summoned, during the night of April 4th, to attend a protracted case of labour at the Prestwich Union Workhouse. The patient, Elizabeth H., aged 28, had been in labour about five hours; and during the last hour had, as the nurse informed me, made little or no progress. On examination, the head was found to present in the right oblique diameter of the pelvis, in the occipito-anterior position. The head was low in the pelvis, the forehead occupying the hollow of the sacrum. After waiting two hours, and finding no advance made by the head, the pains becoming weaker, and as no mechanical obstacle to the passage of the head was apparent, I proceeded to apply Robertson's long forceps. After application of the forceps, by assisting the pains with firm traction, the child was born, without difficulty, in from ten to fifteen minutes; being alive, of full size, and well nourished. The placenta was removed in about twenty minutes, in the usual way; and, immediately on its removal, I was alarmed by a sudden gush of about eight to ten ounces of blood following it. A flow of blood continued for a short time, until, by friction and pressure on the uterus, I caused it to contract, and the hæmorrhage was much diminished, but not entirely arrested. A binder was then firmly applied, and pressure kept up upon the uterus with the hand. The nates were kept sufficiently uncovered to see any external

hæmorrhage that should occur. The moment my hand was ever removed from the uterus it dilated, and a gush of blood poured forth; and though again, by pressure and friction, contraction was established, still the "thin red line" trickling over the nates reappeared after it was wiped away.

Having given several large doses of ergot, and having twice injected cold water into the uterus with but temporary good effect, I determined to adopt Dr. R. Barnes's plan of injecting into the uterus a solution of perchloride of iron. Accordingly, I made the solution recommended by Dr. Barnes (four ounces of liquor ferri perchloridi fortior to twelve ounces of water), carefully measuring both the iron solution and the water. An ordinary enema-apparatus was used; and after pumping the solution through the delivery tube a few times, to get rid of all bubbles of air from the apparatus, I introduced the pipe well up to the fundus uteri, a gush of blood occurring as I dilated the os for the passage of the tube. The nurse then worked the syringe, while I held the pipe in its position. The hæmorrhage ceased immediately on the injection of the solution; and, during the first part of the process, the patient made no complaint, and the uterus began to firmly contract. But during the latter part of the process, she began to be uneasy, complained of pains in the belly, then severe cramps of the flexors of the leg occurred; next she gave a shriek, crying, "Oh my belly"; a general convulsion took place, the eyes rolled and turned up, the skin became blue, the pulse ceased, and she expired. (All this took place during the last two or three strokes of the enema-syringe.) Artificial respiration was then kept up for some time without any good effect. The uterus was firmly contracted round the injection-tube, some little force being required for its withdrawal.

That the injection of the perchloride of iron was the immediate exciting cause of death, there can be but little doubt, as the patient conversed sensibly with me two or three minutes before the operation, and complained neither of pain nor of any other symptom. The hæmorrhage could not be the cause; for acting on Dr. Barnes's advice, of it being better to do it too soon than too late, as we cannot supply again blood once lost, the injection was used before the loss of blood had begun to affect the nervous system. Therefore, the convulsion cannot be confounded with those that occur at the closing scene of death from simple hæmorrhage.

The death was due, in my opinion, to excessive irritation and shock to the cerebro-spinal and ganglionic nervous systems; and my reasons are the following. During the first part of the injection, while the irritant action of the perchloride of iron was engaged in causing the strong tonic contraction of the uterus that occurred, the irritation to the sensory nerves was reflected no further than those nervous centres that preside specially over the reflex action of the muscles of the uterus. After contraction was established, the irritation, as it could not be further expended in causing more uterine contraction, seems to have been further reflected to the lower part of the spinal cord, probably through the uterine branches of the sacral plexus, and this would account for the cramp or violent contraction of the flexors of the leg. Passing higher up the cord, the irritation would next cause the general convulsion that took place; and the shock, at the same time, to the ganglionic system, would cause cessation of the heart's action through the cardiac nerves; the consequent blueness of surface arising from accumulation of venous blood in the capillaries of the skin.

It may be suggested that death occurred from entrance of the solution into the general circulation. But could absorption, to any extent, take place through a rigidly contracted uterus? If blood cannot pass through the walls of the uterus well contracted (and we know it cannot), is it possible for any other fluid to do so?

Again, it may be objected that cutting and cauterising operations are frequently done upon the uterus, no shock supervening. But I contend that the sensibility of the uterus in the pregnant and that in the non-pregnant state, are two extremely different things. Though it has not yet been proved that the nerves of the uterus are increased either in size or number during pregnancy, yet their power of conducting impressions, without doubt, is, as evidenced by the pain felt during the contractions, and by the reflex contractions, easily brought on during labour by irritating the os or cervix uteri. The area, too, over which an irritating and caustic injection would act is immensely increased in the uterus of a woman recently delivered.

My conclusion, then, is, without any doubt, that death in this case resulted from the action of the solution of perchloride of iron upon the lining membrane of the uterus. I considered at the time, and do so still, that I was justified, on the authority of Dr. R. Barnes, in using the iron injection. The patient would doubtless have sunk gradually had this not been done, and it seemed to me that it was the only chance for her life. But this case does not give much encouragement for the further use of Dr. Barnes's plan. If again forced to its