a hair of the good doctor's head, so universally was he beloved and esteemed.

During my friend's absence, short as it was, the man had become very decidedly worse. The stupor had deepened, the breathing was more laboured (stertorous), slower, and irregular; the muscular relaxation greater, while the pulse was feebler than was at all desirable. The case seemed, both to my friend and myself, all but desperate. If anything could be done to save the man, it must needs be done *at once*. We tried to rouse him, but in vain.

And, now, my faith in the untried syphon reviving, I called my friend aside, and urged on him at least a trial of it. He said it should be as I wished. I ran home for it as fast as my legs could carry me, and was back with it in a trice. At my request, my friend introduced the gullet-tube of his otherwise useless instrument. This done, we had no difficulty—none at all, with the help of bits of wetted rags and with twine, in effecting the coaptation and perfect continuity of the two tubes. On my way back to the patient's house, tube in hand, I had slipped into a tin-smith's shop, and provided myself with a flask with a long narrow beak, such as artisans use for neatly dropping oil; that is, narrow enough to fit into the small bore of my tube. To fill the entire tube throughout with water was its purpose; in order, thereby, to fulfil one main condition of the syphon, should a syphon in this sad case peradventure be made. It did not, at the moment, occur to me that, in this happy event, my own mouth charged with water, and my cheeks used as a propeller, would fulfil that condition equally well, or better, and more quickly. Nevertheless, the flask, as will presently appear, was useful in its way.

The syphon actually made, and that condition for its working fulfilled, by filling the tube from end to end with water from the flask, I lowered the tube a bit; and while lowering it, so as to bring it below the level of the stomach, I put my lips to the end of the tube, and sucked. I did not think how needless this was. We were both of us, my friend and myself, too eager to think much of anything in a scientific sense; and the looks, gestures, and comments of the women in the room, had imparted somewhat of their excitement to us. I sucked; and presently my mouth was filled with stuff tasting and smelling strongly of laudanum. Withdrawing my lips, we had the inexpressible satisfaction of seeing a full stream or flow of liquid. It was of a dirty brownish colour. In a trice, the stomach was emptied. We refilled it with clean tepid water from the flask. Lowering the tube again, all that was thus put into the stomach was speedily discharged. The liquid still smelt somewhat of laudanum, and was still somewhat brownish. A second charge of water was then thrown in, and a third and a fourth, and all drawn off. The last two came off as clear and as sweet as they went in, with no odour of laudanum. We ended the affair by throwing into the stomach, through the tube, an infusion of strong coffee, after which the syphon was withdrawn. We were not noting the time—watch in hand, or clock in the eye; but all this was done, from the time the syphon was set going, within fifteen or twenty minutes. Indeed, I am safe to say the time did not exceed fifteen minutes.

Going to Edinburgh soon after this case occurred, I had a syphon stomach-pump made me by Mr. Archibald Young, the well-known surgical-instrument maker there. It is the one now exhibited to the members of the British Medical Association assembled in that city. It consists of a single piece of India-rubber tubing, four and a half feet long, of the thickness and calibre of the gullet-tube of the ordinary stomach-pump. One end (the stomach end) is finished off, as that is, blunt and rounded, with two oval apertures; the other, tipped with a short tapering brass pipe, and in such manner as at once to slip into the mouth of a common elastic gum-bottle, capable of holding five or six ounces of liquid, and to let the fluid contents of the stomach pass off in a continuous unbroken stream.

Introduced into the stomach, and guarded from injury by the teeth by being passed through a cork put between the teeth, the tube may be worked, by means of the gum-bottle, in any one of several ways, according as the bottle is applied to the tube, emptied of air or filled with air. These several ways will at once suggest themselves to any one inspecting the tube and the bottle. In any case, on the expansion of the empty or emptied bottle, the entire tube will be filled from the stomach with liquid throughout; and, on detaching the bottle, the syphon, if held below the level of the stomach, will be found in full operation. But the gum-bottle is no essential part of this simple instrument. It may chance to be useless, cracked, riven, as bottles of this sort are apt after a time to be, unless looked after, and from time to time oiled. For, failing the bottle, and, in fact, better than the bottle, is (as has already been remarked) one's own mouth. A capacious enough bag the mouth is; and it is propulsive enough. Its suction-power is quite equal to that of the bottle: a power never needed, however, if only the end of the tube be drawn below the line or level of

the stomach. Again, the mouth will suffice for the filling and refilling of the stomach with water, for the cleaning of it out to any extent requisite, and, with its propulsive power, in a few moments. The substitution of the mouth for the bottle is only a matter of sentiment—as regards the *patient*, a small matter, surely, when his life may be at stake, and himself, peradventure, comatose or drunk.

A stomach-syphon of the kind now described and exhibited, is in every respect as efficient as the ordinary stomach-pump. It will do everything that the latter can, and nearly as quickly, because aided by the tonic contraction of the diaphragm and abdominal muscles. But it has this notable advantage over that other instrument—namely, this: that it can never get out of order. When wanted, it can never fail one. It can never get out of gear.

The case now recorded in connection with it, and in illustration of it, demonstrates the intrinsic superiority of it over the common stomach-pump. It was a rude instrument that was extemporised for the occasion; yet, rude as it was, it availed effectually to save the life of a poor unfortunate, which, without it, would certainly have been lost. And the whole case verifies, or, at least, enables us to understand, a statement made to me by Mr. Young; namely, that he has known not a few cases occurring in country districts in which persons that had swallowed laudanum, or other poisons, with or without suicidal intent, had lost their lives simply from the ordinary stomach-pump failing to work, and being absolutely impotent. The instrument now exhibited, however, is unfailing—absolutely so; and is simplicity itself in its construction.*

It may be made to subserve other purposes in midwifery, surgical and medical practice, in the treatment of uterine ailments, of epistaxis, of ileus, etc. But, as regards these, it is at present unnecessary to offer any remarks.

THE TREATMENT OF PATENT URACHUS.†

By J. J. CHARLES, M.D.,

Demonstrator of Anatomy, Queen's College, Belfast.

THE urachus extends from the apex of the bladder to the umbilicus, and is composed of fibro-areolar tissue, with some muscular fibres continuous with those of the bladder. It retains the tubular character of the allantois up till about the thirtieth week of fetal life; and its cavity is in great part obliterated a short period before birth, though to a variable extent, perhaps, in different instances. In the infant, the urachus appears to be a solid cord; but Luschka, as the result of numerous and careful observations, states that it "presents vestiges of its original condition in the form of a long interrupted cavity, with irregularities and dilatations lined with epithelium similar to that of the bladder, and sometimes communicating by a fine opening with the vesical cavity". (Quain's *Anatomy*, 1867, p. 945.) From this, it is easy to understand, more especially in cases where the obliteration is less complete at birth than usual, that any obstacle to the flow of urine from the bladder may give rise to undue distension of that viscus, to dilatation of the slender cavity in the urachus, and to the discharge of urine from the umbilicus; and Cruveilhier, I may remark, observed patency of the urachus only in those cases in which the urethra was obliterated. Of course it is possible that patency of the urachus may be due entirely to arrest of development, and there may be no urethral or other obstruction to remove; but such cases are, I believe, of exceptional occurrence. Accordingly, the mode of treatment which appears to be the most rational in the majority of cases of this kind is undoubtedly the removal of any obstruction that may exist to the flow of urine by the ordinary passage, whether that be a phimosis or a calculus. In the cases of patent urachus on record, the treatment has been directed solely to the contraction and closure of the aperture at the umbilicus by the actual cautery or by a plastic operation; but all such attempts, as might be expected, have proved abortive. (Holmes's *System of Surgery*, vol. v, p. 820.) To Professor Redfern is to be ascribed the credit of recommending circumcision: a novel plan for the cure of this abnormality, and one founded, as I have shown, on a consideration of its true nature. In the case I am about to relate, a somewhat similar mode of treatment was adopted with a good result.

V., a strong well-developed boy, about a year old, was seen by Professor Gordon and myself in April last. The umbilical cord, it seems, fell off at the usual time; and urine was discharged ever after-

* Mr. Young informed me that Mr. Bryce's instrument never took with the profession, by reason of its complexity and inconvenience. It consisted of the ordinary gullet-tube, of two pieces of tin-tube, each eighteen inches long, and of a pig's bladder, furnished with a stop-cock.

† Read in the Surgical Section at the Annual Meeting of the British Medical Association in Edinburgh, August 1875.

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