stated that his arms were considerably paralysed, as well as his legs. In a day or two, he could walk to the lobby without assistance. A second blister on the other side of the spine cured him.

Shortly after this, a woman from the country was carried into the out-patient room, being unable to put one foot before the other. Dr. Carter diagnosed diphtheritic paralysis, and blistered the back. That day week, she walked from the station to the hospital and back. Since then, I have seen a patient who, after some acute throat-affection, was supposed to have stricture of the œsophagus, to relieve which a bougie had been repeatedly passed. I have seen this mistake made before. The total insensibility of the fauces made it probable that there was paralysis of the throat, and she too was very speedily relieved by blistering. It is now all but five years since I saw a lady who had then been suffering for some time, I think a good many months, from diphtheritic paralysis, especially affecting the legs. She got no better, and subsequently was seen by two very eminent metropolitan physicians, who confirmed the diagnosis, but failed to effect a cure. In the course of this summer, her case recurred to my mind, and having ascertained from her medical attendant that she remained in the same state, viz., able only to crawl a few yards with great difficulty, I advised him to try the effect of a blister or two. As might be expected, after so long a time, the effect was less speedy, but a few weeks after she was able to walk very much better. At this time, she was so shocked and overwhelmed by a domestic calamity that the treatment could not be repeated, and the case remains inconclusive, though not without its significance. Diphtheritic paralysis shifts its seat, and may, indeed, disappear unexpectedly in some cases, though I have personally seen less of this fugitiveness than some other writers appear to have done. The doctrine of probabilities forbids us, I fancy, to thus explain away the curious, if not very extended, series of cases, above given.

The honourable task imposed upon me by the kindness and confidence of the members of our Branch is now concluded. May I venture to hope that you will be complaisant enough to think it in any respect worthy of the occasion? If so, it will prove to you more than mere words would that I am gratified by the dignity which you have been good enough to confer upon me.

If so, you will feel with me, that our grand and persistent object should be to improve our art. Those who sincerely and intelligently desire this will never be negligent in the acquirement, and when possible the improvement, of those sciences upon which that art is based. But I think they will feel with me that there are many dark places which these sciences as yet but faintly illuminate. That we may be misled by the teachings even of the most scientific, as, indeed, the whole history of medicine shows.

We shall admit that we must use our own reason, that we must hourly bring dogmas face to face with facts. We must see nature with clear eyes, not through the smoked glass of hypothesis, nor even through the tinted lenses of theory. We must do these things not spasmodically, but habitually.

We shall find that, great as is the accumulation of facts already effected, there is not merely a gleanings, but a most abundant harvest, still to be gathered. But the more we learn, the more we shall feel our ignorance. The greater our success, the more unequivocally shall we be compelled to cherish no higher ambition than to be able to say truthfully—

“In the infinite book of nature, a little I can read.”

SYPHON STOMACH-TUBE; A SUBSTITUTE FOR THE ORDINARY STOMACH-PUMP; WITH A CASE.*

By ALEXANDER HARVEY, M.D.,
Professor of Materia Medica in the University of Aberdeen.

In the month of August, 1860, being then residing in a small country town, a professional friend called on me to ask if I could lend him a stomach-pump, as his own had entirely failed him. He had a little while before been sent for to see a man who, with a suicidal intent, had that morning swallowed ten fluid drachms of laudanum—the equivalent of forty grains of solid opium.

On being summoned to the case, my friend took with him, in addition to his stomach-pump, three emetic doses of sulphate of zinc. Arrived at the man's house, he found him in a state of deep stupor, his pupils contracted to a point, and his breath smelling strongly of

laudanum. By dint of rough handling, he roused him sufficiently to get him to admit the fact of his having taken the poison in question; and, with some difficulty, he administered first one, then the second, and, next, the third of his emetic powders. It was to no purpose, however. No vomiting followed, nor the least attempt at vomiting, although the emetics were aided by copious draughts of warm water, and tickling of the throat with a feather.

My friend now betook himself to his stomach-pump. He passed the gullet-tube down the man's throat and into his stomach. This done, he attached the pump, and set himself to work it. To his horror, he found it would not work. Six months before, it was in good, in perfect order; and it had served well in a case in which its use was requisite. Since then, it had lain in a drawer in the surgery, unlooked at. It was now out of gear, and quite useless. The valves had gone wrong.

Thus foiled—foiled in both these ways, and at his wits' end—my friend took his leave, saying he would soon be back with another stomach-pump. Yet where to get one he did not in the least see, unless I had one. In his extremity, he came to me (as I have said), and asked if I “could lend him the loan” of one. Stomach-pump I had none. What, then, was to be done? Emetics had been fully tried, and had failed. His stomach-pump, on which he fully relied, had failed also. He was in sore distress. How could he re-enter the poor man's house as helpless as when he left it a few minutes before, and already in a manner disgraced by the failure of his chief tool?

It so happened that I was possessed of a narrow piece of India-rubber tubing about three feet long. I bethought me of this at the moment; and also, in connection with it, of two papers in the old *Edinburgh Medical and Surgical Journal*. One was on the syphon as a substitute for the stomach-pump, by Mr. James Bryce of Edinburgh;* the other by the late Professor Alison of Edinburgh, reporting a case of poisoning with laudanum, in which he had successfully used Mr. Bryce's syphon.†

Producing that piece of tube, and telling my friend the purport of those two papers, I said to him that, with this tube of mine, and his own gullet (œsophagus) tube, I had no doubt we should succeed in getting the man's stomach effectually emptied. He listened to me as patiently as his nervous perturbation would allow. He looked at the tube, twirled it round and round his fingers; and, laying it down, shook his head, saying it would never do. It was too speculative an affair, he surmised. Besides, how were two such tubes as mine and his, differing in thickness, and each of a different calibre, to be soldered together into one continuous tube? The thing would not answer. Nothing would or could avail, save the orthodox stomach-pump. Nor did I press the thing upon him. I was myself exceedingly hopeful of it. Yet I had not myself had any experience of the syphon in that way; and, the theory of it apart, there seemed to me some force in the objection he urged on the score of coaptation. And so my tube was cast aside. Yet we were no nearer our purpose. What was to be done was still the question. The nearest doctor resided several miles off; and the case would not brook long delay.

In the circumstances, my friend begged me to go with him to the patient. He could not well, he said, return alone, empty-handed; but “another head” would stand him, meanwhile, in good stead. Away we went together, full twenty minutes having elapsed since he left the house. Arrived there, he heard, on ascending the stairs, what was unquestionably a strife of tongues. On entering the room, this was hushed. It was full of people, mostly women. Hereby, indeed, hangs a tale of thrilling interest, but too long for this short paper. Suffice it to say that, *inter alia*, the women had been debating among themselves the position of the man evidently dying, and protesting that he ought not to be left to die like a dog. Honestly bent they were on doing the best they could. But, as one advised one thing and one another, nothing was done. One woman was as good as another woman in point of weight or authority; and the more that they were each and all of them under the influence of strong emotions—emotions intensified by face answering to face, and gesture to gesture. Their energies thus palsied, found vent in quarrelling among themselves, in loud, angry, purposeless bickerings. All this ceased when we made our appearance; but our reception was by no means cordial. The bystanders had been told, one by one, as they dropt in, the tale of stomach-pump and its failure; and were shown the dishonoured instrument. They were all of them at one as to the moral aspect of the affair, medically regarded. They did not scruple to say that the failure ought not to have occurred; and that, if the man died, the doctor ought to be hanged; albeit, had he died, not one of them would have touched

* “A New Method of Evacuating the Stomach Mechanically”, vol. xxiii, p. 220.

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

† “History of a Case confirming the Efficacy of the Means of Evacuating the Stomach in Cases of Poisoning, proposed by Mr. Bryce”, vol. xxiii, p. 416.

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.,

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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.