sult of such an injury in adult life, seldom happens at this period, on account of the toughness of the osseous structure which also allows of its curving in. The immediate effects are usually overcome without operative measures, and the expectant method of treatment is therefore that generally adopted.*

With respect to the second point—viz., the instruments we have for the treatment of cranial injuries, I may mention that Dr. W. Newman (BRITISH MEDICAL JOURNAL, 1868, vol. i., p. 23), describes those used during the time of the Roman empire; and we do not seem to have much improved upon them. The “modioli” of Celsus and the “cyclici” of Galen were different kinds of trephine. The ancient “terebrae” have representatives in our modern necrosis-case, which is doubtless the best place for them. “Lenticulares” for smoothing the rough border left by the trephine, and “raspatories” for scraping off the pericranium, are still to be met with. In Rees’s *Cyclopædia*,† published fifty years ago, you will find drawings of many surgical instruments; and the great importance which was then attached to the operation of trepanning is shown by the great number devoted to this subject. Trepan and elevators with tripod stands are not the least formidable-looking weapons.

The power of the screw and the lever are both called into requisition, for the purpose of raising the depressed bone. Paré describes saws like the one introduced by the first Hey of Leeds, which is the most valuable addition we have had for some time to this department. These, I believe, are the principal instruments which have been invented. Elevators on the suction principle have been suggested, but would, I think, be ill-adapted, and unwieldy.

The Elevator, half size; Blade and Cranium, full size.

a. The blade serrated on its upper border. b b. Sound cranium.
c c. Depressed cranium. d d. Dura mater.

The instrument† here shown is not intended to supersede the ordinary elevator, but to be used in cases where that instrument is inapplicable. For instance, in the second form of depression which I have described, only one side could be raised, unless an amount of calvarium be sawn away, which would doubtless never be replaced. The trephine is of course sometimes necessary in desperate cases; but, like amputation, it is a *dernier ressort*. I do not know what effect on the equilibrium of vital power the shock of removing a circular piece of sound cranium may have: it cannot be *nil*, nor can you consider the operation conservative surgery.

This elevator may be in several forms: one can enter the diploë (if there be any), and thus draw up the bone without entering the cranial cavity at all; the others are inserted between the bone and the dura mater, but do not press upon the brain, if properly made, any more than the ordinary instrument.

When it is to be used, the end is inserted in the fracture (Hey’s saw may sometimes be wanted); by half a turn it is brought at right angles

with the fissure. The bones on each side are drawn up at the same time; the elevator is brought to its original position and withdrawn. Should the edges of the fractured bone tightly embrace the neck of the instrument, it can saw its way out by means of the serrated edge on the shoulders of the blade. This leaves a small aperture, which will afterwards be replaced by bone, whence pus, blood, etc., may issue.

The advantages of this instrument are: 1. Its simplicity of management; 2. It elevates the bone on each side at once; 3. It requires no fulcrum; 4. It can injure no vessels or other structure; 5, and lastly, whilst allowing a sufficient aperture for the escape of fluids which might compress the brain, it takes away none of the natural protecting case of that organ, so that hernia cerebri becomes an impossibility.

In conclusion, if I have succeeded in establishing for the instrument I have designed all the advantages I claim for it, and thereby lessened the risks of operative interference in cranial depression of childhood, I may venture to predict a treatment of these cases, more philosophical and consistent with the dignity of surgery as a science, than that of leaving their cure to Nature alone, with the danger of the future development of many mental and physical disorders, to which so delicate an organism as the brain must ever be liable, when called upon to perform its functions under adverse and abnormal conditions, however much it may have accommodated itself to them. Nature herself, whilst re-establishing continuity in skull-fracture, throws out no provisional callus; but, rather than press upon the brain, leaves it unprotected until the slower process of union by definitive callus can be accomplished. Ought we not, therefore, to take a lesson from her, and use every means in our power, consistent with discretion, to restore the structures to their normal position, and thus hasten repair?

THE USE OF SETONS IN THE TREATMENT OF STRUMOUS DISEASES.*

By EDWARD CROSSMAN, L.R.C.P., Hambrook.

I HOPE I shall not unprofitably occupy a few minutes this evening in directing the attention of this meeting to a class of therapeutic agents which may well claim consideration in virtue of its antiquity. I can probably add nothing to what is well known by all here present, but may hope to stimulate some to place more reliance on a remedy which, though well known, is, according to my observation, but seldom used in the treatment of disease.

I shall not trouble you with the pathology of scrofula, or *struma* (the more euphonious word). It will be sufficient for my purpose to say that *struma* is a state of constitution characterised by the formation and deposit of a peculiar solid material in various organs and structures of the body; that this material is an excretion from the blood, and is the result of defective or perverted elaboration.

In simple inflammation we use sinapisms, or dry cupping glasses, to draw the accumulated blood from the congested part towards the skin. If depletion be necessary, we raise a blister, by which not only is the blood drawn towards the skin, but a quantity of its serum is evacuated. In these instances a temporary derivation only is required; but in *struma* a morbid material is slowly and continuously formed in, and deposited from, the blood; and, while we endeavour by remedial measures to check the tendency to reproduction, it is necessary to provide an outlet by which the system may be freed from the excrementitious matter. Such I take to be the simple explanation of the action of setons and issues. They do not belong to the class of counterirritants, but to that of evacuants; and, regarding them in this light, I have used them in a large number of cases with the happiest results.

Few writers on strumous diseases fail to mention setons or issues among the various remedial measures; but mention is made of them in a cursory manner, and without that stress being laid upon their employment which, in my experience, it deserves. Moreover, they are generally described as applicable only to the early stage of these diseases, while in my opinion they are equally serviceable in the climax.

The wife of a farmer—one of an eminently strumous family—had during two years consulted various medical men, and, immediately before consulting me, had received her death-warrant from a leading physician. Her left lung contained a large cavity; the right was universally crepitant; and she had had several attacks of hæmoptysis. I was not consulted with any hope of cure; but, as she had come home to die, I was called in to watch her end. In this case, from the time when I put a seton in her chest, she began to mend. One set of silks having cut their way out, I put in another; and for six months a continuous

* Read before the Bath and Bristol Branch, October 1871.

* In looking over the cases recorded during the last twenty years, to which I have been able to get access, the greater fatality following injury over the left parietal region, as compared with other parts of the skull, has struck me as being remarkable, especially when remembering the pathology of aphasia.

† In the technical department, it is still the most complete work ever published.

‡ Maw, Son, and Thompson, Aldersgate Street, make these instruments.

discharge was kept up from the skin, with so happy a result that, fifteen months later, I attended her in a confinement, and she has lived six years since.

A young woman, aged 19, presented herself to me, with extensive tubercular disease of both lungs, which had been running a constantly progressive course for more than two years. She was extremely emaciated, had profuse perspirations, and her legs were cedematous. Her case was one of advanced tubercular bronchitis. I put a seton of six silks in her chest, and at the end of a fortnight the symptoms began to abate. She wore the seton three months, by which time her cough had nearly ceased, and her expectoration was *nil*. She then pressed me to remove the seton, and, upon inquiring the reason of her urgency, she informed me that her banns had been twice asked, and she intended to be married the following week. She *was* married to a worthless fellow, who used her very badly; and, after an interval of eighteen months, I was called on to attend her in an attack of acute tubercular pneumonia, under which she soon sank.

I will not weary you with the details of cases. My memoranda supply me with the records of thirty-five cases of confirmed phthisis in various stages, in thirty-two of which marked benefit was derived from the employment of setons, while in three the seton was removed without benefit. In none of these cases had I reason to regret the introduction of the seton: emaciation and debility were not increased by the discharge from the skin, but, on the contrary, their progress was arrested *pari passu* with the diminished discharge from the lungs.

Passing to another variety of strumous disease—*strumous ophthalmia*—an issue or seton in the temple is the most effectual remedy, and often the only means of stopping the progress of the disease. Probably in the present day setons and issues are used more often in the treatment of strumous ophthalmia than in that of any other disease; and I take it that it is so because their remedial power can, in the eye, be actually seen and appreciated.

It is not only in the true strumous ophthalmia, attended with corneal ulceration, that setons are of service—they are equally so in all those minor affections of the eye and its appendages which take their origin in a strumous diathesis.

For the relief of an eye-affection, the seton is usually placed in the temple; but a serious drawback to its use in this situation is the scar which it leaves. I find that, placed in the arm or any convenient part of the body, it has an equally good effect.

Some ten years ago, a girl was under my treatment for many months in consequence of frequently repeated attacks of strumous corneitis. Having failed to eradicate the constitutional tendency by medicines, I put a seton in each temple. The result was a complete cessation of the disease; but, having to earn her bread as a nursemaid, she was naturally anxious to get rid of a disfigurement which prevented her from taking a situation, and, contrary to my advice, removed the setons at the end of a month. Not many weeks afterwards, exposure to cold wind brought back the disease, which again assumed a remittent character. Being in a situation at a distance, it was only when compelled to return home that she again became my patient. I then introduced a seton of six silks into her arm, and kept it discharging the whole winter, during which time she was entirely free from the eye-affection, and has never had a serious return since.

A young gentleman seldom passed a month or six weeks for several years without an attack of strumous conjunctivitis. Being first at a private school, then at Eton, and latterly in London, he had been subjected to various plans of treatment. The attacks yielded sometimes to leeching, sometimes to blistering, and at other times to sedative applications; but exposure to cold wind or damp air always induced a recurrence. At last I persuaded his friends to allow me to put a seton in his arm. The suppuration was so severe at first that I had great difficulty in inducing him to retain it; he did so, however, and by degrees the fungoid granulations which had sprung up round the points of insertion disappeared, and a healthy suppuration was established. From the time the seton was inserted the ophthalmic attacks ceased; during the three months he wore it they did not once recur; and for three years since he has had but the most trifling threatenings of his old malady.

Two years ago, a younger brother of the same family was threatened with the same affection. I immediately put a seton of one silk in his temple and stopped the disease, and he has had no recurrence.

A third form of strumous disease, in which I have used setons with great advantage, is tubercular meningitis. My attention was first directed to the beneficial effect of a discharging surface in this disease by a case which occurred to me, in company with the late Dr. Symonds, soon after I commenced practice. A child three years of age, apparently in the last stage of hydrocephalus, was accidentally scalded on the chest, and a large suppurating surface was the result. Dr. Symonds

was fully persuaded that the case was hopeless, and was equally convinced, when the child recovered, that the extensive suppuration turned the balance in its favour. Since then I have treated a considerable number of cases of this disease by the introduction of a seton in the poll, and am fully persuaded that, when the attack is sufficiently prolonged, the establishment of a free discharge offers the best hope of cure.

There is yet another form of struma in which I have used setons with advantage—viz., chronic glandular enlargements. I have found obstinate enlargement of the axillary glands yield to a seton in the arm, or below the clavicle. A seton above the clavicle or in the arm will facilitate the removal of enlargement of the cervical glands; and not long since a most obstinate enlargement of the inguinal glands, which for many months resisted all treatment, eventually yielded to a large seton in the arm, kept discharging for eight weeks. Lastly, I may mention chronic strumous ulcers as curable, when other means fail, by a discharge established at a distant part of the body.

I have avoided extending this paper by the narration of cases, and have omitted the mention of any concomitant treatment. I would not have it supposed on this account that I advocate the use of setons to the exclusion of other remedies. I apprehend the part the seton plays is that of evacuant—distilling, as it were, from the blood the morbid material. It remains to check the reproduction of this material by catalytic remedies.

My apology for calling the attention of this meeting to a subject which is probably so familiar to all present, is the very good result which I have experienced in my own practice from its employment.

A SUCCESSFUL METHOD OF TREATING CERTAIN CASES OF DYSMENORRŒA AND STERILITY.*

By PROTHEROE SMITH, M.D.,

Senior Physician to the Hospital for Women, London.

To treat of the subject of dysmenorrhœa generally, the time to which I am restricted would be insufficient. I shall, therefore, now only speak of that form of the malady which is the result of abnormal constriction of the uterine canal, and which also frequently presents a mechanical obstacle to pregnancy. With this condition, known as obstructive dysmenorrhœa, we are all more or less acquainted, since it is of frequent occurrence amongst the unmarried and the sterile.

The lumbo-abdominal distress, the bearing down and forcing uterine effort immediately preceding the menstrual flux, and the experience of relief when it is established, with the constitutional debility which follows, with consequent neuralgic headaches and pains in the hypogastrium, sufficiently characterise the disease; while chronic and long standing, pains in the *bas ventre*, especially on the left side, continual backache, tenaceous leucorrhœal discharge, with an aggravation of constitutional disturbances, mark the progress of the malady. The diagnosis, however, is complete when, by touch and uterine sound, the constriction of the canal is proved. This condition was described by Dr. Mackintosh, of Edinburgh, in 1844, who proposed as a remedy the use of bougies, so as gradually to effect the dilatation of the straitened passage. This plan of treatment was frequently attended with success, and was, about the same time, modified and improved by the late Sir James Simpson, who used metallic stems two inches and a half long, having a button or bulbous end, by which these "short sounds" were retained and secured. Such means, at times, seemed to answer; but, unless pregnancy soon followed, the constricted parts of the uterine canal resumed their abnormal condition, and called for a repetition of the treatment.

In Dr. Black's excellent edition of the *Selected Obstetrical Works of Sir J. Y. Simpson* (vol. i, p. 679) published this year, is the following paragraph.

"At a meeting of the Edinburgh Obstetrical Society, March 10th, 1847, Dr. Simpson stated that he had now been in the habit for three or four years past of performing the operation of incision of the cervix uteri for obstructive dysmenorrhœa. He first described the operation to the Medico-Chirurgical Society in 1844, and it had latterly been adopted by Dr. Rigby, Dr. Protheroe Smith, Dr. Oldham, and other accoucheurs in London and elsewhere."

The instrument used by Sir James was a kind of *lithotome caché*, by which he divided the strictured part, the incision commencing at the union of the cervix with the body of the uterus, and passing more and more into the substance of the cervix as the instrument was withdrawn, and so dividing its lower edge.

In the year following, I had a double hysterotome constructed in

* Read in the Midwifery Section at the Annual Meeting of the British Medical Association in Plymouth, August 1871.