at once noticed improvement in vision. During the evening, and also the next day, there were some general injection, slightly increased tension, and also slight vitreous haze; but the tension soon disappeared by the application of eserine twice a day, and the haze gradually diminished, so that at the end of the week he could read, with cataract glasses, 14 Jäger and $\frac{3}{4}$ Snellen. At the end of a fortnight, the disc was almost distinct. Words of 4 Jäger were read with difficulty and $\frac{3}{4}$. From the condition of the iris, perfection of sight in this eye would be simply impossible.

Do not these and other similar cases show the performance of the old operation of couching in the roughest manner, but producing results, as we see in one instance mentioned above, and after a period of twelve years, so good that it is rarely equalled by the best mode of extraction? Do they not point out that the almost universal condemnation of this old operation of our forefathers requires to be modified; for, disastrous as the results of couching have been, and having succeeded to the hospital practice of a surgeon who chiefly depressed, I speak with some authority, and believe that, in suitable cases, these bad results have been rather due to laceration of the capsule than to the forced dislocation of the lens.

Putting aside a large number of cases for which couching is quite unsuitable, and confessing that I have only had the courage to carry out my opinion in a few cases, still, with all reserve, I feel that, in a limited number of patients with senile cataract, such as those of great age with severe cough, or a marasmic constitution; or where suppuration or hæmorrhage has followed extraction in one eye; or where previous examination of the patient before the lens has become opaque, has shown very fluid vitreous humour, and some others, recourse may be had to this operation, now outside the pale.

Should other surgeons agree with me that art ought to accomplish equally well what accident effects so rudely, and nature spontaneously, I think they will find my plan of operating the most desirable, as it will decide in such cases whether depression is advisable; for should the vitreous humour be fluid, on detaching the suspensory ligament, except at its lower part, the lens will fall away from the pupil, when this movement may be continued by the aid of the instrument downwards and backwards to the fundus, where it will remain partially fixed by the remains of the ligament; but, should the lens retain its position, the operation of extracting it in its capsule will probably be the better one.

Von Graefe has stated that a lens, perfectly freed from its detachment, is less likely to set up glaucomatous symptoms than one partially detached; but, in the plan proposed, the lens is practically free, although still adherent at one part.

ON THE USE OF ESERINE AS A PRELIMINARY TO EXTRACTION IN CASES OF CATARACT.*

By CHARLES BELL TAYLOR, M.D., F.R.C.S.,

Surgeon to the Nottingham and Midland Eye Infirmary.

IN selecting an operation for cataract, the surgeon will always have two ends in view; first, to adopt such a method as will secure the smallest percentage of positive failures, and second, one that will give the most brilliant results, both as regards appearance and vision.

Unfortunately, these two ends are not always compatible. What may be done in the way of cataract operation, I shall illustrate by two patients who are subjects of double extraction with central and movable pupils, who are kind enough to attend here to-day; as also by another patient who has had both eyes operated on in the manner I am about to describe.

No one—if you will pardon a slight digression—who has had experience in ophthalmic surgery, can have failed to appreciate the advantage of a background of iris when extracting small chips of steel or other foreign bodies from the surface of the cornea. Unless the eye can be turned in such a direction as to obtain this advantage, there is apt to be a want of precision in our proceedings; and, when the foreign body is situated exactly opposite the black expanse of the pupil, it may be either overlooked altogether, or attempts at extraction may be attended by unnecessary denudation of the cornea. A drop of eserine obviates this inconvenience, and the foreign body, thrown into strong relief, is readily removed without doing violence to any of the tissues not actually involved.

Now, if a background of iris is a convenience when operating for the removal of foreign bodies from the surface of the cornea, it is equally advantageous when operating for extraction of cataract; while a deep anterior chamber, and a pupil so contracted as to reduce the

chances of subsequent prolapse to a minimum, are so manifestly in favour of the operator, that I cannot doubt that the instillation of eserine will speedily become generally adopted as the first step in the operation of extraction for cataract, as also in some cases where it is necessary to form an artificial pupil, or to remove foreign bodies from the cornea. I generally apply the solution half-an-hour or twenty minutes prior to commencing the operation; which, premising that I always secure complete control of the eyeball by forceps that pierce the sclerotic, may be accomplished, according to the varying exigencies of each individual case, by one or other of the following methods.

First, I use an extremely narrow-bladed knife; enter it with the edge directed upwards in the corneo-sclerotic junction on a line with the pupil; bring the knife out exactly opposite, and then cut upwards with a gentle sawing motion until close to the corneo-sclerotic junction of the upper third of the cornea, when the edge of the blade is turned forwards and the section completed. I then excise a few fibres of the upper segment of the sphincter of the iris, lacerate the capsule, and extract in the usual way. It is only in very exceptional cases that I find it necessary to administer anæsthetic; and, in a majority of patients, I am in the habit of manipulating the knife so as to get a portion of iris across the edges, completing the iridectomy and section at the same time.

The only delicate portion of the operation now remaining is the laceration of the capsule, which, when possible, I dispense with, and extract the lens and capsule entire by careful manipulation on the surface of the cornea. The operation may be simplified by a preliminary iridectomy, which I accomplish by a small incision midway between the upper edge of the pupil and the corneo-sclerotic junction, lacerating the capsule at the same time. If this be done half-an-hour before the extraction, the aqueous humour is resecreted, and the only risky part of the operation is completed when the eyeball is thoroughly under control. Or, instead of completing the incision, I leave a bridge in the upper third of the cornea, make an incision in front of this bridge, perform a slight iridectomy and lacerate the capsule, dividing the bridge as the last stage in the operation; or a bridge may be left at the angle of the wound, which is subsequently divided with scissors. If it be desirable to extract without iridectomy, I make an incision with the pupil under eserine, and extract when the contraction caused by eserine has been overcome by atropine, which takes place in about half-an-hour.

The Use of Eserine as a Preliminary to Extraction.—Iridectomy purposely effected with the knife, or half-an-hour before the removal of the lens, or under the protection of a bridge which is subsequently divided, is, so far as I know, a novel feature in the operation of extraction for cataract. In my hands, eserine has proved specially useful; and I have here a patient in whom the iridectomy was effected in the left eye with the knife in the right eye half-an-hour before extraction. The two other cases of double extraction in which the iris is untouched demonstrate the brilliant results which are obtained by preserving a central and movable pupil; and, had it been practicable, I could have introduced several patients illustrating what I conceive to be the advantage of one or other of these modes of procedure in suitably selected cases.

ON BENT TIBIÆ IN CHILDREN: CAUSE AND TREATMENT.*

By CHARLES STEELE, M.D., F.R.C.S.

IN this short paper, I do not intend to dwell upon either the characteristic forward bending of rickets or the severe cases of bent tibiæ associated with deformity of the knees or ankles, but to speak of those milder cases where the inner surface of the shaft of the tibia, instead of being straight from the upper to the lower extremity, presents a curve outwards and backwards; and, in doing so, gives a twist to the ankle, which carries the foot with it, and compels the toes to turn inwards. This unseemly appearance is very objectionable in children belonging to the upper classes; and by it, in some instances, I have detected the cause, and confirmed my diagnosis on examination.

These children, with their feet and legs naked, cannot possibly turn their feet outwards when walking, unless they straddle their knees; but as, under proper treatment, the curved tibiæ approach the normal straight line, the feet naturally turn straight, and can be turned outwards. If not detected and treated early, bandy legs probably result; and the condition can be remedied, whether late or early, by the use of irons, persistently applied for some time. But irons are objected

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* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Worcester, August 1882.

to if the case be mild, because they are conspicuous; or if the child be very young, because they are likely to tax its strength, and this I have known them to do. Straight wooden splints are used by some; and I have tried them, but without satisfaction, because they take their bearings upon the knee and ankle, which, if these joints be normal, is objectionable; while, as regards both irons and wooden splints, the most valuable time—namely, the many hours during which the child is asleep, and therefore no weight is upon the bones, and no muscular effort can bias treatment—is lost, as irons and splints cannot be worn in bed; and splints, if worn, are either kicked off or pushed by the child into an useless position.

This state of bent tibiae is generally observed in fine children soon after they begin to walk, and is believed to be caused by the child's legs having to carry a weight heavier than they are able to support. I believe this to be an intensifying, but not the primary cause. I hold, in fact, that, like talipes varus and talipes equino-varus, of which this may be considered the mildest modification, it is congenital, and due to the position which the child's legs and feet occupy *in utero*; the most favourable exciting cause being that of a large child lying in a uterus containing but little liquor amnii, so that the lower extremities are obliged to conform to the rounded containing cavity.

All obstetricians must have observed how newly born infants' limbs, when extended, rebound into the bent position they occupied in the uterus; and that often involves the appearance I have mentioned, and even talipes varus and equino-varus. It is well known also that a good nurse, by daily manipulations, can cure even pronounced talipes. What we need, therefore, for treatment, and early treatment, is an elastic power acting directly upon the bone affected, leaving free the knee and ankle joints, which can be worn when the child is awake and active, and particularly during the long hours of rest. These small light steel spring splints, which I have devised, and which a clever mechanist, Mr. Bryant of Lower Park Row, Bristol, made in accordance with my instructions, are designed to act in the same manner as manipulation. If we place the fingers of one hand on the upper extremity of the tibia, and of the other hand on the lower extremity, and both thumbs on the outer surface of the limb, the bone can, with gentle firm pressure, be soon made to assume almost the straight line, as at an early age it is cartilaginous. These splints consist of a spring shaft well curved outwards, having the lower extremity cupped to cover the malleolus of the fibula, and to the upper extremity fixed a transverse band of malleable iron to partially embrace the limb below the knee. In applying them, the centre of the shaft and the lower portion are first bandaged in position; then the upper part is pressed to the limb, the soft band moulded to the surface, and the bandaging completed. I have lately had straps affixed to the extremities of several, and these keep the splints in place without bandages. It is requisite that the splints be not strong, or they cause pain; but, if they be mild and well fitted, I find that mothers and nurses readily apply them, and see their operation; and children do not get them out of place, and wear them willingly both when asleep and when awake; and, so far as I have had time to observe, the results are most encouraging. I have adapted the same principle in these splints for bent radius and ulna in boys, the result of walking-stick fractures which had occurred some months before I saw them; also for keeping a toe straight after division of its flexor tendon for contraction.

NOTES ON A CASE OF DEAFNESS FOLLOWING CONCUSSION OF THE BRAIN.*

By RICHARD ELLIS, F.R.C.S. Ed.,

Senior Surgeon to the Newcastle-on-Tyne Throat and Ear Hospital.

THE patient, aged 28, the second officer of a steamer, on going on board his vessel in the harbour of Leith, at night, and where the light was bad, fell off the gangway, between the vessel and the wharf, into the water, a distance of about twelve feet. In falling, he struck his head against the sponsoom of the vessel, and he was in the water for some minutes. When taken out, he was insensible, and remained so for twelve hours. Upon recovery of consciousness, he remembered nothing of the fall; he was told he had vomited much, and bled freely from the mouth, nose, and left ear. Meantime, as his general symptoms were promising, he was allowed to proceed quietly in his vessel to South Shields. On arrival at this port, he found he was totally deaf in the left ear, for which he applied to Mr. Rajaonah, the house-surgeon at the Ingham Infirmary, who sent him up to the Newcastle Throat and Ear Hospital, where he came under my care a week after

the accident, presenting the following symptoms. There was a lacerated wound on the upper portion of the mastoid process; the pinna was also lacerated; these wounds were in a healing condition. He could not hear the watch on contact; he said that, on closure of his good ear, he could not hear the noise of the railway-train on his journey up. The tuning-fork was heard very faintly and indistinctly. On using the otoscope, no impulse was heard from the Eustachian tube. The tympanum was dull in colour, particularly in its lower segment; the cone or pyramid of light was not seen. The diagnosis was intratympanic hæmorrhage, blocking the Eustachian tube; and laceration of the lower segment of the tympanum, which was possibly fastened down by a coagulum of blood, thus preventing vibration.

Treatment.—The meatus was filled with a warm solution of bichloride of soda, in distilled water, with glycerine. This was renewed, and the steeping continued, for about twenty minutes. The syringe was now very gently used, which brought away a small thin coagulum, about half the size of the little finger nail, and he expressed a sense of relief; but still the hearing, although much improved, was defective. The Eustachian catheter was now passed, through which a weak alkaline solution was passed by means of a syringe; finally, he was Politizerised, with the result of there and then completely restoring his hearing. I recommended him to take, for a week or so, a mixture containing five grain doses of the iodide of potassium.

PARALLEL HISTORIES OF TWO CASES OF BLEEDING MYOMA.*

By LAWSON TAIT, F.R.C.S.

IT is now just ten years since I introduced the operation of the removal of the uterine appendages for the arrest of hæmorrhage; and though at first my results were so unsatisfactory as to lead almost to a desertion of the practice, within the last six years the results, both primary and secondary, have been so brilliant, that I have every reason to regard this proceeding as the most satisfactory addition to gynecology which has been made during the present generation.

The idea seems to have occurred simultaneously to Professor Hegar and to myself; and the performance of the operations in order of date gives only a few days' priority to Professor Hegar. But, for the relief of pain, I had performed the operation seven months before Professor Hegar. At first I was contented to remove the ovaries, but I soon found that the results were not speedily and completely satisfactory unless the tubes were removed. Increased experience in this class of cases has satisfied me that it is with the tubes that we have chiefly to do, and that the function of menstruation has little or no dependence on the ovaries. If the tubes are removed and the ovaries left, menstruation may be entirely suspended. Thus it will be seen that the principles upon which is based the operation introduced and practised by myself differ very much from those of Hegar and Battery.

I have already published several series of cases of removal of the uterine appendages for the arrest of intractable uterine hæmorrhage, in which I have shown that both the primary and the secondary results are more satisfactory than those of lithotrity in the male, so far as these are known.

I have now to give the histories of two most curiously parallel cases of bleeding uterine myoma; the contrast afforded by these being a singularly powerful argument in favour of the operation I advocate.

The first case is that of a young woman, aged 28. I admitted her to the Hospital for Women on May 15th, 1879, on account of profuse menorrhagia. She was in a condition of the most extreme anæmia, due to the presence of a small myoma in the fundus. Every therapeutic measure had failed to make the least impression on the hæmorrhage, and I therefore attempted to remove the myoma by dividing the cervix and opening the capsule. This was done on August 12th, and a mass as large as a hen's egg was removed. She hung between life and death for weeks, and was eight months in recovering strength sufficiently to get about. In a report published in the *Lancet*, I remarked that I was of opinion that, in such a case, the removal of the appendages was a much safer proceeding than enucleation of the tumour, and that it had given much better results. There can be no question that enucleation is a most terribly fatal operation; and even when it does not kill, it is not necessarily successful, as will be seen in the second part of the history of this case.

I saw her from time to time after she left the hospital, and she became strong enough to resume occupation in July 1880. She became engaged to be married about this time, and everything promised well

* Read in the Section of Otolaryngology at the Annual Meeting of the British Medical Association in Worcester, August 1882.

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Worcester, August 1882.