management of self-appointed persons entirely ignorant of the business under their care. Why, then, in these great hospitals, is so irrational a constitution allowed to continue? If it be replied that the great hospitals have nevertheless done excellent work—that St. Bartholomew's and Guy's are the leading schools of medicine in England—I freely allow it; but this amounts to no more than to say that they have not absolutely wasted and brought to nothing the great resources and position which they have derived from their foundations; and this could not have been done without actual malversation. It would be strange indeed if institutions possessed of the most ample property, and which were long the only places in London where students could see practice, and which, therefore, commanded the services of the most eminent physicians and surgeons of their day, had failed to establish schools which could compete with those in connection with hospitals that possess none of these advantages.

I must now bring these remarks to a close; for I do not wish to obstruct debate, but to stimulate it. They are intended not by any means as a full statement of the question, but only as a sketch of some of the main lines on which I think inquiry ought to proceed. And you will see that such an inquiry ought at any rate to embrace the following points.

1. The general objects of hospitals, including the rules for the admission of patients; the nature of the diseases to be admitted or excluded; the relations of the voluntary hospitals to the workhouse infirmaries, the dispensaries, and the other public medical charities in the neighbourhood.

2. The effect of hospitals on the habits and status of the people; how far the indiscriminate eleemosynary relief provided tends to the pauperisation of the community; and what rules ought to be adopted to counteract this; in other words, how far the principle of self-help should be introduced into our hospital system.

3. The finance of hospitals; how to provide for the due and wise expenditure of the large fund which is now spent somewhat haphazard in the gratuitous medical treatment of the poor.

4. The relations of hospitals to medical schools.

5. The management of hospitals; what share should be given to the medical and lay elements in the arrangements both of the hospital and school.

In speaking to this Metropolitan Counties Branch, I have addressed myself only to the question of the London hospitals. Did time allow, I should find no difficulty in showing that our country hospitals are equally, if not more, in need of inquiry and organisation.

REMOVABLE AXIS-TRACTION RODS FOR MIDWIFERY FORCEPS.

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I THINK it may be conceded that the principle on which M. Tarnier's midwifery forceps is constructed are correct; and that the objects at which he aimed are most desirable, if they can be obtained, and without counterbalancing difficulties.

These principles may be briefly summarised.

1. To allow traction to be made exactly in the axis of the pelvic curve, whether the foetal head be above the brim of the pelvis, or in its cavity.

2. To allow mobility to the foetal head to follow the direction impressed on it by the irregularities of the maternal pelvis.

3. To indicate to the operator the exact direction in which he should at any moment make traction. (See BRITISH MEDICAL JOURNAL, May 26th, 1877.)

British forceps with the pelvic curve, such as are ordinarily used (e.g., Simpson's, Matthews Duncan's, Barnes', or Robertson's), fail to fulfil the first of these requirements, when applied to a foetal head at the brim of the pelvis; and traction can only be made approximately in the proper direction. According to M. Tarnier, they fail almost equally in making traction in the proper curve, whether the head is in the cavity or at the outlet.

These forceps also certainly fail, to a large extent, to fulfil Tarnier's second requirement—that of allowing sufficient mobility to the foetal head to follow its natural direction; and also his third—of indicating the direction in which traction ought to be made; for, though it is customary to speak of “humouring” the forceps, this can only be done by an experienced operator, and even by him only to a limited extent, more especially if he requires to exert much force in traction.

But, although M. Tarnier's principles are admitted, his highly ingenious forceps will probably never—in this country, at least—come into

ordinary use, from its complexity, its enormous size, and its high price; and I have long thought that all its advantages might be gained by certain removable additions to the ordinary pelvic curved forceps.

The “new tractors,” suggested by Mr. H. Morgan (BRITISH MEDICAL JOURNAL, June 29th, 1878), and those of Dr. Duke (BRITISH MEDICAL JOURNAL, February 8th, 1879), seemed to me steps in the right direction, but only small steps—inasmuch as their “tractors” are straight rods, and without any provision for allowing motion or rotation.

In June 1880, Professor A. R. Simpson of Edinburgh brought out his adaptation of “axis-traction rods” to a slightly modified pattern of Sir J. Y. Simpson's forceps, and showed them at the Obstetrical Society of Edinburgh. They were figured in the BRITISH MEDICAL JOURNAL for June 26th, 1880. The objections to them seem to be, that the traction-rods are permanently attached to the forceps—so that the latter cannot be used without them (even for extraction of a head on the perinæum); and that the right traction-rod is much in the way during the introduction of the upper blade, and, in order to allow locking of the forceps, requires to be “pushed forwards past its shank”. Mechanically, they are weak at the point of attachment of the rods to the blades of the forceps.

The axis-traction rods, which I now wish to bring before the profession, are the result of many experiments and trials; and are, I think, free from any of these objections. They provide for all M. Tarnier's

The woodcuts represent the removable axis-traction rods fitted to Robertson's forceps.—Fig. 1. General View.

requirements as completely as his own instrument; and have, in addition, the following advantages—they may be fitted to any pattern of pelvic curved midwifery forceps; they are perfectly simple and easy to use; and do not, in the slightest degree, complicate the introduction or locking of the blades of the forceps. If not required, they can be detached completely—leaving the forceps unaltered, except by the addition of a small bridge of metal soldered across the bottom of each fenestra (Figs. 2 and 3 a), so as to form a rounded aperture, into which the thin flattened hook (Fig. 4) of each traction-rod slips, when at right angles to the blade on its outer face, but only in this position. This bridge prevents the hook from slipping out when the rod is brought parallel with the shanks.

The rod of the left or lower blade has attached to its free extremity the traction-handle, with its swivel-joint (Fig. 2, b), and the lower half of the right rod (Fig. 2, c, f), which is divided about its middle.

The upper half of the right rod hooks into the aperture of its blade; and is so contrived, that its lower end springs on with a light clamp to the shank of the forceps, at a distance above the lock just sufficient to keep it clear of it. (Fig. 3, d, e.)

The junction between the upper and lower portions of this right rod

(Fig. 3, *e*, and Fig. 2, *f*) is effected by means of an 'extremely simple and easily worked wedge-joint or lock, which is, at the same time, perfectly strong and efficient. This joint is shown in Fig. 5, *e*, *f*'.

To use these axis-traction rods, the left traction-rod is hooked into the left or lower blade of the forceps; and, it being held, along with the handle, the blade is introduced as usual. Then the small upper portion of the right rod is hooked into the right blade, and its lower end sprung on to the shank. (Practically, it is as well to keep it always *in situ*, as it is more easily carried thus, and cannot be mislaid.) This blade can then be introduced in the ordinary way, and the forceps locked—as the rod does not, in the slightest degree, interfere with either the introduction or the locking. A stout India-rubber ring (similar to an umbrella-ring, but stouter) is now to be slipped over the handles of the forceps, or they may be tied together; and, the lower end of the right rod being freed from its attachment to its shank, its lower portion, at present hanging loose, attached to the traction-handle (Fig. 2, *c*), is brought up and guided by the finger into its catch (Fig. 3, *e*).

Fig. 2. Left or lower blade, with its Traction Rod and lower half of Right Rod (*c*), both attached to Swivel Traction Handle (*b*).—Fig. 3. Right or upper Blade, carrying upper half of its Rod (*d e*) clamped on to shank at (*e*).—Fig. 4. The hook by which the Rods are attached to Forceps.—Fig. 5. The Wedge bolt (*f* *e*), by which the wedge of right rod (*f*) is connected, with the clamp of the upper portion (*e*).

The rods being now complete, traction is to be made entirely by the traction-handle in the line A, B, C, Fig. 1, the handles of the forceps being left perfectly free, and merely held together sufficiently firmly to prevent the blades from slipping, by the India-rubber ring, or by tape.

As the foetal head descends in the pelvis, the handles of the forceps move forwards, and indicate that the direction of traction is to be altered, so as to keep the traction-rods parallel and just in contact with the shanks, as in the use of Tarnier's instrument.

It will be observed that the junction of the two portions of the right rod can never require to be made higher up than about an inch from the vulva, and this only when the head is high and the maternal pelvis deep.

The mechanical details have been well and carefully worked out for me by Mr. J. Gardner, surgeons' instrument maker, 45, South Bridge, Edinburgh, who is prepared to fit these traction-rods to any pattern of pelvic curved forceps, at a moderate cost.

Since writing the above, a paper has appeared in the *Edinburgh Medical Journal* for February 1881, by Dr. Archibald Reith, of Aberdeen, condemning all axis-traction forceps, and asserting that traction in the true axis of the brim of the pelvis is mechanically impossible. I think that, if Dr. Reith will take the trouble to study the laws of mechanics, and also to test practically (as he evidently has not done) traction-rods, such as I have described, he will find that it is not only possible, but easy, to make traction in the curve of the pelvic axis.

ON A NEW METHOD OF PERFORMING PLASTIC OPERATIONS.

By J. R. WOLFE, M.D., F.R.C.S.E.,

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In September 1875, I published in this JOURNAL a case of ectropion cured by a plastic operation performed after a new method. Eight months later, I exhibited to the Glasgow Medico-Chirurgical Society the same case, along with another which was published (*Medical Times and Gazette*, April 1876) after we had an opportunity of satisfying ourselves of its successful issue.

Dr. Wadsworth, of Boston, U. S., sent me a report of a case in which he had performed my operation successfully, and which he afterwards brought before the Ophthalmological Congress in New York in September 1876; and successful cases have since been reported by Professor Hirschberg, of Berlin (*Beiträge für Praktische Augenheilkunde*, page 97), Dr. Martin, of Cognac (*Annales d'Oculistique*, September 1880, page 97), Dr. Vitall, of Bari, and Dr. Aub, of Cincinnati (two cases) (Knapp and Hirschberg, *Archives*, 1879, pp. 400-408). These surgeons consider that "the results of this operation are more satisfactory than those of any other blepharoplastic procedure; and that it is destined to supersede all others in cases where skin is wanted to replace cicatricial tissue".

This operation formed the subject of discussion at the Amsterdam Congress, and at the one recently held in Milan; and as I am not aware that the method has been tried in this country, I think it desirable to bring the subject again before the notice of the profession.*

I may say, at the outset, that my plastic operation is not skin-grafting, as introduced by M. Reverdin; nor cuticle-scraping, in which the little bits are said to be dissolved, and then to grow up again; but it consists in the transference of skin-flaps, cut to shape from any part of the patient's body, or from any person who feels disposed to make a present of a portion of his skin; to supply deficiencies elsewhere. The practical importance of this operation is evident when we consider that it saves cutting a flap from the face to mend the face, in which case, if the operation be unsuccessful, we only introduce a new scar.

CASE.—Mrs. M., aged 30, fell into the fire in a fainting fit, three years ago, and got her face and left eyelid severely burned; the temporal bone was laid bare; the lower eyelid was dragged downwards and outwards; the conjunctiva exposed to its *cul-de-sac*; and the lower canaliculus pulled about half an inch from its normal position. This accident not only caused a deformity of the face, but also produced dryness of the conjunctiva, especially at its outer angle, where the membrane had assumed a xerotic appearance. The eyeball was exposed, and was thus rendered liable to attacks of inflammation. Owing to the awkward twist of the eyelid, and to the total obliteration of its border, I considered the case very unpromising, and therefore avoided the operation for a considerable time; but ultimately, when it was represented to me that family considerations made the patient exceedingly anxious to try the effect of an operation, I consented to give her a chance.

The operation was performed in the following manner. I began paring away the edge of the upper eyelid at the inner margin, keeping clear of the eyelashes, and opened the obliterated canaliculus, into which I introduced a thin probe, pushing it horizontally into the lacrymal duct. I then made a curved incision a little beyond the puckered edge of the cicatrix, and dissected up the eyelid, liberating it from the malar bone, to which it was adherent. Having introduced my finger into the conjunctival sac to make sure that the whole tarsal cartilage and orbicularis muscle had been liberated, I pushed the probe into the nasal duct to serve as a guide in retaining the lids in apposition, and at the same time to keep the canaliculus out of harm's way. The edge of the lower eyelid being also pared, four ligatures were introduced through the upper and lower eyelids, and tied together. The hardened subcutaneous cicatricial tissue was cleared away, and the whole extent of

* Two other successful cases have more recently been recorded by Drs. Mathe and Pilcher. *Annals of Medicine and Surgery*, January 1880.