Correspondence.

"Audi alteram partem."

STATICS AND DYNAMICS IN THE TREATMENT OF LOCOMOTOR ATAXIA.

To the Editors of THE LANCET.

SIRS,—So long as the etiology of this affection is not fully understood the treatment is likely to be indifferent in its results. The pathology of locomotor ataxia consists essentially in a loss or impairment of the guiding sensations normally passing from the lower extremities to the brain centres. My idea in making use of the following method of treatment originated in the view that by giving the limb muscles more work to do in the way of lifting or overcoming resistance they would be put more upon the stretch and thereby a stronger sensation would be sent up the conducting nerves and columns. This sensation being stronger would have more chance of passing through the partially obstructed routes and of thus reaching the interpreting cerebral areas. In other words, the diminished muscle sense would be stimulated and increased.

One may look upon a victim of this affection as suffering from vertigo in the feet; he fails to realise where the soles of his feet are. There is a light-footedness—comparable to the light-headedness of vertigo—the feet and legs are unstable, jerky, and jumpy. The power of directing the feet and legs and stepping out properly and regularly is much impaired, resulting in the characteristically exaggerated and unsteady gait. Balancing power is greatly lessened. The patient seems to have lost ballast and the sense of proportion and weight is diminished. It has often seemed to me that some of these conditions and deficiencies might be improved by increasing the force the muscles have to overcome and by supplying the ballast that seems to be lost. A recent fashion was to stretch the spinal tracts from above by suspending the patient by the head. The treatment I recommend and have found very helpful consists of stretching the nerves and muscles from below.

I have special boots made with lead in the soles varying in amount from two to three pounds. The boots are ordinary stout leather, laced ones with a layer of sheet lead in the sole between the layers of leather extending from the toe to the instep. In tabes the foot in taking a step is brought forcibly to the ground upon the heel, as proved by the heels being worn away long before the soles. For this reason I direct that only the soles of the boots should be loaded and not the heels. Both of the cases in which I have employed the loaded boots are well-marked instances of tabes dorsalis.

A man, aged 35 years, has been suffering from this disease for over ten years and has had long courses of treatment, both hospital and private. For some months during severe attacks of laryngeal adductor spasm the necessity for tracheotomy was imminent. He has latterly been too unsteady to venture out of doors, unless occasionally with a great effort, and leaning on his wife's arm. He describes the effects of wearing the heavy boots as giving him much more control over his feet and legs both when sitting and walking. The muscles seem stronger and there is much less spontaneous, irregular, and uncontrollable movement. He can sit quietly in the chair with the boots on, as there is much less jerking and jumping of the feet. He says that he seems to have much more feeling in the balls of the toes and can make more use of the toes when wearing the boots. He can rise from a chair much better. When standing he can balance himself much better and can even stand alone. This he could never attempt to do before using the special boots. When walking he has greater confidence, can measure his steps much better, and can bring the foot down in a more natural way—much less heel action. He can also regulate his pace and walk slowly if he wishes, which was not easily done before. He is now walking distances of from two to three miles and only uses a stick to assist him.

A man, aged 33 years, has been suffering from tabes for over three years and has all the characteristic indications. Deficient action of the mucous membrane of the nose and pharynx brought him under my care. This was accompanied by shortage of mucous secretion in the

stomach and bowels, resulting in indigestion with much flatulency and intractable chronic constipation. The mucin treatment locally and generally has successfully overcome these troubles. He was a patient a year ago at Queen's-square Hospital for Paralysis and has had all kinds of treatment, including Frenkel's exercises. Nothing has done him any good until the last few weeks, when he has been wearing the weighted boots. He finds that he can balance himself much better, can rise up and turn round well, and is able to walk in the dark a great deal better. There is much less jerking movement of the legs. He says his fear of falling has gone and that walking in a strong wind is quite different now. Since he feels his feet much more with the heavy boots on he does not require to watch them so attentively in walking. This patient has gone on so well and gained such confidence that he can almost dispense with a stick entirely. In walking he says his feet no longer describe a semicircle and that he can bring them more accurately to the ground. The neighbours in the country village where he lives have remarked on his improved gait. This man I have also tried with weights in his hands and pockets, but he says that the heavy boots have helped him most. When indoors in his slippers he again loses all control of his feet and they jerk and jump about.—I am, Sirs, yours faithfully,

W. STUART-LOW,

Assistant Surgeon, Central London Throat and Ear Hospital.

Welbeck-street, W., March 1st, 1906.

ANTERIOR OR POSTERIOR GASTRO-ENTEROSTOMY?

To the Editors of THE LANCET.

SIRS,—I feel sure that all who are interested in the surgery of the stomach will cordially approve of the congratulation you offer to Mr. H. J. Paterson upon the contributions he has made to this subject in his recent Hunterian lectures. Where there is so much that is excellent it may seem almost churlish to discover a fault. But I think Mr. Paterson will not be surprised to hear that on the question of the relative merits of anterior and posterior gastro-enterostomy I am in complete and confident disaccord with him. And it is not only with him, I find, but with the writer of the leading article in THE LANCET of March 3rd, and further with a recent contributor to your columns, Mr. W. H. Battle, who writes (Feb. 3rd, p. 276, column 1): "The anterior operation, moreover, possesses advantages which are likely to make it the more favoured operation of the future"; and also, "It is very probable that the anterior operation has been performed much more frequently than the posterior." Now whereas a single statement of opinion may well be left unchallenged the almost simultaneous publication of three authoritative opinions such as these cannot be ignored without a tacit admission that the weight of argument and of experience is on the side of the writers. I must, therefore, record once again my opinion that every argument and all experience show that the posterior operation as now performed is in every particular a better operation than the anterior. At the outset I may say that I do not wish to speak ill of my friends and the anterior operation has served me well; I have had, and still have, good results from it. But I never now perform it if the posterior operation is possible. My last two cases of gastro-enterostomy for carcinoma have been performed by the anterior method but it was only because the invasion of the transverse mesocolon by growth made access to the posterior surface almost impossible.

I will take the statement made in your leading article first. You say: "A careful examination of a long series of cases in which the posterior operation has been done will show that it is by no means free from dangerous complications; especially is there a liability to the production of an internal hernia by the passage of small intestine through the opening made in the mesocolon." Unhappily, I can speak with too much experience upon this point. One of my patients died from such a hernia and two others have had such herniæ discovered when the abdomen was reopened, in one case by Mr. A. E. Barker, in another by myself. But with the present method of performing the operation, when the edges of the mesocolon are sutured to the jejunum close to the anastomosis, there is no possibility of a hernia occurring. Mr. Paterson on this point writes: "Whether this will prevent the occurrence of internal hernia

remains to be seen, possibly it will, but it is also possible that the adhesions may constrict the anastomotic opening." The word "possibly" here is rather weak. By stitching the edges of the mesocolon to the jejunum the opening into the lesser sac no longer exists, the passage of bowel through it, therefore, cannot occur. With regard to the possible formation of adhesions, all I can say is that adhesions have never been known to form and that there is no reason why they should form if the operation is properly done, since no rough or damaged places are left. (I may here irrelevantly express my belief that many post-operative adhesions are due to sepsis, but of that I will write anon.) It is worth while to remark that in two cases where I had to operate a second time after gastro-enterostomy had been performed by other surgeons the cause of the persisting vomiting was found to be a constriction of the distal loop by adhesions. In both the anterior operation had been performed. The argument against the posterior operation that it makes possible a hernia of intestine into the lesser sac I admit was valid in the early days of the operation before the technique was fully developed. Now such an occurrence is impossible.

Your next argument is: "It is certain, too, that the posterior operation is more difficult and takes longer to perform than the anterior operation." Is it certain? It is no uncommon thing for a surgeon who has seen me perform posterior gastro-enterostomy to remark that the operation "looks easy enough." Questions of ease or difficulty are largely personal, and I will not say more than this, that whether easy or difficult there is little or nothing to choose between the two methods. Nor is there anything of material difference in the time occupied. I have probably performed the posterior operation from beginning to end in less than 20 minutes on at least a dozen occasions, and in the very great majority of cases the whole time occupied (from the first incision to the last stitch) is under half an hour. I do not find there is any difference at all between the two methods, and there is no reason why there should be, for the manipulations in the two are exactly the same for the only part of the operations that consumes much time, that is, the stitching.

Mr. Paterson refers to regurgitant vomiting and you say "obstruction at the efferent opening is the real cause." I quite agree that obstruction is the real cause but it may be surely at the afferent opening as well as at the efferent. The proximal jejunal limb becomes "waterlogged" and by kinking obstructs, it may be, both afferent and efferent openings. Be that as it may, I agree that obstruction is the real cause. Regurgitant vomiting means high intestinal obstruction and that it is due to obstruction at the anastomosis is shown by the fact that it is relieved by a short-circuiting operation by uniting the afferent and efferent limbs of the jejunum. The cause of this obstruction I submit, therefore, is to be found in the "loop." It is not a question of anterior or posterior methods primarily at all. If a loop is left in the posterior method regurgitant vomiting, as my cases and Mayo's also show, is just as likely to occur as after the anterior method. But—and here lies the great advantage of the posterior operation—in the anterior method a loop is absolutely necessary; in the posterior as we now perform it there is no loop at all. The jejunum lies in its normal position, the relative position of the parts (as may be seen on transverse frozen sections) is very little if at all altered from the normal. The other forms of intestinal obstruction that have followed the operation, excluding obstruction by a Murphy's button, are due to rotation of the anastomotic loop, which has only occurred once after the anterior operation, and to strangulation over the proximal limb of the jejunum of small intestine which passes in between this loop and the under surface of the mesocolon, either from right to left or from left to right. As the operation of posterior gastro-enterostomy is (or should be) now performed, these strangulations cannot occur; by the anterior method they are always possible, because of the necessary existence of a loop. Strangulation of the transverse colon by the jejunum occurs, of course, only after the anterior operation.

Next with regard to jejunal ulcer. Mr. Paterson says: "This statement"—that is, that the ulcer occurs oftener after the anterior operation—"is not necessarily correct." But Mr. Paterson had not found all the recorded cases nor had Mr. Battle when writing his paper. Up to the present 33 cases have been described; in 29 of these the nature of the operation is mentioned. In 17 cases anterior gastro-enterostomy had been performed; in four cases anterior

gastro-enterostomy with entero-anastomosis; in one case anterior gastro-enterostomy in Y; in six cases posterior gastro-enterostomy with a long loop; and in one case posterior gastro-enterostomy with a long loop and entero-anastomosis. The point which is clearly made from this is that it is the low opening in the jejunum which, so far as any part of either method is concerned, is a factor in the causation of the so-called "peptic" ulcer. Mr. Battle evades this point, I think, when he states that it is very probable that the anterior operation has been performed more frequently than the posterior and that therefore jejunal ulcer would have occurred oftener after the former operation. I should rather say that it is almost certain that the posterior operation has been performed far more frequently. At least of this there can be no question that the surgeons who are doing the largest number of these operations confine themselves almost exclusively to the posterior operation. And, after all, that, it seems to me, is the really important point. We have all practised the anterior operation as a routine operation; we still practise it occasionally, but we are convinced from the results of the cases that the posterior operation is the better. It is not a question of good and bad but of good and better.

I do not think the position is accurately stated when it is said that "the wave of fashion has been increasingly in favour of the operation" any more than it would be to say that the wave of fashion is increasingly in favour of removing the axillary glands in carcinoma of the breast, or of doing something more than removal of the sac in the radical operation for inguinal hernia. Fashion has in it something of caprice; the choice of the posterior operation is the result of a considered and well-reasoned opinion that it is a safer and, so far as after-results are concerned, a more successful operation than the anterior. It is a "fashion" established by long experience and sanctioned, I think I am right in saying, by all those who are working extensively at this subject. But I think it necessary to say that the posterior operation should not be performed in a haphazard way but that certain reasoned principles should always be observed; these concern the position, and direction, and size of the opening in the stomach, the position and direction of the opening in the jejunum, and the suture of the mesocolon to the jejunum after the anastomosis is complete. It is because of these points that the immediate and remote results of posterior gastro-enterostomy are better than those achieved after the anterior operation. If no regard is paid to them then there is no advantage in the posterior method. The posterior operation is the better, not because it is posterior, but because, being posterior, it permits certain principles to be observed, which on purely mechanical grounds are impossible in the anterior operation.

I am, Sirs, yours faithfully,

Leeds, March 4th, 1906.

B. G. A. MOYNIHAN.

CONGENITAL HYPERTROPHY OF THE PYLORUS.

To the Editors of THE LANCET.

SIRS,—Mr. H. J. Paterson in his admirable Hunterian lectures¹ on gastric surgery discusses the treatment and mode of operation for the infantile variety of pyloric hypertrophy. His statistics of pyloroplasty are unduly favourable, showing six recoveries out of nine cases. Compared with his collected results of gastro-enterostomy, 11 recoveries out of 25, pyloroplasty would seem the more suitable operation. My figures give much the same results as regards gastro-enterostomy—viz., 16 recoveries out of 34. Of pyloroplasty the results are not as good as the figures given by Mr. Paterson, for only seven out of 14 got well from the operation and of these two died subsequently, 54 days and three months later, from gastro-enteritis.

The object of this letter is to point out that statistical results of operations are of little value, for the prognosis depends on the marasmic state of the infant when it reaches the surgeon's hands. This is well shown by eight of my own cases on which Mr. Clinton T. Dent performed pyloroplasty. Three private patients were operated on within six weeks of birth and all have recovered apparently perfectly. The other five were hospital cases, all more or less marasmic, and of these two died shortly after operation, two died subsequently as above stated, and one recovered but almost died from severe gastro-enteritis. These

¹ THE LANCET, March 3rd, 1906, p. 577.