

## Correspondence.

"Audi alteram partem."

## OPHTHALMIC SURGERY AT THE COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—Few persons can have failed to notice the difference between the style and manner of the jovial spirits who "walked the hospitals" five and twenty years ago and of the anxious students, "composed in suffering and in joy sedate," of these latter days. Some have thought that the native gaiety of youth has been eliminated by the Argus-eyed vigilance of beadles, tutors, and deans, and by the hampering restrictions, and compulsions of the Examining Bodies, with their constantly multiplying examinations. This opinion is, it seems, erroneous. The change has been wrought from within, not introduced from without. The gravity and solemnity of the modern Asclepiadæ are the results of gradual awakenings of conscience, the slow and silent evolution of a new moral sense.

In the report of the last meeting of the Council of the Royal College of Surgeons in to-day's issue of THE LANCET, p. 1046, it is stated, in reference to a resolution adopted by the Council with respect to the teaching of Ophthalmic Surgery and the introduction of this subject into the examinations of the College, that the following recommendation was unanimously adopted by the Court of Examiners—namely, "The fact that candidates are liable to be tested in regard to the use of apparatus employed in the various special surgical departments has more effect in leading them to acquire such knowledge than any enforcement of attendance in those special departments."

To those who have no misgivings about the wisdom and efficacy of the modern examinational system this authoritative dictum will indeed be welcome; since it emanates from a body which has always been one of the most zealous votaries of this system. The utterance is not only significant in itself, but it gives us a glimpse of Utopia. If it be true that the fact that candidates are liable to be tested in certain subjects is more likely than enforced attendance to direct students to those departments of knowledge which have hitherto lain outside the prescribed course of study, how much more potent must its influence be in respect of those branches of knowledge which through habit and custom have come to be regarded as the Curriculum *sine quâ non*! Henceforth, it will be neither necessary nor desirable to enforce attendance in the departments of anatomy, physiology, medicine, surgery, and midwifery. It will be enough for the student to know he is "liable to be tested" in those subjects. And when in the fulness of time the nascent virtues of the medical student have attained their culmination in the Categorical Imperative of Kant, we may withdraw even the mild incentive of examination. The student, absorbed by a passion for wisdom and knowledge, will have realised Pythagoras' ideal of the true philosopher; his soul, too, will have reached its *ἐντελέχεια*. The suggestion of examination will be a reflection upon his probity and his honour. But what alas! will become of the tribe of professional examiners? Their occupation will be gone. Will the profession allow men who for ten, twenty, or more years have enjoyed the emoluments of examiner-ships to suffer because medical students have grown too scrupulous? Assuredly not. We evidently are nearing the threshold of the delicate question of Compensation for Disturbed Examiners.—I am, Sirs, yours truly,

JOHN TWEEDY,

Professor of Ophthalmic Medicine and Surgery in University  
May 10th, 1890. College, London.

## THE CONTINUOUS ACTIVITY OF NERVE CELLS.

To the Editors of THE LANCET.

SIRS,—In his valuable article in THE LANCET of this date, Dr. Gowers supports the doctrine that nerve cells do not pass under stimulation from a state of complete inactivity to one of action, and then subside into inactivity once more. It is a great gratification to me to find that so high an authority as Dr. Gowers supports a doctrine which I have long held, and have endeavoured (fruitlessly, I fear,

until now) to induce neurologists to accept.<sup>1</sup> I should, however, carry the doctrine further than Dr. Gowers explicitly does; although it is probable, from hints that he gives, that he has already reached nearly the same conclusions. "We can," he says, "by attention become conscious of impressions from any part at any time. The part on which the body rests must be the seat of continuous stimulation of the nerve endings, and the movement of the blood in the arteries must everywhere coöperate with pressure, &c." My own opinion would be that in addition to currents projected from these sources every molecular process of nutrition and detrition, of repair and waste, of absorption, assimilation and excretion, is a source of ingoing currents which pass upwards, even to the very highest of nervous arrangements, the substrata of consciousness. Dr. Gowers believes that nerve currents run continuously, not only from the central nervous apparatus to the muscles, but from the muscles back to the central nervous masses; and in this belief I entirely concur. But I would ask him if he would not concur in the further doctrine that the ingoing currents already spoken of as started by the molecular processes have not also their outgoing equivalents in "motor" currents which regulate the activity of these processes? In the case of some glands the existence of such "motor" currents has been proved. Is it such an unwarrantable hypothesis that in the case of the closely similar process of nutrition also they exist?

Dr. Gowers speaks of the probability of the existence of many ingoing currents besides those which he enumerates, currents which he thinks are not powerful enough to influence our consciousness. In this, again, I should be disposed to more than agree with him. I should suppose not only that these additional currents that I have spoken of do exist, but that they do influence consciousness very powerfully. It is to me inconceivable upon what our consciousness of our own selves, as distinct from our consciousness of the outside world and of our relations with it, can be founded if not upon such a nervous action as we both suppose. That the action of each individual gland or organ is definitely represented in consciousness, so that we can tell when, and how vigorously, it is working, is not supposed for a moment any more than it is supposed that the action of each individual cell is definitely represented. What is contended for is that the vigour of all the nutritive and visceral processes, as it is regulated by outgoing nerve currents, so it is a cause of initiation of ingoing nerve currents, which have, vivid or faint, definite or indefinite, some conscious accompaniment; and the totality of the conscious accompaniment is our consciousness of self; our self-consciousness is the conscious personality, the conscious *ego*.

The continuous exertion of control by nerve centres is a matter upon which I have entered fully, both in the book already mentioned and in a paper on Inhibition in *Brain*, No. xliii. It will not be necessary, therefore, to show how completely I am in accord with Dr. Gowers in this subject. In only one particular do I find myself unable to agree with him, and that is in his description of the two forms of nervous activity. One, he says, is induced and excited by stimulation, the other is continuous and is the subject of control. My interpretation of the facts would be that there are two forms, which are both continuous. One is the controlling activity, whose continuous powerful action is from time to time intermitted, though never quite removed; the other, the controlled activity, whose continuous slight action is from time to time stimulated and allowed to break out in strenuous exertion by the intermittent removal of the other.

In conclusion, I come again nearly into agreement with Dr. Gowers, for in "The Nervous System and the Mind" I have advanced the view that the former activity is exercised by the cerebellum and the latter by the cerebrum.

I am, Sirs, yours obediently,

Catford, May 10th, 1890.

CHARLES MERCIER, M.B.

## BARRACKS.

To the Editors of THE LANCET.

SIRS,—Although I have no claim to any special knowledge of barracks, and must plead complete ignorance of those military considerations which doubtless complicate the sanitary questions involved in their construction, I nevertheless venture (as a taxpayer who will be called upon to contribute

<sup>1</sup> The Nervous System and the Mind, pp. 47, 76, 85, &c.