

Correspondence.

"Audi alteram partem."

REGISTRATION OF MEDICAL STUDENTS.

(LETTER FROM DR. FRANCIS HAWKINS.)

To the Editor of THE LANCET.

SIR,—A good deal of uncertainty appears to prevail as to the regulations proposed by the Medical Council respecting the general education and examination of students. This uncertainty has probably been increased by the circumstance that in the Report of the Committee on Education, as it appears in the 24th number of the Minutes of the General Council, the present year, 1860, has, through a misunderstanding, been fixed for the compulsory registration of students, instead of, as it should be, the ensuing year, 1861. I think, therefore, that it would be useful and acceptable to many of your readers if the following resolutions of the Medical Council, which bear upon the subject in question, were placed before them in the following order:—

"6. That after October 1st, 1861, all medical students be required to be registered.

"8. That no student beginning professional study after September, 1861, be registered, who has not passed an Arts examination, in conformity with resolutions 2 and 4; viz.:—

"2. That, as far as may be practicable, testimonials of proficiency granted by the national educational bodies, according to the following list, be accepted, with such additions as the Medical Council may from time to time think proper to make: A Degree in Arts of any university of the United Kingdom, or of the colonies, or of such other universities as may be specially recognised from time to time by the Medical Council. Oxford Responsions or Moderations. Cambridge Previous Examinations. Matriculation Examination of the University of London. Oxford Middle Class Examinations, Senior and Junior. Cambridge Middle Class Examinations, Senior and Junior. Durham Middle Class Examinations, Senior and Junior. Durham Examinations for Students in Arts in their second and first years. Dublin University Entrance Examination. Queen's University, Ireland, two years' Arts course for the Diploma of Licentiate in Arts: Preliminary Examinations at the end of the A.B. course; Middle Class Examinations; Matriculation Examinations. An examination by any other university of the United Kingdom, equivalent to the Middle Class Examinations of Oxford and Cambridge.

"4. That students who cannot produce any of the testimonials referred to in the second resolution, be required to pass an examination in Arts, established by any of the bodies named in Schedule A of the Medical Act, and approved by the General Council; provided that such examination shall be in every case conducted by a special board of examiners in Arts."

I am, Sir, your obedient servant,

Medical Registration Office,
Soho-square, London, August 15th, 1860.

FRANCIS HAWKINS.

WHAT IS THE SIGNIFICATION OF THE HEART'S THROB?

(LETTER FROM MR. J. MACLISE.)

To the Editor of THE LANCET.

SIR,—As Drs. Broadbent and Arnott, in endeavouring to refute my views respecting the laws which govern circulation, have but repeated such facts and reasoning as are to be found in every Manual of Physiology, they cannot, I suppose, consider that, unacquainted with such facts, I have ventured heedlessly to propound a new doctrine. So far from this being the case, I would have them know that I am conversant with all that has been written and spoken on the subject; and that I still adhere, unshaken, to the belief that though knowing the effects, we are but imperfectly acquainted with their causation, and must remain so as long as we continue to reason from an error first committed, such as that of regarding systole as being the sole circulating force, and that of this the pectoral throb is

the sign. Since I have been led to form this belief from a comparison of the phenomena, I am, of course, bound to adduce the facts in support of my opinion. This, indeed, in conversation held with some of the highest physiological authorities, I have already done to an extent sufficient to elicit their decision that not only are the circulating forces veiled in much obscurity, but that there remains to be revealed some great truth in physico-vital dynamics, which, when known, will set at rest, self-satisfied and for ever, this wearied and wearying spirit of controversy respecting the real signification of the heart's motions and sounds.

I would, then, suggest to Dr. Broadbent, who notes my "glaring misapplication of physical laws and my blindness to the most obvious phenomena," that, possibly, I am as well acquainted as he himself is with the structural difference between the vena cava and the tube of a pump; and that I can prove anatomically that though the vein, circumstanced as he may experiment with it (and he cannot, in elucidation of this question, otherwise circumstance it until he learns how to create a man), must collapse by atmospheric pressure, yet this event is provided against by certain conditions of connexion and relative position which render it capable of serving the use I assign to it,—namely, that of being a simple conduit or reservoir for the venous blood moving by ingestive force centrally when (and only when) the heart performs diastole. This force is physical, and the heart is but the passive instrument by which it operates. The principle is hydraulic, and may in the present case be termed "hæmadraulic." When I affirm that the heart cannot move diastolically without causing motion in the venous blood at the same time and upon this principle, this cause, as *vis a fronte*, may still appear fairly tenable, notwithstanding the fact and phenomenon observable as evidence of *vis a tergo* on binding the arm in a ligature. In operating upon an aneurism of one of the primary arteries at the root of the neck, what makes the surgeon so dread the consequence of puncturing the brachio-cephalic vein? The heart, in this event, ingests the air through the aperture by diastolic suction, and this is proof positive that it must exert the same force upon the blood for circulation.

I am, Sir, yours obediently,

August, 1860.

JOSEPH MACLISE, F.R.C.S.

To the Editor of THE LANCET.

SIR,—I would recommend Mr. Maclise and Dr. Broadbent to read the elaborate physiological writings of the late Dr. Carson, of Liverpool, on Respiration, on the Motion of the Blood, on Animal Heat, Absorption, and Muscular Motion.

Dr. Carson says that "the general agents which are employed in the circulation of the blood, and which themselves constitute a part of the animal machine, are the lungs, the heart, the arteries, and the veins. There are other agents which may be called general, but which do not belong peculiarly to the animal fabric; the chief of these are atmospherical pressure and gravity."

Dr. Carson further says "the heart acts in a twofold capacity. By contraction of the ventricles it propels the blood through the arteries, and by the dilatation of the auricles it pumps it from the veins. It is at the same time a forcing and a suction pump."

I would particularly refer Mr. Maclise and Dr. Broadbent to Dr. Carson's refutation of Dr. Wilson Philips' and Dr. Arnott's arguments, that the blood could not circulate through the veins through atmospherical pressure, or, in popular language, by suction, in consequence of the pliant nature of these vessels.

Dr. Carson, in considering this subject, says: "That my opinions should have gained so many adherents, appears to Dr. Arnott as a lamentable proof of the great deficiency of the medical education of the period in which we live; but I will venture to tell Dr. Arnott, and I cannot omit to tell him, though it may be accompanied with certainty of giving him alarm, that the number of these adherents is increasing, that it will increase from day to day and from year to year, and that the rapidity with which that increase will proceed will be in proportion to the extent in which the rising generation of physicians is educated in those sciences to which Dr. Arnott alludes, and in which he himself is so great a proficient."

I remain, Sir, yours, &c.,

August, 1860.

P. M. C.

* * Here we think it desirable to suspend all merely controversial discussion upon this subject. If any new facts or observations of physiological interest can be advanced, we shall be happy to publish them.—ED. L.