of the heart occurring in rheumatic pericarditis is not simply dilatation, it is a form of hypertrophy. In some way, possibly by interference with the metabolism, the heart may double or even treble its weight in about a week, showing that the enlargement is due to some peculiar effect of the rheumatic toxin, and is not a mere mechanical result of inflammation of the pericardium.

The above-mentioned sample experiments would lead me to believe that the normal pericardium is far too capacious to exert any restraining influence on the heart; and some cases of death from rheumatic pericarditis, seen in the post-mortem room, would indicate that there may be room within the cavity of the pericardium for the heart quickly to increase to three times its usual size.

I am, Sir, yours faithfully,
Norwich, Dec. 17th, 1921. THEODORE FISHER.

THE ORGANISATION OF MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—May I be allowed to support the general principle enunciated by Sir Clifford Allbutt and "C. L." in your columns last week? I found my claims to do so on the fact that I am an ophthalmic surgeon who has had experience of general practice; and further, that I am interested in psychology.

The inefficiency of the present curriculum is vividly exemplified by the inability of many general practitioners to cope with serious ophthalmic conditions, such as ophthalmia neonatorum. It is a deplorable fact that many babies are allowed to become blind through ophthalmia neonatorum in spite of the fact that the mother and child have been under the care of a doctor. The Council of British Ophthalmologists has urged the General Medical Council to insist upon examination in ophthalmology of candidates for the qualifying diplomas. Owing to the overcrowded curriculum students will not, indeed cannot, devote sufficient attention to a subject which they can neglect with impunity so far as the qualifying examination is concerned. The Council of British Ophthalmologists has been rebuffed by the General Medical Council, but it is encouraging for them to learn from your columns (THE LANCET, Dec. 10th, p. 1238) that the Examination Committee of the General Medical Council has passed a resolution supporting in every respect the recommendations of the ophthalmologists.

Yet the carrying out of these recommendations will add another straw to the camel's burden—and it is by no means the only straw. Oto-rhino-laryngology and psychology also demand consideration. With regard to the latter subject, I should like to support "C. L.'s" remarks. The student devotes many years to the study of the human body, yet receives little or no instruction in the working of the human mind. A large proportion of the general practitioner's work is the treatment of nervous disorders which manifest themselves as mental abnormalities. He has to cope with them empirically, unaided by any knowledge of the underlying scientific principles. It cannot be doubted that the course of instruction in physiology should be followed by one on the principles of psychology, and that psycho-pathology should form an integral part of the course in medicine.

Everyone will agree that the present curriculum is overcrowded. The impossible is attempted—viz., that of turning out general practitioners and hospital physicians and surgeons from the same mill. Seeing that the majority of students will become general practitioners, and that all medical men should be equipped with the knowledge which is most necessary for general practitioners, it would appear obvious that the qualifying curriculum and examinations should be designed specially for the requirements of this preponderant class. In other words, it should have a definitely utilitarian aim. Much of the smatterings of scientific knowledge now regarded as essential

should be eliminated, leaving room for matters of greater practical importance.

It will be objected that this view is subversive of scientific education. In my opinion, however, the non-utility, "pure" science theory of education has been exaggerated to the detriment of scientific education, and can be shown to be unsound on biological and psychological grounds. I contend that it is not only possible to teach the scientific method while devoting special attention to utilitarian aims, but that for the majority of people it is the only way.

It is becoming increasingly evident that the medical curriculum must be revised, and it is a fortunate occurrence that so distinguished a leader of British medicine as Sir Clifford Allbutt has given such an admirable lead to the movement.

I am, Sir, yours faithfully,
J. HERBERT PARSONS.
Queen Anne-street, Cavendish-square, W.,
Dec. 17th, 1921.

TREATMENT OF SCARLET FEVER WITH HUMAN IMMUNE SERUM.

To the Editor of THE LANCET.

SIR,—The annotation in your issue of Dec. 3rd on the treatment of scarlet fever with immune human serum, and your remark therein that this form of treatment "has not to our knowledge been employed in this country," leads me to forward the chart and these notes of a patient who was most successfully treated by this method in October, 1915, in the City of Glasgow Fever Hospital, Belvidere, where the method had been tried in a fair number of cases by Dr. Thomas Archibald, medical superintendent.

The patient, A. N., a probationer nurse, aged 18 years, sickened on Oct. 4th, 1915, a scarlatinal rash appearing on the following day, when she was admitted to a scarlet fever ward under my care. Her condition from the first was one of extreme gravity, the disease rapidly assuming the features of the sub-malignant type. On Oct. 6th 25 c.cm. of polyvalent antistreptococcal serum (Parke Davis & Co.) were administered subcutaneously. On Oct. 7th 25 c.cm. of antistreptococcal (scarlatinæ) serum (P. D. & Co.) were injected intramuscularly. Her condition then was one of

Scarlatinal rash appeared at R. Antistreptococcal serum was given at a and b. Convalescent human serum at c and d. Serum rash appeared at S.R. and faded at S.R.F. At P.D. profuse desquamation set in.

intermittent rambling delirium, the rash being generalised and livid. On that night (7th) Dr. Archibald suggested the employment of a human serum. Blood was obtained from Nurse A., a patient in the ward, who was in her fifth week of convalescence from a sharp uncomplicated attack of scarlatina. On the afternoon of the 8th 34 c.cm. of the separated serum were injected intramuscularly. On the same day blood was obtained from Nurse S., a patient in an adjoining ward, who was in her fourth week of convalescence from simple scarlatina. 33 c.cm. of the separated serum were given intramuscularly on the afternoon of the 9th. The results are evident on the chart.

This case brings out the point which you mention—termination by crisis. Beyond serum rash and sickness, which appeared on the 18th, convalescence was uninterrupted.

I am, Sir, yours faithfully,
Glasgow, Dec. 9th, 1921. C. CAMERON.