

after the practice of members of the panel absent on war service. Anyone willing to render such assistance will be asked to furnish particulars as to the amount of time each day during which he would be able to do so. He is also invited to state whether he would be able to undertake work in a district other than that in which he resides. The secretary of the Panel Committee has frequently been applied to for information on this subject by practitioners who have been given commissions in the Royal Army Medical Corps, and it is hoped that members of the medical profession in London may still be available who can devote a fair amount of time to thus assisting their colleagues.

NEW MILITARY ORTHOPÆDIC CENTRES.—At the Cardiff Mental Hospital, now used as a general military hospital—the Welsh Metropolitan War Hospital, Commandant Lieutenant-Colonel E. W. Goodall—300 beds are to be given up to orthopædic cases. This arrangement has been made by the War Office at the instance of Lieutenant-Colonel Robert Jones. Fifty further beds at the hospital will be set aside for the preparation of stumps in order later to fit the wounded soldiers with artificial limbs. This will be done at the Prince of Wales's Hospital, Cardiff, under Lieutenant-Colonel Lynn Thomas, consulting surgeon to the Western Command.

A hospital for limbless soldiers is about to be opened at the new buildings erected in connexion with the Ulster Volunteer Hospital in the grounds of Belfast University. Colonel Robert Jones (who is chief organiser of such institutions under the War Office) has nominated Mr. A. B. Mitchell, F.R.C.S. Irel., surgeon to the Royal Victoria Hospital, Belfast, to take charge of this new organisation. He will hold the temporary rank of Lieutenant-Colonel, and will be responsible to the War Office through Colonel Robert Jones.

THE NEED FOR TROPICAL SANITATION.—In an article on the need for an organised application of tropical hygiene to our armies in the East, published in the current issue of the *Journal of Tropical Medicine and Hygiene*, Professor W. J. Simpson recalls Lord Derby's statement that during three spring months of this year the admissions to hospital in the Mesopotamian Army of British troops alone averaged nearly 2750, and the deaths over 100 weekly, and attributes this grievous wastage to lack of forethought and of any conception of the diseases which were likely to arise among troops campaigning in tropical heat. He suggests the creation at the War Office of a Board of Tropical Sanitation, composed of men with practical experience whose business it will be to maintain the health of the armies in the Eastern area, and the appointment of an inspector-general of sanitation for each army corps as consultative officer.

SCOTTISH WOMEN'S HOSPITALS.—At a meeting of the British Women's Hospital Committee, held at the Palace Theatre on Nov. 12th in aid of the funds of the London Units of the Scottish Women's Hospitals, Sir J. Forbes Robertson, who presided, said that in less than a year the Committee had raised £150,000 for the Star and Garter Home. The Committee now wished to raise funds for the Scottish Women's Hospitals. Contributions amounting to £1000 were announced, the moving and humorous speeches of Mrs. Compton, Mr. Pett Ridge, Lady Frances Balfour, Lady Robertson, and others conducing to this fine result.

THE WORK OF THE Y.M.C.A.—The secretary of this association, who has just returned from inspecting the work of the association at the front, states that there are now in one area 20 or 30 huts in dug-outs right up to the advance bases. The interests of officers as well as men are looked after, and in one area a large club has been established. The educational work includes lectures for both officers and men. More huts are urgently needed. It is interesting to note that the Y.M.C.A. War Fund has now reached £1,000,000. Promises of £5000 towards the erection of huts have been made by the milling trade, and it is anticipated that £10,000 will be raised at the Corn Exchange and a similar sum at the Baltic Exchange.

The Government have taken over the Portman Rooms, Baker-street, in order to relieve the pressure at the military hospital for officers at the Great Central Hotel.

The President of the French Republic has conferred the Croix de Guerre upon Temporary Captain G. F. P. Heathcote, R.A.M.C.

Correspondence.

"Audi alteram partem."

THE DIAGNOSTIC VALUE OF AGGLUTININ DETERMINATIONS IN INOCULATED INDIVIDUALS.

To the Editor of THE LANCET.

SIR,—Captain E. W. Ainley Walker's article in THE LANCET of Nov. 25th, illustrating the diagnostic value of agglutinin determinations in inoculated individuals, raises several interesting points, not the least important of which is the attitude which certain laboratory workers appear to adopt towards clinical medicine. This attitude is admirably illustrated by Captain Ainley Walker in the following words:—

Now, it is obvious that under present conditions no one would willingly or consciously assume the grave responsibility entailed in failure to detect cases of typhoid or paratyphoid fever which are capable of being readily detected. Yet this is what must necessarily occur, to the gross prejudice of general hygiene and efficiency, if only those cases of "enteric fever" are detected which yield a positive result by culture methods. On the other hand, the agglutination test, when suitably carried out and appropriately repeated, can be made to yield a uniformly accurate diagnosis in cases examined during active infection.

It is clear from the above statement that Captain Ainley Walker ignores *clinical observation* as a means of detecting typhoid and paratyphoid fevers, while his claim that agglutination tests alone invariably furnish an absolutely infallible diagnosis is much too extravagant. This attitude, if generally adopted, would be equally prejudicial to general hygiene and efficiency. The basis of all efficient hygiene is careful clinical medicine, which is also the foundation on which all laboratory efforts towards more accurate and complete diagnosis must rest. If a case of pyrexia is suspected clinically to be enterica (and every case of pyrexia is a possible enteric until shown to be something else), blood culture should be performed at once. If the blood culture is "positive" the diagnosis must be regarded as *absolute*. At the same time, whatever the result of the blood culture, agglutination tests by a strictly quantitative method should be performed and repeated at suitable intervals throughout the disease. The object of this procedure in a case in which an absolute diagnosis by blood culture has been obtained is not to diagnose the case—that has already been accomplished beyond dispute—but to furnish *agglutination results controlled by blood culture*. The data so obtained are essential as a guide to the interpretation of agglutination results in other cases in which blood culture has failed to give a diagnosis, but—and this is the point which I wish most strongly to urge—the diagnosis of a case in which blood culture is negative should not as a rule rest on the interpretation of the agglutination results alone, on the general principle that it is not good practice to diagnose any disease on one sign or symptom. On that principle the agglutination test, even "when suitably carried out and appropriately repeated," as Captain Ainley Walker would like, is not *per se* a method of diagnosis of disease. It is a method by which extremely important information, positive or negative from the point of view of diagnosis, may be obtained in the majority of cases, but in arriving at that diagnosis the results obtained by agglutination should be interpreted in conjunction with the other clinical signs and symptoms of the disease. The extent to which Captain Ainley Walker's mind is obsessed with agglutination as a method of diagnosis *per se* is well illustrated by Case 4 in his article. The clinical facts which he supplies regarding this case are: "Onset with shivering and headache. Three smart rises of temperature to 105°, 103.5°, and 102.5° F. respectively, on the first, third, and fifth day of the illness simulating tertian ague. No malarial parasites in the blood. From the fifth day onwards temperature subnormal and rising to normal." This clinical picture is incomplete, but it is hardly necessary to point out to anyone with clinical experience of enterica and malaria that it is, so far as it goes, a typical clinical picture of a mild infection of benign tertian malaria.

Captain Walker says there were no "malarial parasites in the blood," by which, I presume, he means that the blood was examined for malarial parasites and none were found. That, of course, does not necessarily mean that there were "no malarial parasites in the blood," and, having regard to the perfect tertian periodicity of the pyrexia, the conclusion is almost irresistible that there were malarial parasites in the blood which escaped detection. Yet, in spite of the clinical facts which pointed strongly to benign tertian malaria, Captain Ainley Walker diagnoses the case as one of "typhoid fever in a T.-inoculated individual" on one sign—namely, a fluctuation of 350 per cent. in the T.-agglutinin content of the blood with maximum at or near the seventeenth day of disease. With reference to the diagnosis of this case I should like to ask Captain Walker the following questions:—

1. Has he ever seen an uncomplicated case of typhoid fever produce perfect tertian periodicity of temperature?

2. Has he ever seen a case of typhoid fever (whether in an inoculated or uninoculated individual) proved by blood culture, in which the pyrexia lasted only five days?

3. How many cases of benign tertian malaria, proved by the discovery of the parasite in the blood, has he seen in T.-inoculated individuals in which careful estimations of the T.-inoculation agglutinin have been repeated as in Case 4, to show that a fluctuation of 350 per cent. in the T.-inoculation agglutinin cannot possibly be due to benign tertian malaria?

This case, it should be noted, came from the Mediterranean area, an area where malaria was common and commonly mistaken for enterica. In diagnosing such cases as typhoid fever *on agglutination alone* Captain Walker tends to bring discredit on a method which, when kept in its proper place, is capable of furnishing most useful information in the elucidation of many puzzling pyrexias.

The second point of interest raised by Captain Walker's article is the use of the graphic method of representing the fluctuations in the agglutinin content of the blood which takes place in inoculated individuals during active enterica. His diagrams would have appealed more strongly to me had the points found by examination been joined by straight lines. The diagrams might then have lost some of their apparent mathematical accuracy and symmetry, but that loss would, in my opinion, have been more than counterbalanced by the knowledge that they represented series of ascertained facts only—and not, as at present, series of ascertained facts with interpolated figments of imagination. This interpolation is well seen by studying the placing of his maxima. In a previous communication¹ by Major G. Dreyer and Captain Walker, the following clear and emphatic statement is made:—

4. In following out the titration of the patient's serum on several successive occasions it will frequently be found that the maximum has fallen between two dates of observation. And two successive observations at about the same level do not mean that the curve is stationary at this point but merely that the maximum has occurred between there (? misprint). Similarly if the two highest observations are at different levels, it does not follow that the highest titre observed represents the maximum of the agglutination curve, but it does follow that the maximum has occurred between these points.

The last sentence of this paragraph, which I have italicised, is, of course, not strictly correct. The maximum of any curve lies either between the highest recorded reading and the one immediately preceding it, or between the highest recorded reading and the one immediately following it—that is to say, it takes three readings on a curve to determine always with certainty the limits within which its maximum lies. Captain Walker departs from his own rule regarding the position of the maximum in Cases 4, 5, 8, 11, and in Case 6 actually indicates a maximum in the T. curve between his first and second observations, although all the T. estimations from the first show a progressive slow fall in the T. agglutinin! I would be greatly obliged if Captain Walker would explain why Case 10 is "clearly a case of B infection."

In conclusion, I would assure Captain Walker that I sing him no "hymn of hate."² I do not believe that personal emotions such as love or hate can possibly enter into discussions on purely scientific matters. I would further assure

him that my criticism is not in any way directed against Dreyer's technique, for I believe that the Oxford School of Pathology has, by working up this method to its present state of accuracy, performed a great service to medicine in general, and to military medicine in particular. This service has been duly recognised by the Medical Research Committee in placing the materials necessary for following out the method at the disposal of all workers in military hospitals. My criticism is directed in all good faith, firstly, against what I believe to be a total lack of balance in Captain Walker's mind regarding the relative value of accurately ascertained clinical facts and accurately determined agglutinin estimations—an attitude which leads him to unnecessarily grave apprehensions regarding general hygiene and efficiency, and which is bound to lead in certain cases to errors in diagnosis which he appears anxious to avoid. My criticism is directed, secondly, against what I believe to be a too free play of the imagination in his use of the graphic method of recording observed serological data.

I am, Sir, yours faithfully,

R. P. GARROW,
Captain, R.A.M.C.

London, Dec. 8th, 1916.

EPSOM COLLEGE.

To the Editor of THE LANCET.

SIR,—In consequence of the loss of many annual subscriptions as a result of the war, and in part due to the fact that so many medical men are engaged away from their homes on military duties, it becomes necessary to obtain fresh annual subscribers if the good work of the Royal Medical Foundation attached to Epsom College is to be maintained.

Your readers will see from the advertisement which appears on p. 7 of THE LANCET of Dec. 9th that a sum of £4500 has to be collected each year in order to provide the same number of pensions and Foundation scholarships which hitherto have been given annually out of the Foundation Fund of the College. To reduce the number of beneficiaries would be deplorable from every point of view, more especially as the present excessively high war-prices are greatly increasing the hardships endured by the very indigent persons who are candidates for the benefactions given by the College.

Much help might be rendered if those interested in the welfare of the College would urge their friends to become subscribers or donors, to whom in return certain voting privileges are afforded. Donors of 10 guineas and collectors of 20 guineas are life governors, and subscribers of 1 guinea annually are governors during the continuance of their subscriptions. Such life governors and governors have ten votes each, which may be given for Foundation scholars alone, or for pensioners alone, or be divided between the two classes. Smaller contributions are gladly received.

In conclusion, I desire to make a very earnest, urgent appeal to the profession not to allow other new professional philanthropic movements, however excellent in themselves, to prejudice the claims and diminish the possibilities for doing good of Epsom College Foundation Fund.

I am, Sir, yours faithfully,

HENRY MORRIS,
8, Cavendish-square, W., Dec. 9th, 1916. Honorary Treasurer.

THE MOBILISATION OF THE MEDICAL PROFESSION.

To the Editor of THE LANCET.

SIR,—In the article on this subject appearing in your issue of Dec. 9th you say—

We believe that the general opinion of the medical profession, judging from the correspondence that comes to us, is in favour of medical mobilisation.

What you mean by "medical mobilisation" is not quite clear, but as your words have been eagerly seized upon by the Medical Correspondent of the *Times*, who, in my opinion, consistently misrepresents the profession, I cannot help fearing the worst. If this "mobilisation" were part and parcel of a general mobilisation of the civil population, as has been recently seen in Germany, I do not

¹ The Diagnosis of the Enteric Fevers in Inoculated Individuals by the Agglutinin Reaction, THE LANCET, Sept. 2nd, 1916.

² Vide Dr. P. N. Panton, THE LANCET, Oct 23th, 1916.