Correspondence.

"Audi alteram partem."

SHIPS' SURGEONS AND MEDICAL EQUIPMENT.

To the Editors of THE LANCET.

SIRS,—Having just performed a voyage as surgeon on a passenger boat trading from Australia to England and formed a few impressions as to the medical side of things and the provision made for sickness in the way of drugs, &c., I have thought I might set these down with some profit.

Before sailing I took the trouble to run down and see what drugs and instruments there were, and I found that things according to Board of Trade regulations were supplied and that departure from the strict letter of these was not encouraged. Instruments were well provided, but there was only one artery forceps among the whole outfit. I requisitioned for two or three more but found after sailing these were not got, on the ground that the Board of Trade regulations did not require more than one. There were about 170 souls on board and the voyage would take at least seven weeks. As a matter of fact, it took about eight weeks. It can be easily seen that in the admitted possibility of a serious accident involving the severance of several arteries one useful pair of forceps was but a poor stand-by to fall back on.

The choice of drugs was of a very peculiar character. There was no nux vomica, sulphate of soda, ammonium chloride, or any one of the infusions provided. Nor was there any adequate provision of gauze. Carbolic acid and a little perchloride solution was the only antiseptic provided, unless one would call boric acid such. There was no picric acid for burns.

Now all this was specially noticeable in view of the fact that as to catering for the feeding, as to comfort, and as to attendance upon the passengers the ship was exceedingly well found. Clearly there seemed an inability to recognise the necessity of so providing that the important duty of the surgeon should be efficiently carried out. His place in the scheme of things seems not yet definitely settled. He is apparently as yet but an accretion, an accident, and hence there is an inability to gauge the place in the scale that he and his duties hold. He himself is treated with courtesy and consideration and his representations are received with respect, but any definite action is avoided by an attitude of *non possumus*. The dispensary had no seat or bench, and it was only the courtesy and good sense of the commander that provided such after the voyage had begun. Now it would be unreasonable in the extreme to expect the comfort of a surgery or the completeness of provision of a hospital dispensary, but ought not a little more latitude to be allowed the doctor so as to give him every encouragement to perform his duties with pleasure and satisfaction to himself and his patients, who need just as much sympathy and care at sea as on shore?

It might be objected that really so very little sickness occurs on board that it would be foolish to go to any great expense and make elaborate provision for contingencies that could only arise on the rarest occasions. In answer to this let me give an inadequate list of what I had to deal with on the voyage: orchitis and epididymitis, an old fracture of metatarsal bone with severe strain and adhesions, a case of alcoholism, two axillary abscesses and one inguinal abscess, one case of chancre, two of cystitis, one of renal calculus, one case suggestive of renal calculus, obscure case in many respects; one of prostatic enlargement, two of varicella, one of pertussis, one of acute laryngitis with adenoids as an aggravation, very severe; two burns, several injuries of shins leading to ulcers, two cases of liver derangement with gastric complications, one phthisis pulmonalis, far advanced; several cases of lumbago, bronchial catarrh, and pharyngitis (three). Then there were sundry cases of catarrh, indigestion, and, of course, the large number of constipation cases we all expect among firemen and others. I submit this is a formidable list for a few weeks and I allow it is exceptional. But no chain is stronger than its weakest link, and on starting no one ever thought such a deal of sickness would occur. But pity the

doctor who is called upon to meet the situation. Certainly nothing *very* serious resulted, but it might have in other circumstances. Some drugs were run out of on the voyage and I desired to get them replaced. But then I found that the company objected to any drugs being bought at any other ports than London and it was there down in their regulations for the guidance of the surgeon. But the captain got them all the same. But how is a man to get satisfactorily through his work, small and unimportant as it may be, if he is hampered by considerations such as these?

There is one more point I must draw attention to. Is it comfortable with the dignity and efficiency of the work of the doctor that his dispensary should be next to a urinal and his cabin and the dispensary both be in a dark alleyway which it was impossible to keep clean or properly lighted? This alleyway constituted the one means of access for the crew to go to their quarters, for the stores to be carried backwards and forwards, and for the provisions to be conveyed to the crew and the steerage passengers, and for all and sundry to go to the bar. The traffic along it was thus very great and at times it was impassable. To crown all, its width was about four feet. Now surely it is time such a state of things was rectified. Of course we must keep in view that the doctor and his dispensary are accessible to every class of passenger at all times. But this applies just as much to saloon passengers as to others, and to invite such to pass through dirty and dark alleyways where they must brush against coal dust and step through slops is a blunder as well as a crime. Structurally, surely, in this day of marine architecture *in excelsis* there can be no insuperable difficulty in so placing cabin and dispensary so that they can be accessible in unexceptionable neighbourhoods and with approaches that can be kept both clean and dry?

Now, finally, is it not time that Board of Trade lists of drugs should be revised? When were these schedules last overhauled and corrected? It seems only right that they should be so drawn up as not to allow any latitude to such shipping companies as are not above playing fast and loose with them in their pursuit of a cheese-paring policy to make them really a means of hampering their medical officer. Of course, it is ever the effect, in these ingenious days, of any prescriptive legislation to have a restrictive result, because while it says what must be taken it is ever open to any one to say that nothing outside its provisions shall be taken. Both the character of drugs and their quantities ought to be more or less at the option and direction of the surgeon, inasmuch as every medical man has certain drugs with which he works and has confidence in. As a matter of fact these positions are more or less filled by recently qualified men who have not yet had occasion to have their special fancies and dependencies. But even such in their hospital work will have a choice dictated by experience. I have deliberately refrained from specifying the ship and company that have given me my text, because I am clear that the conditions here are more or less prevalent in all lines but the *very best*. As to them I have no experience, so cannot say. But I have frequently travelled on other lines, and can assert that the conditions described above are the best I have met with.

Trusting that you will consider this matter of sufficient importance to justify insertion,

I am, Sirs, yours faithfully,

Sydney, N.S. Wales.

G. A. VAN SOMEREN, M.D. Edin.

RHEUMATOID ARTHRITIS.

To the Editors of THE LANCET.

SIRS,—In common with others I read with much interest your annotation entitled "Rheumatoid Arthritis" which appeared in THE LANCET of Sept. 7th, p. 725. In considering the trend of the discussion on this subject at the recent annual meeting you draw attention to the almost complete absence of any allusion to the neural theory of the origin of the disease, and this notwithstanding the fact that some authorities like Spender, Latham, and others, still hold it to be the correct view. This silence on the subject of the neural theory as opposed to the infective would seem to carry with it the inference either that the neural theory has been thoroughly weighed, found wanting, and no longer merits serious attention, or that there is something inherently antagonistic in the two theories which precludes anything of the nature of a compromise between their respective advocates.

The truth of the matter, it seems to me, is that neither of

the opposing claimants is in a position to disdain the aid afforded it by the other in unravelling the complex clinical phenomena grouped under that vague, ill-defined term rheumatoid arthritis. For while, on the one hand, it cannot be gainsaid that many of the clinical features strongly savour of an infective process as, for example, the acute mode of onset of some cases, the lymphatic and occasional splenic enlargement, still, it must not be forgotten that even in cases presenting the above features there may be in addition widespread muscular atrophy, increased deep reflexes, symmetrical involvement of joints, and trophic changes.

Now such features as these latter strongly point to some implication of the nerve centres, and in order to make the infective theory fit all the facts of the case we have to explain them by assuming them to be the result of changes in the central nervous system consequent upon absorption of toxins. We thus see that in many cases it is impossible to dissociate the two theories, for, as a matter of fact, the manifold clinical phenomena of rheumatoid arthritis are best explained by a blend of the two views; and some years ago I endeavoured to explain this complex disorder on the basis of a chronic spinal toxæmia. Another advantage to be obtained by blending and not opposing the two views is that it leads us to take a more comprehensive view of the disease as a whole, for otherwise there is a distinct danger of our falling into the pitfall, stumbled into by so many, of regarding rheumatoid arthritis as a disease of joints and joints only, whereas, I take it, it is a disease of joints plus certain collateral phenomena, as, for example, muscular atrophy, sensory, vaso-motor, and trophic changes—in other words, the very phenomena which give to rheumatoid arthritis its characteristic clinical facies as opposed to all other joint affections.

When brought in contact with a series of rheumatoid patients we note that while they all present joint swellings of the same character they each may show important differences when looked at as a whole—i.e., muscular atrophy, intense and widespread, may obtain in the one; in another muscular atrophy may be slight but it may be characterised by vaso-motor phenomena indistinguishable clinically from Raynaud's disease. In yet another the predominant accessory features may be sensory, as evidenced by severe neuralgic pains and in some long-standing cases definite anæsthesia, and there may be areas of glossy skin, pigmentation, and in very rare cases perforating ulcers. The importance of a thorough all-round examination in all cases of rheumatoid arthritis is obvious, for it is just to these collateral phenomena that we look for a clue as to the nature of the joint trouble. Furthermore, I believe that these accessory features will eventually aid us considerably in establishing a sound clinical classification of the various forms. We are all aware how urgent is the need for an adequate classification of the joint diseases grouped under the term rheumatoid arthritis, and here again we might take a lesson from the way in which the arthropathies are classified. The neurologists do not content themselves with a classification based upon the mere anatomical distribution of the lesions, monarticular, polyarticular, and so forth. Nay, on the other hand, they classify them as tabetic, syringomyelic, &c. In other words, they look at their cases as a whole, and I cannot help thinking that if we approached the study of our rheumatoid patients in the same methodical manner, we should be able to evolve some classification more scientific than one based on the mere anatomical distribution of the lesions.

In support of my contention that the neural theory is still worthy of attention I would draw attention to an article¹ by Dr. F. W. Mott and Mr. A. F. Tredgold. It is entitled "Some Observations on Primary Degeneration of the Motor Tract." In it are discussed, both from a clinical and a pathological point of view, two cases of amyotrophic lateral sclerosis, one of progressive muscular atrophy, and a case of chronic rheumatoid arthritis with muscular atrophy. The microscopical examination of the cord of the last-named revealed "in the spinal cord chronic atrophy with excessive pigmentation of anterior horn cells in cervical and lumbar enlargements, all groups affected (especially the mesial anterior). Decrease in fibrillary network. General slight interstitial overgrowth throughout the cord, with arterio-capillary fibrosis, but no tract degeneration, slight

chronic changes in cells of posterior ganglia, atrophy of peripheral nerve fibres, atrophy and fatty degeneration of muscles." It is only fair to add that the authors, after commenting on the remarkable similarity of the microscopical appearances in the cord sections of all four cases, felt themselves unable to say "whether the change in the anterior horn cells is primary or secondary to the joint change, or to give any satisfactory explanation of this difference, we simply record the fact."

In conclusion, I should like to add my testimony to the very great value of counter-irritation of the spine in rheumatoid arthritis. I have had the opportunity of seeing one of Dr. W. J. Midelton's cases both before and after treatment by Dr. Latham's method had been adopted and I can truthfully state that the results more than justified his strenuous advocacy of the method. Apologising for the length of my communication,

I am, Sirs, yours faithfully,

Bath, Sept. 11th, 1907. R. LLEWELYN JONES, M.B. Lond.

BODILY POSTURE AND CARDIAC PHYSICAL SIGNS.

To the Editors of THE LANCET.

SIRS,—The paper upon the above subject which appears in THE LANCET of August 10th, p. 353, from the pen of Dr. William Gordon raises many interesting points and rightly accentuates the importance of examining the heart both in the horizontal and the vertical postures of the body. With most of Dr. Gordon's conclusions I fully agree, but would differ with him upon several small points. The effect of posture upon cardiac dulness is usually very marked, this dulness becoming narrower and higher in the recumbent than in the vertical postures. This change seems to be due to the fact that in the vertical posture the heart gravitates downwards and forwards, while in the horizontal posture it tends to gravitate away from the sternum. Dr. Gordon would urge that when this change is greater than usual and the patient shows little or no cardiac dulness when horizontal, it is a sign of some value of cancer, but although this is present in cancer it is also so in *any* case of rapid emaciation, more especially when this occurs in young people. This point has been worked out by several German observers.

It is quite beyond cavil that most systolic cardiac murmurs, especially those due to "functional disturbance," are more distinct or even only present when the patient is recumbent. I have amply confirmed Dr. Gordon's observation that the antero-posterior diameter of the chest is usually less in the recumbent than in the vertical postures but must demur when Dr. Gordon explains such increase in murmurs in the recumbent posture by saying that then "the stethoscope is relatively much nearer the pulmonary valves, relatively a good deal nearer the aortic valves, and relatively somewhat nearer the tricuspid and mitral valves." Dr. S. Cummings and I showed last year¹ that in the horizontal posture the heart tends to gravitate away from the sternum and Roentgen ray photographs taken from the side show then an increased space between the heart and the anterior chest wall. Hence one can argue that during auscultation of the heart with the patient recumbent the cardiac orifices are further away from the stethoscope than they are when such examination is conducted with the patient vertical. Moreover, it is evident to any observer that the normal heart sounds tend to be more audible when the individual examined is vertical than when he is recumbent; in fact, occasionally in thick-chested emphysematous people the heart may *only* be heard when the chest is vertical or, better still, leaning forward.

While quite admitting that the normal heart sounds are qualitatively changed by posture, the first being sharper and the second duller in the erect posture than in the horizontal, it seems to me that by far the most evident change in the sounds is that they are both more audible in the vertical than in the recumbent position. And this is only what one would expect if the contention is correct that in the erect posture the heart is nearer to the stethoscope. Why systolic murmurs should be more evident in the horizontal than in the upright posture is a different question and I agree with part of Dr. Gordon's explanation of the phenomenon when he argues that "it is due to the action of

¹ Some Observations on Primary Degeneration of the Motor Tract, Brain, Part IV., 1902.

¹ Brit. Med. Jour., vol. ii., 1906, p. 1028.