

## Correspondence.

### ART AND THE ANNUAL MEETING IN LIVERPOOL.

SIR,—With regard to the coming meeting of the Association in Liverpool, may I suggest that it would be a great advantage and pleasure to many medical men interested in art if arrangements could be made by which during that week members could have access to private collections? I believe there are in Liverpool and neighbourhood several fine collections of pictures and prints, and I have no doubt whatever that the possessors of such, if approached, would be pleased to show them to medical men who are specially interested. If this could be arranged it would give an added interest (for several visitors) to the meeting.—I am, etc.,

Halifax, June 24th.

D. J. MACAULAY, M.D.

### THE ACTION OF SALVARSAN.

SIR,—The article by Mr. McDonagh in the JOURNAL of June 8th will come as a surprise to most workers in this subject. Just when we are buoyed up with the hope that at last we have got a satisfactory cure for syphilis, and when many of us, from an experience of sufficient cases to be of value, have formed the opinion that two injections of salvarsan are usually sufficient to lead to cure (as far as can be judged by the absence of clinical manifestations and of the Wassermann reaction), we are confronted with the statement that from three to seven injections are necessary to cure most cases, and that also we are to give a provocative injection in cases in which there is no evidence of infection in the blood, in order to induce such reaction. The necessity of repeatedly testing the blood of such patients after treatment is also urged upon us. The work entailed by such numerous examinations is so considerable that I venture to think it would necessitate an army of expert "Wassermannites" to carry it out, not to mention the enormous expense that private patients would be put to, and the impossibility of efficiently treating hospital patients, who form, indeed, the most important factor in maintaining and disseminating the disease.

From my own experience with some hundreds of cases, including all phases of infection, under myself and my colleagues, both in hospital and in private practice, I venture to think that Mr. McDonagh has somewhat exaggerated the matter. Our custom is to inject two doses at intervals of a fortnight, and to test the blood after intervals of a month, three months, six months, and a year; and although sometimes—rarely, it is true—the disappearance of the reaction is delayed for several months, usually it disappears within one month. In practically all the cases, with only one or two exceptions, the reaction has remained negative, and there are no manifestations of the disease. Certainly we have only had the drug at our disposal for eighteen months, but many Continental observers have been noting cases for a much longer period than this, with similar results.

As I hope shortly to summarize these cases and the results of many thousands of Wassermann reactions, I need not encroach further on your space, nor would I have written at this juncture were it not for the fact that I think it is of the utmost importance that such questionable conclusions should be immediately discussed by the numerous workers in this field. This is essential, not only for our own satisfaction, but for the satisfaction of that large number of patients who up to the present have been convinced that they have been permanently cured by salvarsan.

I have said nothing about the dangers of injections of salvarsan, as I think that in competent hands these are few, but if the line of treatment laid down by Mr. McDonagh is to become fashionable, then I can foresee a large increase in the list of accidents resulting from it.

In conclusion, I may add that I have no evidence amongst my cases of any such results as described from a provocative injection.—I am, etc.,

London, W., June 18th.

JULIUS BERNSTEIN.

### THE ARRIS AND GALE LECTURES ON SHOCK.

SIR,—I have been hoping that some of high authority would have commented on these lectures (BRITISH MEDICAL JOURNAL, April 27th–May 18th). However, no criticism has, so far, appeared, so I offer one which at least is honest, as the authors desire.

It has been said that "words shoot back upon the understanding of the wisest, and mightily entangle and pervert the judgement." The word "shock" has always been a guilty one. Although the authors' researches have made clear much hitherto obscure, one finds their use of it confusing; for it is not till near the end that their conception of shock is defined, and then it does not accord with the customary meaning of the word. If shock be "reaction of the central nervous system to exaggerated or abnormal afferent impulses," it is correct no doubt (indeed, it becomes a truism) to say that "surgical shock is present in every operation, and commences with the skin incision." But, rightly or wrongly, "shock" is generally understood outside the laboratory to "express a state or condition" easier described than defined, but with certain classical features, and is not applied when these features are absent, although disturbances may be going on which if increased or continued will produce them. A man is not described as "intoxicated" when he has drunk one glass of wine because a dozen glasses would make him so! Even the writers sometimes use the word in their own extended manner, and sometimes in the usual restricted one.

Involved with the above is the use of another word, for reaction to afferent impulses can be called "stimulation" or "shock," according to the elasticity of the latter term. By applying different words to different proceedings, and even to the same proceeding under different circumstances, an impression is given that good is done at one time and harm at another, whereas charts indicate similar effects.

Changes in the estimated blood pressure are so easily brought about, depend upon so many factors acting in various combinations, and need such skilful interpretation that one cannot help doubting whether they (any more than variations in temperature) are necessarily, and always, of "vast importance as a symptom or sign of infinitely grave disturbance to the physiology of the subject." One wishes that in every case fuller details could have been given, especially as regards the presence or absence of "classical symptoms" of shock. During operations vasomotor variations may often be detected (even by feeling the pulse) which do not prove of appreciable pathological significance. The charts, indeed, show considerable alterations in blood pressure from such proceedings as "washing up," "application of hot saline," during which, and during many of those set up by surgical action, it may be inferred that there was no shock in the ordinary sense of the word.

The onset of serious symptoms, besides depending on the force of the impulses, and the state of the medullary centre and its connexions, probably depends largely on the state of the heart—not only its musculature, but also its innervation, of which the responsiveness to stimuli is so variable, even in apparently normal individuals. This point may be suggested for future investigation.

The attitude of the authors to general anaesthetics seems hardly judicial. Diagram I must be described as misleading. It indicates that a general anaesthetic merely abolishes consciousness and cuts off impulses from the highest cerebral centres, leaving out all its effects on nervous structures in general, which are important, although they may fall short of paralysis. Further on there are sweeping assertions about anaesthetics (? all kinds of anaesthetics), for which little supporting evidence is adduced. No doubt time and circumstance limited this part of the work, but, such being the case, it would have been better if these assertions had been omitted.

It may be asked, for example, why, if general anaesthetics are to be "classed in their effects with toxæmias," the charts of some patients profoundly under chloroform show no variations attributed to profound toxæmia, as do those in whom there was toxæmia from sepsis.

Then, in dealing with prevention, the value of general anaesthesia in eliminating mental shock does not seem to be fully realized. This may more than counterbalance