

of signature, but only if the total quantity of either does not exceed half a grain of morphine or a quarter of a grain of heroin. If the medicine is for subcutaneous use, then its unhindered repetition is forbidden under any circumstances.

Another interesting example. A prescription calling for tinct. opii dr. iij., with the directions to take 20 drops t.i.d., may be repeated without renewal of signature, but if the directions merely read "to be taken as directed" then the renewal of the signature must be obtained, for in the former case the single dose is apparent and does not overstep the permissible repetition maximum of 24 grains, but in the latter instance this would not be the case. It becomes at once evident that such a strict supervision with regard to the sale of potent drugs can only be to the patient's benefit, for he is thereby prevented to a very great extent from the harm likely to result from an injudicious use of some poison, as he is so often bound to apply once more to a medical man. On the other hand, the concurrence of physician and chemist in achieving this object is worthy of our attention, especially as the provinces of both professions are clearly defined to each other's satisfaction and to the public welfare.

I am, Sir, yours faithfully,

Darmstadt, Dec. 17th, 1908.

G. P. FORRESTER.

ASCITES IN ENTERIC FEVER.

To the Editor of THE LANCET.

SIR,—It may be of interest in reference to the annotation in THE LANCET of Nov. 28th, 1908, p. 1617, on Ascites in Typhoid Fever, to which Professor McPhedran of Toronto has called attention, to add this observation which I have already brought forward at a clinical meeting of the Medical Society.¹ Some years ago I was called urgently to a child suffering from a severe abdominal illness. The diagnosis lay between appendicitis and typhoid fever. Widal's reaction had proved negative but the illness was in an early stage and probably of some nine days' duration. The condition was so acute that I thought it safer to explore the region of the appendix, and this Mr. H. Stansfield Collier undertook for me at my request. As events proved my decision was wrong, although fortunately no serious mishap resulted. On opening the abdomen we were astonished to see a considerable quantity of almost clear fluid escape from the abdomen, and taking some up in a sterilised pipette I found it swarming with typhoid bacilli and obtained a pure growth of the bacillus typhosus. The course after operation was that of a severe typhoid attack, ending in recovery without any grave complication, such as hæmorrhage or severe peritonitis. The condition of ascites was easily explained in this case, I think, by the intense congestion of the peritoneum over all the small intestines, although no lymph was observed. The appendix was also intensely congested but this was only one feature in a far more general condition. Naturally, an error in diagnosis such as this one does not blazon forth, but as all ended well and interesting clinical observations have since been made on the point, I think this striking experimental proof of their truth is valuable.

I am, Sir, yours faithfully,

Harley-place, N.W., Dec. 23rd, 1908.

F. J. POYNTON.

THE PROMOTION OF SCIENTIFIC RESEARCH.

To the Editor of THE LANCET.

SIR,—A copy of the second edition of my Scheme for the Promotion of Scientific Research was sent to you some weeks ago. My object in now writing to you is to obviate the risk of any misapprehension on your part of the nature of the investigations by referees to be appointed by the Board of Trade under the provisions of the Scheme. As I find the extent of such investigations may be exaggerated I desire to draw your attention to some of the conditions under which they would be made if the principles of the Scheme were in operation.

Permit me to assume that grants are allocated, subject to the restrictions in Clause 22 of the Scheme, to new discoveries which elucidate the nature or causation or which are effective in the treatment or prevention of diseases from

which the mortality is great enough to warrant the allocation of grants. A referee appointed to investigate the complete specifications of such discoveries, accepted during any prescribed period, would commence his investigations by a perusal and consideration of the statements and claims made in such of the complete specifications as conform to the provisions of Clauses 6 and 7. Having upon such preliminary examination determined which of the complete specifications describe and claim discoveries that *primâ facie* are eligible subjects for grants he may then act upon the power which it is proposed to confer upon him by provision 1 of Clause 28, and he may require the applicants who have lodged the complete specifications of these discoveries to furnish evidence in verification of the statements and claims made in their complete specifications. In the case of the allocation above mentioned such evidence may include the statutory declarations of well-accredited physicians or of experts to be appointed as provided by Clause 27, subject to such terms as may be determined by a referee in regard to the payment by the applicants respectively of the expenses of the examination of their complete specifications by the experts.

Now, it will be apparent that the provision of such evidence as a condition precedent to the completion of the investigations of a referee would enable him to confine them within practical limits, and he himself would be concerned but little, if at all, with the investigation of merely plausible claims to the grants. Consequently his investigations, having regard also to the nature of the discoveries included within the terms of the allocation to which his appointment related, would be much less extended than might be assumed on a merely superficial consideration of the Scheme. These observations apply also to other allocations of grants—such, for example, as those that have reference to new discoveries, not of a patentable nature, which advance our knowledge of physical or chemical phenomena.

May I request you particularly to observe, in relation also to the investigations of the referees, the facilities for the re-investigation of the subject matters of applications for grants which are specified in provisions 2, 4, and 6 of Clause 26? Allow me to add that it is not because the public do not desire to fulfil their obligations to successful research workers in departments of science which are intimately connected with material interests that so little is done to promote scientific research in those departments; but this is due to the radically defective means which have hitherto been proposed to be adopted for the application of public moneys to this purpose. These means offer no guarantees for the effective employment of such moneys. And I submit that it is only by methods that make their expenditure dependent upon the attainment of results of prescribed descriptions that it is possible to provide such guarantees. With the recognition of the practicability of these methods the policy of expending public moneys in the promotion of scientific research will assume an entirely different aspect. It is the object of the Scheme to demonstrate their practicability. I may also mention that it has been submitted in its revised form to eminent scientists and politicians without its practicability being impugned; there is, therefore, reason to conclude that if those who are interested in the promotion of scientific research would coöperate in advocating the adoption of its principles appeals might be successfully made for allocations of public moneys, in conformity with its provisions, to grants for scientific purposes.

I am, Sir, yours faithfully,

WALTER B. PRIEST.

Verulam Buildings, Gray's Inn, London, W.C.,
Dec. 21st, 1908.

THE CAUSE AND PREVENTION OF DENTAL CARIES.

To the Editor of THE LANCET.

SIR,—Dr. J. S. Wallace complains in your issue of Dec. 12th of the opinion expressed in the *Dental Surgeon's* review of one of his works and which I quoted in support of Mr. F. Coleman's remarks. He objects, so I understand, to being credited therein with the belief "that the value of hard and resistant food and general exercise of the jaw muscles as prophylactics against dental caries is a new discovery." While I have no intention or desire to enter into a discussion with him in

¹ Transactions of the Medical Society, vol. xxxi., p. 370.