

and Flack, and our own, form a conclusive proof of this position.

In regard to the chemical nature of the substances in the subpericarpal layers which are responsible for the activity we agree with Dr. Fraser that this is a question for the physiological chemist. That the substance is not a protein and does not contain phosphorus has been shown by the extremely interesting and elaborate experiments of the workers of the Bureau of Science of the Government of the Philippine Islands, Messrs. Chamberlain and Vedder. These observers have shown that the active material can be extracted from the rice-meal by alcohol and then dissolved in water. A daily ration of the filtrate, 10 c.c., added to polished rice not only prevented polyneuritis, but cured it after it had been induced. This ration contains only 0.16 milligramme of phosphorus pentoxide, so that it is fairly certain that the active substance is not a phosphorus-containing body. The amount of nitrogen in the filtrate is somewhat greater, being 0.04 per cent., in about 2 per cent. of total solids; this nitrogen would represent (if all protein nitrogen) in the daily ration 0.024 gramme of protein. So that it is extremely unlikely that the active substance is protein in nature.

But this casts no discredit on the views of Schaumann or anyone else. At an earlier date Fraser and Stanton themselves pointed out the close relationship between poverty in phosphorus and neuritis-producing properties in a food. Association of the active substance with organic phosphorus is all that is stated in the paper by Simpson and Edie, who say that: "We hope in a future contribution to give the results of our attempt to isolate the active principle, whether it be one of the organic phosphorus compounds or a substance which associates itself with these in its reactions, as do ferments with nucleo-proteids."

This investigation has been continued and is yielding most interesting results. We have clearly confirmed the results of the observers in the Philippines, and have saved pigeons, almost at the point of dying from polished rice diet, with extracts prepared by their methods, and containing practically no phosphorus and very little nitrogen. We now consider it most probable that the active substance is a glucoside, probably a galactosan, which reduces Fehling solution after, but not before, hydrolysis with acids. Such bodies are already known to exist in the subpericarpal layers and are termed hemi-celluloses by botanical chemists; they also occur in the cell-wall of the yeast plant, which, it will be remembered, is very efficacious in preventing polyneuritis from polished rice, and they are found under the peel of the potato in the layer usually given with striking benefit in infantile scurvy. We have shown that this material in the potato is still active in the treatment of infantile scurvy, even after heating for some hours to 120° C. in the autoclave, in this respect differing from the active material of rice-meal, which is destroyed by prolonged autoclaving, but not by boiling. The comparative thermostability of these active bodies is compatible with a glucosidal nature, but to a large extent against their being protein in character.

I am, Sir, yours faithfully,

BENJAMIN MOORE.

Bio-Chemical Laboratory, The University, Liverpool,  
Oct. 23rd, 1911.

## THE GENERAL MEDICAL COUNCIL AND THE IDENTIFICATION OF REGIS- TERED PRACTITIONERS.

*To the Editor of THE LANCET.*

SIR,—It has been observed in a report of the inquest on the body of Mrs. Gorrington in connexion with which reference is made to Mr. Charles Louis Lumley, a practitioner whose name was struck off the Medical Register by order of this Council in 1900, that the coroner, Mr. Troutbeck, is stated to have said: "It was difficult for a doctor to ascertain whether a man, obviously with medical knowledge, was on the Register." If the coroner is correctly reported, he is under a misapprehension.

The preamble of the Medical Act, 1858, begins as follows: "Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners." I am directed to say that the Council is most anxious to carry out the primary duty imposed upon it by this Act, and a similar duty imposed by the Dentists Act,

1878. It is always willing, and indeed anxious, to give information to public officials, to registered practitioners, and to the public in all cases in which there is any doubt as to whether a person is or is not a registered medical practitioner or dentist. Inquiries are constantly made by telegram, by telephone, or in person, and they are always promptly attended to. In consequence of minute differences in names, and of practitioners making use of names or compound names other than those by which they are registered, it is preferable that inquiries should be made in writing; but in cases of emergency they can be made orally, and the public may be assured that all the means at our command will be made use of to afford them the fullest information.

Copies of the Medical Register, which is the only official list of registered practitioners and which can be obtained through any bookseller, are distributed by the Government to coroners, law and county courts, and various public offices. Moreover, every medical practitioner on completing his first registration is entitled to receive a copy from the Council on application.

I am, Sir, yours faithfully,

NORMAN C. KING,

Acting Registrar, General Council of Medical Education  
and Registration of the United Kingdom.

299, Oxford-street, W., Oct. 19th, 1911.

## MEDICAL EQUIPMENT FOR MERCHANT SHIPS.

*To the Editor of THE LANCET.*

SIR,—It is with great pleasure that we learn of the prominence which you have given to the recommendation of the Departmental Committee of the Board of Trade on "Ships' Medicine Chests," relative to the need for separate and reserved accommodation in merchant ships for members of the crew who have fallen ill or have been injured.

Your very cordial endorsement of this recommendation is most sincerely appreciated by us, and must exercise considerable influence in Government departmental circles. There is, however, one point in connexion with the comments on this recommendation which occurs to us as open to considerable question. In trusting that the Board of Trade will adopt the recommendation, you state that it would involve the provision, *adjacent to the officers' cabins*, of a spare cabin definitely allocated as a hospital and so marked. According to our views a hospital of the kind should be isolated as far as possible, consistent, of course, with it being in every way convenient for the purpose of efficient and proper treatment of those lodged in such a hospital. That it should be "adjacent to officers' cabins" would, on the face of it, appear to be highly inadvisable, as tending all the more to the risks of contagion and infection, whereby those responsible for the safety of a ship would be subjected to very serious danger, for which there does not appear to be any adequate reason whatever. Moreover, officers' cabins nowadays are very rarely lodged in the "after part of a ship," and the provision of ships' hospitals, if this recommendation is adopted by the Board of Trade, as we hope it will be, will necessarily depend on the plans and arrangements of the particular ships, of which there are so many different classes and types in the Mercantile Marine.

We welcome your most cordial agreement with the broad principle involved in this matter, and the adoption of the recommendation would mean that the Board of Trade Committee referred to would have rendered some signal service to humanity.—I am, Sir, yours faithfully,

T. W. MOORE,

Secretary, The Imperial Merchant Service Guild.  
Liverpool, Oct. 23rd, 1911.

## THE TECHNIQUE OF SALVARSAN INJECTION.

*To the Editor of THE LANCET.*

SIR,—I was interested in your annotation in THE LANCET of Oct. 14th dealing with the intravenous injection of salvarsan. It has always occurred to me that there must be more risk in the intravenous method, and I have carefully avoided it. My experience of the use of salvarsan now extends to 14 cases, and I have made all the injections deep into the buttock just above and behind the great trochanter in order to avoid the sciatic nerve. Twelve of my cases