

laboratories were inspected. Visits were paid to the Royal Veterinary College and the National Museum. The meetings on the second day were held in the Royal College of Surgeons, and there was a good attendance. Mr. H. Hunter read a paper on cereal breeding in Ireland, with special reference to barley. Other papers read were experiments on the pollination of our hardy fruits, fungus in human skin disease, and a note on two new forms of rot in the potato tuber, the latter embodying the results of investigations carried out at the research station established at Clifden, co. Galway, by the Department of Agriculture in 1909 for the closer study of the various diseases of the potato. The afternoon was devoted to visiting the Royal Botanic Gardens and the Albert Agricultural College, Glasnevin.

This association has a membership in Great Britain and Ireland, and there are also a few members in the colonies. It holds annual meetings at different centres, those already visited including London, Birmingham, Manchester, Liverpool, and Edinburgh. The members are biologists interested in the application of biology to agriculture, medicine, fisheries, or any other department of economic importance. The Dublin visit should prove to be of particular interest to the members of the association, as very active work in economic biology is being done in Dublin and the stations dependent on Dublin, under the authority of the Department of Agriculture.

Correspondence.

THE LONDON COUNTY COUNCIL AND THE PROPOSED STERILIZATION OF THE "MENTALLY UNFIT."

SIR,—In your issue of December 9th, 1911, your Special Correspondents reported the proceedings of a meeting of the London County Council held a few days previously, and stated therein that at the close of a discussion "Mr. J. W. Gilbert, who spoke last, was the only member of the Council to declare opposition to the method of dealing with recurrent insanity by sterilization of the insane."

Based on this report, in my address to the Section of State Medicine of the Royal Academy of Medicine in Ireland (January 19th, 1912) I made the following observations :

Only last month the London County Council, groaning under the yearly increasing incubus of lunacy charges, demanded almost unanimously the sterilization of the unfit. The chairman hinted at "segregation" and "colonization," as well as the "surgical operations—of course under proper precautions"! A past chairman is stated to have said: "Though the minds of the insane have gone, their bodies were left, and they propagated their species in an alarming extent," and he, too, demanded the knife.

So spoke the City Fathers of our Modern Babylon, who evidently fail to see any other solution of the problem than the adoption of those measures which the Orient potentates of ancient Babylon put in force to preserve the chastity of their women. One cannot help wondering whether the progenitors of the members of this Council were in every case free from taint or defect. It would seem morally certain that in such an assembly, drawn from such varied sources, some few at least must have sprung from families which suffered the all-too-common lot of mental affliction. If so, did these individuals pause to think that if the procedures they now so violently demand were in operation a generation ago they would not be now in the enjoyment of existence, and under circumstances which indicate the hall-mark of success in prosperous and honourable careers? The baton sinister of mental defect is to be found on the escutcheon of every family of known descent, though placed in the background by the emblazoned glories of the *honourable ordinaries*.

I understand that exception has been taken to the expression "demanded almost unanimously the sterilization of the unfit," and I am informed that no resolution was moved on the subject, and that there was not a full attendance of the 136 members of the Council. Furthermore, I am informed that the Council, before taking any definite position on this question, have very properly asked the Asylums Committee to submit a report on the causation of insanity and its increase.

We may assume, therefore, that whatever may be the opinion held by individual members, the Council as a body has not committed itself to a view which is open to such grave doubt as is involved in this question, nor will it do

so without much careful deliberation. A definite expression of opinion from an important administrative body such as the Council on a matter of such vast interest to the public would go far to influence the attitude of other bodies entrusted with like responsibilities. Hence its decision will be awaited with anxiety by all those who, like myself, are daily engaged in considering the problem of insanity in its many aspects.—I am, etc.,

M. J. NOLAN, R.M.S.,

President of the Section of State Medicine of the Royal Academy of Medicine in Ireland.

Down District Asylum,
Downpatrick, March 19th.

HYPODERMIC MEDICATION BY NURSES.

SIR,—The letter of "G. P." in the JOURNAL of March 16th, p. 644, indicates the very serious rivalry and competition which the general practitioner experiences, occasioned by the enormous growth and development of the "nurse" during the last decade. The general practitioner has himself to blame in a great measure, for he has gradually allotted to nurses the task of passing catheters and administering enemata, and, occasionally, to save himself from being called up at night or otherwise disturbed, the hypodermic injection of morphine.

But this is not the only direction in which the general practitioner loses his place; latterly there has grown up a custom for the "specialist" to go about with his own nurse, who now takes the place of the young medical man who always used to "devil" when operations in private were in progress. Thus the "specialist" saves the fee usually paid to an assistant, and the profession loses, while the unqualified person gains all the advantage. This practice of employing an "unqualified" woman is one that should be curtailed, for it appears to be unfair to the many qualified men and women who are not overwhelmed with professional engagements.

Since the time has now arrived when the unqualified woman takes upon herself to "medicate," assuredly some steps should be taken to control the march of the ubiquitous nurse, who often allows the patient to think she knows more about the case than the doctor.—I am, etc.,

March 18th.

RENLM.

SIR,—Without wishing to disagree with "G. P.'s" point, that it is undesirable for nurses or other unqualified persons to administer hypodermic injections of potent drugs on their own responsibility, I see no reason for his referring in such a sarcastic manner to "such a superior person as the modern nurse." Would he prefer to revert to the ancient style of Mrs. Gamp? The modern nurse is as indispensable as she is overworked and underpaid. All honour to her!—I am, etc.,

March 19th.

WOMAN PRACTITIONER.

MEDICAL EDUCATION IN LONDON AND PROFESSOR VON MÜLLER.

SIR,—In a communication to the *Muench. med. Woch.*, No. 6, reference was made to an article in the BRITISH MEDICAL JOURNAL for January 27th, 1912 (No. 2665), entitled "Medical Education in London and Professor von Müller." This article was written by a London teacher anonymously, and dealt with my evidence on university education before the Royal Commission. Although I expressly stated that I had no intention of giving any advice about the possible reform of English medical teaching, and purposely limited myself to a description of the German methods, the author has interpreted my remarks in a manner unfriendly to us, and has uttered a warning against the adoption of the German university system in London, because by this means "incalculable damage would be done." For this purpose the author has drawn a very unfavourable picture of German medical education, hospitals, and doctors, which can only be ascribed to a lack of knowledge of German institutions. This account ought not to be allowed to pass unchallenged.

It is incorrect to say, for example, that the students are under no circumstances allowed to enter the wards and work among the patients. The truth is that the students receive daily instructions in the wards in the various methods of clinical examination, and have the opportunity of personally examining patients under the strict supervision of the professor and the junior teachers. As many

of the students as possible are given definite work in the wards as dressers and clerks, under the name of "Co-assistenten." In the larger universities—for example, Berlin and Munich—it is only possible for a comparatively small proportion of the medical students to work in the wards as Coassistenten, but the smaller universities, nineteen in number, which are much more typical of German medical education, give infinitely more opportunity in this respect.

The recent institution of the "Praktisches Jahr," which every doctor is obliged to undergo after his qualifying examination, shows clearly that we in Germany are increasing the practical character of medical education. The author of the note in the *Muenchener med. Wochenschrift* expresses the opinion that the amount of practical work should be increased as much as possible in accordance with the English system, an opinion which I held myself as a result of my more intimate acquaintance with American educational methods.—I am, etc.,

Munich, March 23rd.

FRIEDRICH MÜLLER.

STANDARDIZATION OF PANCREATINS.

SIR,—The two letters under the above title from the respective pens of Mr. F. F. Shelley, F.I.C., and Dr. P. J. Cammidge, in your pages of March 9th and 16th, reveal a very serious state of things which has been known to some for several years past. Dr. Cammidge writes (p. 647), "A few years ago I tested samples of all the commercial preparations of pancreas that I could meet with, and was surprised to find what a large proportion were inert." As injections of pancreatic ferments first appeared in medical practice early in 1906 Dr. Cammidge possibly did not refer to such preparations, but it is an undoubted fact that were one to substitute in his letter for "preparations of pancreas" the words "preparations of pancreatic ferments for injection," his statement that "a large proportion were inert" would also be true. None the less, by all the writers who have used such inert preparations—without even knowing that they were inert—and who have dealt with their supposed actions or lack of actions in their writings, it has been assumed that the true character of a pancreatic preparation can be determined merely by reading the label. But, indeed, something more than "standardization" of pancreatic preparations is called for, since, even when "standardized" and put up in ampoules, the further question arises as to the length of time during which particular preparations retain any of their activities. In recent years the pancreatic ferments have been treated as though they were ordinary "drugs," which as a rule retained their properties unaltered, ignoring the fact, well known to some, that they are extremely delicate bodies, which, as active agents, lose very quickly all their original powers and become quite inert. Therefore it is not necessary to suppose that "preparations of pancreas," such as those mentioned by Dr. Cammidge, or injections of pancreatic ferments, had originally (when made up) no ferment powers at all. Possibly in all cases they had some powers, even on occasion great ones, but all the chemical evidences I have seen would lead me to believe that something or other in the manufacture of such inert preparations had led to their instability. On mentioning some of the facts concerning such inert ferment preparations to a well-known Glasgow surgeon, he said that it was my "duty to see that this was put right." Well, with deference to him and to you, I venture to think that this "duty" falls more appropriately and very much more effectively to the lot of the Editor of the BRITISH MEDICAL JOURNAL.

Not many weeks ago the writer received unexpectedly certain results of assays of various pancreatic preparations manufactured and sold in England, and the sender, who is a specialist in the study of ferments, remarked that probably the figures would be found "astounding." Indeed, an impartial examination and assay of all the pancreatic preparations at present on sale in this country would, without doubt, give results regarding certain of them not only "astounding" in character, but such as would put quite in the shade similar examinations of patent medicines. This question has been allowed to drift for years, and it is only common sense to ask "How long still shall it be possible to sell as active pancreatic prepara-

tions things which often are almost, or even in many cases quite, inert?"

Edinburgh, March 26th.

J. BEARD.

THE NEW CELL PROLIFERANT.

SIR,—Mr. H. C. Ross's two statements (p. 523 and p. 646) with regard to the circumstances connected with my refusing to allow my illustrations to be used for a book he is writing differ from each other as to matters of fact. They cannot both be true. I never for a moment supposed that Mr. Ross had seen the only letters I wrote upon this subject, as they were all marked "private." Mr. John Murray, to whom they were written, has, however, given me a quite unnecessary assurance, unasked for, upon this point, so it is evident that Mr. Ross was not and is not in a position to make the statement he did. Unless it be discourteous to refuse any request made by Mr. Ross personally or by proxy, my letters to Mr. Murray were not discourteous.

As to the rest of Mr. Ross's arguments and pretensions, it is difficult to deal with any one who so continually shifts his ground and disregards pertinent criticisms. On March 2nd he complains that "scientists" obstruct his progress by adverse criticism without repeating his experiments. When I point out that I have repeated them and produced the results he describes, but that these results cannot be made to bear the interpretation he puts upon them, he says that "the technics are very difficult," and as I may not have worked upon the correct lines, he cannot accept my opinion. Mr. Ross took some 280 pages to describe in minute detail a technique which is full of sources of error, but I followed it with sufficient accuracy to produce results which agreed in detail with both his descriptions and his illustrations. The difference, then, between him and those "scientists" of whom he complains lies in the interpretation of the results following upon the application of his "technics." What are these results? That when living cells (in Mr. Ross's experiments almost invariably mammalian leucocytes) are placed in certain abnormal environments each of them breaks up into two or more parts. Mr. Ross's interpretation of this is that he has discovered certain substances which so act upon the cells as to induce in them the phenomenon of mitotic or indirect division, a process of which the details have been the constant study of some of the best known biologists for more than thirty years. The acceptance of Mr. Ross's interpretation involves the abandonment of practically everything that has been unanimously accepted by these men, and the assumption that they have one and all shown themselves absolutely incapable of observing the simplest matters of fact. One example of what has to be swallowed in order to agree with Mr. Ross will be sufficient: "The so-called nuclei of leucocytes ought, we think, in reality, always to be called centrosomes, and the word 'nucleus' deleted from their morphology."¹ One might be inclined to consider such claims more seriously did Mr. Ross in his writings show any acquaintance with the work in this particular line which has been done in the past, some of it before he was born. One example will again be sufficient. We are told that: "There is no doubt that the observation of the living cell is a new study."² Every biologist knows that, as a matter of fact, it is about as old as the cell theory itself.

On the other hand, it is a matter of common knowledge that when a living cell is placed under certain conditions of environment it is broken up into two or more parts. The difference between this phenomenon and that of mitosis is the difference between the verb passive and the verb active. It is the verb passive which Mr. Ross describes and illustrates, and which I have seen when using his technique. His results correspond with the results of osmotic and other disturbances, and could mislead no one who was at all intimately acquainted with cell phenomena; they are by no means surprising and can be produced by many other methods than those he uses; they bear not the slightest resemblance to mitotic divisions. To interpret the fact that because leucocytes are divided as they are in his experiments, they have been induced to divide mitotically, is just as reasonable as to claim that a man

¹ *Induced Cell Reproduction of Cancer*, p. 13.

² *Ibid.*, p. 10.