there will still remain many sources of the disease which will escape our net, and to meet these the only measure that can be used are those forms of general sanitary reform which have already in England brought about so large a diminution in the extent of the scourge—two-thirds at least in the last 66 years. Since Professor Koch's recent pronouncement we may hope that these also will receive their due proportion of attention.

I am, Sirs, yours faithfully,
Bournemouth, June 3rd, 1906. ARTHUR RANSOME.

CARBOHYDRATE METABOLISM AND DIABETES.

To the Editors of THE LANCET.

SIRS,—Whilst appreciating the tone in which your reviewer has dealt with my recently published work on "Carbohydrate Metabolism and Diabetes," I feel that I ought to direct attention to a misinterpretation that occurs with reference to a fundamental physiological point. "Normally," the review runs, "such material [absorbed carbohydrate] is taken up by the cells of the intestinal villi and then disappears from view. The mechanism by which this phenomenon occurs is as follows. The epithelium of the villi assimilates the sugar present in the intestine and converts it into its own protoplasm. We have here not a passive process of osmosis but a vital assimilative action. The epithelial cells then re-excrete the carbohydrate material into the cavity of the villi and there it is taken up by the lymphocytes which abound in this position and is again assimilated, that is to say, it becomes an integral part of the living substance of the lymphocytes just as it did of the epithelial cells." Nowhere do I suggest that the epithelial cells perform the function that is here assigned to them. I speak of them as assimilative agents of carbohydrate into fat and give photomicrographs in support of the view. This may have started the idea of their being concerned in the assimilation of carbohydrate into proteid but no mention is anywhere made of such being the case. The view advocated, and in several places expressed, is that both peptone and sugar, diffusible products of digestion, are appropriated by the bioplasm of the lymphocytes and thus conveyed in a combined state under the form of living matter into the blood. At p. 60, for instance, after speaking of the appropriation of peptone by the growing lymphocytes, I proceed: "I have to suggest that the action should be extended and made to embrace carbohydrate—that carbohydrate and peptone stand upon the same footing as regards the manner in which they are dealt with by the growing bioplasm of the intestinal lymphocytes—that both become linked on to the biogenic molecules of the lymphocytes and thus made to enter into the constitution of living matter." Again, at p. 73, I state: "To the lymphoid cells, then, of the villi I assign the office of metabolising carbohydrate into proteid, and to the epithelial cells that of metabolising it into fat."

I am, Sirs, yours faithfully,
Grosvenor-street, W., June 12th, 1906. F. W. PAVY.

THE TREATMENT OF INFANTILE DIARRHOEA.

To the Editors of THE LANCET.

SIRS,—Dr. William Ayres of Brierley Hill writes on this subject in your issue of June 2nd, p. 1567. I should like to ask if he adopts the preliminary saline or other purge as a routine practice? So many infants are at "death's door" when first seen that I always make it a point to stop the diarrhoea before it stops the patient. Of course it was the late Sir George Johnson who originated the purgative line of treatment in diarrhoea and one does not care to challenge so high an authority. I think castor oil was his favourite. I am glad to say the oil has fallen into desuetude, but "I ha'e my doots" about any kind of purge, if purging has been going on for a day or two. "Arsenite of copper" seems a powerful remedy for an infant. Sodium bicarbonate, bismuth, and opium with peppermint water are safer and equally efficacious. But the remedy *par excellence* is hydrargyrum cum cretâ and Dover's powder, as the liver in all these cases is grievously affected and the absence of bile causes the foetid, putrid stools. The sulphocarbolates and salicylates are useful as disinfectants but nothing further. Dr. Ayres does not mention stimulants. I

consider brandy in bowel complaint a *sine quâ non*—infants take it well and water arrowroot is the food of foods. No milk, of course, as the disease is known across the herring pond as milk fever. I have never used the hypodermic syringe in the case of an infant and seldom lose a case of diarrhoea unless it is complicated with tuberculosis.

I am, Sirs, yours faithfully,
Liverpool, June 4th, 1906. A. MCC. WEIR, M.D. R.U.I.

THE KINEMATOGRAPH IN MEDICINE.

To the Editors of THE LANCET.

SIRS,—In connexion with the report of Dr. W. G. Chase's demonstration before the Edinburgh Medico-Chirurgical Society (see THE LANCET, May 26th, p. 1472) of the use of the kinematograph in medicine it may be of interest to note that so far back as 1897 a demonstration of similar character was given to the Glasgow Medico-Chirurgical Society by Dr. Donald Mackintosh, the medical superintendent of the Glasgow Western Infirmary. Whether this was reported in the medical press or not I cannot say but a brief account of it appears in Volume I. of the Society's Transactions.

I am, Sirs, yours faithfully,
Harley-street, W., May 30th, 1906. C. O. HAWTHORNE.

THE USE OF RUBBER GLOVES IN MEDICAL WARDS.

To the Editors of THE LANCET.

SIRS,—From the general drift of the excellent paper by Dr. T. W. Clarke in your issue of June 2nd it would appear that he regards the use of rubber gloves in medical wards as an innovation, at all events in this country. I should like, therefore, to point out that they were in routine use by the nurses of this hospital in the year 1903. In the wards for enteric fever they are worn whenever the bedclothes or utensils of the patient are handled, as well as during the treatment of the mouths. Similarly they are employed during the irrigation of the throats in the scarlet fever and diphtheria wards and for the manipulations attending the treatment of those suffering from puerperal fever and erysipelas.

I do not, of course, wish to raise any question of priority in this matter as the credit must in any case rest with the surgeons who had previously invented them but I may mention that I alluded to the use of these gloves by the nurses in my annual report for 1903, which is incorporated with that of the medical officer of health of this city.

I am, Sirs, yours faithfully,
A. KNYVETT GORDON, M.B. Cantab.,
Medical Superintendent of the Monsall Hospital, Manchester.
June 9th, 1906.

MANUFACTURE AND SUPPLY OF ELECTROLYTIC DISINFECTANT BY THE PUBLIC HEALTH AUTHORITY.

To the Editors of THE LANCET.

SIRS,—I have read with considerable interest the article on the above subject in THE LANCET of March 24th, p. 852, and also Mr. F. W. Alexander's letter in your issue of April 14th, p. 1070, on the cost of production of the solution. I regret that you have treated this question from the chemical standpoint only, as to my mind information of great value would have been obtained by bacteriological methods which would have shown the value of the "hermite" in the absence and presence of organic matter. Chlorine and the hypochlorites have a very high germicidal value under the first-mentioned conditions but they are rendered valueless by the presence of even moderate amounts of organic matter. Sommerville and Walker¹ have demonstrated this in the case of hermite, the addition of an equal volume of urine to the solution destroying its bactericidal power absolutely.

I have been recently working with a well-known hypochlorite solution containing ten parts of available chlorine and as the composition of the fluid is so nearly allied to

¹ Public Health, February, 1906.