Correspondence

Poliomyelitis

SIR,—Dr. C. Conyers Morrell does well to draw attention (Sept. 6, p. 397) to the "circumstantial" evidence that is provided by vital statistics regarding the significant factors in the spread of acute anterior poliomyelitis. But the other side of the picture, the evidence of bacteriologists who have traced the virus in the body and its discharges, is just as much in urgent need of recognition by the medical public. No less an authority than A. B. Sabin, in America, recommends (and is so reported in your leading article of Aug. 9, p. 215) that our tactics should be based on the assumption that the disease is spread by faecal contamination. He believes that such tactics are unlikely to check an epidemic, but that they may prevent the infection of a few persons who might otherwise be paralysed. Presumably his hopes are limited because we have so very far to go (and this is particularly the case in this country) in translating into public conduct our now considerable knowledge of these matters. But surely a few people saved from paralysis is enough to go on with.

The bacteriological evidence suggests very strongly that, at any particular time in an epidemic period, faeces are by far the largest source of virus available for distribution, particularly in the case of groups of persons round cases; and, of course, such groups are all the time being distributed more widely by travel. The virus remains in the nasopharynx of cases (both abortive and paralytic) for a few days on the average; it remains in the faeces, however, for a period of weeks on the average, and this is so for contacts as well as cases. All the evidence on the matter is well summarized by Rhodes, A. J. (*Bulletin of Hygiene*, 1947, 22, 353).

Since the virus is normally found in the nasopharynx, and not usually in nasal secretions or saliva, it cannot be held that droplet infection is relatively much more potent than faecal. It is not necessary to expect that a day of nasopharyngeal infection will do as much harm in the way of distributing virus as a week of faecal. It is more reasonable to make time the significant factor. Consider, indeed, the spread of Group A haemolytic streptococci, where a significant factor is the presence of a carrier state that is nasal.

No doubt we should think of a paralytic case as the last link in a chain of events. As one possible link there is the factor so well discussed by F. M. R. Walshe: a sort of "Open Sesame" in the form of a non-specific enteritis which happens to occur when the virus is present in the bowel (*Journal of the Society of Arts*, 1945, 93, 525). What all the links are between the presence of the virus in the community and the full-blown case we have yet to discover; but some are "personal," some "environmental," and some links may be subtle ones, and there may be different combinations of the factors. It is not suggested that the virus invades by the bowel in all cases, but only that this way is important. In inter-epidemic periods the chain is being begun, or completed, rarely. One of the links in epidemic times is probably climatic conditions of a certain type, or sequence of such conditions of a certain pattern. As crude example of parasitisms of a "chain" type we have *Bothriocephalus latus* and plague.

More action is needed in this country in "getting across" our knowledge of intestinal sources of infection, especially as applied to food handlers; and in the matter of the present epidemic this is doubly urgent. The Central Council for Health Education is to hold a conference on the subject in October. But by then, of course, the prevalence will be passing; unless, indeed, this epidemic behaves queerly (like the expected outbreaks of disease in air-raid shelters) and the usual continuation in late September and early October is lacking. This may be hoped for, but is not to be expected, for it is more reasonable to fear that the epidemic curve will follow its normal morphology. Let us follow the prescription of Sabin. The evidence is strong enough to justify us; and you have done well to give his views prominent mention in the *Journal*.—I am, etc.,

Reading.

E. C. H. HUDDY.

SIR,—Prof. H. J. Seddon (Aug. 30, p. 319) is to be congratulated on his able summary of the orthopaedic and mechanical aspects of the treatment of poliomyelitis—that is, the treatment of paralysed muscles. He states: "On the whole, therefore, it seems best to admit cases of poliomyelitis to a fever hospital in the first place, on the clear understanding that someone skilled in the treatment of the disease—which generally means an orthopaedic surgeon—is asked to see the patient within twenty-four hours of admission and is given a free hand to order such treatment as he deems necessary."

One is tempted to ask what part Prof. Seddon would allow the physician and the neurologist to play in the diagnosis and handling of cases. The neurologist and physician, trained in the examination of the nervous system and experienced in systemic disease, are surely as well qualified as the orthopaedic surgeon to diagnose and to plan the early treatment of this disease. Customarily it has been their practice to call in orthopaedic advice when they consider it necessary—that is, at a time when the necessity of special appliances for avoiding stretching of muscles has appeared. I would suggest that, as about two-thirds of the cases never develop paralysis and as the early differential diagnosis may be difficult, involving a consideration of other systemic disorders, the clinical care of cases should fall mainly within the province of the physician and the neurologist, at any rate until definite weakness of muscles appears.

Clinical experience has shown that in no other illness is the psychological aspect of treatment more important than in poliomyelitis. It is in this field that the physiotherapist, in constant touch with the patient, is perhaps best able to give encouragement and to restore activity to weakened muscles. But a great deal may still be done in this field by the practitioner who has had the case under his care from the onset, quite apart from measures to prevent stretching of muscles outlined by Prof. Seddon and discussed in your leading article on page 338.—I am, etc.,

Windsor.

PHILIP H. WILLCOX.

The Extent of Neurosis

SIR,—Few general practitioners will quarrel with Dr. L. F. Donnan's figures (Sept. 6, p. 396) in the survey he details in his letter. Sixteen years of industrial practice in Liverpool left me with the impression that the figures for neurosis among all cases seen were if anything higher, and I innocently accepted the aetiological factor usually blamed—viz., the speed and high pressure of modern city life. *Experientia docet*.

Fifteen months ago I left Liverpool and took up practice in this area, one of the most thoroughly rural districts in England, where our nearest factory is 12 miles away and all workers are engaged in agricultural occupations. Here, I thought, among the sons and daughters of the soil will be found a minimum of "nerves" and a maximum of pure unadulterated physical illness. But a very short trial caused me to remark to my partner that I believed there was more neurosis in my country patients than in my former city patients, and the longer I practise here the more I am convinced that this is the truth.

At present this is no more than an unconfirmed impression, but, with Dr. Donnan as a guide, I shall attempt to obtain figures on the same basis of assessment. If they prove to be as I expect, what are we to blame for the result? Is neurosis truly a modern disease, or can our older brethren in general practice tell us that there was just the same or greater prevalence in their day? The same effect can hardly be produced by the high-speed struggle of the industrial city and by the much slower tempo of the agricultural speed. Surely we must look elsewhere for the answer to an important and widespread problem.—I am, etc.,

Mildenhall, Suffolk.

H. G. ST. M. REES.

SIR,—Certain phrases and statements in Dr. L. F. Donnan's letter (Sept. 6, p. 396) indicate a standpoint which one had hoped was becoming out of date—"rationally physical disorder," "more emotionally ill than actually so." The patient whose condition Dr. Donnan assessed at 100% "emotional