Rehabilitation Necessary.—A complete recovery and the return to original employment is possible, if careful and expert treatment is followed by expert rehabilitation, in 25 per cent. of cases.

Vocational Retraining Necessary.—Even with the best treatment the patient will be permanently incapacitated from his work, and he must therefore learn a new trade, in 5 per cent. of cases.

There are two sources of permanent incapacity after bone and joint injury: (1) pathological changes over which the surgeon has little or no control, such as deprivation of blood supply of the articular cartilage of the carpal bones, head of the femur, astragalus, etc.; irreparable damage to the main vessels or nerves of the limb; and virulent infection beyond the control of conservative surgery; and (2) malunion due to imperfect reduction or redisplacement; non-union due to inadequate immobilization; joint stiffness due to injudicious splinting, passive stretching, continuous skeletal traction, etc. In the first group permanent incapacity is inevitable, but the proportion of cases in most fracture clinics is less than 5 per cent. The figure will obviously vary in different centres according to the relative number of major and minor injuries treated, but in the average city hospital in industrial areas the proportion should be within 5 per cent. In the second group permanent incapacity is not inevitable; it is the result of an avoidable error of treatment, and in past years this has been the most common source of disability, in some cases the figure for permanent incapacity in this second group approaching even 20 or 30 per cent.

That it is already inconceivable that treatment could ever have been so bad is a great tribute to the British Medical Association Fracture Committee, and to those few individuals who for many years have worked incessantly to improve the standard of fracture treatment in this country. But the goal is not yet reached, nor will it be attained by the establishment of fracture clinics alone. The success of the clinics will be judged by the extent to which they minimize the avoidable errors of treatment. The surgeon who adopts haphazard methods, who ignores radiographic control of treatment, who accepts indifferent methods of immobilization, and who blames his end-results on the fracture or the patient instead of on the treatment, will always find it difficult to believe that disability is inevitable in only 5 per cent. of injuries. When surgeons in charge adopt the principles of fracture treatment whole-heartedly, exercising the utmost vigilance, allowing no complication to pass unrecognized and uncontrolled, and inspiring every patient with enthusiasm, only then will avoidable incapacities be avoided. Unless this is done the rehabilitation centres, which we are determined to establish, will be faced with the same impossible task as the old massage departments.—I am, etc.,

Liverpool, Jan. 25. R. WATSON-JONES.

SIR,—Mr. Eastwood's letter in the *Journal* of January 22 (p. 202) is indeed timely, and raises many important issues on this subject. Nobody would seriously maintain that the percentage of incapacitated persons leaving a fracture clinic is as low as 5 per cent., nor is there the slightest hope that this figure can ever be remotely approached, let alone reduced. In all probability the fracture clinic figure of 5 per cent. mentioned in the memorandum of the Joint Committee of the British Medical Association and the Trades Union Congress is meant to suggest that this is the proportion of patients totally incapacitated by reason of fractures sustained during the course of their work. Even if this supposition is correct the figure is low, because there is no doubt that the industrial accident is often a very mutilating affair. The insurance combine's figures of disability quoted in Mr. Eastwood's letter are not high, and undoubtedly include cases of permanent total incapacity and also permanent partial incapacity. It should be borne in mind that an apparently trivial accident, or a fracture, which leaves even a trace of impairment of function may, in a skilled workman, result in a permanent partial incapacity sufficient to prevent him from ever again working with the same degree of efficiency.

Mr. Eastwood is perfectly right in suggesting that before schemes for the establishment of these centres are embarked upon reliable statistics should be obtained from all sources: from surgeons treating large numbers of fractures, from insurance companies, trade unions, etc. There is every likelihood that the results of work done in rehabilitating the injured workman may be disappointing for those who will be forced to provide the means for setting up and maintaining the centres if our profession persists in talking of percentages of cures which never have been, and never will be, attainable by any system of treatment.

My personal view is that the sympathetic employer is the best rehabilitating agent, but with labour as cheap as it is to-day and the rate of production so accelerated, even after a course of treatment at the best rehabilitation centre the maimed man, especially if he is getting on in years, will still have very great difficulty in resuming his place in the industrial scheme of things.—I am, etc.,

Manchester, Jan. 28. HENRY POSTON, M.Ch.

Safe Milk

SIR,—May a sanatorium worker express thanks to the British Medical Association for coming into the open at last on the question of safe milk? Every year this country spends hundreds of thousands of pounds on "curing" tuberculosis or dealing with outbreaks of milk-borne disease. Its efforts to prevent such troubles are less spectacular, scientists being less clamant than agriculturists. Housewives who strive intelligently to do the best for their families have been befogged by conflicting opinions: "Doctors tell you such different things," they say. This has been true largely because doctors are insufficiently interested in public health problems, and they themselves have been blown about by diverse winds of doctrine. To the British Medical Association's considered opinion, however, widespread respect is accorded, and it means a great deal to crippledom that the Association should have spoken with no uncertain voice.—I am, etc.,

Berks and Bucks Joint Sanatorium, Peppard Common, Oxon, Jan. 31. ESTHER CARLING.

Pasteurization of Milk

SIR,—When dealing with such an important article of diet as milk one should be careful to be not only accurate but in a position to prove statements made. Dr. Norman Macfadyen's letter (January 15, p. 148) leads me to think that he is "boosting" certified milk in preference to pasteurized milk. He does not distinguish between *B. coli* of a non-faecal type and *B. coli* of manurial contamination. This is an important consideration, since the *B. coli* found in pasteurized milk are almost invariably of the non-faecal type. A distinction between these two types of *B. coli* is rarely made, and this omission leads to misunderstanding and a general idea that all types of *B. coli* are of manurial origin. So far as the effect of pasteurization on tubercle bacilli is concerned, it has been