

affairs does not appear to extend to some questions for which a more critical outlook is required.

Perhaps the most serious example occurs in the chapter "Masurium and Rhenium". Here, the author does not appear to be at all perturbed by the absence of any confirmation of the claim of Noddack and Tacke to the discovery of element 43. The reviewer feels that the very least that should be done in this case is to make it abundantly clear that the existence of stable isotopes of this element is still an open question. The uncritical reproduction of published work is evident also in the discussion of the hydrogen isotope of mass 3. The author records the abundance of tritium in ordinary water as about 7 parts in 10^{10} , as reported by Selwood, Taylor, Lozier and Bleakney; he does not appear to wonder how so short-lived an atomic species (its half-life is about thirty years) could continue to exist even in this small concentration. In point of fact, subsequent experiments led Bleakney and his collaborators to retract their claim in favour of a much lower figure for the upper limit of abundance, and yet more recent work has set the upper limit at 1 part in 10^{17} .

The remainder of the purely inorganic part of the book calls for little comment: Chapter 4 on hafnium, and the remainder of Chapter 5, on rhenium, are quite satisfactory; the chapter on the halogens has already been commended. Hydrogen and deuterium are given a fairly adequate treatment in Chapter 2, although on one or two occasions a distinct misplacement of emphasis is apparent. Chapter 6 contains a very useful account of "Reactions in Discharge Tubes", a subject which, hitherto, has tended rather to be neglected.

The book concludes with two chapters inspired by the current interest in nuclear reactions: "The Preparation and Uses of Artificial Radioactive Elements" and "Uranium and the Transuranic Elements". For a superficial study of these two related topics these chapters give an adequate account, although it cannot be claimed that the treatment is outstanding. From the book as a whole one is tempted to draw the conclusion that, human fallibility being what it is, reviews covering so wide a range of topics should be a co-operative effort on the part of two or more authors. G. R. MARTIN

EXPERIMENTAL STUDY OF HUMAN HEALTH

Biologists in Search of Material

an Interim Report on the Work of the Pioneer Health Centre, Peckham. Edited by Dr. G. Scott Williamson and Dr. I. H. Pearse. Second edition. Pp. 107 + 2 plates. (London: Faber and Faber, Ltd., 1947.) 5s. net.

THE aims of the Peckham Health Centre are nowadays so well known that they need no explanation here. The plan was to offer to families living within a specified area containing about 5,000 families a health service in the form of a family club, supported by a weekly subscription which is now 2s. per family. This doubling of the original subscription was suggested by old members of the Centre themselves. The details given in this book of the health examinations made show that the families participating obtain for this small subscription a very valuable service. But the scheme would be fundamentally misunderstood if it were thought that it seeks to

replace or compete with other health services. It is essentially a biological experiment of a very interesting kind. With the full co-operation of each family it studies this social unit together with its environment, and it is claimed for it that it has also great social and educational value and can be used for the training of medical and social workers.

A short review can do no more than indicate the kind of results so far obtained and direct attention to the originality of the minds which direct the whole experiment. Stating, for example, that the efficiency of medical services depends primarily upon diagnosis, the authors of this book remind us that the first diagnosis is made by the patient. The medical man can do nothing until the patient, because he suffers from pain, discomfort, disability or limitation of action, seeks advice; and observations made at the Centre indicate that the patient seeks treatment, not because of his subjective state of disease, but because he is aware of his social incapacity. The word 'disease' is here used as meaning only the subjective state of the sufferer, the objective facts discovered by the medical man, such as adenoids, rickets, pneumonia, and so on, being called 'disorders'.

The authors' analysis of the condition which they call 'well-being' also presents some interesting observations. Well-being, they claim, can mask both grave and minor disorders. An instance of the former is the youth aged twenty-one, who said he had never felt better in his life and who was able, because he was ambitious to become a boxer and a gymnastic champion, cheerfully to sustain valvular disease of the heart, nephritis, high blood pressure and albuminuria. He compensated, as the authors put it, for his body's shortcomings, but only at considerable cost to his body. The dangers of this kind of compensation, which produces, often at a great price, a balanced action of the whole organism, are well described. This state of well-being, which deceives both the patient and the casual observer, is differentiated from the state of health which exists when the organism is not turned in on itself to effect a compensation, but is exerting an adaptive function to the whole situation and operates on the environment rather than upon itself.

Interesting also is the view that the general practitioner and the outpatients' departments and dispensaries of the hospitals treat maladies in order to relieve the social inconveniences of the patients, such as pain, discomfort, and so on; whereas the specialist tends to study the malady as if it were a detached objective thing. The practitioner thus becomes a highly skilled craftsman in the relief of social disabilities associated with disease, and this is what the patients demand of him. "But it is very clear," say the authors, "that what the public demands and gets from the practitioner is not what the State, the friendly societies and, the industrialists expect of the doctor." Nor is this all that the medical man, when he emerges from his training, hopes to give.

Certainly the further progress of this experiment will be watched with the greatest interest. The subsidy required per head at the present expensive experimental stage is £4 15s. per year, a figure which may be compared with the calculation made in this book that £6 per head of the population is wasted every year through illness. The claim is made that, given time, the Centre can be made self-supporting. Let us hope that the solution of this problem of time and money, which is, the book says, the major one still remaining, will quickly be found. G. LAPAGE