other sciences which deal with the different aspects of human and social biology and of human ecology.

With the development of social medicine in the universities, and with the expanding recognition in the community of the impossibility of dissociating merely for administrative reasons the medical services and the others which deal with housing, education, and all the rest which promote in one way or another the health of the people, it is probable that in the not too remote future this administrative distinction between the different departments of the central and local authority will gradually be broken down, and with the passing of time the practice of public health in the community will come to mirror the scope and aims of social medicine within the universities.

F. A. E. CREW.

Some British Pioneers of Social Medicine. By MAJOR GREENWOOD. Geoffrey Cumberlege: Oxford University Press. 1948. Pp. 118. (Price 12s. 6d.)

Economists, with a suave genius for concealing unpalatable situations behind an innocuous patter, have made much in the past of the "rewards of abstinence." It is a subtle phrase, calculated to appeal to the puritan conscience. To question who abstains and who gets the rewards is as vulgarly irrelevant as it is politically dangerous. By communal abstention from gross indulgence in consumer goods during the first half of the nineteenth century the industrial revolution was pushed through to offer its rewards in vast aggregations of capital equipment. So, in over-simplified form, runs the theory. Fortunately, the events occurred in a community not wholly composed of economists.

The men who saw to it that some of the profits were ploughed back in, so that part at least of the new capital was used in clean water supplies, and streets and sewers and the promotion of health, were the pioneers whose brief working biographies form the subject of Professor Greenwood's Heath Clark lectures. Most of them were doctors. All of them were interested in finding out the facts of the society in which they lived by means of statistics; and it is mainly in this technical aspect of their thought that they are presented here.

The development of the life table, besides setting the costing of the life insurance industry on a rational basis, placed in the hands of the reformers an invaluable weapon. The shift of emphasis that turned from consideration of the expectation of life to the concept of preventable death was an obvious but vitally important one. It was by exploring the associations between conditions of life and greater or less expectation of survival that the pioneers achieved their most notable success in promoting reform. Their very ignorance of much of the content of modern medical science stood them in good stead; in the absence of knowledge of micro-organisms as *materies morbi*, or of genetics as limiting the range of individual viability, the intellectual climate was favourable to the pursuit of realistic studies into the influence of the conditions of everyday life on health. Professor Greenwood traces the development of this line of thought in a series of selected biographical sketches from the late eighteenth century, to its most operationally effective period in the heyday of Victorian reform.

But if technique was important, it became so only because of the moral urge to employ it for human good. The second phase of the Protestant revolution which grew up with the Wesleys during the second half of the eighteenth century was unique among ethical movements because the will to philanthropy was co-existent with

techniques for organizing society to co-operate in philanthropic enterprise. St. Jerome, among the ruins of the Classical Empire, had cried: "Christ dies every day, naked and hungry, in the person of his poor," but it was a private sorrow, and public activity had concerned itself with organizing relationships between secular and spiritual government after the irrelevant prehistoric example of Saul and Samuel. The definition of social medicine offered by the present author as "those applications of medical and scientific knowledge to the prevention and relief of suffering and to the raising of the standard of living which could only be effected by social agencies, by co-operation" would have been alien to St. Jerome for all his compassion.

It is the great merit of these all too short essays that while concerned principally with the means, they are sympathetic towards and quietly illustrative of the ethical values that determined the ends. The first half of the book in particular, which deals with the eighteenth century, amply discloses the dissenting background of most of the now little-known reformers whose work is discussed. In the second half, which is mainly concerned with Chadwick, Farr, and Simon, we are in better mapped territory and the author is able to branch off into less generally discussed aspects of their work.

If one has any quarrel with the way the argument is presented it is perhaps in the extension of undue charity to the personality of Chadwick, who himself had little charity. His passion was for tidiness and not for the poor, a dangerous if not uncommon vice in philanthropists. Here we are shown Chadwick solely as the patient investigator of the nauseous evils of early Victorian urban life. He is gently exposed as an unsuitable interpreter of vital statistics but the general tone is one of defence. No account is given of Chadwick the administrator, the proponent of strong central authority and harsh institutional treatment. One of the great virtues of the statistical method is that, properly employed, it is a prophylactic against authoritarianism; and in medicine authoritarianism is all too easy. In its past it has necessarily had the teacher-pupil relationships of an art where initiation comes through observing and listening to the skilled practitioner, who often has neither the time nor the will to rationalize his techniques. Chadwick, though not a doctor, belongs to this past. He believed in authority and one would have liked to see this described.

In the main, however, the author's charity creates the book's great charm. Professor Greenwood writes most happily when praising the humanity of those he likes—one remembers the moving simplicity of an earlier essay on Bacot—and it is clear that he has a great liking for the "men who loved doing little sums."

It is unfortunate that the Oxford University Press should see fit to charge 12s. 6d. for a book that one would like to urge students to buy.

R. PADLEY.

Tuberculosis in Young Adults: Report on the Prophit Tuberculosis Survey, 1935-44. By MARC DANIELS, FRANK RIDEHALGH, and V. H. SPRINGETT. London: H. K. Lewis. 1948. Pp. xvi + 228 with 58 plates and 22 illustrations in the text. (Price 30s.)

The report of the first ten years of the Prophit Trust Survey from 1934 to 1944 gives the results obtained from examinations of over 10,000 young people. It includes material published in interim reports (Ridehalgh, 1942; Daniels, 1943, 1944). The survey was planned for the examination of groups of persons at the ages most at risk from tuberculosis, that is between 15 and 25

years. For this purpose volunteers were sought among nurses, medical students, and contacts of tuberculous patients, a control group consisting mainly of office workers in London—a group of boys at a Naval Training Establishment being included later. The original aim of obtaining about 5,000 volunteers in each of the main groups was unfortunately rendered impossible by the outbreak of war, and it was only among nurses that the proposed figure was reached.

Quantitative tuberculin tests and radiographs of chests were done on each entrant to the survey and were repeated at regular intervals for a varying number of years in each case. It was found that about 85 per cent. of males and 82 per cent. of females in England reacted to tuberculin, the incidence increasing with age and with the degree of contact with tuberculosis.

Valuable information was obtained on the occurrence and course of the primary infection, which was generally held to occur on the conversion of the Mantoux test from negative to positive. At the same time Mantoux reversion occurred in an appreciable number of cases. Only a small proportion of primary lung lesions were seen on x-ray examination, but of these about half tended to progress. The Report emphasizes the occupational risks of nursing, especially to those who are tuberculin-negative, the morbidity among the latter being about three times as great as among the tuberculin-positives. The predisposition of Irish and Welsh nurses is a point of considerable interest. The importance of multiple factors such as environment, nutrition, and heredity must not be forgotten as influencing the progression or regression of the disease.

Some suggestions are made as to preventive measures to be adopted, especially in the excellent preface by Lord Moran, who recommends preferential rehousing for the tuberculous, extra milk for contacts, and adherence to recent standards proposed for the health of hospital workers. In addition he advocates trial of B.C.G. vaccination among nurses and medical students.

The Report is well set out and documented and it is to be hoped that it will lead to further surveys on similar lines being undertaken on other and contrasted groups within the population.

F. A. E. CREW.

The Social Medicine of Old Age: Report of an Inquiry in Wolverhampton. By J. H. SHELDON. London: Geoffrey Cumberlege, Oxford University Press. 1948. Pp. x+239, including 46 statistical tables. (Price 10s.)

The startling revelations with which supposedly familiar things repay close investigation are an unending source of satisfaction and pain to the scientifically minded. Dr. Sheldon's unassuming survey of the lives of a random sample of about 500 people of Wolverhampton is another instance of this ambivalent phenomenon. Well-known facts, such as the liability to falls of old people, gain an unexpected intricacy on nearer approach which makes us realize more acutely the utter ignorance with which we still face the medical problems of ageing.

The chief merit of this important contribution lies in its completeness. In social medicine, more than in any other branch of medical science, it is fatal to lose sight of the whole tableau through preoccupation with one's own little corner of the picture. Dr. Sheldon's survey fulfils an important task in this respect by bringing before our eyes the total problem with its manifold medical and social ramifications and interconnexions. Naturally so comprehensive an aim cannot be achieved

at present except as "the first ploughing of a field," as Dr. Sheldon puts it. For this reason it is deplorable that, in common with other recent investigators, he has not found it possible to emancipate himself from the use of the term "normal." It is absurd that in a survey which represents a beginning towards an effort to find the normal standards of ageing, individuals should straightway be divided into normal, super-normal, and sub-normal for their age. The plea that this was done on common-sense grounds seems rather strange. Altogether such few conclusions and speculations as there are in this book are inclined to be expressions of what is commonly known as common sense. Our old friend "wear and tear" is also met with in the pages of this book. If authors dealing with old age would begin to pay tribute to their own ignorance by foregoing the use of such biologically meaningless metaphors they would help to clear the path for the acquisition of some real knowledge.

Such criticism, however, concerns only the analytic parts of this book, the main part of which is devoted to an orderly account of the facts which emerged from an investigation extending over two years, in the course of which the social pattern of the lives of a 1:30 random sample of the old people of Wolverhampton and the functioning of their minds and bodies were scrutinized and studied with the help of a detailed questionnaire. The medical part of the investigation had to be restricted to the taking of histories, but the limitations arising from this and other difficulties are clearly realized by the author, who has made allowance for them in presenting his results. The scope of the survey is very wide indeed. After giving an account of the physical state of the subjects concerned and of the main physical symptoms complained of by them, the author goes on to deal in a similar manner with their mental state, the social structure of their homes, and the problems arising from illness in these old people.

The author explodes some popular misconceptions and applies the corrective of exact recording to many vaguely held notions on the subject of old age. The main impression which he manages to convey is that old people are on the whole less handicapped than our clinical experience would tend to make us think. This book, packed with facts set down by a competent and sympathetic observer, should be read by gerontologists, social workers, and administrative planners alike. Theirs is the task of filling in the details, and they will be better fitted to do so after having studied this outline of the complete physical and social status of a typical sample of old people.

F. A. E. CREW.

Health Services in England. By R. C. WOFINDEN. Bristol: John Wright and Sons Ltd. London: Simpkin Marshall (1941) Ltd. 1947. Pp. x+192. (Price 10s.)

This admirably compact and up-to-date account of the health services—preventive and curative, statutory and voluntary—of England and Wales was awarded the Joseph Rogers Prize in 1946 by the Society of Apothecaries. The author deals with the mechanisms available for the treatment of the sick, the existing environmental and personal services for the preservation of health, and the scope of economic and social legislation relating to this subject. These are matters which are necessarily of interest and importance to the student of social medicine.

F. A. E. CREW.