

metamorphic geology. Mr. Seligman's book provides a stimulating record of the advances which have been made towards the solution of the problem of deducing meteorological history from the petrography of the deposits, and conversely the prediction of structure and mechanical properties from knowledge of past conditions. The perusal of Part 3, which treats of the different kinds of

avalanches, the precautions to be taken in the hope of escaping them, and the procedure to be followed in attempting to rescue unfortunate victims, cannot fail to impress the reader with the hazardous nature of the snowcraftsman's exercise. The timid will keep away from the snow mountains, but happily for the growth of knowledge there are others.
L. H.

Poverty, Malnutrition and Disease

Poverty and Public Health

By G. C. M. M'Gonigle and J. Kirby. Pp. 278. (London: Victor Gollancz, Ltd., 1936.) 6s. net.

IN producing the book under notice, Dr. G. C. M. M'Gonigle and Mr. J. Kirby have made a practical and notable contribution to the study of community and family nutrition, which should help responsible authorities and individuals to acquire a true perspective and a sound sense of values in regard to the many factors which collectively influence the health of the general public. The authors write with the authority of first-hand experience. For many years their official duties have brought them face to face with the realities of poverty, malnutrition, disease and death in the depressed areas; and in the course of their work for the health and welfare of the local community in Stockton-on-Tees, they have collected data, instituted inquiries and made original investigations into the nutritional state of children and family health and economics.

Such is the background of knowledge and experience behind the publication before us. It has appeared at a time when the national conscience is alive to the significance of diet to health, and the fact that malnutrition is not merely a problem to be solved by satisfying hunger. The health and fitness of the nation are primarily determined by the state of nutrition of the people, and of necessity the food consumed by the individual child or adult must be physiologically adequate in respect of quality, quantity and balance if optimum nutrition is to result.

The book opens with an examination of available information relating to the physical condition of the adult population and the health records of elementary school children. The findings of the Ministry of National Service (1917-19) are reviewed, and the data revealed by the routine medical examination of elementary school children and special investigations are dealt with in detail. It is pointed out that in 1933 no less than 3,094,926 children, or 61 per cent of the average attendance

at elementary schools, were subjected to examination by school medical officers, and that of these, 1,140,445 children, or 36.8 per cent of those examined, showed defects requiring treatment or calling for careful observation. The chapter dealing with child welfare records is of particular interest. In it the authors have presented a careful analysis of the data of 741 children who attended the child welfare centres in Stockton-on-Tees. They have correlated the incidence of defects with the evidence collected in regard to satisfactory or unsatisfactory diets. Bone defects, pharyngeal conditions, dental decay and anæmia were markedly more prevalent among the children whose diet was judged unsatisfactory. Attention is directed to the common error of including an excessive amount of carbohydrate food in the diet of children, and it is recorded that in Stockton-on-Tees a reduction in carbohydrate food coupled with an increase in protein, fat and vegetable constituents was followed by a decrease in rickets and other defects attributable to sub-optimal nutrition.

A large section of the book is devoted to a critical analysis of the data obtained in Stockton-on-Tees of 152 families subsequent to being rehoused on a new housing estate. The health, mortality records and economic circumstances of these families are compared with those of 289 families which were not transferred to the new housing estate. The dietaries of the families in the two groups are examined, and it is held that the increased cost of rent on the new housing estate accounted for the unsatisfactory diet purchased. The intimate details of family budgetary expenditure are examined with great care and thoroughness. It is pointed out that in addition to rent, many other items in the budget are unavoidable, and their payment of necessity limits the money available for the purchase of food. In particular, the case of the unemployed is dealt with, and the book concludes with the well justified suggestion that the data presented are of sufficient importance to warrant further investigation and inquiry.