taken at close range, bringing a billful of food to her family, and Arthur Gilpin (p. 63) has been most successful with a very difficult subject—a tree creeper.

Two photographs from the portfolios of the late G. B. Kearey are shown, one of them a singularly beautiful picture of a hen capercaillie—a shy and difficult bird to photograph—approaching the nest.

We are shown the late C. J. King's classic photograph of a greater black-backed gull, taken so long ago as 1910—a grand picture. One of the most beautiful photographs in the book is that of a sand-martin taken by L. H. R. Lowes; one cannot look too long at it. Perhaps the rarest photograph, which must have been most difficult to take, is that (p. 99) of a chough, taken by W. W. Nicholas. The chough, nesting in caves, is a hard bird to picture, and I do not remember having seen a good photograph of it before. Niall Rankin's classic photograph of a gannet alighting at the Bass Rock appears on p. 107. A remarkable study is J. E. Ruxton's picture of a pair of black-throated divers sitting side by side on the nest; the 'happy expression' on the face of one of the birds is clearly seen. H. Morrey Salmon's photograph of a pair of herons at the nest is a delicate and attractive piece of work. On p. 119 is a remarkable photograph of a swallow in flight taken by J. A. Speed, and on p. 131 Ian M. Thomson has an excellent picture of a pair of Montagu's harriers.

Finally, Hugh G. Wagstaff's skill in bird photography is seen in two outstanding photographs—one of a buzzard eating a rabbit on a hillside, the other of a pair of merlins exchanging forceful remarks at the nest.

This is one of the most interesting bird books that have been published for a long time.

SETON GORDON

THE CLINICAL ASPECT OF PREVENTIVE MEDICINE

Preventive Medicine and Public Health

By Prof. Wilson G. Smillie. Pp. xvi+607. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1946.) 6 dollars; 30*s*. net.

PREVENTIVE medicine is the offspring of clinical medicine. Thomas Sydenham re-interpreted the Hippocratic conception of epidemics and led the way to the domain of modern epidemiology. The science of preventive medicine began in the eighteenth century, through the work of medical practitioners, like Huxham, Mead, Heberden, Fothergill, Haygarth, Willis and Withering, observers of the clinical features of epidemic disease, the influences of external environment, the paths of contagion and infection, and the effects of climate and season. University education in preventive medicine was initiated in 1768 by Johann Peter Frank, director of public health in Austrian Lombardy, and his international fame led to the creation of the first chair of public health in the University of Edinburgh.

Unfortunately, the specialization of public health for a considerable time brought about a dichotomy between preventive and clinical medicine. This was partly due to the beliefs of Edwin Chadwick, a pioneer in English sanitary reform; he held that all zymotic and other diseases were due to filth, and that clean living, improvement of water-supplies, refuse removal, and bettering the houses of the workers would bring about a reduction in the death-rate and the restriction or extinction of pestilences. These views ignored the knowledge gained by Sydenham and the epidemiologists of the eighteenth century on epidemic infection and morbid contagia. Bacteriology afterwards demonstrated that environmental hygiene, while of great value in preventing much morbidity and mortality, was not the whole explanation. The victim of the disease and the human carrier claimed attention as well as his surroundings. More recently, prevention has extended its sway into the study of sociology, eugenics, inheritance, race, nutrition and a hundred other subjects, embraced under the comprehensive term of 'social medicine', which disturb health and favour disease.

Tradition dies hard, and the instruction of medical students has not moved with the times. For many years it has properly been deemed desirable that instruction should be given in public health and preventive medicine in the medical courses of Great Britain and the United States. Yet too much attention is still devoted to details of sanitary engineering, drainage and sewage disposal. The student, with an overcrowded curriculum, is thus led to regard preventive medicine as a subject apart instead of one which should be closely integrated with his clinical studies of disease. It is satisfactory to know that a revision of undergraduate instruction in Great Britain is under consideration from this point of view.

Prof. Wilson G. Smillie's text-book has been written for medical practitioners and students to inculcate the sound doctrine that preventive medicine is an essential part of the practice of clinical medicine. It is a comprehensive treatise. The introduction gives a brief and lucid history of public health in the United States, including reference to the work of Lemuel Shattuck, a Boston bookseller, whose "Report of a General Plan for the Promotion of Public and Personal Health", published as a legislative document in 1850, became a foundation stone for public health and preventive medicine in the United States. Section VI of the book provides an admirable account of American public health administration which may be read with profit by all interested in this important aspect of social medicine. It is of interest to note that Paul Revere, immortalized in Longfellow's poem, was chairman of one of the first local boards of health, organised in Boston in 1798.

The whole field of preventive medicine is broadly surveyed, with emphasis upon the clinical aspect and the study of the individual. The material presented is based on clinical experience and illustrated by actual case-histories. Another good feature of the book is that the author gives references to articles in American medical journals, which enable the reader to extend his knowledge of special subjects. The book is not a system of preventive medicine, for the field covered is so wide that the author has had to compress his accounts of environmental hygiene, communicable and other diseases, child hygiene and adult diseases and their prevention into brief compass; and not all epidemiologists would agree with certain of his conclusions, for example, the statement made on p. 199 with reference to poliomyelitis that "there is little evidence that the patient himself is an important source of disease dissemination", a statement which seems to conflict with a footnote on the same page. The advanced student of preventive medicine must, therefore, supplement his studies by more extensive reading, but he could have no better introduction to the subject than Prof. Smillie's book.

ARTHUR MACNALTY