

Reviews

WILLIAM MACEWEN

The Life and Teaching of Sir William Macewen: A Chapter in the History of Surgery. By A. K. Bowman, Regional Medical Officer to the Department of Health for Scotland. (Pp. 425. 21s.) London, Edinburgh, Glasgow: William Hodge. 1942.

The original work and teaching of Sir William Macewen have added, it is allowed, increased values and opportunities to the art and practice of surgery; and history will doubtless confirm the modern verdict. Himself the pupil, and afterwards the successor, of Lister in the Glasgow Royal Infirmary and in the university of that city, he proved himself not unequal to this inheritance and tradition. In early days his observations and methods were limited to such rough and occasional chances as come the way of a police surgeon; later, as is well known, he was recognized as one of the great masters of his art and the chief of a clinic that attracted students and disciples from many lands.

The technical record of Macewen's work is, of course, to be found in his writings, and is the common possession of all interested in surgical practice. In the volume here reviewed Dr. A. K. Bowman has endeavoured to present this work in terms that can be appreciated by the intelligent layman. He has added, partly from first-hand knowledge, an account of Macewen's life and personality, and this includes a story of difficulties overcome, of interests cultivated, of successes attained, and of critics and colleagues not always suffered gladly. The result is a very pleasing and readable book. Admittedly Dr. Bowman writes as a hero-worshipper; none the less he is intent on a true picture.

The personal study has its own attractions. What it reveals very plainly is that to Macewen medicine in its widest sense was a department of natural history, demanding, as other branches of biology, a wide and accurate collection of facts and an attempt to interpret them. In some of these severely conducted inquiries he recognized opportunities for surgery as a therapeutic measure; and he applied these opportunities to practice. Whether the problem was the growth of the antlers of deer, or the transplantation of bone, or the reaction of the pupil in alcoholic coma, or the determination of the precise site of an intracranial tumour, the fashion of approach was always the same. What is particularly impressive is the thoroughness with which the method was applied and the variety of the issues submitted to it. Moreover, it was applied personally. Nothing less than first-hand knowledge satisfied Macewen. Never was an advocate better equipped with all the relevant details of his case or more confident in his arguments and conclusions. And similarly in practical affairs. The tempering of the steel blade of an osteotome, the designing of new patterns of artificial limbs, the reorganization of a nursing staff: all must depend on his initiative and must remain under his direction and control. Room there might be for assistants and even perhaps for a team, but there will be only one leader. And it is the leader who will define the direction, fix the standards, check and verify the details, accept the responsibilities, fight for the cause, and collect the laurels. Work with, or rather under, Macewen was a valuable educational discipline; it was not a pathway to an equal or permanent partnership. His own word defined the position when he wrote: "I am not a co-operator." An alternative might well have been: *Aut Caesar, aut nullus.*

Such was the Macewen method, and it may claim many triumphs. To surgery it gave enlarged capacities and a new inspiration, and these in actual practice have meant increased opportunities for the saving of human lives and the relief of human suffering. Dr. Bowman's book tells the story in detail and is a welcome record of a great career.

C. O. HAWTHORNE.

NUTRITIONAL DEFICIENCIES

Nutritional Deficiencies: Diagnosis and Treatment. By John B. Youmans, M.S., M.D., assisted by E. White Patton, M.D. (Pp. 385; illustrated. 30s.) Philadelphia, Montreal, London: J. B. Lippincott Company.

Dr. Youmans has written this book in a spirit of enthusiasm tempered with common sense. It will be read with interest and profit both by the clinician and by the layman who wants

to know more about the use of vitamins to human beings. The author insists throughout that vitamin therapy should be preventive or protective rather than curative. Only when curative measures are necessary should pure preparations or concentrates be taken, and then only in the early stages of treatment, being gradually replaced by natural foods rich in the vitamins, such as cod liver and dried yeast, and later by a well-chosen ordinary diet which should supply all the needs of normal man. Differences in the needs of different healthy individuals are recognized, and special needs of pathological conditions are stressed. Even when large doses of a vitamin are indicated Youmans says: "One must, however, beware of overdosage, not because of harm or danger, which is almost non-existent with those substances, but to protect the patient's pocket-book and to avoid waste generally, the possibility of which is greatly enhanced by the relatively high cost of some concentrates and pure preparations." He pleads for the exact labelling of potency of concentrates, when possible in terms of weight rather than in terms of units, which themselves often need to be defined.

Deficiency of each of the vitamins A, B₁, nicotinic acid, riboflavin, C, D and calcium, E, K, and other possible vitamins, and also of protein, iron, iodine, is treated in a separate chapter under the subheadings: history, nature and function, pathology and pathogenesis, incidence and epidemiology, symptoms and signs, diagnosis, and treatment. A useful summary for quick reference is also given. The chemistry of the vitamins is not always accurately reported—e.g., vitamin A has not been synthesized, at any rate in not more than traces; activated 7-dehydrocholesterol is obtained by irradiation of 7-dehydrocholesterol and not by the irradiation of cholesterol unless the sample of cholesterol irradiated contains some 7-dehydrocholesterol as an impurity.

The book is well bound and contains some excellent photographs.

DYNAMICS OF ANIMAL POPULATIONS

Voles, Mice, and Lemmings. Problems in Population Dynamics. By Charles Elton, Director of the Bureau of Animal Population, Oxford. (Pp. 496. 30s.) Oxford: The Clarendon Press; London: Oxford University Press. 1942.

Oecology is a modern word (according to the N.E.D., 1873 is its first date), but its subject-matter, "the relations of animals and plants to their surroundings, their habits and modes of life," has interested mankind since the remotest ages. Where modern oecology differs from that of our grandparents is in its quantification. Charles Darwin did sigh for numerical data, but was very often disappointed; in his time, too, the theory of biological dynamics had not attracted the attention of many mathematically minded men. Verhulst had done pioneer work on the theory of human population dynamics, but it was only the rather naïve mathematics of Malthus which aroused general interest. Now the scene has changed. The researches of Lotka and Volterra have provided us with a theoretical scheme and a set of intellectual tools at least as valuable to the oecologist as classical dynamics have been to the engineer or physicist. Another century (assuming that civilization survives so long) should see the rapid growth of a science and art of applied oecology. That this should happen description and experiment are needed—namely, a collation of the scattered evidence provided by observers, scientific and unscientific, through generations, and exact measurements of what happens in communities of wild animals living under conditions which can, at least in some measure, be controlled and simplified.

Mr. Charles Elton, who has done pioneer work both as a critical historian of oecology and an experimenter, surveys a part of the subject in this treatise. The theme of the volume is a study of the dynamics of populations of voles, mice, and lemmings, but from the nature of the subject this involves an almost equally detailed survey of the dynamics of other animal (and plant) populations, including naturally *Homo sapiens* (at least the specimens living and working in Labrador or Ungava). To the general reader the second half of the book (Parts III and IV) will make a stronger appeal than the first half; it has more unity and will tell him in vivid language a great deal that is interesting and romantic in the history of a part of the British Empire which is little more than a name to him. How trading in the skins of furry animals began, what sort of people the hunters were, the relation of good years to bad years, the