some measure of the amount of denudation which has occurred, as marks of higher-ground levels may be seen at many places. These suggestions are offered in the light of limited observations; satisfactory answers to the questions must await more complete inspection of all the evidence.

WALTER B. LANG
U. S. GEOLOGICAL SURVEY

QUOTATIONS

MR. KEPPEL'S ACHIEVEMENT

THERE are men to whom the finality of the word "retirement" does not apply, even when they relinquish a post which they have long held. They continue to be active in the world and to wield an influence, regardless of the particular title which may be given to their new work. Such a man is Mr. Frederick P. Keppel, who on November 18 next will relinquish his administrative duties at the Carnegie Corporation of New York, of which he has been president for nineteen years. He is to remain as educational adviser to the corporation.

The spending of millions of dollars—wisely—is far from an easy task, even when, as in the case of the Carnegie Corporation, the purposes for which the money may be used are clearly defined and restricted. Despite these limitations, the number of educational and other institutions clamoring for aid is enormous, as is the number of individuals in the field of education worthy of help. The task is, therefore, to weigh conflicting claims and decide where the money can be spent with the best hope of fruitful returns to society. For such a large task a man of wide interests and background, as well as of sound judgment, is needed. Mr. Keppel possesses, in addition, the capacity of saying "no" as if he were conferring a favor.

Shrewdness and hard-headedness, coupled with a gentle manner and engaging modesty, are other valuable personal weapons of Mr. Keppel. A keen observer and a good listener, he has familiarized himself with the problems of the institutions which he has been called upon to help, and he has done this with a minimum of hard feeling. This, in itself, is an achievement and bears testimony to the wisdom of those who persuaded this man, who had been eight years dean of Columbia, and who had been Assistant Secretary of War and done important work for the Red Cross in Europe, to enter an even wider field of usefulness. Being still well under the Biblical threescore years and ten, the presumption and hope are that Mr. Keppel will continue in public or semi-public work for many happy and useful years.—*The New York Herald-Tribune.*

In November Dr. Frederick Paul Keppel will give up the presidency of the Carnegie Corporation, which he has occupied with such distinction for nineteen years. For aid from the income of that foundation innumerable applications have been made. To choose from even the most meritorious is a labor of copious knowledge and delicate judgment. Dr. Keppel has distributed that income wisely and productively. He has had the advice of experts. His annual reports have become classics.

His modesty and his gift of sympathetic cooperation had been shown in other fields. Colleges and universities, the fine arts and the sciences, research and scholarship here and abroad have been encouraged and advanced. Concrete and definite rather than general objects have been sought. Dr. Keppel has been a persuasive advocate of adult education. He has talked sense and he has written it. Those Columbians who had the good fortune to be undergraduates when he was dean of the College of Arts remember and prize him as the friend, the gay associate, the student and the former of character. He has handled many a hard job ably, and when he leaves his present post, there will still be plenty of work for him to do. —*The New York Times.*

SCIENTIFIC BOOKS

ELEMENTARY BIOLOGICAL TEXTS

LATE EDITIONS:

Principles of Animal Biology. By A. FRANKLIN SHULL. Fifth edition. 417 pp. New York: McGraw-Hill Book Company. 1941. $3.50.

Animal Biology. By MICHAEL F. GUYER. Third edition. 723 pp. New York: Harper and Brothers. 1941. $3.75.

General Biology. By JAMES WATTS MAVOR. Second edition. 897 pp. New York: Macmillan Company. 1941. $4.00.

Foundations of Biology. By LORANDE LOSS WOODRUFF. Sixth edition. 773 pp. New York: Macmillan Company. 1941. $3.75.

FIRST EDITIONS:

Human Biology. By GEORGE ALFRED BAITSELL. 621 pp. New York: McGraw-Hill Book Company. 1940. $3.75.

Biology and Human Affairs. By JOHN W. RITCHIE. 1026 pp. Yonkers, N. Y.: World Book Company. 1941. $2.32.

This Living World. By C. C. CLARK and R. H. HALL. 519 pp. New York: McGraw-Hill Book Company. 1940. $3.25.

BECAUSE of the fundamental importance of the elementary course in every biological department, the available text-books are of moment to all teachers. An inspection of a series of American texts, recently issued, should therefore be comforting, for their quality is generally evident partly from the fact that many of them have reappeared in repeated editions. Such books have become well known and have been previously reviewed. It will be necessary to note therefore only recent changes that have appeared in them.

In Shull greater emphasis is given to function, and development has been reconsidered in the light of more recent knowledge. Animal relationships have been given more attention.

Guyer presents a new chapter on ecology and increases the consideration given to the experimental aspects of biological study. Much general revision of the text is found.

Mavor shows many alterations, some extending to quite extensive changes in methods of treatment. Increased emphasis is shown to physiology, neurology and ecology, and less attention is paid to distribution and to the historical aspects of the subject. Many rearrangements of material, especially that relating to plants, are evident. There have been added at the ends of chapters lists of readings and an appendix outlining the classification of plants and animals.

Considerable revision, change and rearrangement of material characterize the sixth edition of Woodruff. There are new chapters on endocrinology and on human descent, and there are many new illustrations.

It is interesting to note the degree to which these texts approximate a common method of treatment. There are variations in emphasis and in the subdivisions of topics, and Woodruff and Mavor give consideration to plant material separately, but the general topics treated do not vary greatly. The aims and methods of these authors are not significantly different. Each is obviously fully aware of the fact that something is not to be gained for nothing—that not mere information, but a way of thinking and doing is the important outcome of a course in elementary biology. Consequently, any one of these texts will serve a worthy end in a college curriculum, although local conditions or needs may, for the moment, make one preferable to the others.

Baitsell's book is not quite what the title indicates—a study of the biology of a single type, but rather, in the words of the author, "a humanizing of general biology." The basic principles of the subject are presented in the conventional manner, but illustrations are drawn from human anatomy and physiology, and emphasis is placed on the human significance of facts and principles. Aside from the pedagogic value which attaches to the use of personally relevant material, there is an advantage, the author believes, in providing a new type of treatment for students who have already had biology presented in the usual manner. This text will have a particular appeal to those interested in biology in relation to medicine and to those whose contact with the subject is restricted to a single course. To assist in extending the interest of students there is an appendix of 92 pages wherein is found a glossary, historical notes and more extended treatments of subjects than space permits in the main text. There is, for example, a thirteen-page consideration of the subject of enzymes. Often direct quotations from important papers are given.

The book by Ritchie is definitely designed for use in high schools, although it seems somewhat mature for the purpose. It is intended to develop in the minds of students a conception of the significance of biology in human life. The method is developmental rather than informative and it does not confine itself to the use of any one of the usual procedures of types, principles or systematics. It is moreover a source book and not a fixed outline to be followed. There are "comprehension tests" at the end of each "unit" and questions for class discussion; also practical exercises, a glossary and numerous appropriate quotations from general literature. The illustrations are many and good and the typography satisfactory. Naturally in a book covering so much ground there are errors, sometimes of fact, sometimes of philosophy. On the whole, however, it should serve an excellent purpose in the hands of good teachers, but one wonders how well it will aid the teacher lacking comprehensive understanding and background.

The text by Clark and Hall is of a distinctly different type from the others in the list. Its purpose is set forth by the authors in the Preface in the following words: "The aim of this book is to present, in a form which combines accuracy with pleasant reading, the gist of modern knowledge about the living world." If one thinks comprehension and understanding or any real mental development can result from pleasantly skimming over the surface of a subject, without hard individual effort, this book would be a good one to employ.

C. E. MCCLUNG

ACOUSTICS

Acoustics. By ALEXANDER WOOD, M.A., D.Sc. (Glas.) xvi + 588 pp. New York: Interscience Publishers, Inc. Glasgow: Blackie and Son, Ltd. 1941. $6.00.