• First Glances at New Books

Physics-Electricity

SIGNALS AND SPEECH IN ELECTRICAL COMMUNICATION—John Mills—Harcourt, Brace, 281 p., \$2. Those who use the telephone and the radio every day may have some curiosity as to what mechanisms make them sound. This book of simply written essays gives the opportunity of understanding many of the principles and philosophical aspects of the great communication systems made possible by electricity and scientific genius. Mr. Mills also allows his imagination to dip into the future in an effort to chart the progress to come.

Science News Letter, March 17, 1934

Pedagogy

AN INTRODUCTION TO THE TEACH-ING OF SCIENCE—Elliott R. Downing—Univ. of Chicago Press, 258 p., \$2. So many advances have been made in the science of teaching since the author's Teaching Science in the Schools was published eight years ago that he has felt a complete rewriting was called for, rather than simply a revision.

Science News Letter, March 17, 1934

Physics

PHYSICAL CONSTANTS—W. H. J. Childs—E. P. Dutton, 77 p., \$1.20. A small handbook in which are collected for the use of students essential physical constants and tables including fundamental units of heat, light, magnetism, electricity and sound. There are also brief mathematical tables.

Science News Letter, March 17, 1934

Botany

HYBRID NYMPHAEAS—G. H. P.— Missouri Botanical Garden, 43 p., 19 pl., 25c. This publication, constituting the February issue of the Missouri Botanical Garden Bulletin, is of such interest to botanists, horticulturists and water-lily fanciers as to merit special mention. The plates are in color.

Science News Letter, March 17, 1934

Physics

THE SUB-ATOMS—William Mayo Venable—Williams & Wilkins, 148 p., \$2. The author, who is consulting engineer to the Blaw Knox Company, Pittsburgh, does not agree that Newtonian mechanics has failed to elucidate atomic structure. He applies Newtonian mechanics to the interpretation of certain spectra without introducing any amendatory postulates. The atoms of the elements are found to be aggregations of smaller units, called sub-ele-

ments, in much the same way that chemical compounds are aggregations of chemical atoms. The preface says: "Those who do not wish Newtonian mechanics to be successful may find this book annoying, the writer ignorant of 'established principles' of modern physics, and not qualified by training to consider, much less to discuss such matters."

Science News Letter, March 17, 1934

Subsistence Farming

A LIVING FROM THE LAND—William B. Duryee—McGraw-Hill, xiii+189 p., \$1.50. With subsistence farming given a definite and probably highly important part in the New Deal, this book, written by the Secretary of Agriculture for the State of New Jersey, appears in most timely fashion. It is a most intensely practical treatise, too, offering the reader guidance through such rocky channels as locating the farm home, financing the venture, and building the house, as well as hints that will help to make such things as vegetable gardening, poultry raising and beekeeping actually pay for themselves.

Science News Letter, March 17, 1934

Philosophy

Basic Rules of Reason—I. A. Richards—Kegan Paul, Trench, Trubner, London, 138 p., 2s 6d. The elements of logic, stated in "Basic English," which in itself helps to simplify and make easier of understanding abstract ideas that frequently prevent the beginner from getting beyond the beginning. Therefore a most interesting little book.

Science News Letter, March 17, 1934

Mathematics

DIFFERENTIAL EQUATIONS—Lester R. Ford—McGraw-Hill, 263 p., \$2.50. A text by the assistant professor of mathematics in the Rice Institute, adequate to keep busy for a year an average college class in the subject.

Science News Letter, March 17, 1934

Horticulture

SMALL-FRUIT CULTURE—James S. Shoemaker—*Blakiston*, xv+434 p., \$3.50. A book that should be of use as a reference work to the practicing horticulturist, and also as a college text.

Science News Letter, March 17, 1934

Language

THE SYSTEM OF BASIC ENGLISH—C. K. Ogden-Harcourt, Brace, 320 p., \$2.50. Modern "artificial" languages, like Esperanto and the now forgotten Volapük, seem to gain ground very slowly; to become a world means of communication a language apparently needs to have the pressure of an expanding people behind it, like the colloquial Latin of the Roman provinces, or the simplified Italian that was the Lingua Franca of the medieval Levant. What Mr. Ogden has tried to do deliberately for English was done unconsciously and hence less systematically for the older international tongues. He has selected 850 words which suffice for all ordinary intercourse, and even for some very decent literary efforts. In this book he explains the system and gives examples.

Science News Letter, March 17, 1934

Engineering—Economics

THE TURNING WHEEL — Arthur Pound—Doubleday, Doran, 517 \$3.50. The automobile and particularly the development of General Motors, the makers of automobiles, is glorified in this story of the 1908-1933 transportation era. Beginning with a history of the pre-automobile development, the story of General Motors automobiles is told beginning with the first "quality" car, the Oldsmobile. There is a chronology of important dates in the development of self-propelled vehicles. As the history of an important concern in a great American industry, this book is useful and an important contribution to technical and economic literature.

Science News Letter, March 17, 1934

Physics

ROMPING THROUGH PHYSICS—Otto Willi Gail—Knopf, 64 p., \$1.50. With sprightly illustrations and text, many of the physical laws which govern our everyday existence are explained attractively. Which is heavier, a ton of lead or a ton of iron? What would happen if a revolver could be fired in the deepest abysses of the Atlantic Ocean? How much does a flying fly weigh?

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