

FIRST GLANCES AT NEW BOOKS

THE FERN ALLIES OF NORTH AMERICA—Willard N. Clute—*Joliet, Ill.: The Willard N. Clute Co.* (\$4). There are many popular flower guides and many fern books, but the interesting and botanically important group of fern allies—horsetails, club-mosses, quillworts, and so on—have been left, in recent time at least, to a single author. Fortunately, Mr. Clute is well equipped; he knows the botany of his subjects thoroughly and at the same time has a most happy faculty of presenting his facts in interesting popular language without surrendering essential, or even technical, accuracy. This revision of *Fern Allies* gives a new generation of students a chance at a work no field botanist can well do without.

Botany

Science News-Letter, October 20, 1928

THE FERNS (FILICALES), vol. III—F. O. Bower—*Macmillan* (30 s). The third volume of a series dealing exhaustively with the classification and structure of ferns; this volume is concerned with the leptosporangiate ferns.

Botany

Science News-Letter, October 20, 1928

COMMON WILD FLOWERS OF PENNSYLVANIA—Ernest M. Gress—*Altoona, Pa.: The Times and Tribune Company* (\$.75). Chattily written running descriptions of the more usually seen wild flowers of Pennsylvania, illustrated with photographs taken in their natural habitats.

Botany

Science News-Letter, October 20, 1928

PLANT LIFE AND ITS ROMANCE—F. E. Weiss—*Longmans, Green* (\$1.80). A series of twelve radio talks brought together in printed form by a well-known English botanist.

Botany

Science News-Letter, October 20, 1928

ABSTRACTS OF THESES—Science Series, Vol. V—*University of Chicago Press* (\$3). The University of Chicago has adopted a new system. Instead of requiring the publication of Ph. D. theses in a way that scattered them among the various scientific periodicals and often delayed their printing for years, all the theses are published in abstract in a single volume. The present volume contains 76 papers in the fields of mathematics, astronomy, physics, chemistry, geology, geography, botany, zoology, anatomy, physiology, physiological chemistry, bacteriology and home economics.

General Science

Science News-Letter, October 20, 1928

BUREAU OF STANDARDS JOURNAL OF RESEARCH; Vol. 1, No. 1—U. S. Gov't Pr't'g Off. (\$2.75 per year). This is the first issue of a new publication by the U. S. Bureau of Standards, that will supersede the "Scientific Papers" and "Technologic Papers" previously issued. It is announced that the new publication will carry the results of the Bureau's researches, both theoretical and applied, but more than that, it will contain critical reviews in the field of science and technology. The first number promises well for the future. Five papers are given, on tests of organic protective coatings, pneumatic tires, reflectometry, interferometer measurements of wave-lengths of the titanium spectrum and analysis of bauxite and other refractories.

General Science

Science News-Letter, October 20, 1928

GALATEA OR THE FUTURE OF DARWINISM—W. Russell Brain—*Dutton* (\$1). "Darwin is the Newton of biology: she still awaits her Einstein," writes the author of this little book. The mechanistic philosophy arising from Neo-Darwinism falls short of being a satisfactory view of the universe, and Neo-Lamarckism is suggested as a sounder basis for interpretation of the Darwinian principles.

Evolution

Science News-Letter, October 20, 1928

BACCHUS: OR WINE TODAY AND TOMORROW—P. Morton Shand—*Dutton* (\$1). This new addition to the Today and Tomorrow series combines a body of interesting information on viticulture and winemaking, with occasional caustic comments on experiments in the suppression of the wine trade; the latter, however, sometimes lapse into mere sarcasm.

Viticulture—Zymology

Science News-Letter, October 20, 1928

BOYCRAFT—*Whitman* (\$10). Here is just the book to give to the youngster who is mechanically inclined, and seeks new worlds to conquer. Despite the low price, it contains full directions for making toy boats, airplanes, bird-houses and other interesting things. Each article is fully illustrated with drawings.

Handicraft

Science News-Letter, October 20, 1928

THE RELATIONS BETWEEN THE SMITHSONIAN INSTITUTION AND THE WRIGHT BROTHERS—Charles G. Abbot—*Smithsonian Institution*. The secretary of the Smithsonian Institution herein endeavors to sift out the facts of the unfortunate controversy over the relative merits of the Langley and Wright airplanes, and to do justice to all concerned.

Aviation—History of Science

Science News-Letter, October 20, 1928

FIXATION OF ATMOSPHERIC NITROGEN—F. A. Ernst—*Van Nostrand* (\$2.50). This book is both of permanent value and timely interest, written by an expert formerly of the American Cyanamid Company, then in the Nitrate Division of Army Ordnance, and now in the Fixed Nitrogen Research Laboratory of the U. S. Department of Agriculture. He gives facts and figures of the most modern methods for putting nitrogen of the air in a form so that it can be used for fertilizers, munitions, or chemical manufacturers. The question is being widely discussed at present with more heat than light in debates over the farm problem, and it would greatly clarify the atmosphere if the disputants and the public have at hand the facts in this book. For instance, the Muscle Shoals problem is still being argued about as though the fixation of nitrogen were primarily a matter of power, whereas, since the war, the situation has entirely altered. In the original arc process for nitric acid a power consumption of 61,000 kilowatt hours was required for each ton of nitrogen fixed. Now by the new direct synthetic ammonia process, with water gas hydrogen only 3,000 kilowatt hours is required per ton, a reduction of one-twentieth, so power has become a minor factor in the problem compared with cheap nitrogen.

Chemistry

Science News-Letter, October 20, 1928

WHAT'S WANTED AND ADVICE TO INVENTORS—*Institute of Patentees* (39 Victoria St., London, S. W. 1) (6d). Are you an ingenious inventor, hunting for new worlds to conquer? If so, get this book and see 339 things that the world needs, including "a device to prevent soup or other liquid from spilling out of a spoon," or "a wireless loud speaker to translate foreign languages into English."

Invention

Science News-Letter, October 20, 1928