

with this committee which will furnish lists of journals needed. Reprints of recent work will be especially welcome to scientists in the U.S.S.R. They may be mailed directly or sent through the Smithsonian Institution, which has resumed its service of forwarding reprints to the Soviet Union.

American scientific journals which have suspended exchange arrangements with Russian journals are urged to resume these wherever practicable. American publishers may serve both their own interests and Soviet-American exchange by forwarding single copies of new scientific books to this committee for transmission to an appropriate center in the U.S.S.R. One publisher has sent an inscribed copy of each of his scientific books published since 1939 to the Academy of Sciences at Kiev, where they will serve in the scientific reconstruction and rehabilitation which is already under way.

This committee will be glad to aid wherever possible in matters of American-Soviet scientific exchange.

The officers and executive committee are as follows:

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L. C. DUNN

## SCIENTIFIC BOOKS

### AMERICAN BOTANY

*American Botany 1873-1892.* By ANDREW DENNY RODGERS III. 6½ by 9¼ in. vii + 340 pp. Bound in olive green cloth. Princeton: Princeton University Press. London: Humphrey Milford, Oxford University Press. 1944. \$3.75.

THE United States is still in its swaddling clothes when viewed against the faded background of the bedimmed history of nations. Nevertheless, the publication of this book is a forceful contribution to the evidence that our country has lately reached the age of maturity. It is a thrilling thought to cultured Americans that the lives of men who are still active among us span the years from primitive frontiers to this amazing present. The action that is so vividly portrayed in this book took place while several of our great western states, wherein much of the interest centers, were still poorly known territories. The intriguing old and the bewildering new are still close neighbors in this great land of ours.

Mr. Rodgers has presented an attractive summary of an outstanding intermediate period of botanical exploration and progress in America. The two decades involved constitute the years of transition from the haphazard, fragmentary and widely scattered efforts of the early American explorers and systematic botanists to the introduction of regional floras and refined taxonomic monographs of superior workmanship. This time also includes the most influential, fruitful and dominant years of the life of the internationally beloved nestor of American botany, Dr. Asa Gray. The book is an important contribution to the biography of this revered leader of American thought. Much work of great significance to the de-

velopment of botany in America was contributed during that period by Gray's own students and other close associates who drew their chief counsel and inspiration from the master in Cambridge.

The skilful organization and analysis of the stirring events that Rodgers records are enlivened and documented by numerous (often extensive) quotations from the "Letters of Asa Gray," by Jane Loring Gray. Copious selections from unpublished correspondence between Gray and his influential contemporaries also add much intense human interest to the account. Fully one half (possibly more) of the book is graced by these well-chosen extracts. The keen insight that the reader gains of the social conditions of the time, the uncertainties and discomforts of travel and the deep personal longings and reactions that were the common experiences of the founders of our science in America is alone worth the time required to read the book. The quotations and the commentaries thereon are so skilfully woven into the narrative that one can hardly wait to find out what is revealed on the next page or in the following chapter.

The perfection of the foundations of botanical taxonomy in America was the major accomplishment of Gray and the classic years, 1873-1892. The consideration of this fact and how it came about is the central theme of this timely book. Such significant contributions are always accompanied by personal conflicts and clashes among the men who are most active in shaping the trends of thought. A restrained and unbiased reference to these inherently human attributes is given us in the brief chapter entitled "The Controversy of Greene with Gray."

The book also serves to recall how the far-sighted

leaders of the period set out to introduce certain other lines of botany, phases of the "new botany," as it were. They began to teach vegetable physiology, mycology, phytopathology and phytogeography. Laboratories for the study of botany were established in widely scattered institutions. The astounding development that has marked these newer interests since 1900 is a fitting tribute to the reliability of the philosophy and vision of Gray and his small band of intimate coworkers. Rodgers' book is a lively assemblage of fragments, sometimes grave and sad, sometimes gay but always serious, from the intense careers of the men who dedicated their lives to the problems of that particular period in the development of science in America.

The author mostly treats of taxonomic surveys and explorations in the South and in the wide-open West. Some attention is also given to botanical expeditions in Canada, Mexico, Central America and South America during the same time. The creation of and the expansion of botanical laboratories, agricultural experimentation and progress in North American paleobotany are treated as among the other more tangible contributions of the group of men that were bound together under the magnetic influence of Dr. Gray. The group includes, besides Gray, the names of Torrey, Parry, Porter, Lesquereux, Engelmann, Chapman, Watson, Farlow, Goodale, Macoun, Pringle, E. L. Greene, Britton, Beal, Coulter, Bessey, Trelease, Vasey, Burrill and several others including the somewhat younger L. H. Bailey, who is still living.

The book is attractively published. The difficulties of printing the numerous quotations (in small type) from correspondence and the free use of footnotes for bibliographical references and other purposes have been very well handled. The only illustrations in the book are excellent reproductions of photographs of Asa Gray, Leo Lesquereux and George Engelmann. The value of the book would have been greatly enhanced if a larger selection of portraits had been chosen to grace its pages. The present generation of botanists as well as those to come would value the

work much more if it included a greater use of such distinctive features.

The reading of "American Botany 1873-1892" will contribute hours of genuine pleasure to the comparatively few "old timers" who are still among us. The book is an early "must do" on the desks of every broad-minded younger (20 to 60) botanist in this country and beyond the seas.

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### AERIAL SURVEYING

*Essentials of Aerial Surveying and Photo Interpretation.* By TALBERT ABRAMS. 289 pages. McGraw-Hill Book Company, New York, N. Y. \$3.00.

THE various lectures and demonstrations given by the staff of the Abrams School of Aerial Surveying and Photo Interpretation are combined and edited in this book, and equipment developed by the school is illustrated. Training in the use of such equipment must supplement a study of theory if one is to become expert in this field. Those who have received such training will find this publication a useful handbook, yet it is so simply, clearly and concisely written that the casual reader desiring a general understanding of the subject will find it interesting reading.

The whole field of aerial photography, map making and map reading is covered, starting with simple subjects and progressing to more involved ones. Background material is covered first: use of the slide rule, ratio and proportion, logarithms, map projections and topographical drafting. Next comes the making and developing of aerial photographs and their interpretation. The more advanced section follows with such subjects as stereo plotting, topographic relief models, aerial mosaics and world charting. Finally, a glossary of terms is provided for ready reference.

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## SPECIAL ARTICLES

### NODULAR POLYMYOSITIS IN RHEUMATOID ARTHRITIS<sup>1</sup>

SINCE the fall of 1938 we have carried on a restudy of the pathology of rheumatoid arthritis. Because of

<sup>1</sup> This work was done under grants from the National Foundation of Rochester, Michigan, and the Children's Fund of Michigan. We wish to express our thanks to Drs. Charley Smyth and S. E. Gould of Eloise Hospital, for the use of material from the amputated legs and two biopsies. Additional biopsies were from the Department of Internal Medicine and Department of Pathology at Harper Hospital. These findings were demon-

strated in May, 1944, at the annual meeting of the American Rheumatism Association and at a meeting of the Wayne County Medical Society in December, 1944.

the frequency of physical signs suggesting nerve involvement (trophic changes, hyperreflexia and muscle atrophy), and because a search of the literature revealed that the nervous system was singularly neglected in previous studies, special attention was focussed on an investigation of the nervous system.

In previous reports<sup>2,3</sup> the presence of a specific

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