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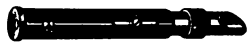
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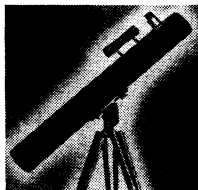
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# Books of the Week

For the editorial information of our readers, books received for review since last week's issue are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N.W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

**CRUST OF THE EARTH: A Symposium**—Arie Poldervaart, Ed.—*Geological Society of America*, Special Paper 62, 762 p., illus., \$6.50. Papers presented at a meeting marking the Bicentennial of Columbia University.

**DENTISTRY**—Leroy M. S. Miner—*Bellman*, Vocational and Professional Monographs, No. 9, 19 p., paper, \$1.00. Facts for guidance in choosing a career.

**A DICTIONARY OF TERMS IN PHARMACOLOGY: And Other Divisions of Economic Botany**—George Macdonald Hocking—*Charles C. Thomas*, 284 p., illus., \$9.75. Explanation of words and expressions relating to crude drugs of animal, vegetable and mineral origin.

**AN INTRODUCTION TO PAPER ELECTROPHORESIS AND RELATED METHODS**—Michael Lederer—*Elsevier*, 206 p., illus., \$7.75. Describing the various methods at present available and explaining the principles so that you can develop your own separation method.

**THE ODYSSEY OF A PSYCHOLOGIST: Pioneering Experiences in Special Education, Clinical Psychology and Mental Hygiene with a Comprehensive Bibliography of the Author's Publications**—J. E. Wallace Wallin—*Wallin*, 243 p., illus., paper, \$3.00. Reminiscences of a retired psychologist.

**RECENT ADVANCES IN OPTICS**—E. H. Linford—*Oxford University Press*, International Series of Monographs on Physics, 286 p., illus., \$8.00. Dealing only with selected topics, many reflecting the author's special interests. The book has a section on the Schmidt camera.

**REVISION OF SOME RECENT FORAMINIFERAL GENERA**—Alfred R. Loeblich Jr., and Helen

Tappan—*Smithsonian Miscellaneous Collections* Vol. 128, No. 5, 37 p., illus., paper, 45 cents. Results of a thorough reexamination of type specimens.

**SUBURBANIZATION OF MANUFACTURING ACTIVITY WITHIN STANDARD METROPOLITAN AREAS**—Evelyn M. Kitagawa and Donald J. Bogue—*Scripps Foundation for Research in Population Problems and Population Research and Training Center, University of Chicago*, 162 p., illus., paper, \$1.80. Discussing matters of practical as well as theoretical interest to industry, sociology and city planning.

**SUBURBANIZATION OF SERVICE INDUSTRIES WITHIN STANDARD METROPOLITAN AREAS**—Raymond P. Cuzzort—*Scripps Foundation for Research in Population Problems and Population Research and Training Center, University of Chicago*, 71 p., illus., paper, \$1.05. Considering the four types of service activity—personal services, business services, auto repair and miscellaneous repair.

**THE TRUE BOOK OF CLOTH**—Esther Nighbert—*Childrens Press*, 47 p., illus., \$2.00. Telling children how the various new fabrics are made and the uses to which they are put.

**THE TRUE BOOK OF THE SEASONS**—Illa Podendorf—*Childrens Press*, 47 p., illus., \$2.00. How the face of nature changes with the changing seasons.

**THE TRUE BOOK OF SOUNDS WE HEAR**—Illa Podendorf—*Childrens Press*, 47 p., illus., \$2.00. Science for little children. This volume explains how sounds are made and heard and what some of them mean.

Science News Letter, August 6, 1955

**MANPOWER**

## Shortage Impedes Science

➤ A SHORTAGE of specialists has caused many of the nation's industrial research and development programs to come to a standstill, the National Science Foundation has reported.

"The supply of qualified research scientists and engineers in the United States falls far short of industry's needs," Dr. Alan T. Waterman, director of the government's top science agency, said in "Shortages of Scientists and Engineers in Industrial Research," a report prepared for the Foundation by the Labor Department's Bureau of Labor Statistics.

Based on interviews with officials of approximately 200 large companies, the report showed that one in three of the companies had a major or substantial shortage of scientists and engineers. The companies represented the largest in industry with significant research and development programs, and employed more than one-half of the nation's industrial research scientists and engineers.

The report to the National Science Foundation also showed that:

1. At least one-half of the 200 companies were unable to hire enough specialists. Several have been forced to cut down research programs; others cannot expand programs or begin new programs.

2. Aircraft, electrical equipment, petroleum, paper, food and primary metals industries were most affected, but nearly all industries were affected to some degree.

3. Demand for research scientists and engineers extended to all experience and training levels, although it was more acute for those with advanced degrees and more experience.

4. There was a real concern by industry's leaders on the "quality" of research personnel. A major petroleum company's research director said it was better to let positions go unfilled than to drop hiring standards.

The report is the first phase of an extensive survey on the specialist shortage problem in the United States by the Foundation. Results of a questionnaire survey of about 11,600 companies will be made later.

Science News Letter, August 6, 1955