

# Books of the Week

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COMMUNICATING IDEAS TO THE PUBLIC—Stephen E. Fitzgerald—*Funk and Wagnalls*, 267 p., \$3.50. A practical application of public relations techniques to everyday problems in human communication.

ECOLOGY OF HEALTH: The New York Academy of Medicine Institute on Public Health, 1947—E. H. L. Corwin, Ed.—*Commonwealth Fund*, 196 p., \$2.50. Papers presented before the Institute on Public Health including those by Franklin Bobbitt, Haven Emerson, and C. E. A. Winslow.

ELEMENTS OF DAIRYING—T. M. Olson—*Macmillan*, rev. ed., 708 p., illus., \$5.50. A practical guide to the three main phases of the industry: dairy cattle, dairy products, and dairy farming.

JANE'S ALL THE WORLD'S AIRCRAFT 1949-1950—Leonard Bridgman, Ed.—*McGraw-Hill*, approx. 400 p., illus., \$16.50. A standard reference which includes records of all the nations' air forces and a record of civil aviation. These records cover a span of one year and include such things as organization, names and addresses of aeronautical departments, and a directory of flying schools.

LABOR DICTIONARY: A Concise Compendium of Labor Information—Paul Hubert Casselman—*Philosophical Library*, 553 p., \$7.50. Contains nearly 2500 entries, including definitions of labor terms, biographical sketches of labor leaders and labor legislation acts.

MAKING WORK HUMAN—Glen U. Cleeton—*Antioch Press*, 326 p., \$3.75. A survey of human relations in business and industry with practical suggestions for representatives of management.

MANUAL OF BACTERIAL PLANT DISEASES—W. J. Dowson—*Macmillan*, 183 p., illus., \$2.50. A college text giving a general account of the bacterial diseases, methods of investigation and the identification of bacterial plant pathogens.

PEBBLE IN THE SKY—Issac Asimov—*Doubleday*, 223 p., \$2.50. A science fiction novel revolving around an experiment with crude uranium.

PERSONALITY: Development and Assessment—Charles M. Harsh and H. G. Schrickel—*Ronald*, 518 p., \$5.00. A college text tracing development of personality from before birth until death.

PROCEEDINGS OF THE INDIANA ACADEMY OF SCIENCE Vol. 58—E. St. Clair Gantz, Ed.—*Indiana Academy of Science*, 297 p., illus., paper, \$3.00. Contains abstracts of papers on anthropology, bacteriology, botany, chemistry, entomology, geology and geography. Presented before the Academy May 14 and 15, 1948.

ROUTE SURVEYING—Carl F. Meyer—*International*, 300 p., illus., \$6.00. A technical reference book including basic principles, practical applications, and many useful tables.

SHRUBS OF MICHIGAN—Cecil Billington—*Cranbrook Institute of Science*, 2nd ed., Bull. No. 20, 339 p., illus., \$4.50. A detailed study of Michigan shrubs.

WHAT TEACHERS SAY ABOUT CLASS SIZE—Ells-

worth Tompkins—*Gov't. Printing Office*, Office of Education Circular No. 311, 45 p., illus., paper, 20 cents. A study of class size in relation to the teaching of English, social studies, and ninth and tenth grade mathematics in public high schools.

Science News Letter, January 28, 1950

## CHEMISTRY

### Rare Chemical, Selenium, Aiding Fundamental Studies

➤ SELENIUM, the "Mr. In-Between" of the chemical world, can be a valuable research tool in fundamental chemistry studies, according to Dr. James D. McCullough, associate professor of chemistry at the University of California at Los Angeles.

This element—rarer than uranium—is situated half way between the metals and the non-metals and displays the characteristics of both.

Although produced at the present time as a by-product of copper and sulfuric acid, selenium has little practical use except when used in small amounts in the making of photo-electric cells and rectifiers in AC-DC radio sets.

Dr. McCullough is excited about selenium because he thinks that an intensive study of its compounds may reveal information valuable to a fundamental understanding of general chemical structures.

Selenium's intermediate position in the family of elements gives it a distinct advantage in X-ray crystal structure studies. Lighter elements are more difficult to locate in molecular studies, while the heavier ones absorb the X-rays too strongly.

Elementary selenium exists in three forms, Dr. McCullough points out. Two forms of it, with a ring-like structure of eight atoms to a molecule, are red crystalline substances and in certain respects resemble sulfur. The other is in the form of a metal-like substance, the crystals of which are made up of chains of selenium atoms.

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### Embed Real Flowers In New MAGIC PLASTIC

Now create lovely things like the unusual pansy coaster shown—made by embedding real pansies in Castalite, the "Magic" liquid casting plastic. Comes crystal clear or may be colored. Produce gorgeous effects. Make jewelry, book ends, candle holders, picture frames, figurines. Embed real flowers, butterflies, coins, photos, for novel plaques, paper weights, tiles, other objects. Use only home tools.

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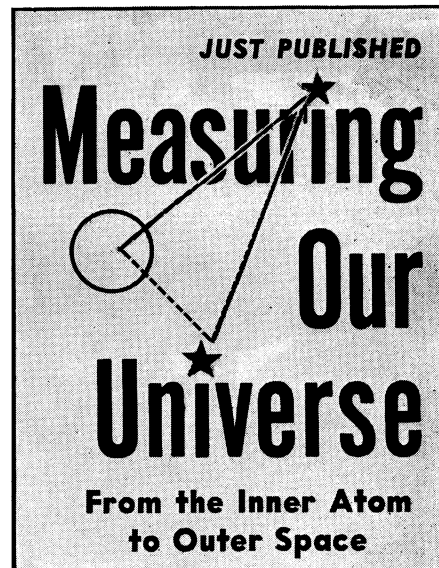
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JUST PUBLISHED

# Measuring Our Universe

From the Inner Atom  
to Outer Space



by OLIVER JUSTIN LEE

Director Emeritus, Dearborn Observatory

How do scientists measure one one-trillionth of an inch, a billion light years, the inner vastness of the atom or the vastness of outer space? A distinguished astronomer tells you in this new book what scientists know about distances, and how they know it . . . what methods they use, how relentlessly careful they are in checking results, how important accurate measurement is to their work. This is a very human story of struggle and achievement, from man's first fumbblings with measurement to the Giant of Palomar. Illustrated. \$3.00

## SKYSHOOTING

Hunting the Stars with Your Camera, by R. N. and M. L. Mayall. "A most instructive book on photographing night skies."—*Christian Science Monitor*. Finely illustrated. \$3.75

## Sunspots in Action

By Harlan T. Stetson. "Brings up to date a round-up of our knowledge of a fascinating corner of science."—*Scientific American*. Illustrated. \$3.50

## Exploring Electricity

By H. H. Skilling. "A book which anyone should read . . . a book for all whose studies take them into this field."—*The Scientific Monthly*. Ill. \$3.50

## Ways of the Weather

By the late W. J. Humphreys. "As an introduction to weather and its vagaries we know of no more comprehensive and readable book."—*N. Y. Times*. \$4.00

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