

Books of the Week

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ADULT EDUCATION ACTIVITIES OF THE PUBLIC SCHOOLS: Report of a Survey, 1947-48—Federal Security Agency: Office of Education—*Gov't Printing Office*, 21 p., illus., paper, 15 cents. This survey answers major aspects of the question: What is now going on in adult education under public school auspices?

ALLOY STEELS, CAST IRON AND NON-FERROUS METALS—F. Johnson—*Chemical Publishing Co.*, 227 p., illus., \$5.00. A technical work for those who are interested in processing steel and various alloys.

APPLIED BIOPHYSICS—N. Howard-Jones—*Chemical Publishing Company*, 293 p., illus., \$6.75. Seventeen authorities write on the origin in biology and physics of diagnostic and therapeutic procedures used in medicine and surgery.

BASIC ELECTRONICS—Royce G. Kloeffler and Maurice W. Horrell—*Wiley*, 435 p., illus., \$5.00. Fundamentals of electronics in condensed form. For the person who already has a knowledge of elementary physics.

HOUSEHOLD EQUIPMENT—Louise J. Peet and Lenore Sater Thye—*Wiley*, 3rd ed., 418 p., illus., \$5.00. The material is completely re-

worked in this reference book for homemakers, students, and home economists.

PRINCIPLES OF ORGANIC CHEMISTRY—James English, Jr. and Harold G. Cassidy—*McGraw-Hill*, 512 p., illus., \$5.00. An elementary text designed for chemistry majors taking a full year's course.

STRENGTH OF MATERIALS—Gerner A. Olsen—*Prentice-Hall*, 442 p., illus., \$5.70. A text designed chiefly for courses where calculus is not required.

THE STUDY OF ROCKS—S. J. Shand—*Murby (Macmillan)*, 2nd rev. ed., 236 p., illus., \$2.50. For the advanced student.

TITANIUM: Its Occurrence, Chemistry, and Technology—Jelks Barksdale—*Ronald*, 591 p., illus., \$10.00. A working reference volume with an ample bibliography.

A YEAR BOOK OF RAILROAD INFORMATION 1949 EDITION—*Eastern Railroad Presidents Conference Committee on Public Relations*, 96 p., illus., paper, free of charge upon request to publisher, 143 Liberty Street, New York 6, New York. A large amount of statistical data.

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heater or burner assembly. A gaseous or liquid container to the front of the tank supplies fuel to the burners. The water formed drains to the side, then to the bottom of the tank and out, if desired, to the gutter of the street.

The upper surface of the heater floor contains many upward-pointing sharp spikes. These break up lumps of snow or ice shoveled in, making melting easier. Hand shovellers are not necessarily required; modern mechanical snow loaders may be used. The recipient of the patent, number 2,481,199, was Alex Cayas, Glendale, Calif.

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The Fundamentals of College Chemistry

G. Brooks King
Professor of Chemistry
The State College of Washington

William E. Caldwell
Professor of Chemistry
and Chemical Engineering
Oregon State College

● The primary purpose of this new introductory text is to present basic facts and principles as clearly and simply as possible. For every problem the student is asked to solve, an illustrative example is provided. The modern theory of atomic structure is introduced early in order to provide a basis for the development of such fundamental concepts as valence and ionization. 544 pages \$4.00.

Electronic Mechanisms of Organic Reactions

Allan R. Day
Associate Professor of Chemistry
University of Pennsylvania

● Based on the results of investigations carried on during the past twenty-five years, this new book systematizes organic chemistry through the use of electronic mechanisms. Emphasis is placed on *why* and *how* reactions occur. Approx. 408 pages.

American Book Company

MEDICINE

Detecting Ills by Sound

➤ **HIGH-PITCHED** sound waves may be able to detect flaws in the body just as they detect flaws in metal.

Ultrasonics, sound waves pitched above the range of the human ear, is being explored for its diagnostic and treatment possibilities in studies with animals at the Mayo Foundation, Dr. Paul A. Nelson of the Foundation told the American Congress of Physical Medicine meeting in Cincinnati, Ohio. Its application to disease must wait upon the discovery of the effects of ultrasonic radiation upon the physiology of the body.

Research on dogs has revealed that the sound waves generate heat which is con-

finied to the area at which the sound waves are directed. Dogs' legs exposed for two minutes to this radiation showed a temperature rise in the bone marrow of 6.4 degrees Fahrenheit, in the bone cortex of 4.9 degrees, in the muscle of 2.6 degrees, and 1.95 degrees in the subcutaneous tissue.

Research is also being made into the effects of ultrasonics on malignant tumors in animals. Dr. Nelson said that so far no conclusions have been made as to its possibilities in this field.

However, he did point out that there is a chance that ultrasonics may be perfected so that tumors in animals and humans may be detected by this method.

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INVENTION

This Is Hot Stuff For Snow Time

➤ **WITH** winter ahead, and not too far away, an easy method of snow removal from city streets, for which a government patent was recently issued, is of interest. It uses a truck with a "melting pot" into which the snow is shoveled, to be immediately turned into water.

The melting pot is a tank or trough-like device, suspended within the truck body. Spanning the open top of the tank, a little below its sides, is a removable box-like

HOUSES OF EARTH

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