

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.

AIRPORTS FOR JETS—Major John E. Peterson—*Am. Soc. of Planning Officials*, 88 p., illus., paper, \$2.50. Basic reference on the characteristics of jet aircraft and their effects on airports and the community.

BREEDING FIELD CROPS—John Milton Pochlman—*Holt*, 427 p., illus., \$8.50. Introductory course in crop breeding and reference for the agronomist. Includes glossary and bibliographies.

BROADENING WORLDS OF SCIENCE—Willard J. Jacobson, Robert N. King and Louise E. Killie—*Am. Bk. Co.*, 468 p., illus., \$3.96. General introductory science course for young students.

CAREERS FOR MAJORS IN MATHEMATICS—Juvenal L. Angel—*World Trade*, 30 p., paper, \$1.25. Describes professions in mathematics, training, opportunities, advantages, disadvantages, employment and fellowships available.

CHILD BEHAVIOR AND DEVELOPMENT—William E. Martin and Celia Burns Stendler, foreword by Willard B. Spalding—*Harcourt*, rev ed. of *CHILD DEVELOPMENT*, 618 p., illus., \$8. Draws upon such varied sciences as biology, physiology, pediatrics, sociology, anthropology and psychology in an attempt to understand children.

EXPERIENCE AND NATURE—John Dewey—*Dover*, new ed., 443 p., \$1.85. Reprint of 2nd edition, in anticipation of this year's Dewey Centennial.

AN EXPERIMENTAL INQUIRY INTO THE PRIN-

900X "MICROBE HUNTER"

- The only Microscope in its class featuring **GRADE A** optics!
- Power Range 25X, 50X, 75X, 100X, 150X, 200X, 300X, 400X, 600X, 900X
- Full Range Fine Adjustment
- Safety Stop on Coarse Adjustment



This instrument—made to our rigid design specifications—has wide usage in schools, laboratories and law enforcement agencies. All of the most needed features have been incorporated to meet the requirements for diversified microstudies. Highly recommended for serious hobbyist desiring exceptional quality at modest cost. Power range from 25X to 900X in 12 possible combinations. Geared rack and pinion coarse focusing. Micro-motion fine focusing of full range—12 complete revolutions. Safety stop prevents over rise. 36mm dual surface (plano/concave) mirror. Fixed square stage, 70mm X 80mm. Rotating 5-hole, disc diaphragm. Three Huygenian eyepieces of 5X, 10X and 15X. Four achromatic objectives of 5X, 10X, 40X and 60X. Oversize base insures stability and protects objectives. Body tilts through 60°—perfectly balanced at any angle. Complete with upright, wooden carrying case.

F-338—List \$69.95.....Net \$39.95
(Add \$1.00 for postage and handling)

OLIVER GARFIELD CO., INC. Dept. SL-89-C
108 E. 16 ST., N. Y. 3, N. Y.

PRINCIPLES OF NUTRITION AND THE DIGESTIVE PROCESS—John R. Young, introd. essay by William C. Rose—*Univ. of Ill. Press*, 74 p., \$2.50. Facsimile of dissertation submitted in 1803 by the first American biochemist, John R. Young of Maryland.

FLUCTUATION PHENOMENA IN SEMI-CONDUCTORS—A. Van der Ziel—*Academic*, 168 p., \$6.50. A survey of the present status of the theoretical and experimental work on the fluctuation phenomena observed in semi-conductor materials and devices.

FROM EUCLID TO EDDINGTON: A Study of Conceptions of the External World—Sir Edmund Whittaker—*Dover*, new ed., 212 p., paper, \$1.35. Reprint of first edition (1947) of this history of the evolution of concepts and principles, some of which have provoked long controversies still unsettled.

HOME CARE OF THE CHILD WITH RHEUMATIC FEVER: A Guide for Parents—*Am. Heart Assn.*, 25 p., illus., paper, free upon request direct to publisher, 44 E. 23rd Street, New York 10, N. Y. For parents of youngsters for whom hospital treatment is either not advised or not available.

INDIVIDUAL CHOICE BEHAVIOR: A Theoretical Analysis—R. Duncan Luce—*Wiley*, 153 p., \$5.95. Presents a mathematical theory of choice behavior, then applies it to problems of psychophysics, utility theory and learning.

INTERNATIONAL COMMITTEE OF ELECTRO-CHEMICAL THERMODYNAMICS AND KINETICS: Proceedings of the Ninth Meeting in Paris, 1957—Marcel Pourbaix and others—*Butterworths (Canada)*, 489 p., illus., \$24. Most papers in French, a few in English discussing major science-

YOUR HAIR AND ITS CARE

By O. Levin, M.D., and H. Behrman, M.D.

Two medical specialists tell you what to do to save and beautify your hair, stimulate healthier hair growth, and deal with many problems, as:
Dandruff—gray hair—thinning hair—care of the scalp—baldness—abnormal types of hair—excessive oiliness—brittle dryness—hair falling out—infection—parasites—hair hygiene, etc., etc.
"A worthwhile book full of important information."
—*Ohio State Medical Journal*.
Price \$2.95, incl. postage. 5-Day-Money-Back Guarantee.
EMERSON BOOKS, Inc., Dept. 762-L, 251 W. 19th Street, New York 11

The Battery That's Used in Guided Missiles Now Released as Government Surplus

For Photography, Aircraft, Models, Searchlights, Radios, etc. \$1.95 ea. Postpaid Sintered-plate Nickel-Cadmium alkaline storage batteries designed for "NIKE" Missile and now surplus due to design change. A lifetime battery with no known limit of service (over 5000 recharges on test without loss of capacity). Other features: Virtually indestructible, compact & lightweight, withstands heavy shock and vibration. Flat voltage curve during discharge retains charge year or more, high discharge rate up to 50 amps. for this cell, no corrosive fumes to harm clothing or equipment, spill-proof construction, discharge in any position, indefinite storage without deterioration, operates in temperatures —60°F to +200°F. Each cell is approx. 10 ampere hour capacity. Nominal voltage per cell is 1.2 volts. (A 6 V. battery requires 5 cells.) Cell size 6" H. x 2" W. x 1/2" T. Wt. 6 oz. ea. Uses Potassium-Hydroxide (30%) electrolyte. Negligible loss during lifetime service. Add only distilled water once a year. A fraction of Government cost.

Used Test Cells.....\$1.95 ea. Postpaid
Brand New Cells.....2.95 ea.
All cells guaranteed to your satisfaction or money refunded (less postage).
ESSE RADIO COMPANY, Dept. 6J
42 W. South St. Indianapolis 25, Indiana

tific problems in primary and secondary cells; germanium and silicon crystals; and the electrolytic oxidation and reduction of chlorites.

LABOR - MANAGEMENT RELATIONS—Charles Wiedemann—*Reinhold*, 142 p., \$3.75. On the delicate problems of interpersonal relations involved in labor disputes, from the point of view of management.

MODERN ASPECTS OF ELECTROCHEMISTRY No. 2—J. O'M Bockris, Ed.—*Academic*, 416 p., illus., \$13. Covers the branch of physical chemistry concerned with the properties of electrolytes and electrified interfaces, such as ion exchange, molten electrolytes and anodic processes at electrodes.

1958 NASA/USAF SPACE PROGRESS (ABLE-1) FINAL REPORT: Vol. I. Summary—*Space Technol. Labs.*, 84 p., illus., paper, single copies free upon request direct to Technical Information Division, Code BID, NASA, Washington 25, D. C. General summary of the record of U. S. 1958 space probes.

OPTICS AND SPECTROSCOPY, Vol. VI, No. 1, Jan. 1959—*Akademiia Nauk SSSR*, transl. from Russian on initiative of The Optical Soc. of Am. by Morris D. Friedman, Inc.—*Am. Inst. of Physics*, 84 p., paper, single copies tentatively \$3, subscription available only as a unit with the *Journal of the Optical Soc. of Am.*, non-member price \$25 per year.

THE ORIGIN OF LAND FLORA: A Theory Based upon the Facts of Alternation—F. O. Bower—*Hafner Pub. Co.*, 727 p., illus., \$10. Reprint of book first published in 1908, now a classic of botanical literature.

THE PHILOSOPHY OF SPACE & TIME—Hans Reichenbach, transl. from German by Maria Reichenbach and John Freund, introd. by Rudolf Carnap—*Dover*, 295 p., paper, \$2. First English edition of this exposition of the crisis in the physical sciences and mathematics occasioned by the advent of the non-Euclidian geometries.

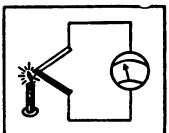
THE POWER OF SEXUAL SURRENDER—Marie N. Robinson—*Doubleday*, 263 p., \$4.50. A psychoanalyst advises women about frigidity and related problems of marriage.

PREVENTIVE MEDICINE: Principles of Prevention in the Occurrence and Progression of Disease—Herman E. Hilleboe and Granville W. Larimore, Eds.—*Saunders*, 752 p., illus., \$12. Based on lectures, seminars and articles by experts in preventive medicine and public health. Discussion ranges from potable waters and air pollution to epidemiologic methods and inferences.

PROCEEDINGS OF THE SYMPOSIUM ON MICRO-MINIATURIZATION OF ELECTRONIC ASSEMBLIES—
(Continued on p. 110)

THERMO-ELECTRONICS

Successor to thermo-electricity. Change heat to electricity DIRECTLY—no acids, liquids, chemicals, moving parts or sunlight! Build or buy a thermo-electronic battery. Mail 25¢ today for information and sample thermo-electronic alloy.



HERMON E. COTTER Dept. H. 15766 Blackstone, Detroit 23, Mich.

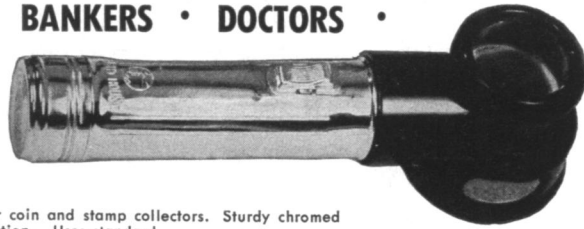
MAKE MONEY WRITING .. short paragraphs!

You don't have to be a trained author to make money writing. Hundreds now making money every day on short paragraphs. I tell you what to write, where and how to sell; and supply big list of editors who buy from beginners. Lots of small checks in a hurry bring cash that adds up quickly. No tedious study. Write to sell, right away. Send for free facts. **BENSON BARRETT**, Dept. 163H 7464 N. Clark St., Chicago 26, Ill.

Self Illuminating 5x POCKET MAGNIFIER

SCIENTISTS • BANKERS • DOCTORS • COLLECTORS

Powerful magnifier carries its own illumination. It has hundreds of uses: for examining textiles, fibers, etc.; inspecting tools and machine parts; for Lab study of insects, etc.; photo retouching; for coin and stamp collectors. Sturdy chromed steel and bakelite construction. Uses standard flashlight batteries.



- STUDY SPECIMENS
- CHECK SIGNATURES
- EXAMINE STAMPS, COINS
- INSPECT DETAILS

5X—2.95
7X—3.45
10X—3.95
Postpaid
Less Batteries

John Surrey, Ltd., 11 West 32nd St., Dept. SN-30, New York 1, N. Y.

Magnifies Small Type!

Jones, John 5A St... PE4-3219

PHONE BOOK READER DOUBLES TYPE SIZE!
Makes type "jump" out, doubling its size for clear, easy reading. Polished Lucite magnifier is unbreakable! 3" long by 1/2" across. Carry it with you! Fine gift! PPD. \$1.00

THE LIGHTHOUSE CO., Dept. MS-4, Plymouth, Mass.

AUTHORS WANTED BY N. Y. PUBLISHER

Leading publisher seeks book-length manuscripts of all types: fiction, non-fiction, poetry, scholarly and religious works, etc. New authors welcomed. Send for free booklet T8. Vantage Press, 120 W. 31 St., New York 1.

ELECTROSTATIC GENERATORS

(Van de Graaff Type)



500,000 VOLTS. This model available in kit form is over 3 feet tall and has a 15" diameter spherical charge collector. Kit includes 15" hemispheres, plastic tube, pulleys, bearings, belt, frame, and assembly directions.

\$29.80 Postpaid

200,000 VOLTS. This model (shown at left) is 17" high and has a 6 1/2" diameter spheroidal charge collector. Operates on 110 volt AC. Fully assembled, postpaid \$39.50. Kit form \$19.50. Other models to 1,000,000 V.

Vacuum Equipment. Mech. pumps for pressure range 1 Atmosphere down to 150 Microns \$32.50. Diffusion pumps for pressure from 1mm Hg. down to .01 Microns \$25.00. McLeod gauges for range 1 Micron to 1000 Microns \$11. Write for free spec. sheets. Dept. SN.

Morris & Lee, 294 Elm, Buffalo 3, N. Y.

GIANT 10 FOOTERS \$1.00



Great Fun for Kids and Adults at Beach, Playground or Water Sport. Inflate to Giant 10 ft., 33 ft. Round, with air or Gas. Flying Advt. visible for miles. Terrific for attracting crowds at Openings, Fairs, Roadside Stands, Gas Stations, Sport Events. Use as Water Markers and Buoys. Made of genuine Neoprene Rubber for extra durability. Never Used. Sold at fraction of cost. \$1 each. Add 10¢ handling cost each. 6 for \$5. Dozen \$10. Colossal 30 ft., \$5.00 each. No C.O.D.'s.

NOVEL MFG. 33 2nd Ave., Dept. G-2973 New York 3, New York

FREE CATALOGUE

Of Science Materials
For Young People, 4-16

Pre-tested age-graded equipment, kits, instruments, toys, games—selected in consultation with practicing scientists and educators. Write to:

SCIENCE MATERIALS CENTER, Dept. M-31
59 Fourth Avenue, New York 3, N. Y.



SPANISH (American or European) • FRENCH
GERMAN • ITALIAN • RUSSIAN
MODERN GREEK • JAPANESE

Any of 34 languages available at home

Only LINGUAPHONE, The World's Standard Conversational Method, brings 8 to 12 of the world's best native language teachers into your home on fine recordings.

It's like living in another land. You listen. You hear native men and women converse about up-to-date, every-day matters. You Understand. You SPEAK quickly, easily, naturally. You acquire a true accent no TEXTBOOK CAN TEACH.

Exciting Business. Travel Opportunities Here and Abroad. Linguaphone is used around the world by schools, governments, business firms. Over a million home-study students have learned another language this ideal, conversational way.

Stop Wishing—Start Talking! Send for FREE Book and Details of FREE TRIAL. Linguaphone Institute, T-31-089 Radio City, New York 20, N. Y.

MICRO-ADS

Equipment, supplies and services of special interest to scientists, science teachers and students, science-minded laymen and hobbyists. 25¢ per word, payable in advance. Closing date 3 weeks prior to publication (Saturday).

SNL, 1719 N St., N.W., Washington 6, D. C.

CHEMI-LITE

CHEMI-LITE AND WATER PRODUCES "COLD light". 10 gm. for 25c. Theodore Winkel, 607 East St., Madison, Indiana.

MICROSLIDES

MICROSLIDES: INSECTS, MARINE LIFE, Zoological, Botanical. British Fresh Water Algae. Send for complete list free. Esbe Laboratory Supplies, 459 Bloor St., W., Toronto, Ontario, Canada.

MINIATURE STEAM TURBINE

MINIATURE STEAM TURBINE. ACCURATELY machines. Efficient (2,500 rpm). Runs on heat from bunsen burner or solar reflector. \$2.00 post paid. Negravco, Box 414, Redwood City, Calif.

Books of the Week

(Continued from p. 108)

Eleanor F. Horsey and Laurence D. Shergalis, Eds.—Hayden Bk. Co., 278 p., illus., \$11. First reference volume to cover new developments and techniques in miniaturizing electronic equipment. Original material was presented at symposium sponsored by the Diamond Ordnance Fuze Laboratories in late 1958.

TECHNIQUES OF POLYMER CHARACTERIZATION—P. W. Allen, Ed.—Academic, 256 p., illus., \$9.50. Designed primarily for the graduate chemist who knows the theory but lacks practical experience in handling and performing measurements on polymeric substances. Bibliographies included.

Science News Letter, August 15, 1959

Questions

BIOLOGY—What is one factor generally neglected by scientists, which can affect the rate of photosynthesis in a plant? p. 104.

CARTOGRAPHY—What are the territorial sea limits of the United States? p. 102.

METROLOGY—About how many different weights and measures are in general current use in the United States at the present time? p. 106.

PHYSIOLOGY—What is one difference between experimental pain and natural pain? p. 100.

Photographs: Cover and p. 98, U. S. Army; p. 99, Columbia University; p. 101, A. Scholes; p. 102, International Business Machines Corp.; p. 103, Lockheed Missiles and Space Division; p. 106, National Bureau of Standards; p. 112, E. I. duPont.

Do You Know

Out of 42 stars within 16 light years of the earth, only three have a fair chance of possessing planets with some form of life.

Seventy-five percent of all American families own automobiles, and 13% have two or more.

Paint that does not drip is made with chemicals from soybean oil.

The human brain houses more than ten billion cells.

India is the world's largest producer of peanuts.

The U. S. at present spends approximately \$15 billion a year on formal education.

Iodine was first isolated from burnt seaweed in 1811.

A man can work, continuously, at the rate of about 1/12 horsepower.

Three times as much citrus fruit is being eaten today in the U.S. as 30 years ago.

American families boosted their total life insurance ownership of all types to some \$550 billion on 124,000,000 individual policyholders in 1958, an all-time record.