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.

Atomic Radiation in the High School Science Class — Joe W. Tyson — Oldfriends' Books, 87 p., paper, \$1.65. Compilation of materials from many sources for inclusion in high school studies. Experiments suggested are "no more dangerous than those of the chemistry laboratory.

THE BIRD LIFE OF GREAT SALT LAKE-William H. Behle—Univ. of Utah Press, 203 p., illus., \$4.50. The life history, ecology and population trends of the California gulls, white elicans, double-crested cormorants and great blue herons.

CAREER 1959: For the Experienced Engineer and Scientist—William H. Ottley, Ed.—Careers Inc., 96 p., illus., paper, \$1.95. Leading national employers highlight their job opportunities for experienced men.

THE CELL: Biochemistry, Physiology, Morphology, Vol. I—Jean Brachet and Alfred E. Mirsky, Eds.—Academic, 816 p., illus., \$22. Comprehensive treatise on the cell, written by specialists for biologists.

CHANGING THE FACE OF NORTH AMERICA: The Challenge of the St. Lawrence Seaway-Patricia Lauber—Coward-McCann, 96 p., illus., \$2.50. The facts about a great technical enterprise, told for young people.

Comparative Anatomy—William Montagna
—Wiley, 397 p., illus., \$6. Introductory textbook covering comparative anatomy, organogenesis and embryology.

> it's easy to learn all about

DIGITAL COMPUTERS

THE RIDER 'PICTURE-BOOK' WAY BASICS OF DIGITAL COMPUTERS

by John S. Murphy

New 3 volume 'picture-book' training course

New 3 volume 'picture-book' training course
Here is the easiest, quickest, most economical
way of learning all about the exciting new
field of digital computers. If you have a
knowledge of the fundamentals of electronics,
you can master the basics of digital computers and understand the details of any
specific digital computer with this new 3
volume 'picture-book' course. Written by an
expert in the computer field, text matter has
been tested and proven in the training of
computer field engineers and technicians.
More than 350 illustrations support the text.
Volume I covers the background of com-Volume I covers the background of computers; Volume II, the components and units; Volume III, the operation of the computer. Basics of Digital Computers is ideal for trainhasics of Digital Computers is ideal for training of programming personnel, maintenance men, for introductory training of engineering and technical personnel, for engineering students and for others who wish to broaden their knowledge of this new field. #196, 3 vols., soft covers, set \$7.50

#196-H, cloth bound, all 3 vols.. \$8.50
Now available at book stores or order direct.

10 day unc	onditional money-back guarantee
	John F. Rider Publisher, Inc. SN-5 116 West 14 St., N. Y. 11, N. Y.
	I enclose \$ Please send
—В	sasics of Digital Computers (soft
cover set	37.50Cloth bound edition \$8.50
Name	
Address.	
City	ZoneState

Add city and state taxes where applicable Canadian prices 5% higher.

COVERED WAGON GEOLOGIST — Charles N. Gould—Univ. of Okla. Press, 282 p., illus., \$4. Autobiography from manuscript of the late geologist whose professional career spanned almost sixty years of pioneering accomplishments in the geology and paleontology of the Southwest.

THE DISCOVERER OF INSULIN: Dr. Frederick G. Banting-I. E. Levine-Messner, 192 p., \$2.95. Biography for young people.

DISCOVERING MEANINGS IN ARITHMETIC-Foster E. Grossnickle and Leo J. Brueckner—Winston, 442 p.. illus., \$5.32. Basic ideas and methods for presenting processes in arithmetic so that they make sense to the grade school pupil.

EDUCATION AND MILITARY LEADERSHIP: A Study of the R.O.T.C.—Gene M. Lyons and John W. Masland, foreword by John Sloan Dickey—Princeton Univ. Press, 283 p., \$5. Reevaluation of the Reserve Officer Training Corps program.

ELECTRICAL SAFETY-H. W. Swann-Philosophical Lib., 292 p., illus., \$15. Attempt at comprehensive survey of electrical safety in British factories, homes, hospitals and public buildings.

ELECTRONIC CIRCUIT THEORY: Devices, Models, and Circuits—Henry J. Zimmermann and Samuel J. Mason—Wiley, 564 p., \$10.75. Deals primarily with methods of analysis of electronic

ELEMENTS OF RADIO—Abraham Marcus and William Marcus-Prentice-Hall, 4th ed., 667 p., illus., \$7. Designed for a one-year course.

ESSENTIALS OF CHEMISTRY-Alfred Benjamin Garrett, Joseph Fredric Haskins and Harry Hall Sisler—Ginn, 2nd ed., 606 p., illus., \$7. High school textbook.

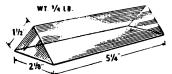
THE EVOLUTION OF NORTH AMERICA—Philip B. King—Princeton Univ. Press, 190 p., illus., map, \$7.50. Treats geological evolution by selected regions which illustrate significant stages in that evolution.

FALLACIES IN MATHEMATICS—E. A. Maxwell —Cambridge Univ. Press, 95 p., \$2.95. Aim of book is to instruct through entertainment, on

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.

PRISMS \$1.50



Made for U. S. govt. for tank periscopes. Fine optically ground, big precision prisms with silvered base. Terrific for all types of spectrographic work, in homemade telescopes & other optical systems for bending rays. Makes unusual paper weight (paint your name on it) or conversation piece for mantel. You'll find many other uses. NEW. PERFECT! Cost U. S. govt. \$25 ea. NOW—\$1.50 ea. ppd. or 4 for \$5.00. Same as above—1" long (no silver backing) \$1 ea. 5 for \$4. Postage paid on prepaid orders. Calif. res. add sales tax. Volume Sales Co., War Assets Div., Dept. L59 3930 Sunset Blvd. Los Angeles 29, Calif.

the theory that a wrong idea may often be exposed more convincingly by following it to its absurd conclusion.

THE GLOBAL ATLAS: A New View of the World from Space—Frank Debenham, introd. by Bertrand Russell—Simon & Schuster, 98 p., 200 maps & illus. in color, \$5.95. History of map-making including latest instruments used, with shadow-relief maps showing the elevations and curvature of the earth's regions.

HEARING: A Handbook for Laymen-Norton Canfield—Doubleday, 214 p., \$3.50. Physician discusses in detail the medical, psychological and social problems of those afflicted by hearing handicap.

HELPING CHILDREN UNDERSTAND SCIENCE-Kenneth Freeman and others-Winston, 214 p., illus., \$3.60. Teaching aid for developing science instruction in the elementary schools.

HISTORY OF AMERICAN MEDICINE: A Symposium—Felix Marti-Ibanez, Ed.—MD Pub., 181 p., paper, \$4. Thoroughly documented survey of the development of American medical research, teaching, practice and trends.

INDUSTRIAL FATTY ACIDS AND THEIR APPLI-CATIONS-E. Scott Pattison, Ed.-Reinhold, 230 p., illus., \$7. Covers the production and processing of fatty acids with emphasis on practical technology and the chemistry involved.

THE KANSAS DOCTOR: A Century of Pioneering—Thomas Neville Bonner—Univ. of Kansas Press, 334 p., illus., \$5. Entertaining history of Kansas physicians from frontier days to famous contemporaries such as the Menninger brothers.

A LABORATORY MANUAL OF COMPARATIVE AN-ATOMY—William Montagna and Walter Kenworthy—Wiley, 103 p., paper, \$2.50.

THE LIFE AND LETTERS OF CHARLES DARWIN: Including an Autobiographical Chapter, Vols. I and II — Francis Darwin, Ed., foreword by George Gaylord Simpson—Basic Bks., 1120 p., illus., 2 vols. boxed \$10. Anniversary issue of the classic biography edited by Darwin's son.

Louis Pasteur: Fighting Hero of Science—Madeleine P. Grant—Whittlesey House, 220 p., illus., \$3.25. Scientist-author retraces Pasteur's life and work, based on her inquiries in France. Biography for young people.

-Amabel Wil-MAN AND THE GOOD EARTHliams-Ellis—Putnam, 64 p., illus. by Robert Eggers, \$2. Explains conservation to children.

THE MEASUREMENT OF VALUES-L. L. Thurstone—Univ. of Chicago Press, 322 p., \$7.50. Twenty-seven papers by the late author, renowned for his application of precise mathematical measurement techniques to the behavioral sciences.

NATURAL SELECTION AND HEREDITY—P. M. Sheppard—Philosophical Lib., 212 p., illus., \$6. Treats in detail selected subjects which illustrate important principles, such as polymorphism, polygenic inheritance and selection, evolution of dominance and others.

NRL PARTICIPATION IN THE CSAGI ROCKET AND SATELLITE CONFERENCE, Sept. 30-Oct. 5, 1957—Vanguard staff, John P. Hagen and others—U. S. Naval Res. Lab (Off. of Tech. Serv.). 125 p., illus., \$2.75. Papers on rocket vehicles, satellites and their development and instrumentation.

PROCEEDINGS OF THE FIFTH ANNUAL COM-PUTER APPLICATIONS SYMPOSIUM—R. A. Byerly and others—Armour Research Foundation, 153 p., illus., paper, \$3. Discussion of applications of computer technology from the standpoint of the user.

PSYCHOLOGICAL PROBLEMS IN MENTAL DEFI-CIENCY—Seymour B. Sarasan, part II by Seymour B. Sarasan and Thomas Gladwin—Harper, 3rd ed., 678 p., \$6.50. New edition supplemented by the genetic psychology monograph

(Continued on page 302)

ADJUSTABLE "BACK-AID" CAR SEAT

An Entirely New Innovation in Driving Comfort

Now for the first time you can sit in regulated comfort.

Three way adjustable Mark-Fore Car Seat gives you:

1—A firm underseating.

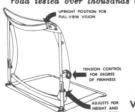
2—A firm tensil back rest.

3—Individual adjustment for height, degree of "push" and angle of tilt.

4—Keeps you alert and refreshed for long distance driving.

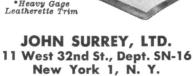
driving.
The result of more than 2 years of research and development in cooperation with orthopedic specialists and road tested over thousands of miles.

*Fiberg



OUR PRICE **\$12**.95 Postpaid

\$13.95 West of the Mississippi Comparable Value \$23.95 *Fiberglas Mesh Seat and Back (Prevents Sweating) *Special Alloy Steel Frame *Heavy Gage Leatherette Trim



NEW MARK-FORE

3-WAY ADJUSTABLE

BACK-AIDE

FOR MILES OF

CAREFREE DRIVING

Make over 150 Small Computing and Reasoning Machines with . . .

BETTER ELECTRIC BRAIN CONSTRUCTION KIT

EQUALS THE ORIGINAL GENIAC® electric brain construction kit (1955) PLUS many improvements and additions: over 600 parts -including 116 improved patented wipers so that all switches work well. Instead of covering only 33 machines, BRAINAC gives full specifications for 151 computing, reasoning, arithmetical, logical, puzzle-solving and gameplaying machines . . all 33 GENIACS (1955), 13 TYNIACS (1956), and 105 BRAINACS (1957-58), etc.

THIS IS BRAINIAC! With our Brainiac Kit K

17, you can build over 150 small electric brain machines and toys which "think," compute, reason, and display intelligent behavior. Each one works on a single flashlight battery...is FUN to make, FUN to use and play with, and TEACHES you something new about electrical computing and reasoning circuits. All connections with nuts and bolts—no soldering required. Originated and produced exclusively by Berkeley Enterprises, Brainiac is the result of 8 years' design and development work with miniature mechanical brains including: Geniac (see "Geniacs: Small Electric Brain Machines and How to Make Them" by Edmund C. Berkeley, 64 pp., published by Geniac Project, a partnership with Oliver Garfield discontinued September 1955), Tyniac (1956), Relay Moe (automatic relay machine playing tit-tat-toe—pictured in Life Magazine, March 19, 1956), Simon (miniature automatic digital computer with 129 relays—see "Simple Simon" by E. C. Berkeley in Scientific American, November, 1950), Squee (electronic chet equipment of the second property of th robot squirrel—see "Light Sensitive Electronic Beast" by E. C. Berkeley in Radio Electronics, Dec. 1951), etc.



WHAT CAN YOU MAKE WITH BRAINIAC KIT K17? Over 150 machines including - Logic MACHINES: Syllogism Prover, Intelligence Test, Boolean Algebra Circuits, Douglas Mac-Donald's Will Analyzer. A Simple Kalin-Burkhart Logical Truth Calculator, etc. GAME-PLAYING MACHINES: Tit-Tat-Toe, Nim. Wheeled Bandit, Black Match, Sundorra 21, etc. Computers: To add, subtract, multiply or divide using decimal or binary numbers. Forty-Year Calendar, Prime Number Indicator, Money-Changing Machine, etc. CRYP-TOGRAPHIC MACHINES: Coders, Decoders, Lock with 15,000,000 Combinations, etc. Puz-ZLE-SOLVING MACHINES: The Missionaries and the Cannibals, Age-Guessing Machine, Submarine Rescue Chamber, Daisy Petal Machine, Fox-Hen-Corn & Hired Man, Uranium Space Ship and the Space Pirates, The Three Monkeys Who Spurned Evil, General Alarm at the Fortress of Dreadeerie, etc. Quiz Ma-CHINES: History, geography, trigonometry, grammar, statistics, calculus, etc.

grammar, statistics, calculus, etc.

WHO IS EDMUND C. BERKELEY?
Author of "Giant Brains or Machines That Think," Wiley 1949, 270 pp. (15,000 copies sold); Author of "Computers: Their Operation and Applications." Reinhold, 1956, 366 pp.; Editor & Publisher of the magazine, Computers and Automation; Maker and Developer of small robots; Fellow of the Society of Actuaries; Secretary (1947-53) of the Association for Computing Machinery; Designer of all the Tyniacs and Brainacs, more than half of the 33 Geniacs (1955); Designer of the patented Multiple Switch Disc and other features in the 1955 Geniac kit.

MAIL THIS COUPON

WHAT COMES WITH YOUR BRAINIAC KIT Complete Plans, Instructions, Explanations & Hardware:

- Every part needed to build Geniacs, Tyniacs, Brainacs—over 600 pieces including control panel, multiple switch discs, jumpers, improved wipers, bulbs, sockets, washers, wire, battery and spe-
- Complete description of 151 experiments and machines.
- Over 160 circuit diagrams including 46 exact wiring templates.
- Manual "Tyniacs: Small Electric Brain Machines and How to Make Them" by Edmund C. Berkeley, 1956, 48 pages—includes Introduction to Boolean Algebra for Designing Circuits.
- "How to Go From Brainiacs and Geniacs to Automatic Computers" by Edmund C. Berkeley.

only \$1795 . . . why pay more?

BRAINIAC KIT (1958 Model) K17 . . . the kit with limitless possibilities—backed by an organization of 10 years standing in the computer field \$17.95 (For shipment west of Mississippi, add 80¢: outside U. S. add \$1.80)

7-Day Full Refund Guarantee If Not Satisfactory

BERKELEY ENTERPRISES, INC.

Please send me Brainiac Kit K 17. (Returnable in 7 days for full refund if not satisfactory—if in good condition.) I enclose

1. In full payment.

My Name and Address are attached

Books of the Week

(Continued from page 300)

"Psychological and Cultural Problems in Mental Subnormality.

THE PSYCHOLOGY OF AFFILIATION: Experimental Studies of the Sources of Gregariousness -Stanley Schachter—Stanford Univ. Press, 141 p., \$3.75. One of the first systematic investigations into the sources of man's desire to be with others.

RADIOISOTOPES IN THE SERVICE OF MAN—Fernand Lot—UNESCO (UNESCO Publications Center, N. Y.), 82 p., illus., paper, \$1. On the applications of the new artificial radioactive elements in industry, therapeutics, insect pest control, study of meteorites and other fields.

THE RIDDLE OF THE SCROLLS—H. E. Del Medico, transl. from French by H. Garner— McBride, R. M. Co., 432 p., illus., \$4.95. Discusses the problems of the date, authorship, authenticity, purpose and meaning of the Dead

RIVER WORLD: Wildlife of the Mississippi-Virginia S. Eifert—Dodd, 271 p., illus. by author, \$4. From the ice of Lake Itasca in Minnesota we follow the author to the bayous of Louisiana, learning about plants, birds, fish and insects along the river.

SOLID STATE MAGNETIC AND DIELECTRIC DEvices-H. W. Katz, Ed.-Wiley, 542 p., illus., \$13.50. Textbook about the theory and application of solid state devices and components, exclusive of the transistor.

THE UPPER ATMOSPHERE-H. S. W. Massey and R. L. F. Boyd-Philosophical Lib., 333 p., illus., \$17.50. Detailed accounts of phenomena such as radio fadeout, night airglow auroras, meteors, cosmic rays and currents responsible for magnetic variations. For students and for scientists in other fields.

URBAN SPRAWL AND HEALTH: Report of the 1958 National Health Forum—Luther H. Gulick and others-National Health Council, 228 p., paper, \$1.75. Discussions by leaders in city planning, public administration and health.

Wonders of the World—Leonard Cottrell— Rinehart, 249 p., illus., \$4.50. From the technical wonders of the ancient world, to such feats of engineering as the Empire State Building, the Golden Gate Bridge, and the radio telescope at Jodrell Bank, England.

THE WORLD OF THE MICROSCOPE-L. J. Ludovici-Putnam, 128 p., illus. by Jerry Robinson, \$2.95. Tells young readers of man's important discoveries about beneficial and deadly microbes. Science News Letter, May 9, 1959

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.

MICROSLIDES

MICROSLIDES: INSECTS, MARINE LIFE, Zo-ological, Botanical, British Fresh Water Algae, Send for Complete list Free. Esbe Laboratory Sup-plies. 459 Bloor St., W. Toronto, Ontario, Canada.

POSITION WANTED

EXPERIENCED COLLEGE PUBLIC RELATIONS man; writer-photographer; recognized byline, translating science to interesting feature stories; details on request. Box 97, Marble Falls, Texas.

SALESMEN WANTED

SALESMEN! PART TIME OR SEMI RETIRED BUT WANT TO KEEP ACTIVE? Earn up to \$10,000 yearly selling shelving—parts bins—shop equipment. Write, BFC Corporation, 2905E, Hedley, Philadelphia 17, Pa.