

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.

AMERICANS VIEW THEIR MENTAL HEALTH: A Nationwide Interview Survey—Gerald Gurin, Joseph Veroff and Sheila Feld—*Basic Bks.*, 444 p., \$7.50. Combining the insights of social psychology and the methods of opinion research, this study analyzes in depth the fears, tensions and anxieties which today beset the "average," "normal" adult in our society.

BASIC PRINCIPLES OF NUCLEAR SCIENCE AND REACTORS—Alan M. Jacobs, Donald E. Kline and Forrest J. Remick—*Van Nostrand*, 262 p., illus., \$6.50. Develops qualitatively the basic theory of fission chain reactions, then applies these qualitative concepts to an analysis of existing systems.

BEYOND THE WELFARE STATE: Economic Planning and Its International Implications—Gunnar Myrdal—*Yale Univ. Press*, 287 p., \$4.50. Concerned with the trend towards economic planning in the rich and progressive Western countries and with the international implications of this trend.

BLUE-WATER BOUNDARY: Epic Highway of the Great Lakes and the Saint Lawrence—Alida Malkus—*Hastings House*, 308 p., photographs, \$6.50. History and development of a region.

BRINGING UP CHILDREN—Grace Langdon and Irving W. Stout—*Day*, 295 p., \$4.50. Guide to child-rearing, from infancy through the teens, based on studies of the experiences of successful parents.

A CONCISE DICTIONARY OF EXISTENTIALISM—Ralph B. Winn—*Philosophical Lib.*, 122 p., \$3.75. Existential terminology with quotes from Kierkegaard, Jaspers, Marcel, Heidegger, Sartre and de Beauvoir.

ELEMENTARY PHYSIOLOGY: A Laboratory Guide—Oscar E. Tauber, Robert E. Haupt and Delma E. Harding—*Macmillan*, 190 p., illus., paper, \$3.50. Collection of elementary laboratory exercises.

ENGINEERING MECHANICS: Dynamics—Irving

H. Shames—*Prentice-Hall*, 636 p., illus., \$6.75. Deals thoroughly with vector treatment, providing background for advanced studies in space mechanics.

THE EXPLORATION OF SPACE—Robert Jastrow, Ed.—*Macmillan*, 160 p., illus., \$5.50. Symposium on Space Science, 1959, contains papers by Whipple, Van Allen, Christofilos, Urey and other experts.

EXPLORATORY ELECTRICITY—Joseph P. Arnold and Kenneth L. Schank—*McKnight*, 104 p., illus., paper, \$1.25. Text-notebook for a 12-week course in junior high school.

FROM ATOMS TO STARS: An Introduction to the Physical Sciences—Theodore Askounes Ashford—*Holt, Rinehart & Winston*, 645 p., illus., \$8.50. General education course intended to give student understanding of the physical world as conceived by the scientists of our time.

A FRUIT IS BORN—J. M. Guilcher and R. H. Noailles—*Sterling*, 111 p., 137 photographs, \$2.50. Shows youngsters in words and magnificent photographs the transformation from flower to fruit.

FUNDAMENTALS OF SEMICONDUCTORS—M. G. Scroggie—*Gernsback*, 160 p., illus., paper, \$2.95. For the electronic technician.

GEOLOGY OF THE INDUSTRIAL ROCKS AND MINERALS—Robert L. Bates—*Harper*, 441 p., illus., \$10. Treats the non-metals on a geological rather than a technological basis, with emphasis on occurrence, origin and interrelations.

HIGH-ENERGY ELECTRON SCATTERING TABLES—Robert Herman and Robert Hofstadter—*Stanford Univ. Press*, 278 p., \$8.50. For investigators interested in carrying out experiments and calculations in high-energy electron physics.

THE HOME ENCYCLOPEDIA OF MODERN SURGERY—James Hale Rutledge—*Chilton Co.*, 308 p., illus. by author, \$12.50. Source of information for the patient, explaining processes of disease leading to surgery, preoperative and postoperative phases, anesthesia, and medical terms regarding each particular body system.

JOURNAL OF EXISTENTIAL PSYCHIATRY, Vol I, No. 1—Jordan M. Scher, Ed.—*Libra Publishers*, 155 p., paper, quarterly, \$8 per year. Articles and discussions by authors in many professional fields, attempting to understand man as a growing, creative agent, in the here and now.

KERES' BEST GAMES OF CHESS, 1931-1948—Fred Reinfeld, Ed.—*Dover*, 250 p., illus., paper, \$1.35. Reprint of 1941 edition.

THE KREMLIN AND WORLD POLITICS: Studies

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in Soviet Policy and Action—Philip E. Mosely—*Vintage Bks.*, 567 p., paper, \$1.65. Original collection of essays by former director of the Russian Institute at Columbia University.

LITHOFACIES MAPS: An Atlas of the United States and Southern Canada—L. L. Sloss, E. C. Dapples and W. C. Krumbein—*Wiley*, 108 p., illus., paper, \$5.50. Reconnaissance type maps derived from a course in regional stratigraphic analysis.

MAN HIGH—Lt. Col. David G. Simons with Don A. Schanche—*Doubleday*, 262 p., \$4.50. Space scientist's personal account of his record-breaking balloon flight to 102,000 feet.

MEET THE SOUTHWEST DESERTS—Philip Welles—*Dale Stuart King*, 82 p., 106 photographs by Marvin H. Frost, \$2.25; paper, \$1. Introduction to plants and wildlife of the low, hot deserts below 4,500 feet in elevation.

METALLIZING OF PLASTICS—Harold Narcus—*Reinhold*, 208 p., illus., \$5.50. Deals with production procedures and techniques for all known metallizing methods.

MOLECULAR STRUCTURE: The Physical Approach—J. C. D. Brand and J. C. Speakman—*Arnold, E. & Co. (St. Martins)*, 300 p., illus., \$8. General account of the application of physical methods to the analysis of molecular structure, for students majoring in physical chemistry or for research workers in other branches of chemistry.

THE NATURE OF SCIENCE AND OTHER ESSAYS—David Greenwood, foreword by Rosgyll Ayres—*Philosophical Lib.*, 95 p., \$3.75. Deals with some of the most controversial areas in the philosophy of science.

NUTRITIONAL EVALUATION OF FOOD PROCESSING—Robert S. Harris and Harry von Loesbeck, Eds.—*Wiley*, 612 p., \$12. Experts discuss and evaluate the nutritional effects of the processing of foods, and indicate how certain procedures may be altered to minimize losses in nutritional values.

ONE HUNDRED SELECTED GAMES—M. M. Botvinnik, transl. from Russian by Stephen Garry—*Dover*, 272 p., illus., paper, \$1.50. Reprint includes world champion's article on the Russian and Soviet school of chess.

ORDINARY DIFFERENTIAL EQUATIONS AND THEIR SOLUTIONS—George M. Murphy—*Van Nostrand*, 451 p., \$8.50. Reference work on methods for solving ordinary differential equations, with tabulation of some 2,000 differential equations and their solutions.

ORGANIC CHEMISTRY—Allan R. Day and Madeleine M. Joullie—*Van Nostrand*, 864 p., \$9.50. Introductory text for intensive course for chemistry majors.

PHYSICS CALCULATIONS—George I. Sackheim—*Macmillan*, 267 p., \$3.50. For use in the average course in beginning physics.

RAILROADS IN THE DAYS OF STEAM—Albert L. McCready with Lawrence W. Sagle—*American Heritage (Golden Press)*, 153 p., 170 illus., \$3.50. Pictorial history of the great period of railroad building in America.

RESCUE FROM THE AIR—Michael Gibson—*Abelard-Schuman*, 159 p., illus. by Gordon Davies, photographs, \$3. Presents the work of the world-wide American Air Rescue Service and the British Search and Rescue organization.

ROCKETSHIP X-15: A Bold New Step in Aviation—Myron B. Gubitz—*Messner*, 288 p., photographs, \$4.95. Story of our most advanced experimental aircraft, for young people.

SCIENTIFIC PAPERS AND DISCUSSIONS: Detroit Divisional Meeting, 1959—Jaques S. Gottlieb and Garfield Tourney, Eds.—*Am. Psychiatric Assn.*, 328 p., paper, \$3. Reports on research in psychotherapy, psychosomatic and psychopharmacologic studies, research in schizophrenia, and space age psychiatry.

STATICS OF SOIL MEDIA—V. V. Sokolovski,

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transl. from Russian by D. H. Jones and A. N. Schofield — *Butterworths (Canada)*, 237 p., \$10.50. On the theory of critical equilibrium and theoretical research in problems of plastic failure.

THERMOELECTRICITY: A Report for Business—Donald Bobo and others—*Thermoelectric Associates*, 126 p., illus., paper, first copy \$35; each additional \$10. Summary of technology and its applications, by group of graduate students of the Harvard Business School.

USING WAYSIDE PLANTS—Nelson Coon—*Hearthsides Press*, 3rd rev. ed., 254 p., illus., \$3.95. How to identify and use wild plants for food, medicine and nature craft.

WELCOME THE BIRDS—Esme Stewart—*Hurst (Sportshelf)*, 107 p., photographs, \$4.25. Author's experiences with birds and taking care of their needs.

YOUR SCIENCE WORLD—Arthur O. Baker, Grace C. Maddux and Helen B. Warrin—*Rand McNally*, 256 p., illus., \$2.80. Sixth grade science. *Science News Letter*, June 11, 1960

Do You Know

Glass does not have a definite melting point and chemists define it as a super-cooled liquid.

Coal derivatives are used in the preparation of medicines, such as aspirin, sulfa drugs, anesthetics and antipretics.

AGRICULTURE

Push-Button Feeding Given Illinois Poultry

A COMPLETELY automatic poultry feed conveyor system has successfully passed tests in Illinois, the U. S. Department of Agriculture reports.

Operated by electric controls, the unit automatically blends, grinds, conveys, and distributes feed and maintains a constant supply in the poultry houses.

Warren T. Frye's farm in Peoria County, Ill., was used by the USDA's Agricultural Research Service at the Urbana, Ill., Experiment Station for demonstration of the pneumatic conveyor adapted and designed by Hoyle B. Puckett, a USDA engineer.

Approximately 700 tons of feed have been put through the conveyor system in the past year.

Three-way pinch valves designed by Mr. Puckett are located at several places along the pipeline to insure the success of the system.

The valves consist of metal tubes fitted with collapsible rubber inner liners, operating on a principle similar to that of a milking machine cup and liner. Compressed air is injected between the tubes and liners, forcing the liners to collapse and divert the feed to another outlet.

Science News Letter, June 11, 1960

INVENTORS NEEDED AT ONCE

If you have an invention you wish to sell outright or license on royalty, write us at once. We are seeking inventions of household items, games, toys, sports items, tools, and mechanical and technical devices. Patented or unpatented. For further information and free brochure outlining manufacturers' requirements, royalty rates, send name (no drawings, please) on letter or postcard at once.

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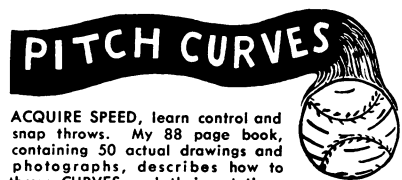
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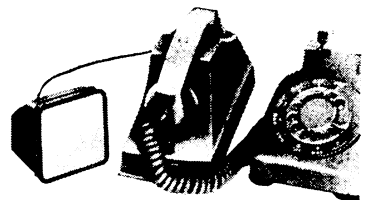
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