books of the week

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ADVANCED LINEAR-PROGRAMMING COM-PUTING TECHNIQUES—William Orchard-Hays—McGraw-Hill, 1968, 355 p., \$12.50. Presents the complete range of algebra and logic involved in simplex techniques applied to linear models.

ANALYTIC FUNCTIONS OF A COMPLEX VARIABLE—David Raymond Curtiss—Dover, 1967, 173 p., diagrams, paper, \$1.75. Unabridged republication of 1926 work presenting fundamental principles with ample proofs and discussion.

B. F. SKINNER: The Man and His Ideas—Richard I. Evans—Dutton, 1968, 140 p., \$4.50. A dialogue in which the psychologist reveals his thinking on such topics as teaching machines, psychology in the Soviet Union, and his theory psychology in the Soviet of positive reinforcement.

DANIEL HALE WILLIAMS: Negro Surgeon—Helen Buckler—Pitman Pub. Co., 1968, 2nd ed., 381 p., \$6.95. Annotated biography of the surgeon who is credited with the first successful operation on the human heart.

THE DIGITAL DIFFERENTIAL ANALYSER—T. R. H. Sizer, Ed.—Chapman & Hall (Barnes & Noble), 1968, 201 p., diagrams, \$7.25. Reexamines the potentialities of the d.d.a., the principles of the incremental computer, programming, error analysis, and applications to aircraft control and airborne navigation.

ELEPHANTS: Ancient and Modern—F. C. Sillar and R. M. Meyler—Viking Press, 1968, 255 p., 79 plates, drawings, \$12.95. A handsome gift book on the elephant in art and legend.

EXPERIMENTS IN PHYSICAL SCIENCE—Allen D. Weaver and James F. Glenn—Brown, Wm. C., 1968, 2nd ed., 286 p., illus, paper, \$4.95. Revised edition includes new experiments in force and motion, radioactivity, fluorescence, landforms and certain aspects of quantitative chemistry.

EXTENDED YOUTH: The Promise of Gerontology—Robert W. Prehoda, foreword by John H. Northrop—Putnam, 1968, 256 p., diagrams, \$5.95. Analyzes the major theories that explain the processes of senescence, and brings together information on what may be expected from science in the extension of the life span.

1976: AGENDA FOR TOMORROW—Stewart L. Udall, introd. by John W. Gardner—Harcourt, 1968, 173 p., \$3.75. Taking as a valid promise the humane society implicit in the promise of 1776, the Secretary of the Interior discusses how to cope with the social problems, the environmental deterioration and other challenges.

THE NUMBER SYSTEM—H. A. Thurston—Dover, 1967, 134 p., paper, \$1.50. Reprint (1956), explains the underlying concepts of arithmetic and gives an understanding of their logical development.

OFFICE HOURS: Day and Night—Janet Travell—World Pub. Co., 1968, 496 p., photographs, \$7.95. Autobiography of a woman who successfully combined a career in medicine with marriage and motherhood, who became widely known for her treatment of chronic pain, and as President Kennedy's physician in the White House.

ORTHOPSYCHIATRY AND THE LAW: A Symposium—Morton Levitt and Ben Rubenstein, Eds.—Wayne State Univ. Press, 1968, 255 p., paper, \$4.95. Papers by lawyers, psychiatrists, psychologists and social workers, discussing the relation of the emotional life of the individual to his fate in society and the law courts.

PERSPECTIVES IN ECOLOGICAL THEORY—Ramon Margalef—Univ. of Chicago Press, 1968, 111 p., diagrams, \$4.50. Study discusses ecological theory in relation to cybernetics and systems theory, choosing examples from the field of aquatica cranities. tic organisms.

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PHYSICAL PROPERTIES OF MOLECULAR CRYSTALS, LIQUIDS AND GLASSES—A. Bondi—Wiley, 1968, 502 p., diagrams, \$18.50. Presents thermal equilibrium properties, elastic moduli, thermal conductivity and molecular diffusion related properties of molecular solids, and the corresponding properties of liquids, in generalized coordinates.

THE PHYSIOLOGY OF SENSE ORGANS—De-Forest Mellon, Jr.—Freeman, 1968, 107 p., illus., \$4. Deals with principles of stimulus coding, the depolarizing nature of the trigger, the control of impulse frequency, and other aspects of monitor-ing the electrical activity of peripheral nerves.

PLANT AND ANIMAL GEOGRAPHY—Marion Newbigin—Methuen (Barnes & Noble), 298 p., illus., maps, \$5.75; paper, \$3. Reprint (1936), views the world of life in nature in its cumulative interactions, modifying not only the structure and functions of individual plants and animals, but also associations of living things in the various regions of a changing world.

THE POLITICS OF SPACE COOPERATION— Don E. Kash—Purdue Univ. Press. 1967, 137 p., \$4.95. A study of the foreign policy implications of U.S. participation in international space pro-

PRINCIPLES OF STELLAR EVOLUTION AND NUCLEOSYNTHESIS—Donald D. Clayton—McGraw-Hill, 1968, 612 p., illus., \$22.50. Presents the basic physical principles in the evolution of the stars and in the thermonuclear production of new elements in the stars. This text in nuclear astrophysics presents the thermodynamic and atomic principles which govern the subject.

RADIATION BIOLOGY—Alison P. Prentice-Hall, 1968, 368 p., illus, \$9.25, Prepared under the direction of AIBS for the U.S. Atomic Energy Commission, the book covers the effects of ionizing radiation in biological systems at the molecular, cellular, organ, organism, and community levels.

RECOGNIZING FLOWERING WILD PLANTS
—William Carey Grimm—Stackpole Bks., 1968,
348 p., 700 drawings by author, \$7.95. Non-technical reference for quick roadside identification,
gives precise description of more than 900 species,
their habitat, range and blooming time.

REVOLUTION IN OPTICS—S. Tolansky—Penguin Bks., 1968, 222 p., 12 plates, diagrams, paper, \$1.45. Devoted to the new ideas, instruments, techniques and applications which have changed optics since 1900, from testing of components in precision-engineering to the formulation of theories about the universe.

THE SUN—Patrick Moore—Norton, 1968, 128 p., illus., \$4.95. A readable survey of the nature of the sun—its movements, characteristics and the phenomena it produces on earth.

SYMPOSIUM ON UNIDENTIFIED FLYING OBJECTS: Hearings—Committee on Science and Astronautics (U.S. House)—CFSTI (PB 179541), 1968, 247 p., illus., paper, \$3. Statements and papers by astronomers and other scientists, among them J. Allen Hynek, Carl Sagan, Donald H. Menzel, Stanton T. Friedman and Roger N. Shenard.

THE SYSTEMATICS AND EVOLUTION OF THE MOINIDAE—Clyde E. Goulden—Am, Philosophical Soc., 1968, 101 p., illus., paper, \$3.50. Comparative study and critical review of the genus, species of which are adapted to survive frequent dry periods and to populate rapidly temporary pools and saline lakes.

SYSTEMS MANAGEMENT TECHNIQUES FOR BUILDERS AND CONTRACTORS—Paul G. Gill—McGraw-Hill, 1968, 210 p., diagrams, \$15. Demonstrates the application of the "systems management matrix" and shows how a builder's organization can be managed as a totally integrated system.

TECHNOLOGY OF ENAMELS—V. V. Vargin, transl. from Russian by Kenneth Shaw, Ed.—Hart Pub. Co., 1968, 290 p., diagrams, \$18.50. Deals with the raw materials, compositions, methods of application and properties of glassenamels and the resulting products—enamelled metals. Includes chapter on special and high-temperature coatings.

TV SERVICING GUIDEBOOK: Problems and Solutions—Art Margolis—Tab Bks., 1968, 176 p.,

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ULTRASOFT X-RAYS: An Historical and Critical Review of the World Experience with Grenz Rays and Other X-Rays of Long Wavelengths—Mark B. Hollander, M.D.—Williams & Wilkins, 1968, 197 p., illus., \$10.50. A broad discussion covering the entire field of ultra-soft X-Rays, from physics to therapy.

FOR YOUNGER READERS

CAREERS IN BIOLOGICAL SCIENCE—Paul Samoff—Messner, 1968, 192 p., photographs, \$3.95. Informs about educational requirements and opportunities in the interrelated fields that comprise biological science.

INCREDIBLE MAN OF SCIENCE: Irving Langmuir—Virginia Veeder Westervelt—Messner, 1968, 192 p., \$3.50. Biography introduces a pioneering researcher and experimental scientist to young people.

THE PROTECTORS: The Story of the Food and Drug Administration—Harry Edward Neal—Messner, 1968, 190 p., photographs, \$3.95. Tells how the FDA was established and how it carries out its work for the protection of the health and safety of the American people.

SHIFTING SANDS: The Story of Sand Dunes—Ramona Maher—Day, 1968, 128 p., photographs, map, \$3.49. A supplementary science book for the intermediate grades, explores the phenomenon of the shifting shapes of sand found over one fifth of the earth's land mass.

UNDERSTANDING ECOLOGY—Elizabeth T. Billington—Warne, F., 1968, 87 p., illus. by Robert Galster, \$3.95. Interprets the study of the relationships of living things to each other and to their environment, discusses ecosystems, biomes, habitat, niches, food chains and chemical

UNUSUAL PARTNERS: Symbiosis in the Living World—Alvin and Virginia B. Silverstein—McGraw-Hill, 1968, 64 p., illus. by Mel Hunter, \$4.50. Discusses for boys and girls the ways in which species develop lasting relationships with their environment and other species.

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