

MY FRIENDS THE DOCTORS—Sigmund L. Wilens—*Atheneum*, 245 p., \$5. Pathologist's story of the part pathology has played in the development of modern medicine and the present role of pathologists.

THE NATION'S SAFETY AND ARMS CONTROL—Arthur T. Hadley—*Viking*, 160 p., \$3. Background information, based on recent studies, of the problem of American security in the "kilomegaton age".

NUCLEAR SCIENCES ABSTRACTS 1960; Annual Index, Part 1: Corporate Author Index, Personal Author Index, Report Number Index. Part 2: Subject Index.—Office of Technical Information—*US AEC (GPO)*, 754 p., 758 p., paper, \$4.25 each.

THE NUMBER STORY—Herta Taussig Freitag and Arthur N. Freitag—*Nat. Council of Teachers of Mathematics*, 76 p., illus., paper, \$1. Introduces students to historical development of numerals and numeration, methods of computation, and rational, irrational and complex numbers we use today.

ORSTED and the Discovery of Electromagnetism—Bern Dibner—*Burndy Lib.*, 46 p., illus., \$2. Illustrated with reproductions of original material, this monograph pieces together the history of the Danish professor of physics who in 1820 first demonstrated the link between electricity and magnetism.

PALMS—Desmond Muirhead—*King, Dale Stuart*, 140 p., illus., \$3.20; paper, \$1.95. About origin, identification, cultivation and care of palms.

PROBING THE ATMOSPHERE: The Story of Meteorology—Louis Wolfe—*Putnam*, 160 p., illus. by M. Barnett, \$2.95. For boys and girls.

PROGRESS IN ENDOCRINOLOGY, Part II: Biochemistry and Biological Actions of Steroids and Other Hormones—K. Fotherby and others, Eds.—*Cambridge Univ. Press*, 167 p., illus., \$8.50. Contains symposium on the relationship of the endocrine system to cancer.

THE PSYCHOANALYTIC STUDY OF SOCIETY, Vol. I—Warner Muensterberger and Sidney Axelrad, Eds.—*Int. Univ. Press*, 384 p., \$7.50. Continuation of five-volume series "Psychoanalysis and the Social Sciences."

PSYCHOTHERAPY WITH SCHIZOPHRENICS: A Reappraisal—Joseph G. Dawson, Herbert K. Stone and Nicholas P. Dellis, Eds.—*La. State Univ. Press*, 156 p., \$5. Presents the views of a group of practicing psychotherapists.

REVIEW OF THE NATIONAL RESEARCH COUNCIL, 1960—E. W. R. Steacie, Pres.—*Nat. Res. Council, Canada (Queen's Printer)*, 354 p., paper, 75¢. Contains reports on research in the Canadian science and Canadian engineering laboratories.

RING OF BRIGHT WATER—Gavin Maxwell—*Dutton*, 211 p., photographs, drawings, \$5. About life among the animals on the northwest coast of Scotland, mainly about otters.

SAY IT CORRECTLY IN RUSSIAN—Helen Michailoff—*Dover*, 32 p., paper, 33½ rpm record, \$1. One 14-minute spoken language lesson of useful phrases for the tourist.

THE SEAWAY STORY—Carleton Mabee—*Macmillan*, 301 p., illus., \$5.95. Annotated account of the conception, promotion and operation of one of the key arteries of world commerce, partially based on interviews.

SECRETS OF MINOS: Sir Arthur Evans' Discoveries at Crete—Alan Honour, foreword by John H. Young—*Whitlsey House*, 187 p., illus., \$3.25. Tells young people about the Englishman who was the first to uncover remains of the ancient Minoan civilization at Knossos.

THE STANDARD GUIDE TO MEXICO, 1961-1962—Lawrence and Sylvia Martin—*Funk*, 297 p., maps, paper, \$1.95. Up-to-date travel guide.

THE STANDARD GUIDE TO THE CARIBBEAN, 1961-62—Lawrence and Sylvia Martin—*Funk*, 335 p., maps, paper, \$1.95. Revised travel guide.

THE STRANGE STORY OF THE QUANTUM: An Account for the General Reader of the Growth of the Ideas Underlying Our Present Atomic Knowledge—Banesh Hoffmann—*Dover*, 2nd ed., 285 p., illus., paper, \$1.45. Reprint.

THE STRUCTURE OF THE EYE—George K. Smelser, Ed.—*Academic*, 570 p., illus., \$15. Symposium papers and discussions on the fine structure of ocular tissues by leaders in electron microscopy from three continents.

STUDY ABROAD, 1960-1961: International Handbook, Fellowships, Scholarships, Educational Exchange—*Unesco (Internat'l Doc. Serv.)*, 12th ed., 766 p., paper, \$3. Information on some 100,000 individual international study grants, with statistical commentary.

TEXAS FOSSILS: An Amateur Collector's Handbook—William H. Matthews III—*Bur. of Economic Geology, Univ. of Tex.*, 123 p., illus., paper, \$1. Good sample of regional guide to classification.

THERMODYNAMICS—Gilbert Newton Lewis and

INVENTION

Patents of the Week

A jet device for undersea propulsion and a kind of Submarine decoys have been patented. A ground control system for airplanes and an oil-well rig are other recent inventions.

► **THE JET AGE** will soon invade the ocean depths when a patent issued to one of America's top outer space experts is applied.

Dr. Fritz Zwicky, astrophysicist at the California Institute of Technology, has patented a device (No. 2,974,626) that opens up new realms in the undersea world. Sneaky torpedoes tracking and destroying enemy ships, submarines quickly but silently darting through the murky depths and jet-assisted take-offs for deep sea exploration are envisioned in the patent assigned to Aerojet-General Corporation.

Objects are propelled through the water by an explosive chemical reaction generating tremendous energy. Strong chemicals, such as metal hydrides, are used to react violently with water, forming gases that make a hasty exit through the exhaust nozzle. The pressure force "pushes" the object through the water.

A "school" of submarine decoys surrounding a real submarine could help cut down the submarine (not the missile) gap between the Russians and the United States. A decoy (No. 2,975,396) patented for the U. S. Navy sends out signals, imitating a submarine, to enemy search craft cutting through the waters overhead. Ship instruments, recording the "blips" on a sonar screen, pinpoint the non-existent submarine and the real submarine slips away undetected. By shutting off the signals periodically, the searchers think they have lost the "submarine," inventor Richard A. Mueller of San Diego stated in his patent.

A portable, simplified ground control system providing flying and taxi information for airplanes won patent No. 2,975,413 assigned to Gilfillan Bros. Inc., Los Angeles.

Merle Randall, rev. by Kenneth S. Pitzer and Leo Brewer—*McGraw*, 2nd ed., 723 p., \$12.50. Updated textbook for advanced chemical courses.

TIME-HARMONIC ELECTROMAGNETIC FIELDS—Roger F. Harrington—*McGraw*, 480 p., illus., \$13.50. Graduate course, presents mathematical techniques for handling electromagnetic engineering problems.

THE TRACHTENBERG SPEED SYSTEM OF BASIC MATHEMATICS—Transl. and adapted by Ann Cutler and Rudolph McShane—*Doubleday*, 270 p., \$4.95. A high-speed system for mental calculation that claims a high degree of accuracy.

THE TRAINING OF PSYCHOTHERAPISTS: A Multidisciplinary Approach—Nicholas P. Dellis and Herbert K. Stone—*La. State Univ. Press*, 195 p., \$5. Symposium papers and their discussion.

WASTE DISPOSAL IN THE MARINE ENVIRONMENT: Proceedings of the First International Conference—E. A. Pearson, Ed.—*Pergamon*, 569 p., illus., \$12.50. Papers presented by leading authorities covering such aspects as public health, nearshore oceanography, and effects on marine biota.

• Science News Letter, 79:204 April 1, 1961

The compact radar unit is ideal for small airports where space is valuable. Seven California scientists who combined their talents to produce the invention are: Robert W. Landee, James R. Deen, John J. Fling, Robert G. Shaw, Ronald R. Davis, James K. Johnston, and Paul L. Bennett.

An oil-well rig that can be lifted by helicopter over mountains and other rough terrain to the remotest areas not reached by roads was patented by Homer J. Wool-slayer, Calvin L. Turner and Cecil Jenkins of Tulsa, Okla. The invention, patent No. 2,974,760, was assigned to Lee C. Moore Corporation. Oil rig sections, identical except for the top and bottom of the rig, are carried by cable and stacked like building blocks, one on top of the other, in another location. The bottom section of the old rig becomes the top of the new rig.

A device controlling the flow of traffic into unattended parking lots has been patented. A car running over a treadle switch lifts up a gate, permitting the driver to pass through. Another treadle switch closes the gate behind him. Other means, not covered by the invention, can be used to keep out persons who do not have permission to park in the lot. The invention, Eugene T. Mahoney of Chicago, Ill., assigned patent rights of patent No. 2,975,350 to Johnson Fare Box Company, also of Chicago.

A system (patent No. 2,974,441) by which toys can be remotely controlled by children, was patented by Helmut Denner of Aargau, Switzerland. Toys, such as automobiles, can veer to the left or right, or back up, to a child's delight, by a simple command into a microphone.

• Science News Letter, 79:205 April 1, 1961