third; and Flora Europaea (1965—) for its northwestern European portion. Now we have the splendid first volume of a flora of Turkey—Flora of Turkey and the East Aegean Islands (Edinburgh University Press, Edinburgh, Scotland; Aldine, Chicago, 1965. 579 pp., \$27.50), edited by P. H. Davis.

Turkey, a country of nearly 300,-000 square miles which occupies most of the central region covered by Boissier's Flora Orientalis, is the meeting place of three vast phytogeographical regions, the Euro-Siberian, Mediterranean, and Irano-Turanian. Consequently, it has an exceptionally rich and interesting flora. In this volume, the first of eight scheduled to appear at 2-year intervals, 902 species are treated, suggesting that between 7000 and 8000 species of vascular plants may occur in Turkey. About a fifth of these seem to be endemic, with exceptionally rich concentrations of endemics in south and east Anatolia. Considerably more than a third of this volume is devoted to the 85 genera of Cruciferae; Alyssum, the largest genus treated, has 89 species. Other groups included are pteridophytes, gymnosperms, and the following families of dicotyledons: Ranunculaceae (Ranunculus: 79 species), Paeoniaceae, Nymphaeaceae, Berberidaceae, Papaveraceae, Capparaceae, Resedaceae, Cistaceae, Violaceae, and Polygalaceae. The introductory pages of the flora provide a concise review of the topography, climate, and phytogeography of the country. Keys and descriptions for the included taxa, essential synonymy and references, critical taxonomic notes and illustrations, selected distribution maps, citation of types, ecological information, dates of flowering, and general distribution in Turkey are included to make this an impressive and useful flora. This book is virtually free of typographical errors. Systematic botanists will look forward with enthusiasm to further volumes of this work.

PETER H. RAVEN
Division of Systematic Biology,
Stanford University

Life with the Primitive Tribes of Brazil

This fascinating contribution to our understanding of ethnological field work consists primarily of a series of personal episodes and observations. Some (made during 1954 and 1955) pertain to the Sherente, a tribe of Gêspeaking, semi-acculturated Indians on the Central Brazilian Plateau, and others (made during 1958) pertain to the Chavante, their recently pacified cultural relatives. This book, The Savage and the Innocent (World, Cleveland, Ohio, 1965. 270 pp., \$4.95), by David Maybury-Lewis, is written in a popular style and will be of considerable interest to readers of a variety of orienta-

The general ethnologist, for instance, will appreciate this skilled field worker's resolution of a number of unnerving tribal intrigues as well as the portrayal of the development of his insight into several highly abstract societal relationships. The ethnological specialist of the area will be substantially helped by the detailed descriptions of the pace and values of hinterland Brazilian and tribal life, but he should not expect to find an abundance of ethnographical materials. The author plans to publish these materials later. The general

reader is likely to find his own experiences with government red tape and transportation delays topped by the author's frustrations from these sources, and will marvel at the physical discomforts and hazards suffered by the author, his wife, and their 1-year old son, all for the sake of science.

The discerning reader will value incidents that illustrate a number of very crucial issues—for example, the issues associated with going native, handling feelings about the tribe, making difficult moral choices, "do-gooding," integrating ethnological insights, selecting workable roles, and running calculated risks with respect to life and health.

Although the hardship side is strikingly overplayed, the hinterlander mildly satirized, and many experiences amusingly exaggerated, the information and points of view are generally sound, but it should be realized that other approaches to field work are often practiced. Especially in the easier situations, many ethnologists incur fewer hardships, take smaller risks, and go native to a lesser extent. In any case, the quality of the results is mainly a function of personal skills and train-

ing. It is important, nevertheless, that people in general be clearly informed about the methods employed by ethnologists to obtain data and reconstruct tribal life patterns so that these basic anthropological techniques can be better appreciated and understood. Maybury-Lewis's book serves this purpose especially well, because of the author's contextual portrayal of the issues and because these techniques are epitomized in the very difficult research conditions usually necessary for the study of recently pacified tribes like the Chavante.

WILLIAM H. CROCKER Smithsonian Office of Anthropology, Smithsonian Institution, Washington, D.C.

Conference and Symposium Reports

Automation in Industrial Pharmaceutical Process and Quality Control (Ann. N.Y. Acad. Sci. 130). Harold E. Whipple, Ed. New York Acad. of Sciences, New York, 1965. 386 pp. Illus. Paper, \$9. Thirty-nine papers presented at a conference held in January 1965.

Biogenesis of Antibiotic Substances.

Zdenko Vaněk and Zdeněk Hoštálek.

Czechoslovak Acad. of Sciences, Prague;

Academic Press, New York, 1965. 324

pp. Illus. \$14. Twenty-four papers presented in a panel discussion "Basic Research and Practical Aspects of Antibiotic Production" held during the Congress on Antibiotics, Prague, June 1964.

Congestion Theory. Proceedings of a symposium (Chapel Hill, N.C.), August 1964. Walter L. Smith and William E. Wilkinson, Eds. Univ of North Carolina Press, Chapel Hill, 1965. 475 pp. Illus. \$14. Fourteen papers: "Concerning an analytic method for the treatment of queueing problems" by F. Pollaczek; "The role of Green's functions in congestion theory' by J. Keilson; "Computers and congestion problems" by E. S. Page; "Stochastic network flows: Advances in networks of queues" by T. L. Saaty; "Divergent single server queues" by C. R. Heathcote; "The heavy traffic approximation in the theory of queues" by J. F. C. Kingman; "Markovian queues" by R. Syski; "On priority type disciplines in queueing' by D. P. Garver, Jr.; "A survey of some recent research in road traffic" by G. H. "Some problems of statistical Weiss: analysis connected with congestion" by D. R. Cox; "Unified results and methods for queues and dams" by N. U. Prabhu; Application of ballot theorems in the theory of queues" by L. Takács "On the use of the method of collective marks in queueing theory" by J. Th. Runnenburg; and "Departure processes" by E. Reich.

(Continued on page 367)

(Continued from page 320)

The Genetics of Colonizing Species. Proceedings of the First International Union of Biological Sciences Symposia on General Biology (Asilomar, Calif.), February 1964. H. G. Baker and G. Ledyard Stebbins, Eds. Academic Press, New York, 1965. 606 pp. Illus. \$24. Twenty-five papers contributed by R. W. Allard, H. G. Baker, M. H. Bannister, L. C. Birch, Hampton L. Carson, Paul DeBach, Theodosius Dobzhansky, Friedrich Ehrendorfer, Frank Fenner, Alex Fraser, John L. Harper, Charles B. Heiser, Jr., Walter E. Howard, J. Katznelson, R. C. Lewontin, Ernst Mayr, F. H. W. Morley, Gerald A. Mulligan, J. W. Purseglove, Forbes W. Robertson, Kan-Ichi Sakai, G. Ledyard Stebbins, C. H. Waddington, Edward O. Wilson, Frank Wilson, Kazimierz Wodzicki, and Daniel Zohary.

Marine Geochemistry. A symposium (Kingston, R.I.), October 1964. David R. Schink and James T. Corless, Eds. Narragansett Marine Laboratory, Univ. of Rhode Island, Kingston, 1965. 380 pp. Illus. Paper. Thirteen papers: "The data ing of molluscs from raised marine terraces" by David L. Thurber; "Deposition rates by protactinium method" by William M. Sackett; "Trace element economy in the oceans" by Karl K. Turekian and Donald F. Schutz; "Some thoughts on dissolved gases in the oceans" by Bruce B. Benson; "Distribution of gamma emitting radio-nuclides in the Gulf of Mexico" by J. Frank Slowey, David Hayes, Bryon Dixon, and Donald W. Hood; "Sulfur isotopes in the marine environment" by M. L. Jensen; "Factors affecting the distribution of deuterium in the ocean" by Alfred C. Redfield and Irving Friedman; "Radiogenic leads of the Canadian and Baltic Shield regions" by Tsaihwa J. Chow; "Geochemistry of iodine, bromine, and chlorine in the air-sea-sediment system" by John W. Winchester and Robert A. Duce; "Marine geochemistry: Some guesses and gadgets" by Dayton E. Carritt; "Concentrations of common lead in Greenland snows" by M. Murozumi, T. J. Chow, and C. Patterson; "Manganese-iron accumulations in the shallow marine environment" by F. T. Manheim; and "Isotopic oceanography: Deuterium and oxygen 18 variations in the ocean and the marine atmosphere" by H. Craig and L. I. Gordon.

Molecular Biophysics. Proceedings of an international summer school (Squaw Valley, Calif.), August 1964. Bernard Pullman and Mitchel Weissbluth, Eds. Academic Press, New York, 1965. 462 pp. Illus. \$19.50. Fifteen papers presented at a summer school sponsored jointly by NATO and the U.S. Office of Naval Research.

Mossbauer Effect Methodology. vol. 1. Proceedings of a symposium (New York), January 1965. Irwin J. Gruverman, Ed. Plenum Press, New York, 1965. 208 pp. Illus. \$12.50. Fifteen papers: Reviews (3 papers); Spectrometers (3 papers); Measurement (5 papers); and Environment (4 papers).

Oxidases and Related Redox Systems. vols. 1 and 2. Proceedings of a symposium

Friden

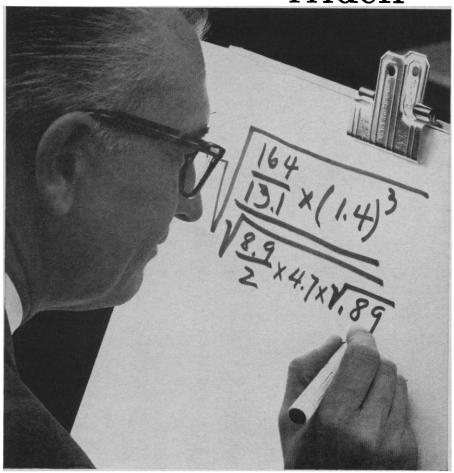


Figure that in 15 seconds!

Who says you can't? Anyone can do it with the new 132 Electronic Calculator by Friden.

We picked this difficult problem to show off the calculator's unbelievable speed and simplicity.

Now, our demonstration:

Solve the problem in the same sequence you would if you were figuring it with pencil and paper.

There's nothing to put in storage. No operator decisions. Not a thing to write down.

Your intermediate answers will all appear on the TV screen in four visible registers. As you work through the problem, these answers drop into the working register automatically You don't have to recall them.

In 15 seconds, your final answer appears.

The average mechanical calcula-

tor would take over 15 minutes for the same problem.

Price of the 132 is just \$1950. (Model 130 without automatic square root costs only \$1695.)

Get in touch with your Friden man for full details.

Or write Friden, Inc., San Leandro, California. Sales and service throughout the world.





The 132 Electronic Calculator by Friden

*A TRADEMARK OF FRIDEN, INC.

(Amherst, Mass.), July 1964. Tsoo E. King, Howard S. Mason, and Martin Morrison, Eds. Wiley, New York, 1965. vol. 1, 560 pp; vol. 2, 632 pp. Illus. \$32.50 set. Forty-seven papers.

Oxygen. Proceedings of a symposium sponsored by the New York Heart Association. Alfred P. Fishman, Ed. Little, Brown, Boston, 1965. 295 pp. Illus. \$6. Eleven papers: Structure and function of oxygen (2 papers); Oxygen-transporting pigments (3 papers); Oxygen consumption by the cell (3 papers); and Nonhemoproteins and

oxygen (3 papers).

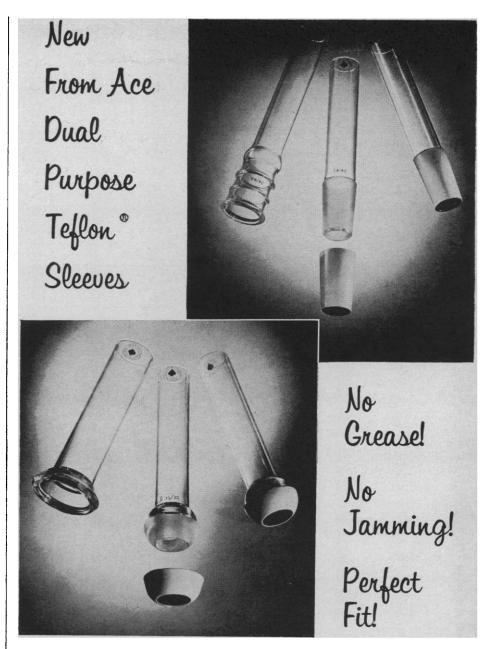
Physics of Solids at High Pressures. Proceedings of the first international conference (Tucson, Ariz.), April 1965. C. T. Tomizuka and R. M. Emrick, Eds. Academic Press, New York, 1965. 617 pp. Illus. \$14.50. Thirty-six papers: Electronic properties (11 papers); Magnetism (6 papers); Lattice defects (8 papers); Phase transformations (6 papers); and Phase transformations and lattice properties (5 papers).

Population Dynamics: International Action and Training Programs. Proceedings of the international conference on population (Baltimore), May 1964. Minoru Muramatsu and Paul A. Harper. Johns Hopkins Press, Baltimore, 1965. 256 pp. Illus. \$6.50. Nineteen papers.

Programmed Teaching. A symposium on automation in education. Joseph S. Roucek, Ed. Philosophical Library, New York, 1965. 204 pp. \$10. Thirteen papers: "Teaching machines—Six dangers and one advantage" by Robert B. Nordberg; "The effects of the preparation and utilization of automated teaching on the classroom teacher" by Jerome P. Lysaught; "Teacher education and teaching machines" Emma E. Plattor; "The programmed textbook or the teaching machine?" by Kenneth V. Lottich; "Exploring the limits on the automation of guided, planned experiences in creative thinking" by E. Paul Torrance; "Programmed learning and the teaching of the humanities and social sciences: "Some practical applications" by Robert M. Frumkin; "Automation in the secondary school social studies" by Eldon E. Snyder; "Programmed instruction in the language arts" by Regina M. Goff; "Automation and culturally deprived children" by Ralph H. Hines; "The use of instrumentation in special education" by Norman R. Willey; "The use of teaching machines with the mentally retarded" by Betty M. Bradley; "Programmed instruction for retarded children" by Leslie F. Malpass and others; and "Instructional television" by Donald L. Barnes.

Regeneration in Animals and Related Problems. An international symposium (Athens, Greece), April 1964. V. Kiortsis and H. A. L. Trampusch, Eds. North-Holland, Amsterdam, 1965. 592 pp. Illus. Forty-five papers given at a symposium sponsored by NATO's Division of Scientific Affairs.

Science in the Sixties. "Tenth Anniversary AFOSR Scientific Seminar (Cloudcroft, New Mexico), June 1965. David L. Arm, Ed. Univ. of New Mexico, Albuquerque, 1965. 214 pp. Illus. \$4.50. Fifteen papers: "Paths to the sixties" by A. Hunter Dupree; "The concept of mathematics historically surveyed" by Morris



Ace Teflon-Clad Joints

Provide the ultimate in no-freeze engagement

Here is something new: Ace Joints are now available with cementable Teflon sleeves. These sleeves are rugged. You can use them "loose" instead of grease for non-vacuum applications. A series of slightly undercut glass inner members is offered for perfect fit with sleeves. Outer members feature our exclusive polished surface which does not wear the Teflon, fits better, lasts longer. For full information on Ace Tef-Clad Joints, separate sleeves, epoxy, write Dept. S.

® Reg. T. M. DuPont



21 JANUARY 1966 369

book news from



W & W

Buchanan et al.:

INDEX BERGEYANA

This is the companion volume to the world-famous Bergey's Manual of Determinative Bacteriology (W&W, 7th ed., 1957, \$15.00). Together the two books are designed to serve as the definitive source of information on nomenclature and species identification problems in bacteriology.

Index Bergeyana is arranged into three sections: 1) the Introduction, which explains how to use the book, what sort of questions can be answered, and the significance of the index's organization; 2) the Index proper, listing alphabetically all the names which have been applied to bacteria throughout the literature, whether correct or incorrect; and 3) a bibliography, which lists alphabetically, by author, all the original papers on bacteria.

1966 in press approx. 1500 pp.

THE WILLIAMS & WILKINS CO. 428 EAST PRESTON STREET BALTIMORE, MD. 21202

Publishers of Books and Periodicals in Medicine and the Allied Sciences.

Kline; "Science and technology in the emerging nations" by Abdus Salam; "Implications of population trends for the military" by Phillip M. Hauser; "The frontiers of psychology" by Ernest R. Hilgard; "Living models for lively artifacts" by Warren S. McCulloch; "Theories of memory" by Julian H. Bigelow; "Biological clocks" by Colin S. Pittendrigh; "Combustion instability" by Frank T. Mc-Clure; "The stability of nonlinear dynamical systems" by Joseph P. LaSalle; "Tides of the planet earth" by Walter H. Munk; "High field magnets and magnetospectroscopy" by Benjamin Lax; "The relation of ATR to absorption spectra in the infrared" by Bryce Crawford, Jr.; "Space chemistry" by Willard F. Libby; and "The nature of the long-range interaction in hemoglobin" by Willard F. Libby.

The Social Responsibility of Gynecology and Obstetrics. Proceedings of a conference (Baltimore, Md.), May 1965. Allan Barnes, Ed. Johns Hopkins Press, Baltimore, Md., 1965. 224 pp. Illus. \$5.95. Thirteen papers: "The population crisis: The magnitude of the problem" by Robert "Evaluation of contraceptive techniques for demographic population control" by Hugh J. Davis; "Problems in motivation in family planning" by Carl E. Taylor; "The organic basis" by Lonnie S. Burnett; "Behavioral excellence" by Leon Eisenberg; "Education for prevention" by Clifton R. Read; "Divorce: Sex education in the Baltimore city schools" by Eli Frank, Jr.; "Divorce: Marriage counseling" by Ethel M. Nash; "Abortion, artificial insemination, and sterilization" by G. C. A. Anderson; "The pregnant school girl" by Ghislaine Godenne; "Social aspects of family-focused obstetrics" by Gloria Bean; "The psychologic and family impact of the diseases peculiar to women" by Irvin M. Cushner; "Educating the physician for his role" by John Romano.

The Scientific Basis of Drug Therapy in Psychiatry. A symposium (London), September 1964. John Marks and C. M. B. Pare, Eds. Pergamon, New York, 1965. 231 pp. Illus. \$10.50. Fourteen papers: Basic concepts (3 papers); Major tranquilizers (4 papers); Anti-depressants (3 papers); Anti-anxiety compounds (2 papers); and General considerations (2 papers).

A Symposium on Continental Drift. Organized for the Royal Society (London), March 1964, by P. M. S. Blackett, Sir Edward Bullard, and S. K. Runcorn. Royal Society, London, 1965. 340 pp. Illus. \$25. Nineteen papers: Continental reconstructions (4 papers); Horizontal displacements in the earth's crust (5 papers); Convection currents and continental drift (5 papers); and Physics of convection currents in the earth's mantle (5 papers).

General

Adventures in Living Plants. Edwin B. Kurtz, Jr., and Chris Allen. Univ. of Arizona Press, Tucson, 1965. 128 pp. Illus. \$4.95.

Animal Conflict and Adaptation. J. L. Cloudsley-Thompson. Dufour, Philadelphia, Pa., 1965. 172 pp. Illus. \$8.95.

The Assistant Secretaries: Problems and Processes of Appointment. Dean E.



Now all Labwasher models have DRY-A-MATIC drying time selector as standard equipment. Vary the drying cycle from 15 to 30 minutes to meet your glassware's requirement.

Here, at last, is completely automated glassware washing and drying . . . with a choice of tap water or distilled water rinses . . . at a sensible price! There are undercounter, free-standing and mobile models to meet any laboratory's needs.

Labwasher pays for itself in only a few weeks with man-hours saved, reduced glassware breakage and improved morale.

WRITE TODAY . . . for the new C.R.C. Bulletin and in-the-field usage reports.

A-5172

Request Bulletin No. 204



THE CHEMICAL RUBBER CO. 2310 Superior Ave. Cleveland, Ohio 44114 Mann with Jameson W. Doig. Brookings Institution, Washington, D.C., 1965. 322 pp. \$6.75.

Bibliographic Guide to Refrigeration, 1961–1964. International Institute of Refrigeration, Paris; Pergamon, New York, 1965. 895 pp. \$25. The Guide contains all abstracts published during 1961–1964 in the Bulletin of the International Institute of Refrigeration; the references, which are given in both English and French, are classified according to subject. Two indexes—of contents and of names—are provided.

Bibliography of Levant Geology: Including Cyprus, Hatay, Israel, Jordania, Lebanon, Sinai, and Syria. Compiled and arranged by M. A. Avnimelech. Israel Program for Scientific Translations, Jerusalem; Davey, New York, 1965. 204 pp. Paper \$6

Bibliography of North American Geology, 1961 (Geol. Survey Bull. 1197). U.S. Department of the Interior, Washington, D.C., 1965 (order from Superintendent of Documents, Washington, D.C.). 681 pp. Paper, \$2. This annual volume of the Bibliography is the first to be compiled by the use of computer techniques; the use of data processing is expected to expedite the publication of future volumes so that they will be available within a short time after the close of the period covered.

Bibliography of Statistical Literature, 1940–1949. Maurice G. Kendall and Alison G. Doig. Hafner, New York, 1965. 194 pp. \$10.50. This volume, the second of three projected volumes that will cover the literature of statistics and probability from the 16th century, contains about 6000 references to articles published from 1940 to 1949 inclusive. The entries are arranged in order of author's name, and titles not in English, French, or German are accompanied by a translation into one of those languages. Russian is transliterated. Most entries give the date of publication, title, and source.

Biographical Memoirs of Fellows of the Royal Society. vol. 11. Royal Society, London, 1965. 227 pp. Ilfus. \$6. Fourteen memoirs: "Edward Battersby Bailey" by Sir James Stubblefield; "Leonard Bairstow" by G. Temple (notes by A. Fage, J. L. Nayler, and E. F. Relf); "David Brunt" by Sir Graham Sutton; "James Franck" by H. G. Kuhn; "Jacques Hadamard" by Mary L. Cartwright; "John Hammond" by Sir William Slater and J. Edwards; "Reginald William James" by Sir Lawrence Bragg; "James McFadyen McNeill" by Sir Andrew McCance; "Werner Wolfgang Rogosinski" by W. K. Hayman; "Robert Beresford Seymour Sewell" by C. F. A. Pantin; "George Clarke Simpson" by E. Gold; "David Thoday" by W. Stiles; "Harold Albert Wilson" by Sir George Thomson; and "Donald Devereux Woods" by E. F. Gale and Sir Paul Fildes.

Birds Around the World: A Geographical Look at Evolution and Birds. Dean Amadon. Published for the American Museum of Natural History by the Natural History Press, Garden City, N.Y., 1966. 187 pp. Illus. \$3.95.

The Birth of the Missile: The Secrets of Peenemünde. Ernst Klee and Otto Merk. Translated from the German edition (Hamburg, 1963) by T. Schoeters.

Especially designed for Gel Filtration Chromatography Ion Exchange Chromatography

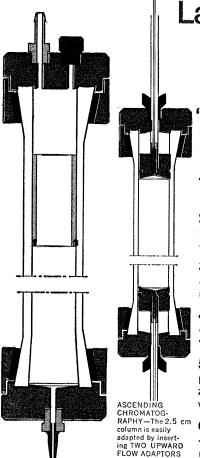
Sephadex

Laboratory Columns

A product of over six years' research know-how brings you these "exclusive" column features:

- 1 SPECIAL DESIGN BED SUPPORT—eliminates troublesome sintered glass disc
- 2 MIXING CHAMBER—of less than 1/10% of bed volume minimizes sample dilution to insure optimal zone sharpness for critical separations
- 3 INERT NYLON NETTING—on both the sample applicator and bottom endpiece eliminates adsorption of biologic material
- 4 DESCENDING TO ASCENDING SYSTEM easily converted by replacing both endpieces with upward-flow adaptors
- **5** SAMPLE APPLICATOR—distributes the sample evenly over the bed surface to insure sharp zones for critical separations and protects as well as stabilizes the bed

6 SELECTED CONSTRUCTION MATERIALS—to avoid destruction of sensitive biologic materials



THE STANDARD SEPHADEX LABO-RATORY COLUMN FOR DESCENDING CHROMATOG-RAPHY

Size Internal Diameter	Length
COLUMNS	
1.5 cm	30 cm
1.5 cm	90 cm
2.5 cm	45 cm
2.5 cm	100 cm
	Internal Diameter COLUMNS 1.5 cm 1.5 cm 2.5 cm

Available Sephadex Columns and Accessories

JACKETED COLUMNS

 Sephadex Column
 K 25/45 "jacketed"
 2.5 cm
 45 cm

 Sephadex Column
 K 25/100 "jacketed"
 2.5 cm
 100 cm

UPWARD-FLOW ADAPTORS

Upward-Flow Adaptors

Sephadex

Sephadex

Sephadex

Sephadex

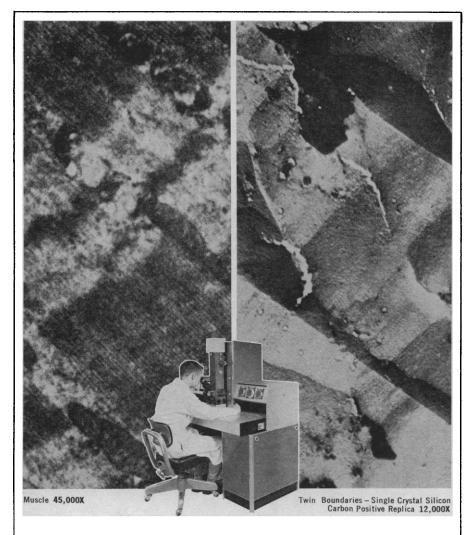
To fit all columns of 2.5 cm internal diameter

Information Service A comprehensive reference list, abstract cards, and other information on Sephadex products are available. Direct inquiries on your letterhead to the local Pharmacia representative or to:



PHARMACIA FINE CHEMICALS INC. 800 Centennial Avenue, Piscataway, N. J. 08854

(Inquiries outside North America should be directed to PHARMACIA FINE CHEMICALS, Uppsala, Sweden.)



seeing is believing

Shown above are typical micrographs being achieved by users of the MIKROS/VARIAN EM-20 ELECTRON MICROSCOPE. Not shown, the ease with which they are being achieved. Day-in and day-out. In routine fashion. On many and varied applications requiring full-time operation in the region of 20-30 angstrom units. With an initial investment and upkeep cost substantially lower than comparable instruments.

Why? Because the EM-20 is unique. It is the only electron microscope utilizing advanced electronic circuitry to implement the production, operation and maintenance advantages inherent in electrostatic electron optics. Completely self-contained. Built-in high voltage supply. Built-in automatic camera. Automatic-valving, pushbutton-activated vacuum system. Occupies only 4' x 4' of floor space, uses conventional 117-volt power. So easy to use a qualified technician can operate it—does not require the full time attention of a Ph.D. at the controls. Routine servicing and maintenance, too, can be accomplished by qualified technicians with relative ease.

Seeing is believing. Ask for a demonstration. Or make arrangements to visit our Electron Microscope Laboratory at our Mikros Plant in Portland, Oregon. For additional information, send for descriptive literature or contact the Varian Field Sales Office nearest you.



VACUUM DIVISION/MIKROS PLANT 7634 S. W. CAPITOL HIGHWAY PORTLAND. OREGON • 97219

VARIAN A. G.: ZUG. SWITZERLAND

Dutton, New York, 1965. 126 pp. Illus. \$6.95.

Bugs or People? Wheeler McMillen. Appleton-Century (Meredith), New York, 1965. 240 pp. Illus. \$4.95.

Calculator's Cunning: The Art of Quick Reckoning. Karl Menninger. Translated from the 10th, revised, German edition (1961) by E. J. F. Primrose. Basic Books, New York, 1965. 132 pp. Illus. \$4.50.

Carnegie Institution of Washington Year Book 1964–1965. vol. 64. Carnegie Institution, Washington, D.C., 1965. 608 pp. Illus. \$1.50.

Changing Administrations: The 1961 and 1964 Transitions in Six Departments.

David T. Stanley. Brookings Institution, Washington, D.C., 1965. 159 pp. \$3.95.

The Changing Mile. An ecological study of vegetation change with time in the lower mile of an arid and semiarid region. James Rodney Hastings and Raymond M. Turner. Univ. of Arizona Press, Tucson, 1965. 329 pp. Illus. \$12.50.

Chemical Weed Control in Cotton.

Chemical Weed Control in Cotton. Herbert Schwartz and J. B. Skaptason. Schotanus and Jens, Utrecht, Netherlands, 1965 (available from Biovivan Research Institute, Vineland, N.J.). 195 pp. Illus. Paper, \$4.75.

Chromosomes, Giant Molecules, and Evolution. Bruce Wallace. Norton, New York, 1966. 185 pp. Illus. Paper, \$1.95; cloth, \$5.

The Collected Papers of Lord Rutherford of Nelson. vol. 3, Cambridge. Published under the direction of Sir James Chadwick. Interscience (Wiley), New York, 1965. 428 pp. Illus. \$15.

Community Health: Its Needs and Resources. John D. Porterfield, Ed. Basic Books, New York, 1966. 264 pp. Illus. \$4.95. Twenty lectures originally prepared for and presented on Voice of America programs.

Computers and the Human Mind. Donald G. Fink. Doubleday, Garden City, N.Y., 1966. 315 pp. Illus. Paper, \$1.45.

Count Rumford of Woburn, Mass. W. J. Sparrow. Crowell, New York, 1966. 302 pp. Illus. \$5.95. Reviewed by Sanborn C. Brown in *Science* [149, 1492 (1965)].

Conservation of Natural Resources. Guy-Harold Smith, Ed. Wiley, New York, ed. 3, 1965. 545 pp. Illus. \$9.95. Twenty-three papers.

Contributions to the Prehistory of Nubia. Assembled by Fred Wendorf. Fort Burgwin Research Center and Southern Methodist Univ. Press, Dallas, 1965. 200 pp. Illus. Paper, \$4; cloth, \$6.50. Five papers: "Preliminary results of a geological expedition to Lower Nubia and to Kurkur and Dungul oases, Egypt" by Rushdi Said and Bahay Issawy; "The geological history of the Nile Valley in Sudanese Nubia: Preliminary results" by Jean de Heinzelin and Roland Paepe; "The Early and Middle Palaeolithic of Nubia: A preliminary report" by Jean Guichard and Genevieve Guichard; "A preliminary report on four epi-Levallois sites" by John Waechter; "Archaeological research on Pleistocene and lower Holocene sites in northern Sudan: Pre-liminary results" by W. Chmielewski, and an introductory paper by Fred Wendorf, Joel L. Shiner, and Anthony E. Marks.

ANNOUNCING:

The Availability of a
Description Sound Motion
Picture in Color
entitled

"LIFE-ISLAND® HOSPITAL ISOLATION SYSTEMS"

This motion picture shows:

- 1. Routine Care
- 2. Special procedures
- 3. Applications







To arrange a showing, write or call Mr. Ralph Faye at:

MATTHEWS mri
RESEARCH, INC.

4306 Wheeler Avenue
Alexandria, Virginia 22304
Phone: (703) 548-1660
In Canada: Brent Laboratories
International: Schuco

Dictionary of Technical Terms for Aerospace Use. William H. Allen, Ed. Natl. Aeronautics and Space Administration, Washington, D.C., 1965 (order from Superintendent of Documents, Washington, D.C.). 326 pp. Illus. \$3.

A Directory of Institutions Primarily

A Directory of Institutions

Devoted to Humid Tropics

Compiled by Theo. L. Hills. Department
of Geography, McGill Univ., Montreal,

Canada, 1965. 236 pp. Paper.

Doctors and the State: The British Medical Profession and Government Action in Public Health, 1870–1912. Jeanne L. Brand. Johns Hopkins Press, Baltimore, 1965. 323 pp. Illus. \$7.95.

The Ecological Theater and the Evolutionary Play. G. E. Hutchinson. Yale Univ. Press, New Haven, Conn., 1965. 153 pp. Illus. \$5. Essays based on lectures given by the author.

The Education of a Physician. By the Editors, The Johns Hopkins Magazine. Shelley, New Brunswick, N.J., 1965. 76 pp. Illus. Paper, \$1.50. An account of the education of a physician; it is intended for laymen and for young people who have not decided on a career.

Essays on Knowledge and Methology. Edward D. Simmons, Ed. Cook, Milwaukee, Wis., 1965. 151 pp. \$5.95. Eleven papers: "Wondering how and that we know" by Francis H. Parker; "What is it to know?" by Marc F. Griesbach; "The problem of sensory cognition" by Julius R. Weinberg; "Two kinds of reality" by Eugene P. Wigner; "Demonstration and science" by William Baumgaertner; "Demonstration regarding the realm of the sensible" by Francis J. Collingwood; "Man's knowledges of physical reality" by Robert J. Henle: "The elements of the physical universe" by Paul Weiss; "On proof in metaphysics" by James F. Anderson; "Demonstration in moral philosophy" by William E. Dooley; and "Value and meaning" by George A. Schrader.

The Excitement and Fascination of Science. A collection of autobiographical and philosophical essays. George H. Bishop and others. Annual Reviews, Palo Alto, Calif., 1965. 576 pp. Illus. Paper, \$1.95; cloth, \$5. Thirty-five papers reprinted from various volumes of the Annual Review of Biochemistry, Annual Review of Physical Chemistry, and Annual Review of Physiology.

Excursions into Chemistry. John H. Woodburn. Lippincott, Philadelphia, 1965. 145 pp. Illus. \$4.50.

Forestry in Communist China. S. D. Richardson. Johns Hopkins Press, Baltimore, 1966. 255 pp. Illus. \$6.95.

The Fulbright Program: A History. Walter Johnson and Francis J. Colligan. Univ. of Chicago Press, Chicago, 1965. 396 pp. \$8.50.

Future Perfect. American science fiction of the nineteenth century. H. Bruce Franklin. Oxford Univ. Press, New York, 1966. 416 pp. \$6.50.

The Geography of Frontiers and Boundaries. J. R. V. Prescott. Aldine, Chicago, 1965. Illus. \$5. University Library of Geography, edited by W. G. East.

The Geography of Soil. Brian T. Bunting. Aldine, Chicago, 1965. 213 pp. Illus. \$5. University Library of Geography.

Guide Questions for Medical Technol-

ogy Examinations. Rose M. Morgan. Thomas, Springfield, Ill., 1965. 256 pp. \$14.

A Guide to Case Studies of Scientific Activity. Ben-Ami Lipetz. Intermedia, Carlisle, Mass., 1965. 358 pp. \$12.

A Guide to the Selection, Combination, and Cooking of Foods. vol. 2, Formulation and Cooking of Foods. Carl A. Rietz and Jeremiah J. Wanderstock. Avi Publishing Co., Westport, Conn., 1965. 454 pp. Illus. \$15.

A History of Genetics. A. H. Sturtevant. Harper and Row, New York, 1965. 175 pp. Illus. \$5.50. Modern Perspectives in Biology, edited by Herschel L. Roman, Eugene Bell, and Harlyn O. Halvorson.

History of the Primates: An Introduction to the Study of Fossil Man. Sir Wilfrid Le Gros Clark. British Museum (Natural History), London, ed. 9, 1965. 135 pp. Illus. Paper, 7s. 6d.

How to Find Out About Physics. A

How to Find Out About Physics. A guide to sources of information, arranged by the decimal classification. B. Yates. Pergamon, New York, 1965. 185 pp. Illus. Paper, \$2.95. Commonwealth and International Library.

Industrial Management in the Atomic Age: Patterns, Restraints, Opportunities, and Trends in Government-Sponsored Technology. V. Lawrence Parsegian. Addison-Wesley, Reading, Mass., 1965. 384 pp. Illus. \$10.75.

In Search of Philosophic Understanding. Edwin A. Burtt. New American Library, New York, 1966. 349 pp. \$5.75.

Introduction to Archaeology. Shirley Gorenstein. Basic Books, New York, 1965. 175 pp. Illus. \$4.50.

Introduction to Photographic Principles. Lewis Larmore. Dover, New York, ed. 2, 1965. 239 pp. Illus. Paper, \$1.50.
Introduction to Psychology. F. R. C.

Introduction to Psychology. F. R. C. Casson. Arco, New York, 1965. 180 pp. Illus. Paper, \$1.65; cloth, \$3.50.

Life on the Sea-Shore. A. J. Southward. Harvard Univ. Press, Cambridge, Mass., 1965. 163 pp. Illus. \$3.

Magnetism and Magnetic Materials: 1965 Digest. A survey of the technical literature of the preceding year. R. L. White and K. A. Wickersheim, Eds. Academic Press, New York, 1965. 274 pp. \$11. Nineteen papers.

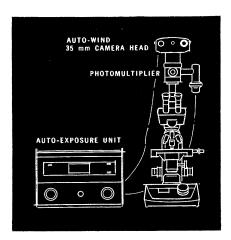
The Mammals: A Guide to the Living Species. Desmond Morris. Harper and Row, New York, 1966. 448 pp. Illus. \$12.95.

Marine Archaeology. Developments during sixty years in the Mediterranean. Joan du Plat Taylor, Ed. Crowell, New York, 1966. 208 pp. Illus. \$9.50. Six papers: "Underwater work and archaeological problems" by Frédéric Dumas; "Mediterranean trade" by Fernand Benoit; "Some notable wreck excavations (a) Antikythera; (b) Mahdia; (c) Albenga; (d) Grand Congloué; (e) Titan; (f) Dramont 'A'; (g) Spargi; (h) Cape Gelidonya" by George Karo, Guy de Frondeville, Nino Lamboglia and others, Yves Girault, Ph. Tailliez, C. Santamaria and others, Gianni Roghi, and George F. Bass; "Underwater surveys" by Alessandro Pederzini and others; "Ports, harbours, and other submerged sites" by several authors; and "The future" by Joan du Plat Taylor and others.

The Mathematics of Space Exploration.

VICKERS Excellence... in

Auto-Exposure Micro-Cameras



is exemplified by the wide choice of instantly interchangeable film systems available, an exclusive feature of the Vickers design. Now you can get fast, perfect, uniform exposures in your choice of photographic format and film type — 35 mm, Polaroid®, 3¼ x 4¼ plates and film. ▼ The Polaroid® Land color and black-and-white film processes fill a growing need for instantly available photomicrographs of good quality. You can use either the popular Polaroid® roll film back

(with choice of seven different film types) or the quick-loading, light-weight film pack back. Electromagnetic shutters are built into the adaptors for these camera backs and are linked to a fully integrating autoexposure control. Just dial in film speed, set ranging switch, press "Expose" button and you have a perfect, uniform exposure sequence. ▼ For many requirements of scientific photography you may prefer the 35 mm format because of the suitability of the 35 mm system, where a great number of photomicrographs are required and because of the wide variety of black-and-white and color film types and speeds available. Vickers offers you two types of 35 mm backs — the auto-wind back, which automatically advances the film after comple-

tion of an exposure, and the less-expensive manual film advance model. heads are fully compatexposure unit, as is a camera (taking cut film supplied on special orbacks mentioned are in—the auto-exposure unit take into account the



These 35 mm camera ible with the Vickers autofixed length 3½ x 4½ or plates) which can be der. ▼ All five camera stantly interchangeable controls are calibrated to difference in film sizes

involved. The Vickers Auto-Exposure Micro-Cameras can be used with any of your microscopes to give you superb photographic results — quickly — easily — and in the widest available variety of film formats and types.

Polaroid® by Polaroid Corp.

° Ø





INSTRUMENTS, INCORPORATED

Successors to Cooke, Troughton & Simms, Inc.

75 WAITE COURT, MALDEN, MASS. 02148 • (617) 324-6666 IN CANADA: 1570 MIDLAND AYE, SCARBOROUGH, ONTARIO • (416) 751-4360 Myrl H. Ahrendt. Holt, Rinehart and Winston, New York, 1965. 160 pp. Illus. Paper. Holt Library of Science, Series 3.

Methods of Estimating Reserves of Crude Oil, Natural Gas, and Natural Gas Liquids. Wallace F. Lovejoy and Paul T. Homan. Published for Resources for the Future, Washington, D.C. by Johns Hopkins Press, Baltimore, 1965. 181 pp. Paper, \$3.

Methods of Forensic Science. vol. 4. A. S. Curry, Ed. Interscience (Wiley), New York, 1965. 381 pp. Illus. \$15.50. Eight papers: "Methods for determining alcohol" by H. Ward Smith; "The examination of glass fragments" by D. F. Nelson; "Coloured fibres in criminal investigation with special reference to natural fibres" by Max Frei-Sulzer; "Searching for drug metabolites in viscera" by L. K. Turner; "Thin-layer chromatography (TLC) in forensic science" by G. Machata; "The detection of soap abortoins" by Wolfgang Schwerd; "Infra-red absorption spectroscopy in forensic toxicological practice" by Antti Alha and Veikko Tamminen; and "Recent advances in the grouping of dried blood and secretion stains" by R. A. Outteridge.

The Nature of Cancer. P. M. Sutton. Crowell, New York, 1965. 159 pp. Illus. \$3.50.

New Views of the Nature of Man. John R. Platt, Ed. Univ. of Chicago Press, Chicago, 1965. 162 pp. \$5. Six papers: "Man's place in the physical universe" by Willard F. Libby; "Determinacy, individuality, and the problem of free will" by George Wald; "The science of science" by Derek J. de Solla Price; "Mind, brain, and humanist values" by Roger W. Sperry; "The impact of the concept of culture on the concept of man" by Clifford Geertz; and "The sense of crisis" by James M. Redfield.

North American Landscape. F. J. Monkhouse and A. V. Hardy. Cambridge Univ. Press, New York, 1965. 96 pp. Illus. Paper, \$1.75; cloth, \$3.75.

On the Philosophy of Science. Bertrand Russell. Charles A. Fritz, Ed. Bobbs-Merrill, New York, 1965. 260 pp. Paper, \$1.45.

Operating Room Manual: A Guide for O. R. Personnel. Mary Ellen Yeager. Putnam, New York, ed. 2, 1965. 319 pp. Illus. \$7.50.

The Organization of Research Establishments. Sir John Cockcroft, Ed. Cambridge Univ. Press, New York, 1965. 281 pp. Illus. \$11.50. Fourteen papers: "The National Physical Laboratory" bv Sir Gordon Sutherland; "The Royal Aircraft Establishment" by M. J. Lighthill; "The Atomic Energy Research Establishment, Harwell" by F. A. Vick; "The National Institute for Medical Research" by Sir Charles Harington; "The Medical Research Council, Social Psychiatry Research Unit" by Sir Aubrey Lewis; "The Agricultural Research Council Institute of Animal Physiology, Babraham" by J. H. Gaddum; "The Empire Cotton Growing Corporation and the organization of research on raw cotton" by Sir Joseph Hutchinson and D. F. Ruston; "The Glaxo Research Organization" by Sir Harry Jephcott; "Cooperative research in the British iron and steel industry" by Sir Charles Goodeve; "British railways research and development" by C. C. Inglis; "The Bell Telephone Laboratories" by J. B. Fisk; "The Rutherford High Energy Physics Laboratory" by T. G. Pickavance; "CERN: The European Organization for Nuclear Research" by J. B. Adams; "What makes a good research establishment?" by Sir Edward Bullard.

Pepys' Diary and the New Science. Marjorie Hope Nicolson. University Press of Virginia, Charlottesville, 1965. 210 pp.

Plants, Animals, and Man in the Outer Leeward Islands, West Indies. An ecological study of Antigua, Barbuda, and Anguilla. David R. Harris. Univ. of California Press, Berkeley, 1965. 194 pp. Illus. Plates. Paper, \$5. University of California Publications in Geography, vol. 18.

La politica del CNEN (1960-63). Felice Ippolito. Il Saggiatore, Milan, 1965. 306 pp. Illus. Paper, L. 700.

Practical Programming. Peter Pipe. Holt, Rinehart, and Winston, New York, 1966. 80 pp. Illus. Paper, \$1.50.

Psychoanalytic Pioneers. Franz Alexander, Samuel Eisenstein, and Martin Grotjahn, Eds. Basic Books, New York, 1966. 636 pp. \$15.

The Railroad and the Space Program: An Exploration in Historical Analogy. Burce Mazlish, Ed. M.I.T. Press, Cambridge, Mass., 1965. 245 pp. \$7.50. Technology, Space, and Society Series, edited by Raymond A. Bauer and Edward E. Furash.

Red Man's Religion: Beliefs and Practices of the Indians North of Mexico. Ruth M. Underhill. Univ. of Chicago, Chicago, 1965. 311 pp. Illus. \$7.95.

The Research and Development Effort: In Western Europe, North America, and the Soviet Union. C. Freeman and A. Young. Organisation for Economic Cooperation and Development, Paris, 1965 (order from McGraw-Hill, New York). 152 pp. Illus. Paper, \$2.50.

The Reverend John Clayton, a Person with a Scientific Mind. His scientific writings and other related papers. Edmund Berkeley and Dorothy Smith Berkeley, Eds. Published for the Virginia Historical Soc. by the University Press of Virginia, Charlottesville, 1965. 234 pp. Illus. \$6.50.

Satellites of the Solar System. Werner Sandner. Elsevier, New York, 1965. 151 pp. Illus. \$6.50.

Science and Civilisation in China. vol. 4, Physics and Physical Technology; pt. 2, Mechanical Engineering. Joseph Needham. Cambridge Univ. Press, New York, 1965. 815 pp. Illus. \$35 [reviewed in Science 149, 848 (1965) by D. Bodde].

Science for the Space Age. Victor C. Smith and B. Bernarr Vance. Lippincott, Philadelphia, ed. 2, 1966. 624 pp. Illus.

Science in Canada. Selections from the speeches of E. W. R. Steacie. J. D. Babbitt, Ed. Univ. of Toronto Press, Toronto, Canada, 1965. 208 pp. \$5.95.

Science Teasers. Rose Wyler and Eva-Lee Baird. Harper and Row, New York, 1966. 112 pp. Illus. \$2.95.

Scientific Societies in the United States. Ralph S. Bates. M.I.T. Press, Cambridge, Mass., ed. 3, 1965. 342 pp. \$8.75.

Michael Scot. Lynn Thorndike. Nel-

son, Edinburgh, 1965. 151 pp. Illus. 30s. SER 2: Environmental Evaluations. Di-



For Bausch & Lomb Monochromators and other applications

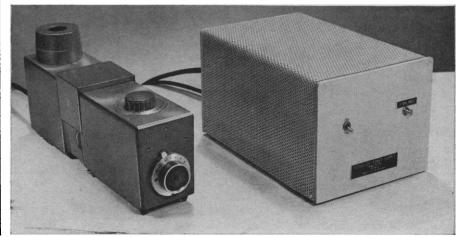
- 150 WATT XENON SOURCE
- INTENSE CONTINUOUS SPECTRA FROM THE FAR U.V. TO NEAR I.R.
- HIGH STABILITY D. C. SUPPLY
- QUARTZ ASPHERIC FOCUSING OPTICS
- HIGH VOLTAGE CONFINED TO LAMPHOUSE TO MINIMIZE PERSONAL **HAZARD**
- VIRTUALLY WITHOUT MEASURABLE **FLICKER**

The new Xenon source is just one of several available sources-other types include Deuterium, Mercury and Tungsten. And we offer complete system monochromators for every application.

Write for new Catalog 33-2098, or an obligation-free demonstration. Bausch & Lomb, 75925 Bausch St., Rochester, New York 14602.

BAUSCH & LOMB (





21 JANUARY 1966

rected by C. Theodore Larson. Architectural Research Laboratory, Univ. of Michigan, Ann Arbor, 1965. 186 pp. Illus. \$5. A collection of six papers, prepared by staff members of the School Environments Research (SER) Project (Architectural Research Laboratory, University of Michigan, Ann Arbor); the contributors attempt to summarize and evaluate the present state of knowledge concerning various aspects of environment that affect human behavior in general and learning in particular.

SER 3: Environmental Analysis. Directed by C. Theodore Larson. Architectural Research Laboratory, Univ. of Michigan, Ann Arbor, 1965. Unpaged. Illus. Three papers in which the SER staff attempts to "provide guidelines on such environmental research [that is, research on the impact of environment on learning in particular or on human behavior in general] and environmental design..."

Sound and Hearing. S. S. Stevens, Fred Warshofsky, and the Editors of *Life*. Time Inc., New York, 1965. 200 pp. Illus. \$3.95. Life Science Library.

A Study of Frege. Jeremy D. B. Walker. Cornell Univ. Press, Ithaca, N.Y., 1965. 215 pp. \$5.

Such Agreeable Friends, Bernhard Grzimek. Hill and Wang, New York, 1965. 224 pp. Illus. \$5.

Surface Anatomy. Joseph Royce. Davis, Philadelphia, Pa., 1965. 270 pp. Illus. \$12.50.

Tangrams—330 Puzzles. Ronald C.

Read. Dover, New York, 1965. 158 pp. Illus. Paper, \$1.

Theories in Social Psychology. Morton Deutsch and Robert M. Krauss. Basic Books, New York, 1965. 256 pp. \$3.95. Basic Topics in Psychology Series, edited by Edwin G. Boring.

The Theory of Relativity and A Priori Knowledge. Hans Reichenbach. Translated from the German edition by Maria Reichenbach. Univ. of California Press, Berkeley, 1965. 162 pp. \$5.

Berkeley, 1965. 162 pp. \$5.

The Therapeutic Nightmare. Morton Mintz. Houghton, Mifflin, Boston, 1965. 620 pp. Illus. \$6.95.

Time and Space, Weight and Inertia. A chronogeometrical introduction to Einstein's theory. A. D. Fokker. Translated from the Russian edition by D. Bijl. D. Field, Translation Ed. Pergamon, New York, 1965. 204 pp. Illus. \$10. International Series of Monographs in Natural Philosophy, vol. 2.

Toward a Theory of Instruction. Jerome S. Bruner. Harvard Univ. Press, Cambridge, Mass., 1966. 190 pp. Illus. \$3.95.

The Trail of the Invisible Light. From x-strahlen to radio(bio)logy. E. R. N. Grigg. Thomas, Springfield, Ill., 1965. 1116 pp. Illus. \$36.75. An attempt to place radiology in proper perspective with respect to medicine and the physical sciences.

The Voices of Time. A cooperative survey of man's views of time as expressed by the sciences and by the humanities. J. T. Fraser, Ed. Braziller, New York, 1966. 736 pp. Illus. \$12.50. Twenty-seven papers: Time in Thought: Philosophy,

Religion, and Man's Attitude Toward Change (6 papers); Time and Man: Communications, Rhythm, and Behavior (6 papers); Time and Life: Rhythm, Life, and the Earth (5 papers); and Time and Matter: Clocks, Man, and the Universe (10 papers).

Understanding Science for the Space Age. Victor C. Smith. Lippincott, Philadelphia, ed. 2, 1966. 496 pp. Illus. \$4.40 (elementary textbook).

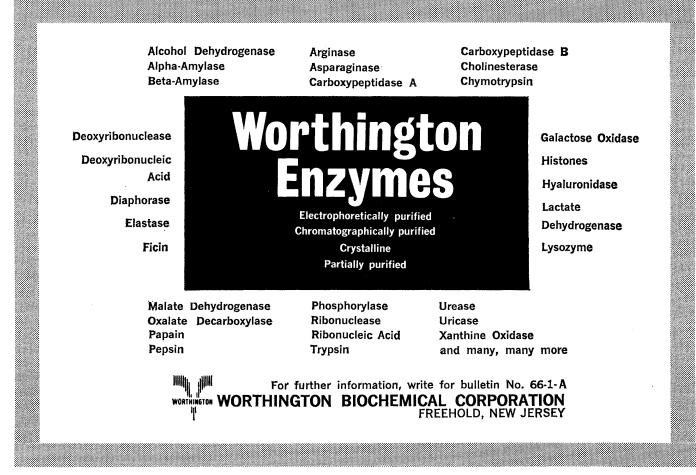
Urban Design: The Architecture of Towns and Cities. Paul D. Spreiregen. McGraw-Hill, New York, 1965. 255 pp. Illus. \$12.50.

Who's Who in the History of Philosophy. Thomas Kierman. Philosophical Library, New York, 1965. 195 pp. \$6.

Wir beobachten Vögel: Eine Übersetzung aus dem Dänischen. Hans Schildmacher. Fischer, Jena, East Germany, 1965. 400 pp. Illus. DM. 16.80.

Mathematics, Physical Sciences, and Engineering

Advances in Inorganic Chemistry and Radiochemistry. vol. 7. H. J. Emeléus and A. G. Sharpe, Eds. Academic Press, New York, 1965. 457 pp. Illus. \$15.50. Six papers: "Halides of phosphorus, arsenic, antimony, and bismuth" by L. Kolditz; "The phthalocyanines" by A. B. P. Lever; "Hydride complexes of the transition metals" by M. L. H. Green and D. J. Jones; "Reactions of chelated organic ligands" by Quintus Fernando; "Or-



MINIMUM CONTACT—MAXIMUM SAFETY

with self-sticking TIME LABORATORY TAPES and LABELS

Self-sticking tapes and labels eliminate a direct source of personal contamination in laboratories. Pre-printed or plain tapes and labels provide a quick means of marking laboratory equipment. Just write necessary data on label (use pencil, pen or grease marker) and place it on any surface glass, metal or plastic. Labels stick tight through autoclave (up to 250°),

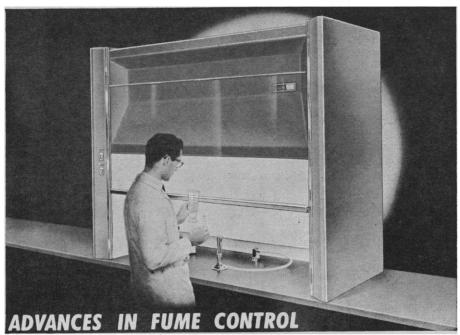


deep freeze (to -70°), or water bath. When no longer needed these tapes and labels can be quickly removed leaving no sticky residue. Vinyl Coated available in white or colors.



See your laboratory or hospital supplier for a complete selection of Time Tapes and Labels.

PROFESSIONAL TAPE CO., INC. Riverside, Illinois 60546 365 E. Burlington Avenue



The new C.C.S. Fiberglas Fume Hoods provide efficient fume removal and control. Advanced Fiberglas-Hetron double wall construction for superior chemical resistance and durability. A size to suit your exact requirements. 36", 47", 59" and 70" widths. Also portable hoods,

radioisotope hoods, explosion proof hoods, tissue culture hoods and safety hoods. For complete information, write C.C.S. 102 West 31st St., Independence, Mo.

CHEMICAL CONTROL SYSTEMS

Div. Hill Engineering & Mfg. Co., Inc.

ganoaluminum compounds" by Roland Köster and Paul Binger; and "Carbosil'anes" by G. Fritz, J. Grobe, and D. Kummer.

Advances in Organic Chemistry: Methods and Results. vol. 5. Ralph A. Raphael, Edward C. Taylor, and Hans Wynberg, Eds. Interscience (Wiley), New York, 1965. 345 pp. Illus. \$13.50. Three papers: "The use of dipolar aprotic solvents in organic chemistry" by A. J. Parker; "The chemistry of the cyclic diterpenoids" by R. McCrindle and K. H. Overton; and "The determination of intramolecular hydrogen bonding by infrared spectroscopy and its applications in stereochemistry" by M. Tichý.

Advances in Mathematics. vol. 1, pt. 3. Herbert Busemann, Ed. Academic Press, New York, 1965. 198 pp. Illus. Paper, \$6.50. Three papers: "Cartan's geometric theory of partial differential equations" by Robert Hermann; "Spaces of continuous functions on compact sets" by Zbigniew Semadeni; and "Quasigroups, nets, and nomograms" by J. Aczél.

Annual Review of Nuclear Science. vol. 15. Emilio Segrè, Gerhart Friedlander, and H. Pierre Noyes, Eds. Annual Reviews, Palo Alto, Calif., 1965. 508 pp. Illus. \$8.50. Twelve papers: "Solid-state track detectors: Applications to nuclear science and geophysics" by R. L. Fleischer, P. B. Price, and R. M. Walker; "Photonuclear reactions" by M. Danos and E. G. Fuller; "Masses of the metastable particles" by Walter H. Barkas; "Chemical effects of nuclear transformations in inorganic solids" by Garman Harbottle; "Radiation chemistry of aqueous solutions" by Edwin J. Hart; "Waste management" by John O. Blomeke and J. Tom Roberts; "Movement of fallout radionuclides through the biosphere and man" by C. L. Comar; "Dose response relationships, particularly in mammalian radiobiology" by R. H. Mole; "Nonspherical nuclei" by John D. Rogers; "Reactions between complex nuclei" by K. R. Greider; "Spin and parity determination of elementary particles" by Robert D. Tripp; and "Weak interactions (first section)" by T. D. Lee and C. S. Wu.

Basic Tables in Electrical Engineering. Granino A. Korn. McGraw-Hill, New York, 1965. 380 pp. Illus. Paper, \$3.95.

Boiling Heat Transfer and Two-Phase Flow. L. S. Tong. Wiley, New York, 1965. 256 pp. Illus. \$14.

Calculus of Finite Differences. Charles Jordan. Chelsea, New York, ed. 3, 1965. 677 pp. Illus. \$7.50.

Concepts of General Chemistry. C. R. McLellan, Marion C. Day, Jr., and Roy W. Clark. Davis, Philadelphia, 1965. 588 pp. Illus. \$8.50.

Corrosion and Protection of Metals. G. T. Bakhvalov and A. V. Turkovskaya. Translated from the Russian edition by G. Isserlis. Pergamon, New York, 1965. 336 pp. Illus. \$17.50.

Einführung in die Funktionentheorie. Rolf Nevanlinna and V. Paatero. Birk-häuser, Basel, Switzerland, 1965. 388 pp. Illus. Fr. 64.

Gravimetric Analysis. pt. 2. László Erdey. Translated by Gyula Svehla. Ilona Buzás, Translation Ed. Pergamon, New York, 1965. 812 pp. Illus. \$18.50. International Series of Monographs on Analytical Chemistry, vol. 7.

Higher Algebra: Linear Algebra, Polynomials, General Algebra. A. P. Mishina and I. V. Proskuryakov. Translated from the Russian edition (Moscow, 1962) by Ann Swinfen. Pergamon, New York, 1965. 289 pp. Illus. \$9.50. International Series of Monographs on Pure and Applied Mathematics, vol. 80.

Progress in Oceanography. vol. 3, M. Sears, Ed. Pergamon, New York, 1965. 433 pp. Illus. \$15.50. Volume 3, which contains 39 papers, is dedicated to Hans Pettersson, on the occasion of his 75th birthday.

Representation Theory of Finite Burrow. Groups. Martin Academic Press, New York, 1965. 195 pp. Illus. Paper, \$3.45; cloth, \$6.50. Academic Paperback in Mathematics.

Signals, Systems, and Communication. B. P. Lathi. Wiley, New York, 1965. 627 pp. Illus. \$14.95.

Space Communications Systems. Richard F. Filipowsky and Eugen I. Muehldorf. Prentice-Hall, Englewood Cliffs, N.J., 1965. 591 pp. Illus. \$14.90. Prentice-Hall International Series in Space Technology, edited by C. W. Besserer and Flovd E. Nixon.

Stars and Stellar Systems. vol. 5, Galactic Structure. Adriaan Blaauw and Maarten Schmidt, Eds. Univ. of Chicago Press, Chicago, 1965. 626 pp. Illus. \$15. Twenty-three papers.

Statistical Methods. Stefan Translated from the Polish by J. Stadler. H. Infeld and C. D. I. Forrester, Translation Eds. Pergamon, New York, 1965. 674 pp. Illus. \$17.50.

Structural Synthesis of High-Accuracy Automatic Control Systems, M. V. Meerov. Translated from the Russian edition by John P. Ruban. G. L. Ashdown, Translation Ed. Pergamon, New York, 1965. 365 pp. Illus. \$15.

Switching Theory. vol. 2, Sequential Circuits and Machines. Raymond E. Miller. Wiley, New York, 1965. 264 pp. Illus. \$11.50.

Tables of Lagrange Interpolation Coefficients. K. A. Karpov. Translated from the Russian edition (Moscow, 1954) by D. E. Brown. Pergamon, New York, 1965. 82 pp. \$5.75. Mathematical Tables Series, vol. 28.

Ten-Decimal Tables of the Logarithms of Complex Numbers and for the Transformation from Cartesian to Polar Coordinates. L. A. Lyusternik, Ed. Translated from the Russian edition (Moscow, 1952) by D. E. Brown. Pergamon, New York, 1965. 122 pp. \$7.50. Mathematical Tables Series, vol. 33.

Vacuum Science and Engineering. Properties of gases at low pressure; vacuum measurements; design and operating features of vacuum pumps and systems. C. M. Van Atta. McGraw-Hill,

New York, 1965. 475 pp. Illus. \$15.

Valence Theory. J. N. Murrell, S. F. A.
Kettle, and J. M. Tedder. Wiley, New York, 1965. 415 pp. Illus. \$7.75.

Wholes and Parts: A General Theory of System Behaviour. Oskar Lange. Translated from the Polish edition (Warsaw, 1962) by Eugeniusz Lepa. Pergamon, New York, 1965. 80 pp. Illus. \$5.

NEW! Only LAB-LINE offers these 6 exclusive features in one FREEZE-DRYER!*

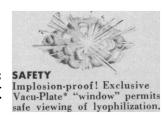


Surpasses them all in speed. Handles 1 to 4 liters in 24 hours, or less.



CAPACITY

Trap holds from 5 to 12 liters of sublimation, depending on model. Automatic defrost, too!







BULK DRYING Accepts trays, bowls, or pans to 11" diameter. Permits bulk drying in wide-neck glassware.



MANIFOLD DRYING Unique Vacu-Plate* attaches in seconds to any freeze-dryer with manifold connection . . . multiplies capabilities.



VIAL-STOPPERING Automatically seals un-der vacuum. Also permits stoppering of dried materials with inert gases.

NOW, for the first time, chamber and manifold drying capabilities are incorporated into one instrument. No special glassware is needed: ordinary containers are converted into vacuum chambers. Unique Vacu-Plate obsoletes heavy-wall chambers, revolutionizes freeze-drying technique, ends threat of implosion. Gives implosionproof safety and assured performance to floor and bench models. Get the details about this superior method of freeze-drying.

> 5 MODELS plus Sheller-Freezer Write for Bulletin 309

* Pats. Pending

385

