

illustrations contain some original material. Several new terms are proposed for male genitalia in the chapter on external anatomy. The last chapter is a concise summary of modern pest control as applied to cockroaches, with a review of basic effects of different groups of insecticides.

Personally, I would not be without this book. Every department of entomology or biology should have it in the library.

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Rock Mechanics

Engineering Properties of Rocks. I. W. FARMER. Spon, London, 1968 (U.S. distributor, Barnes and Noble, New York). x + 182 pp., illus. \$5.75.

Rock Mechanics in Engineering Practice. K. G. STAGG and O. C. ZIENKIEWICZ, Eds. Wiley, New York, 1968. xiv + 442 pp., illus. \$14.50.

Although rock mechanics still finds its widest application in engineering, many aspects of this growing field are of interest to geologists and geophysicists. Each new book in rock mechanics will be scrutinized by earth scientists for clues to the earthquake source mechanism and for guides for earthquake prediction, for new studies of the effect of fluids on attenuation, for a better understanding of the relation of properties of rocks *in situ* and in the laboratory, and for new model studies of the deformation and failure of rock masses, to name but a few areas of overlapping interest. The two present volumes offer a rather broad treatment of rock mechanics as a whole. However, only one is likely to have much appeal for earth scientists and engineers.

Engineering Properties of Rocks was written to furnish engineers with a concise review of rocks as a structural material. There are sections on elastic properties, rheology, strength and failure, rock testing, the effect of water, and the effect of pressure and temperature. Measurement of stress and strain is reviewed, and some general design criteria are enumerated.

The book falls far short of its stated purpose. Most topics are treated without regard to modern work, and some without any real understanding of rock

mechanics. For example, the physical and chemical roles of water are confused with regard to the effect on strength and elastic properties. It is stated that Poisson's ratio of rocks may be assumed equal to 0.25 for engineering purposes. The significant changes in sound velocity at high stress are overlooked. Because of such shortcomings, I cannot recommend this text for the engineering student or for the practicing engineer, much less for the earth scientist concerned with applications of rock mechanics to the earth.

Rock Mechanics in Engineering Practice is a remarkably coherent advanced textbook in rock mechanics, written by 12 individuals. Although most of the authors are in British universities, reference to the world literature is unusually complete. The book comes very close to achieving its stated purpose of summarizing progress in rock mechanics and suggesting promising lines for future investigation.

As in most textbooks, there are high and low points in the presentation. I found Hendron's review of mechanical properties of rock particularly good, as are Hoek's treatment of brittle failure, Stagg's review of *in situ* tests, and Morgenstern's presentation of limit equilibrium methods. There are excellent chapters on the measurement of stress and strain in rock masses, the dynamic behavior of rock masses, the applications of continuum mechanics, particularly finite-element analysis, in rock mechanics and model simulation of two- and three-dimensional problems. The chapter on the influence of interstitial water is somewhat confusing, and would have been more so had not the editors added a short section giving the modern view of effective pressure. Although the different methods of stress measurement *in situ* are carefully described, I looked in vain for quantitative comparisons of the different methods, for statements as to their relative sensitivity and accuracy. I missed any reference to studies of the effect of size on strength; nor was there mention of thermal stresses. The index to this text is perhaps its weakest part. I came across information quite by accident, and the specialist will simply have to take the time to read the entire book.

In terms of future work, the use of high-speed computers with finite-element and limit-equilibrium methods seem particularly promising, as do the modeling techniques for jointed rock. Further work is needed on a reliable way of determining *in situ* mod-

ulus from laboratory tests, although Hendron and Ambraseys suggest an empirical technique which might serve as a good starting point.

All in all, this book is of high quality and, although it assumes a knowledge of elementary elasticity, should be in the hands of most engineering geologists and mining engineers and of any earth scientist concerned with mechanical behavior of rocks under near-surface conditions.

W. F. BRACE

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Geophysics, Massachusetts Institute of
Technology, Cambridge*

Books Received

The Absurd Healer. Perspectives of a Community Psychiatrist. Matthew P. Dumont. Science House, New York, 1968. 196 pp. \$6.50.

Les Accélérateurs de Particules. Daniel Bousard. Presses Universitaires de France, Paris, 1968. 136 pp., illus. Paper. "Que Sais-Je?," No. 1316.

Active Integrated Circuit Synthesis. Robert W. Newcomb. Prentice-Hall, Englewood Cliffs, N.J., 1968. xx + 292 pp., illus. \$11.95. Prentice-Hall Electrical Engineering Series.

Advanced Linear-Programming Computing Techniques. William Orchard-Hays. McGraw-Hill, New York, 1968. x + 356 pp., illus. \$12.50.

Advances in Biological and Medical Physics. Vol. 12. John H. Lawrence, John W. Gofman, and Thomas L. Hayes, Eds. Academic Press, New York, 1968. x + 382 pp., illus. \$17.50.

Advances in Biomedical Engineering and Medical Physics. Vol. 2. Sumner N. Levine, Ed. Interscience (Wiley), New York, 1968. viii + 390 pp., illus. \$16.50.

Advances in Enzymology and Related Areas of Molecular Biology. Vol. 31. F. Nord, Ed. Interscience (Wiley), New York, 1968. vi + 266 pp., illus. \$14.95.

Advances in Machine Tool Design and Research, 1967. Proceedings of the 8th International M.T.D.R. Conference (Incorporating the 2nd International CIRP Production Engineering Research Conference), University of Manchester Institute of Science and Technology, 1967. In two parts. S. A. Tobias and F. Koenigsberger, Eds. Pergamon, New York, 1968. x + 1394 pp., illus. \$65.

Advances in Morphogenesis. Vol. 7. M. Abercrombie, Jean Brachet, and Thomas J. King, Eds. Academic Press, New York, 1968. x + 342 pp., illus. \$16.50.

Agenda for the Nation. Papers on domestic and foreign policy issues. Kermit Gordon, Ed. Brookings Institution, Washington, D.C., 1968. xii + 620 pp. \$6.95.

Alternative Social Structures and Ritual Relations in the Balkans. Eugene A. Hamel. Prentice-Hall, Englewood Cliffs, N.J., 1968. xviii + 110 pp., illus. Cloth, \$6.95;

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BOOKS RECEIVED

(Continued from page 804)

paper, \$2.95. *Anthropology of Modern Societies Series.*

Amdel Eighth Annual Report, 1967-68. Australian Mineral Development Laboratories, Adelaide, S.A., 1968. 92 pp., illus. Paper.

American Universities and Colleges. Otis A. Singletary and Jane P. Newman, Eds. American Council on Education, Washington, D.C., ed. 10, 1968. xxvi + 1782 pp. \$22.

The American University. How It Runs, Where It Is Going. Jacques Barzun. Harper and Row, New York, 1968. xii + 322 pp. \$7.95.

The Analysis of Engineering Structures. A. J. S. Pippard and John Baker. Elsevier, New York, ed. 4, 1968. xiv + 578 pp., illus. \$12.50.

Analytical Reaction Gas Chromatography. Viktor G. Berezkin. Translated, with corrections by the author, from the Russian edition (Moscow, 1966). L. S. Ettre, Transl. Ed. Plenum, New York, 1968. x + 198 pp., illus. \$12.50.

An Annotated Bibliography of Pathology in Invertebrates Other than Insects. Phyllis T. Johnson, with the assistance of Faylla A. Chapman. Burgess, Minneapolis, Minn. 1968. xvi + 324 pp. \$15.

Annual Review of Phytopathology. Vol. 6. James G. Horsfall, Kenneth F. Baker, and D. C. Hildebrand, Eds. Annual Reviews, Palo Alto, Calif., 1968. viii + 458 pp., illus. \$8.50; foreign, \$9.

The Artificial Insemination of Farm Animals. Enos J. Perry, Ed. Rutgers University Press, New Brunswick, N.J., ed. 4, 1968. xx + 476 pp., illus. \$10.

Australian Academy of Science Year Book. Australian Academy of Science, Canberra City, 1968. 112 pp., illus. \$2.

The Behavioral Sciences: Essays in Honor of George A. Lundberg. Alfred de Grazia, Rollo Handy, E. C. Harwood, and Paul Kurtz, Eds. Behavioral Research Council, Great Barrington, Mass., 1968. viii + 180 pp. \$4.75.

Bibliographia Araneorum. Analyse Méthodique de Toute la Littérature Aranéologique Jusqu'en 1939. Vol. 1. Pierre Bonnet. Entomological Society of America, College Park, Md. xx + 834 pp. + 28 plates. \$30. Reprint of the 1945 edition.

Biochemistry of the Acute Allergic Reactions. A symposium organized by the Council for International Organizations of Medical Sciences. K. Frank Austen and Elmer L. Becker, Eds. Davis, Philadelphia, 1968. xii + 340 pp., illus. \$12.

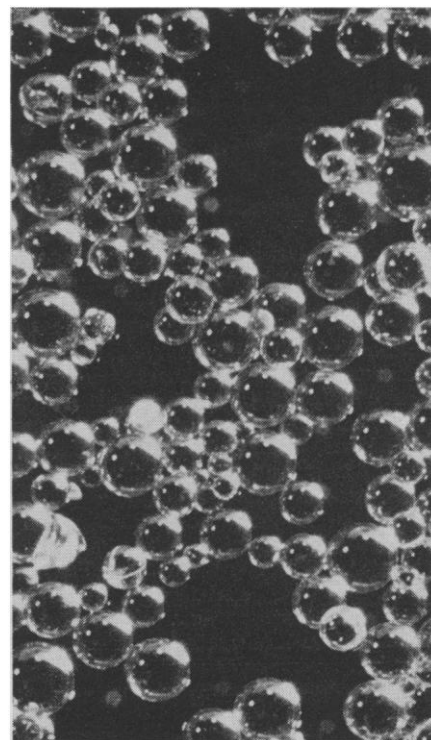
Biologieonderwijs in de Sowjet Unie, de Verenigde Staten en Nederland. Een Vergelijkend-Opvoedkundige Studie. Adriaan Johan Treffers. Wolters-Noordhoff, Groningen, 1968. xiv + 252 pp., illus. Paper, 23.50 G.

Biomedical Applications of Gas Chromatography. Vol. 2. Herman A. Szymanski, Ed. Plenum, New York, 1968. viii + 196 pp., illus. \$12.50.

Bureaucracy, Politics, and Public Policy. Francis E. Rourke. Little, Brown, Boston, 1968. xii + 180 pp. Paper, \$2.75.

The Bureau of Labor Statistics. Ewan Clague. Praeger, New York, 1968. xvi +

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272 pp., illus. \$6.95. Praeger Library of U.S. Government Departments and Agencies, No. 13.

Calcium Metabolism and the Bone. Paul Fourman and Pierre Royer, with the collaboration of Michael J. Levell and D. Brian Morgan. Davis, Philadelphia, ed. 2, 1968. xxii + 658 pp., illus. \$15.

The Calculus of Observations. An Introduction to Numerical Analysis. Edmund Whittaker and G. Robinson. Dover, New York, 1967. xiv + 414 pp., illus. Paper, \$2.75. Reprint of the fourth edition (1944).

Carbanions, Living Polymers, and Electron-Transfer Processes. Michael Szwarc. Foreword by Donald J. Cram. Interscience (Wiley), New York, 1968. xvi + 696 pp., illus. \$27.50.

Carcinoid and Serotonin. Boris Sokoloff. Springer-Verlag, New York, 1968. x + 124 pp. \$6. Recent Results in Cancer Research, vol. 15.

Catalytic and Kinetic Waves in Polarography. Stal' G. Mairanovskii. Translated, with corrections by the author, from the Russian edition (Moscow, 1966) by Bela M. Fabuss. Petr Zuman, Transl. Ed. Plenum, New York, 1968. xiv + 354 pp., illus. \$19.50.

Cell Kinetics in Human Leukemia. Kaj Gert Jensen and Sven-Aage Killmann, Eds. Williams and Wilkins, Baltimore, 1968. 128 pp., illus. Paper, \$10. Series Haematologica, vol. I, No. 3.

Changing Perspectives on Man. Ben Rothblatt, Ed. University of Chicago Press, Chicago, 1968. x + 298 pp., illus. \$8.50. The Monday Lectures.

Charles Ellet, Jr. The Engineer as Individualist. 1810-1862. Gene D. Lewis. University of Illinois Press, Urbana, 1968. x + 222 pp., illus. + 8 plates. \$7.50.

Chemical Microbiology. Anthony H. Rose. Plenum, New York; Butterworths, London, ed. 2, 1968. xii + 312 pp., illus. \$9.50.

Chemische Thermodynamik. Wolfgang Wagner. Akademie-Verlag, Berlin; Pergamon, New York; Vieweg, Braunschweig, 1968. 192 pp., illus. Paper, DM 6.80. Wissenschaftliche Taschenbücher, vol. 6.

The Chemistry of Imidoyl Halides. Henri Ulrich. Plenum, New York, 1968. x + 238 pp., illus. \$12.50.

Collected Papers of the Institute of Physical and Chemical Research. 1967. Rikagaku Kenkyusho, Saitama, Japan, 1967. xx + 1178 pp., illus.

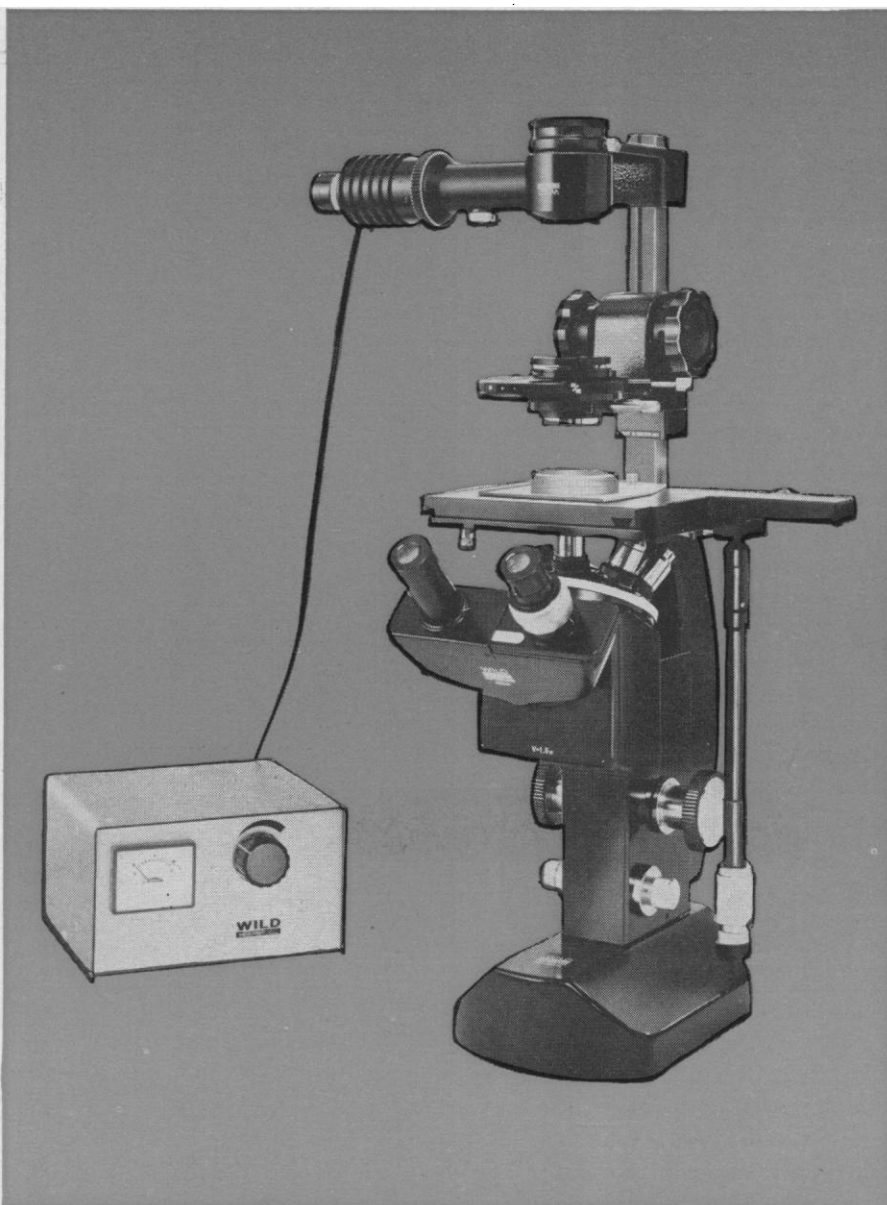
Communal Organizations. A Study of Local Societies. George A. Hillery, Jr. University of Chicago Press, Chicago, 1968. xvi + 376 pp., illus. \$11.

Comprehensive Mental Health. The Challenge of Evaluation. Proceedings of a symposium, Madison, Wis., 1966. Leigh M. Roberts, Norman S. Greenfield, and Milton H. Miller, Eds. University of Wisconsin Press, Madison, 1968. x + 342 pp. \$10.

Computer Calculations for High-Pressure Vapor-Liquid Equilibria. J. M. Prausnitz and P. L. Chueh. Prentice-Hall, Englewood Cliffs, N.J., 1968. xii + 244 pp., illus. \$12.95. Prentice-Hall International Series in the Physical and Chemical Engineering Sciences.

Computers and the Changing World. A Theme for the Automation Age. John Hargreaves. Hutchinson, London, 1967 (U.S. distributor, Hillary House, New

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York). xx + 164 pp., illus., + 8 plates. \$4.50.

Conflict in Culture. Problems of Developmental Change among the Cree. Working Papers of the Cree Developmental Change Project. Norman A. Chance, Ed. Canadian Research Centre for Anthropology, Ottawa, 1968. x + 110 pp., illus. + 16 plates. Paper, \$2.75.

Crime and Culture. Essays in Honor of Thorsten Sellin. Marvin E. Wolfgang, Ed. Wiley, New York, 1968. xviii + 462 pp., illus. \$11.50.

A Cross-Cultural Summary. Robert B. Textor. Human Relations Area Files Press, New Haven, Conn., 1967. 2800 pp. \$29.50.

Daniel Hale Williams. Negro Surgeon. Helen Buckler. Pitman, New York, 1968. xx + 382 pp., illus. \$6.95. Reprint of *Doctor Dan: Pioneer in American Surgery* (1954).

The Dark Side of the House. Yale David Koskoff and Richard Goldhurst. Dial, New York, 1968. xxii + 234 pp., illus. + 8 plates. \$5.95.

Diagnose von Arzneimittell allergien. W. Raab and H. Kleinsorge. Urban and Schwarzenberg, Munich, Germany, 1968. vi + 150 pp., illus. Paper, \$4.90.

Digital Computing. Fortran IV and Its Applications in Behavioral Science. Richard S. Lehman and Daniel E. Bailey. Wiley, New York, 1968. xxvi + 310 pp., illus. \$8.95.

Directorio de Científicos e Instituciones de Centroamérica y Panamá. Published by the Centro Regional de la Unesco para el Fomento de la Ciencia en América Latina, with the collaboration of the Organization of American States, Montevideo, Uruguay, 1968. iv + 268 pp. Paper.

The Diversity of Green Plants. Peter R. Bell and Christopher L. F. Woodcock. Addison-Wesley, Reading, Mass., 1968. x + 374 pp., illus. Paper, \$6.50. A Series of Student Texts in Contemporary Biology.

The Draft and You. A Handbook on the Selective Service System. Leslie S. Rothenberg. Anchor (Doubleday), Garden City, N.Y., 1968. xx + 340 pp. Paper, \$1.45.

Drafting. Technical Communication. Lawrence S. Wright. McKnight, Bloomington, Ill., 1968 (distributor, Taplinger, New York). xviii + 438 pp., illus. \$8.60.

Ecology of Insect Vector Populations. R. C. Muirhead-Thomson. Academic Press, New York, 1968. viii + 176 pp., illus. \$9.50.

The Economic Management of Research and Engineering. Peter C. Sandretto. Wiley, New York, 1968. xiv + 210 pp., illus. \$9.50.

The Electrochemistry of Oxygen. James P. Hoare. Interscience (Wiley), New York, 1968. xiv + 438 pp., illus. \$19.50.

Electron Beam and Laser Beam Technology. L. Marton and A. B. El-Kareh, Eds. Academic Press, New York, 1968. xii + 306 pp., illus. \$13.50. Advances in Electronics and Electron Physics, Supp. 4.

Electron Image Storage. B. Kazan and M. Knoll. With contributions by W. Harth. Academic Press, New York, 1968. xiv + 498 pp., illus. \$19.50.

Encyclopedia of Polymer Science and Technology. Plastics, Resins, Rubbers, Fibers. Herman F. Mark, Norman G. Gaylord, and Norbert M. Bikales, Eds. Vol. 9,

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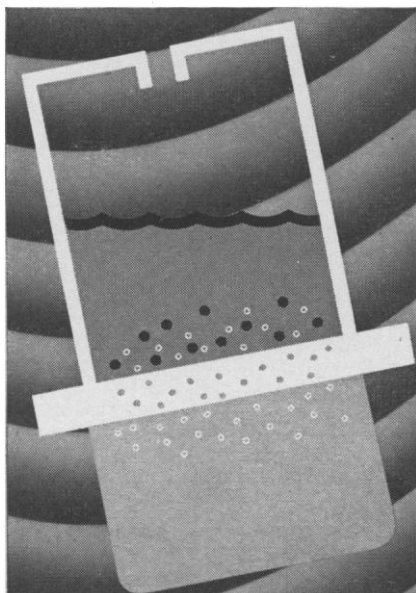
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Molding to Petroleum Resins. Norbert M. Bikales, Jo Conrad, Aria Ruks, and Janet Perlman, Eds. Interscience (Wiley), New York, 1968. xvi + 864 pp., illus. \$50; by subscription, \$40.

English Barometers, 1680-1860. A History of Domestic Barometers and Their Makers. Nicholas Goodison. Potter, New York, 1968. xiv + 354 pp., illus. \$15.

Enzyme Biochemistry of the Arterial Wall. As Related to Atherosclerosis. Tibor Zemplényi. Lloyd-Luke, London, 1968. xii + 276 pp., illus. 90s.

The Epidemiology of Depression. Charlotte Silverman. Johns Hopkins Press, Baltimore, 1968. xx + 188 pp., illus. \$7.50.

Error Detecting Logic for Computers. Frederick F. Sellers, Jr., Mu-Yue Hsiao, and Leroy W. Bearnson. McGraw-Hill, New York, 1968. xx + 300 pp., illus. \$15.

Etude Géologique du Guidimaka (Mauritanie). Essai de Résolution Structurale d'une Série Épimétamorphique. Roger Lille. Bureau de Recherches Géologiques et Minières, Paris, 1967. 402 pp., illus. Paper, 135 F. Mémoires du Bureau de Recherches Géologiques et Minières, No. 55.

Evolution and Hominisation. Papers to the theory of evolution as well as dating, classification and abilities of human hominids. Gottfried Kurth, Ed. Fischer, Stuttgart, Germany, ed. 2, 1968 (U.S. distributor, Abel, Portland, Oreg.). xii + 300 pp., illus. \$12.50.

Excitons, Magnons and Phonons in Molecular Crystals. Proceedings of a symposium, Beirut, 1968. A. B. Zahlan, Ed. Cambridge University Press, New York, 1968. xii + 224 pp., illus. \$11.50.

Exercises in Psychological Testing. E. R. Oetting and George C. Thornton III. Harper and Row, New York, 1968. viii + 232 pp., illus. Paper, \$3.95.

Experience and Capacity. Proceedings of the Fourth International Interdisciplinary Conference on Learning, Remembering, and Forgetting, Pacific Palisades, California, 1966. Daniel P. Kimble, Ed. New York Academy of Sciences, New York, 1968. 248 pp., illus. Paper, \$6.50.

Experiments in Physics. L. A. Sanderman. Pacific Books, Palo Alto, Calif., ed. 4, 1968. vi + 190 pp., illus. Paper, \$3.95.

Exploring Space with a Camera. Edgar M. Cortright, Ed. National Aeronautics and Space Administration, Washington, D.C., 1968 (available from the Superintendent of Documents, Washington, D.C.). x + 214 pp., illus. \$4.25. NASA SP-168.

Feedback Control Theory for Engineers. P. Atkinson. Plenum, New York, 1968. xiv + 434 pp., illus. \$14.50.

Fundamentals of Biostatistics. Stanley Schor. Putnam, New York, 1968. ii + 318 pp., illus. \$8.95.

The Future of Statistics. Proceedings of a conference, Madison, Wis., 1967. Donald G. Watts, Ed. Academic Press, New York, 1968. xviii + 318 pp., illus. \$12.50.

Galen's System of Physiology and Medicine. An Analysis of His Doctrines and Observations on Bloodflow, Respiration, Humors and Internal Diseases. Rudolph E. Siegel. Karger, Basel, Switzerland, 1968 (U.S. distributor, Phiebig, White Plains, N.Y.). xii + 420 pp., illus. \$23.50.

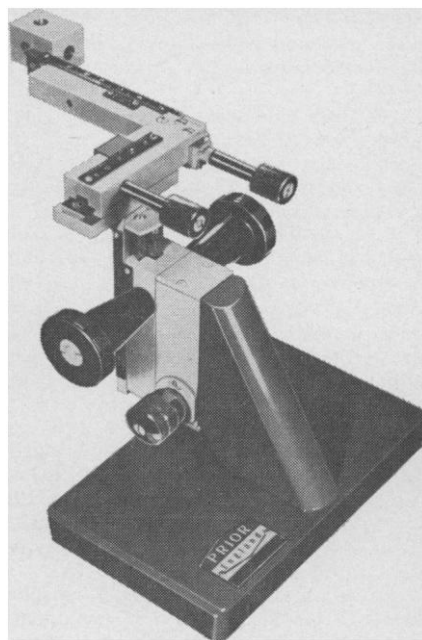
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Translated and edited by Leonard Shapiro and Irving A. Breger. Pergamon, New York, 1968. xxiv + 348 pp., illus., + plates. \$18. International Series of Monographs in Earth Sciences, vol. 28.

Geo-Code. Vol 1, West Edition. Sydney W. Gould. The Gould Fund (Connecticut Agricultural Experiment Station), New Haven, Conn., 1968. xvi + 264 pp., illus. \$12, plus 50¢ postage.

Germany. An Introductory Geography. T. H. Elkins. Praeger, New York, 1968. 334 pp., illus. \$7.

Grasslands of the Monsoon. R. O. Whyte. Praeger, New York, 1968. 328 pp., illus. + 40 plates. \$9.50.

Handbook of Vacuum Physics. Vol. 2, Physical Electronics. A. H. Beck, Ed. Parts 4-6, pp. 399-599. Part 4, Electron Optics; E. A. Ash. Part 5, Heavy Current Electron Beams; A. H. Beck. Part 6, Gridded Valves: Theory and Design Principles; A. H. Beck. Pergamon, New York, 1968. Illus. \$8.50.

H-ICDA. Hospital Adaptation of ICDA. Based on *International Classification of Diseases* (1965 Revision, WHO) and *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (PHS Publication No. 1693). Vol. 1, Tabular List (xviii + 662 pp.). Vol. 2, Alphabetic Index (vi + 498 pp.). Cloth, \$8 the set; paper, \$5. Bound together, cloth, \$10. Commission on Professional and Hospital Activities, Ann Arbor, Mich., 1968.

The Hudhúd of Dinulawan and Bagan at Gonhadan. Francis Lambrecht. Saint Louis University, Baguio City, Philippines, 1967. vi + 449 pp., illus. Cloth, \$8; paper, \$2. Reprinted from *Saint Louis Quarterly*, vol. 5, Nos. 3-4 (Sept.-Dec. 1967).

Human Dimensions of the Atmosphere. Papers by a National Science Foundation Task Group, Feb. 1968. Superintendent of Documents, Washington, D.C., 1968. vi + 174 pp., illus. Paper, \$1.50.

A Hundred Years of Sociology. G. Duncan Mitchell. Aldine, Chicago, 1968. xiv + 310 pp. \$6.95.

The Idle Thoughts of a Surgical Fellow. Being an Account of Experimental Surgical Studies, 1956-1966. Stacey B. Day. With a foreword by Robert A. Good. Cultural and Educational Productions, Nutley, N.J., 1968. 344 pp., illus. \$12.90.

Infantile Cerebral Paralysis. Sigmund Freud. Translated from the German by Lester A. Russin. University of Miami Press, Coral Gables, Fla., 1968. 376 pp. \$15.

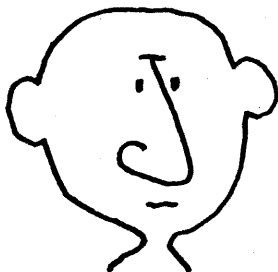
Information Retrieval Systems. Characteristics, Testing, and Evaluation. F. Wilfrid Lancaster. Wiley, New York, 1968. xvi + 224 pp., illus. \$9. Information Sciences Series.

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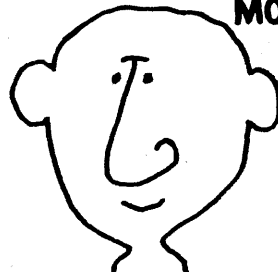
Interaction in Families. An Experimental Study of Family Processes and Schizophrenia. Elliot G. Mishler and Nancy E. Waxler. Wiley, New York, 1968. xii + 436 pp. \$11.95. Wiley Series in Psychology for Practicing Clinicians.

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ON DOING
ALL pH MEASUREMENTS
MYSELF**



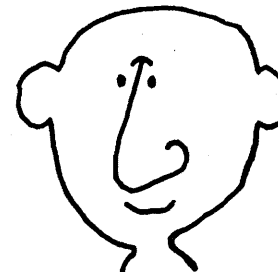
**I WAS RESPONSIBLE
FOR BUDGET AND FIGURED
I'D HOLD ELECTRODE
BREAKAGE DOWN TO ONE A
MONTH**



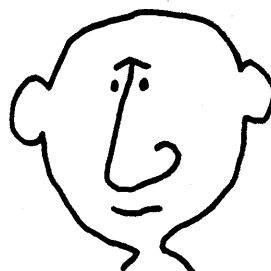
**THEN CORNING
OFFERED A SIX MONTH
ELECTRODE GUARANTEE
AGAINST PRACTICALLY
EVERY-
THING**



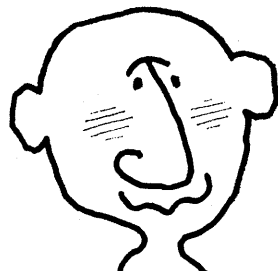
**SO I DECIDED
TO LET EVERYONE
USE THEM AS
HE NEEDED TO--**



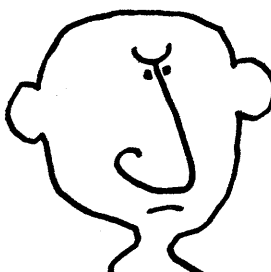
**SO FAR
ONLY ONE'S
BEEN
BROKEN**



**I
DID
THAT**



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I CATCH THE GUY
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International Encyclopedia of the Social Sciences. David L. Sills, Ed. Macmillan and Free Press, New York, 1968. 17 vols., approximately 9000 pp., illus. \$495.

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Invertebrate Zoology. Vol. 2. Arthropod Relatives, Chelicerata, Myriapoda. Alfred Kaestner. Translated and adapted from the German edition (Jena, 1967) by Herbert W. Levi and Lorna R. Levi. Interscience (Wiley), New York, 1968. x + 478 pp., illus. \$22.95.

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Learning Better Nutrition. A Second Study of Approaches and Techniques. Jean A. S. Ritchie. Food and Agriculture Organization of the United Nations, Rome, 1968 (U.S. distributor, Columbia University Press, International Documents Service, New York). xii + 264 pp., illus. \$4. FAO Nutritional Studies, No. 20.

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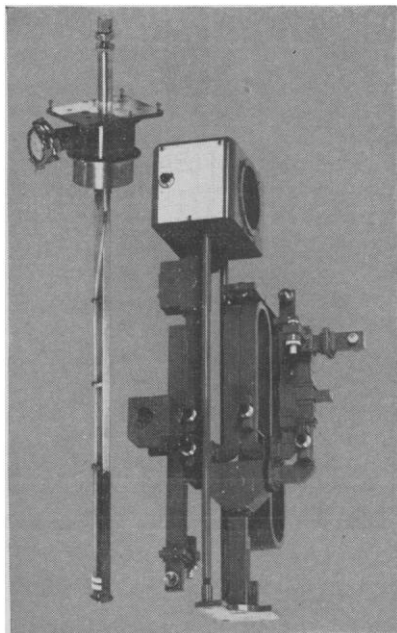
Man the Hunter. Richard B. Lee and Irvén DeVore, Eds., with the assistance of Jill Nash. Aldine, Chicago, 1968. xvi + 416 pp., illus. \$6.95.

The Measurement of Environmental Factors in Terrestrial Ecology. A symposium, Reading, England, 1967. R. M. Wadsworth, L. C. Chapas, A. J. Rutter, M. E. Solomon, and J. Warren Wilson, Eds. Blackwell Scientific Publications, Oxford, 1968. x + 314 pp., illus. \$9.50. British Ecological Society Symposium, vol. 8.

Mechanics of Generalized Continua. Proceedings of the International Union of Theoretical and Applied Mechanics Symposium on the Generalized Cosserat Continuum and the Continuum Theory of Dislocations with Applications. Freudenstadt and Stuttgart, Germany, 1967. E. Kroner, Ed. Springer-Verlag, New York, 1968. xii + 360 pp., illus. \$19.50.

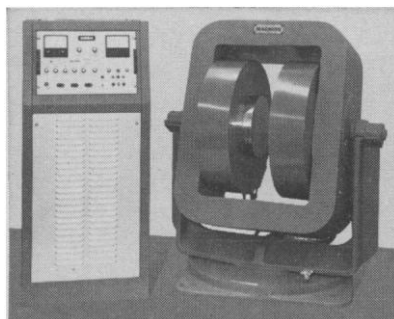
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schweig; Akademische Verlagsgesellschaft, Frankfurt, 1968. viii + 264 pp., illus. Paper, DM 9.80. Uni-texte.

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Medical Handbook. Edited for the International Planned Parenthood Federation Medical Committee by R. L. Kleinman. IPPF, London, ed. 3, 1968. 112 pp., illus. Paper, \$2.50.

Metabolism. Philip L. Altman and Dorothy S. Dittmer, Eds. Federation of American Societies for Experimental Biology, Bethesda, Md., 1968. xxiv + 744 pp., illus. \$20. Biological Handbooks.

Metal Matrix Composites. A symposium, Boston, 1967. American Society for Testing and Materials, Philadelphia, 1968. vi + 234 pp., illus. \$18.50; 20 percent discount to members. ASTM Special Technical Publication No. 438.

Methods of Experimental Physics. Vol. 7, Atomic and Electron Physics. Parts A and B, Atomic Interactions. Benjamin Bederson and Wade L. Fite, Eds. Academic Press, New York, 1968. Part A, xviii + 510 pp., illus. \$21.50; part B, xvi + 376 pp., illus. \$17.

The Microscope. A Practical Guide. George Herbert Needham. Thomas, Springfield, Ill., 1968. xii + 116 pp., illus. \$6.50.

Mind as a Tissue. Proceedings of a conference held at Lankenau Hospital, Philadelphia, 1966. Charles Rupp, Ed. Harper and Row, New York, 1968. x + 358 pp., illus. \$16.50.

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Modern Aspects of Mass Spectrometry. Proceedings of the 2nd NATO Advanced Study Institute, Glasgow, Scotland, July 1966. Rowland I. Reed, Ed. Plenum, New York, 1968. xii + 389 pp., illus. \$20.

The Molecular Basis of Life. An Introduction to Molecular Biology. Readings from *Scientific American*. With introduction by Robert H. Haynes and Philip C. Hanawalt. Freeman, San Francisco, 1968. viii + 368 pp., illus. Cloth, \$10; paper, \$4.95.

Neurological Control System. Studies in Bioengineering. Lawrence Stark. Plenum, New York, 1968. xx + 428 pp., illus. \$17.50.

The Neuropsychology of Development. A Symposium. Robert L. Isaacson, Ed. Wiley, New York, 1968. xii + 180 pp., illus. \$8.95.

Neutron Cross Sections and Technology. Proceedings of a conference, Washington, D.C., 1968. In two volumes. D. T. Goldman, Ed. National Bureau of Standards, Washington, D.C., 1968 (available from the Superintendent of Documents, Washington, D.C.). xl + 1342 pp., illus. \$10.50.

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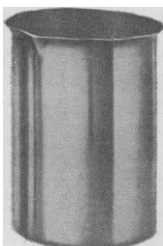


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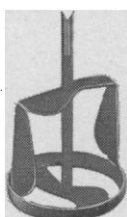
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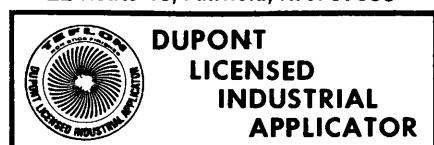
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Notes and Comments on Vertebrate Paleontology. Alfred Sherwood Romer. University of Chicago Press, Chicago, 1968. viii + 304 pp. Cloth, \$6.95; paper, \$3.85.

Nuclear Chemistry. Vol. 2. L. Yaffe, Ed. Academic Press, New York, 1968. xii + 412 pp. \$22.

Nuclear Physics. An Introduction. Haro von Buttlar. Translated from the German edition (Frankfurt, 1964) by Fernando B. Morinigo. Academic Press, New York, 1968. xii + 548 pp., illus. \$14.50.

Nuclear Reaction Analysis. Graphs and Tables. J. B. Marion and F. C. Young. North-Holland, Amsterdam; Interscience (Wiley), New York, 1968. viii + 172 pp., illus. \$12.

Nucleic Acids in Immunology. Proceedings of a Symposium Held at the Institute of Microbiology of Rutgers, The State University. Otto J. Plescia and Werner Braun, Eds. Springer-Verlag, New York, 1968. xviii + 726 pp., illus. \$22.

Occurrence, Causes and Prevention of Nutritional Anaemias. Gunnar Blix, Ed., assisted by Sylvia Molin. Almqvist and Wiksell, Stockholm, 1968, 184 pp., illus. Sw. Kr. 45. Symposia of the Swedish Nutrition Foundation, No. 6.

Ocean Currents. G. Neumann. Elsevier, New York, 1968. xii + 352 pp., illus. \$20. Elsevier Oceanography Series, No. 4.

The Office. A Facility Based on Change. Robert Probst. Business Press, Elmhurst, Ill., 1968 (distributor, Taplinger, New York). 72 pp., illus. Paper, \$8.

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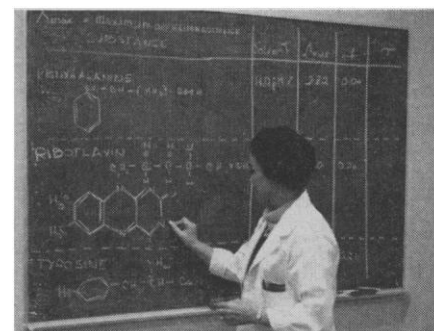
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Overweight. Causes, Cost, and Control. Jean Mayer. Prentice-Hall, Englewood Cliffs, N.J., 1968. x + 214 pp., illus. \$5.95.

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Photosynthesis. G. E. Foggs. Elsevier, New York, 1968. xii + 116 pp., illus., 12 plates. Paper, \$3.95.

The Phylogeny of the Oreodonts. Part 1, Merycoidodontinae, Eporeodontinae, and Laptacheninae, Three Subfamilies of Oreodonts, with an Appendix to the Revision of the Merycoidodontidae. Part 2, Summary and Conclusions concerning the Merycoidodontidae. C. Bertrand Schultz and Charles H. Falkenbach. American Museum of Natural History, New York, 1968. 500 pp., illus. Paper, \$15. AMNH Bulletin, vol. 139.

Physiological Chemistry of Lipids in Mammals. Edward J. Masoro. Saunders, Philadelphia, 1968. xiv + 306 pp., illus. \$7.75. Physiological Chemistry Series.

The Physiology of Sense Organs. DeForest Mellon, Jr. Freeman, San Francisco, 1968. viii + 110 pp., illus. \$4. University Reviews in Biology.

Plant-Disease Development and Control. Subcommittee on Plant Pathogens of the Committee on Plant and Animal Pests. National Academy of Sciences, Washington, D.C., 1968. xvi + 208 pp., illus. Paper, \$4.75. NAS Publication 1596. Principles of Plant and Animal Pest Control, vol. 1.

Plant Immunity. Biochemical Aspects of Plant Resistance to Parasitic Fungi. L. V. Metlitskii and O. L. Ozeretskovskaya. Translated from the Russian. Plenum, New York, 1968. vi + 114 pp., illus. \$12.50.

Prepaid Group Practice Health Plans. Proceedings of a seminar conducted by the University of Colorado Center for Labor Education and Research, Denver, 1968. Walter H. Uphoff, Ed. University of Colorado Press, Boulder, 1968. vi + 98 pp. Paper, \$2. CLEAR Publication No. 2.

Prevention of Suicide. World Health Organization, Geneva, 1968 (U.S. distributor, Columbia University Press, New York). 84 pp. Paper, \$1.25. Public Health Papers, No. 35.

Priority Queues. N. K. Jaiswal. Academic Press, New York, 1968. xiv + 242 pp., illus. \$12. Mathematics in Science and Engineering, vol. 50.

Proceedings of the Fourth Meeting of the Federation of European Biochemical Societies, Oslo, 1967. In six volumes. Regulation of Enzyme Activity and Allosteric Interactions; E. Kvamme and A. Pihl, Eds. (viii + 172 pp., illus. \$8). The Biochemistry of Virus Replication; S. G. Laland and L. O. Fröholm, Eds. (viii + 108 pp., illus. \$8). Structure and Function of Transfer RNA and 5S-RNA; L. O. Fröholm and S. G. Laland, Eds. (viii + 188 pp., illus. \$8). Cellular Compartmentalization and Control of Fatty Acid Metabolism; F. C. Gran, Ed. (viii + 116 pp., illus. \$8). Control of Glycogen Metabolism; W. J. Whelan, Ed. (viii + 224 pp., illus. \$8). Structure and Function of the Endoplasmic Reticulum in Animal Cells; F. C. Gran, Ed. (viii + 100 pp., illus. \$8). Universitetsforlaget, Oslo; Academic Press, New York, 1968.



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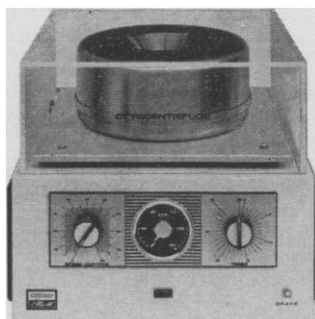
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Progress in Physical Organic Chemistry. Vol. 6. Andrew Streitwieser, Jr., and Robert W. Taft, Eds. Interscience (Wiley), New York, 1968. viii + 472 pp., illus. \$17.

The Properties of Fresh Concrete. Treval C. Powers. Wiley, New York, 1968. xxii + 664 pp., illus. \$29.50.

Psychosocial Nursing. Elizabeth Barnes, Ed. Tavistock, London, 1968 (U.S. distributor, Barnes and Noble, New York). xx + 316 pp., illus. Cloth, \$10; paper, \$4.75.

Rebellion or Revolution? Harold Cruse. Morrow, New York, 1968. 272 pp. \$6.95.

Recent Advances in Pediatric Clinical Pathology. C. Charlton Mabry, Irene E. Roeckel, Robert E. Gevedon, and John A. Koepke. Grune and Stratton, New York, 1968. viii + 248 pp., illus. \$14.50.

Research in Progress. A record of subjects taken up for research by scholars registered for doctoral degrees with the Indian universities during 1958-66. Vol. 1, Physical Sciences. Inter-University Board of India and Ceylon, New Delhi, 1968. xx + 432 pp. \$11.

Revolution in Optics. S. Tolansky. Penguin, Baltimore, 1968. 224 pp., illus., 12 plates. Paper, \$1.45.

Riots and Rebellion. Civil Violence in the Urban Community. Louis H. Masotti and Don R. Bowen, Eds. Sage, Beverly Hills, Calif., 1968. 460 pp. \$8.50.

The Rodents of Libya. Taxonomy, Ecology and Zoogeographical Relationships. Gary L. Ranck. Smithsonian Institution Press, Washington, D.C., 1968 (available from the Superintendent of Documents, Washington, D.C.). viii + 264 pp., illus., 8 plates. Paper, \$1.50. U.S. National Museum Bulletin 275.

The Role of Potassium in Agriculture. Proceedings of a symposium, Muscle Shoals, Ala., 1968. V. J. Kilmer, S. E. Younts, and N. C. Brady, Eds. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Madison, Wis., 1968 (distributor, ASA). xvi + 512 pp., illus. \$7.50; members of ASA, CSSA, SSSA, \$6.

Scientific Thought. Cases from Classical Physics. J. A. Easley, Jr. and Maurice M. Tatsuoka. Allyn and Bacon, Boston, 1968. xii + 340 pp., illus. Paper, \$2.95.

Seismic Methods for Monitoring Underground Explosions. An Assessment of the Status and Outlook. Report by a Seismic Study Group. David Davies, rapporteur. International Institute for Peace and Conflict Research (SIPRI), Stockholm, 1968. 132 pp., illus. \$2.50.

The Self in Social Interaction. Chad Gordon and Kenneth J. Gergen, Eds. Vol. 1, Classic and Contemporary Perspectives. Wiley, New York, 1968. xiv + 478 pp. \$9.95.

The Social Order of the Slum. Ethnicity and Territory in the Inner City. Gerald D. Suttles. University of Chicago Press, Chicago, Ill., 1968. xxii + 248 pp., illus. \$8.95. Studies of Urban Society.

Southwest Pacific. A Geography of Australia, New Zealand, and Their Pacific Island Neighbors. Kenneth B. Cumberland. Praeger, New York, rev. ed., 1968. xviii + 424 pp., illus. \$9.