

areas. But he does not confine himself to a more detailed description, rather an attempt is made to find a physical explanation for the occurrences and course of climatic elements. Although there are not many tables and maps, the text is sufficiently illustrated; nevertheless, foreigners would perhaps derive more benefit from the book had more tables been used.

Generally, this book presents considerable information. It is easy and pleasant to read and even has some poetical citations, among them a wonderful description, from Turgenev's classic "The Diary of a Hunter," of a summer day in the forest-steppe area.

The translation is generally good. However, there are some shortcomings that may be partly misprints—for example, burana instead of buran; Benzenchuk instead of Bezenchuk, a misprint in Table 16, and "Papanintsev's observations showed . . ." instead of "Observations during Papanin's expeditions showed . . ." (p. 108). More serious is "nucleus-less winters" (p. 108). This is wrong; it should be "core-less winters," or a German word, frequently used in this country, "kernlose winters." It is also difficult to understand why the translator writes "Vize"; the same persons also published numerous papers in Germany as "Wiese." Unfortunately this same error stems back many years in translation practice, apparently owing to the translators' ignorance of the subject matter.

The subject index is a very commendable addition to the translation. The printing is excellent.

P. PUTNINS

*Environmental Science Services
Administration, Washington, D.C.*

Introductory Astronautics

Science education seems to be the common concern of scientists and engineers, and **Astronautics for Science Teachers** (Wiley, New York, 1965. 398 pp., \$8.95), edited by John G. Meitner, represents another contribution in this area. Specifically, this book was "prepared by space scientists and engineers in order to bring [high school] teachers up to date in astronautics, so that they can introduce some of its facets into their science classes." Unfortunately, astronautics seems to embrace practically every phase of science and engineering, and in their zeal the authors cover

the spectrum of subjects from DNA to relativity.

The longest chapters are those entitled "Orbits," "Semiconductor electronics," "Rocket propulsion," and "The nature of space." The remainder are concerned principally with space exploration, life in space, and the next decade in astronautics. The emphasis throughout is on space travel and space exploration; and the book is replete with speculation that borders on science fiction, and with sweeping generalizations. ("Most innovations of our civilization—in fact *all* innovations throughout the history of mankind—are either engineering developments or medical developments.")

In view of the intended reader, it is not surprising that the technical discussions are usually grossly oversimplified; but they are also often incorrect. Not infrequently the level of presentation seems geared for the student in grade school. On the other hand, the chapter on orbits and trajectories offers a formidable challenge to any science teacher.

The experienced teacher will have little difficulty in spotting numerous errors. Some are understandable in view of the need for simplification of advanced concepts. Others display either a lack of understanding on the part of the author or a disdain of the comprehension level of science teachers. Still others, like the figure that displays trajectories of projectiles and satellite orbits (p. 111), are inexcusable by any standards.

No doubt the perceptive reader will gather a great deal of information on astronautics. It is doubtful, however, whether the average teacher will have learned much of the basic principles of the subject.

LEON BLITZER

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University of Arizona, Tucson*

New Books

General

Abridged Science for High School Students. vols. 1 and 2. Nuclear Research Foundation, School Certificate Integrated Science Textbook Group of Authors and Editors. H. Messel, Chairman. Nuclear Research Foundation, Univ. of Sydney, Australia, 1966. vol. 1, 288 pp.; vol. 2, 334 pp. Illus.

Action and Purpose. Richard Taylor. Prentice-Hall, Englewood Cliffs, N.J., 1966. 283 pp. \$5.95.

The Annual of Czechoslovak Medical Literature 1963. Josef Navrátil, Ed. Czechoslovak Medical Press, Prague, 1965. 688 pp. Paper. Books, the proceedings of congresses and conferences, university publications, and journals are listed; there is a list of the periodicals indexed.

Antarctica: The Worst Place in the World. Allyn Baum. Macmillan, New York, 1966. 159 pp. Illus. \$3.95.

Applied Research in Education. E. Wayne Courtney, Ed. Littlefield, Adams, Totowa, N.J., 1965. 355 pp. Paper, \$2.25.

Astronomical Dictionary: Chinese-English, English-Chinese. Hong-Yee Chiu, Ed. Consultants Bureau, New York, 1966. 187 pp. \$15.

Bibliography of Hookworm Disease (Ancylostomiasis) 1920–1962. WHO, Geneva, 1965 (order from Columbia Univ. Press, New York). 251 pp. Paper, \$4. More than 4000 references, arranged alphabetically by author, and a combined subject and geographical index in English and French.

Birds of Colorado. vols. 1 and 2. Alfred M. Bailey and Robert J. Niedrach. Denver Museum of Natural History, Denver, Colo., 1965. vol. 1, 466 pp.; vol. 2, 451 pp. Illus. Plates. \$35.

Chemistry. Royal B. Leach and Galen W. Ewing. Doubleday, Garden City, N.Y., 1966. 408 pp. Illus. \$5.95. A TutorText.

The Correspondence of Henry Oldenburg. vol. 3, 1666–1667. Edited and translated by A. Rupert Hall and Marie Boas Hall. Univ. of Wisconsin Press, Madison, 1966. 679 pp. Illus. \$12.50.

Defense Purchases and Regional Growth. Roger E. Bolton. Brookings Institution, Washington, D.C., 1966. 203 pp. Illus. Paper, \$2.50.

Depths of the Earth: Caves and Cavers of the United States. William R. Halliday. Harper and Row, New York, 1966. 414 pp. Illus. \$7.50.

Dictionary of Chemistry and Chemical Technology in Six Languages: English, German, Spanish, French, Polish, Russian. Z. Sobocka, W. Chojnski, and P. Majorek. Pergamon, New York; Wydawnictwa Naukowo-Techniczne, Warsaw, 1966. 1333 pp. \$30. Revised edition of *Dictionary of Chemistry and Chemical Technology in Four Languages* (1962).

A Dictionary of Quotations. O. A. Battista. Reader-Services Company, Morrisville, Pa., 1966. 283 pp. \$4.95.

Elementary Logic. Willard Van Orman Quine. Harvard Univ. Press, Cambridge, Mass., ed. 2, 1966. 141 pp. Illus. \$3.50.

The Experimental Investigation of Meaning: A Review of the Literature. Marjorie B. Creelman. Springer, New York, 1966. 240 pp. \$6.75.

How to Live with Schizophrenia. Abram Hoffer and Humphry Osmond. University Books, New Hyde Park, N.Y., 1966. 189 pp. \$5.95.

Illustrierte Geschichte der Medizin. Th. Meyer-Steinig and K. Sudhoff. Robert Herrlinger and Fridolf Kudlien, Eds. Fischer, Stuttgart, Germany, 1965. 361 pp. Illus. \$10.50.

Integrated Data Processing Systems. E. Jerome McCarthy, J. A. McCarthy, and Durward Humes. Wiley, New York, 1966. 575 pp. Illus. \$8.95.

(Continued on page 567)

NEW BOOKS

(Continued from page 499)

Inventor and Entrepreneur: Recollections of Werner von Siemens. Lund Humphries, London; Prestel-Verlag, Munich, ed. 2, 1966. 314 pp. Illus. 54s.

Investigaciones Arqueologicas en el Sitio de el Inga, Ecuador. Robert E. Bell. Casa de la Cultura, Quito, Ecuador, 1965 (available from The Stovall Museum, Univ. of Oklahoma, Norman). 334 pp. Illus. Paper, \$6.

The Language of Logic. Hans Freudenthal. Elsevier, New York, 1966. 111 pp. Illus. \$5. Published in 1961 as *Exacte Logica* (Bohn, Haarlem, Netherlands).

Marcello Malpighi: And the Evolution of Embryology. vols. 1 to 5. Howard B. Adelmann. Cornell Univ. Press, Ithaca, N.Y., 1966. vol. 1, 750 pp. plates; vol. 2, 316 pp. plates; vol. 3, 524 pp.; vol. 4, 550 pp.; vol. 5, 427 pp.

Microbes in Your Life. Leo Schneider. Harcourt, Brace, and World, New York, 1966. 154 pp. Illus. \$3.75 (juvenile book).

The Noble Gases. Isaac Asimov. Basic Books, New York, 1966. 183 pp. \$4.50.

The Nursing Profession: Five Sociological Essays. Fred Davis, Ed. Wiley, New York, 1966. 217 pp. Illus. \$6.95. Five essays: "Nursing leadership and policy: Some cross-national comparisons" by William A. Glaser; "The structure and ideology of American nursing: An interpretation" by Anselm Strauss; "The organizational context of nursing practice" by Hans O. Mauksch; "Problems and issues in collegiate nursing education" by Fred Davis, Virginia L. Olesen, and Elvi Waik Whittaker; and "Nursing and patient care" by Esther Lucile Brown.

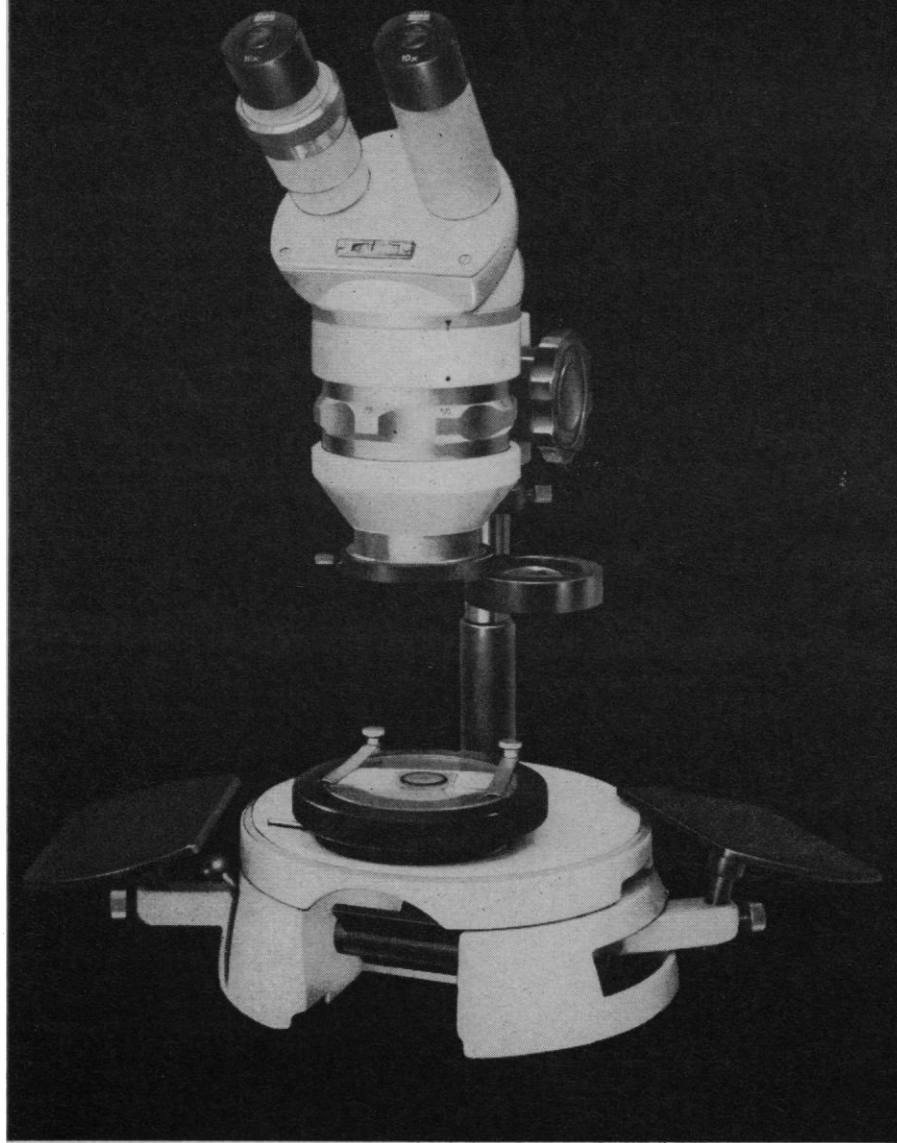
The Origin of the Solar System: Genesis of the Sun and Planets, and Life on Other Worlds. Thornton Page and Lou Williams Eds. Macmillan, New York, 1966. 352 pp. Illus. \$7.95. Sky and Telescope Library of Astronomy, vol. 3, edited by Thornton Page and Lou Williams Page; based on articles published in *The Sky*, *Sky and Telescope*, and *The Telescope* from 1936 to 1965.

Population Ecology and Management of Wisconsin Pheasants. Frederic H. Wagner, C. D. Besadny, and Cyril Kabat. Wisconsin Conservation Department, Madison, 1965. 168 pp. Illus. Paper.

Zur Problematik der materialistisch-dialektischen Analyse und Interpretation physikalischer Forschungsergebnisse. J. Wolfgang Görlich. Harrassowitz, Wiesbaden, Germany, 1965. 133 pp. Paper, DM. 22. Philosophische und Soziologische Veröffentlichungen Series, vol. 8, edited by Hans-Joachim Lieber.

Professionalization. Howard M. Vollmer and Donald L. Mills, Eds. Prentice-Hall, Englewood Cliffs, N.J., 1966. 383 pp. \$9.25. Forty-two papers: The Concept of Professionalization (6 papers); The Social Context of Professionalization (5 papers); Individuals and Professionalization (5 papers); Professional Controls (3 papers); Professional Associations and Colleague Relations (5 papers); Client and Public Relations (3 papers); Relations Among Occupational Groups (5 papers); Professionals and Complex Organizations

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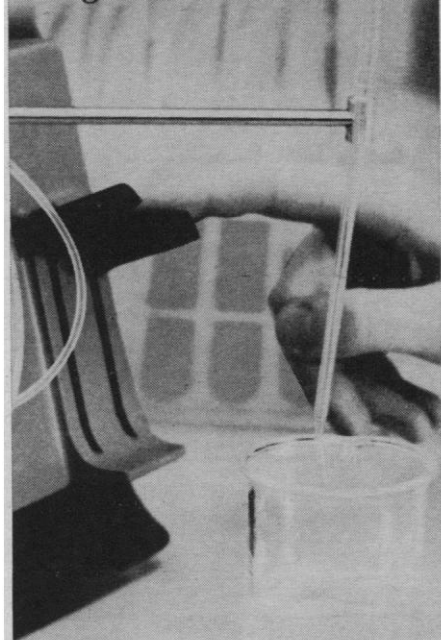
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(4 papers); Professionals and the Government (4 papers); and Status Differences and Professionalization (2 papers).

A Prophet in Two Countries: The Life of F. E. Simon. Nancy Arms. Pergamon, New York, 1966. 179 pp. Illus. Paper, \$2.45.

Psychoanalysis in America: Historical Perspectives. Murray H. Sherman, Ed. Thomas, Springfield, Ill., 1966. 530 pp. \$15.75. Twenty-eight papers: Retrospect (3 papers); Clinical Contributions (7 papers); The Problem of Technique (7 papers); Applications to Culture (4 papers); and Contributions to Theory (7 papers).

Reliability Abstracts and Technical Reviews. vol. 5, *Abstracts 1696–2377*. Natl. Aeronautics and Space Administration, Washington, D.C., 1965. Unpaged.

Review of Textile Progress: A Survey of World Literature. vol. 16, 1964. Textile Institute and the Soc. of Dyers and Colourists, London; Butterworth, Washington, D.C., 1965. 468 pp. Illus. \$16.95. Twenty-five papers on the following topics: Production and Properties of Fibres (6 papers); Conversion of Fibres into Finished Yarns (4 papers); Fabric Production and Properties (3 papers); Chemicals for the Textile Industry (1 paper); Chemical and Other Processes (8 papers); Analysis, Testing, Grading, and Defects (2 papers); and Industrial Applications of Textiles (1 paper).

The Roots of Social Work. S. C. Kohs. Association Press, New York, 1966. 189 pp. \$4.

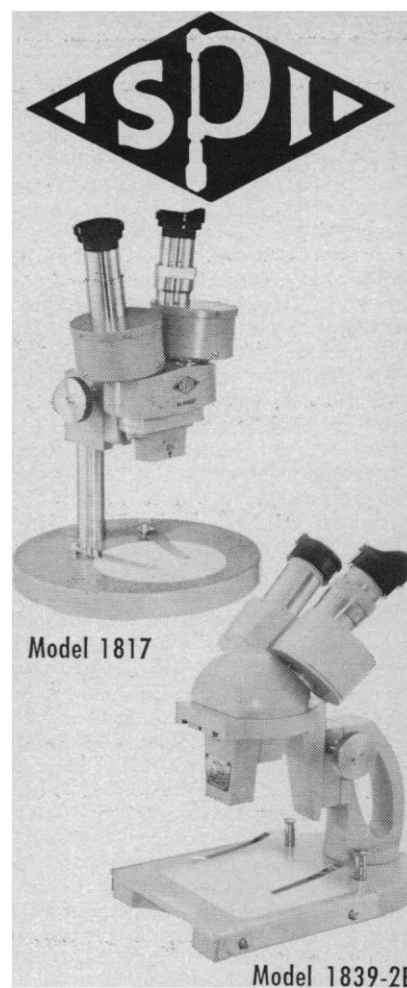
Science for High School Students. vols. 1 and 2. Nuclear Research Foundation, School Certificate Integrated Science Textbook Group of Authors, H. Messel, Chairman. Nuclear Research Foundation, Univ. of Sydney, 1965. vol. 1, 558 pp.; vol. 2, 482 pp. Illus.

Science in Progress. vol. 15. Wallace R. Brode, Ed. Yale Univ. Press, New Haven, Conn., 1966. 431 pp. Illus. \$10. Sigma Xi—RESA National Lectureships 1963–1964; 12 essays: "The muse and the axiom" by Harold G. Cassidy; "Aerial photography—a valuable sensor for the scientist" by Robert N. Colwell; "The photoperiodic control of reproductive cycles in birds" by Donald S. Farner; "The energy environment in which we live" by David M. Gates; "Salt transport across cell membranes" by Sterling B. Hendricks; "The prehistoric Great Lakes of North America" by Jack L. Hough; "The retinex" by Edwin H. Land; "Taste—its sensory and motivating properties" by Carl Pfaffmann; "On the role of eddies in fluid motion" by Hunter Rouse; "Tell-tale dust" by Paul B. Sears; "Information processing in computer and man" by Herbert Simon and Allen Newell; and "Investigation of crystalline imperfections and properties of materials" by Sigmund Weissmann.

Sleep. Gay Gaer Luce and Julius Segal. Coward-McCann, New York, 1966. 335 pp. \$5.95.

Smithsonian Treasury of 20th-Century Science. Webster P. True, Ed. Simon and Schuster, New York, in cooperation with Smithsonian Institution, Washington, D.C., 1966. 544 pp. Illus. \$7.95. Twenty-six papers.

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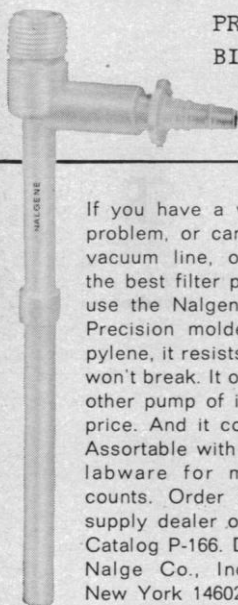
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ergy. L. J. Anthony. Pergamon, New York, 1966. 255 pp. Illus. \$8. International Series of Monographs in Library and Information Sciences.

The Story of Medicine. D. W. Sylvester. St. Martin's Press, New York, 1965. 64 pp. Illus. \$3.25 (juvenile book).

The Velikovsky Affair: The Warfare of Science and Scientism. Alfred de Grazia, Ed. University Books, New Hyde Park, N.Y., 1966. 264 pp. \$5.95. Six papers: "Minds in chaos" by Ralph E. Juergens; "Aftermath to exposure" by Ralph E. Juergens; "The inconstant heavens" by Livio C. Stecchini; "Astronomical theory and historical data" by Livio C. Stecchini; "The scientific reception system" by Alfred de Grazia; and "Additional examples of correct prognosis" by Immanuel Velikovsky.

Wonders Under the Earth. Murray T. Pringle. Lantern Press, New York, 1966. 218 pp. Illus. \$3.95 (juvenile book).

Xerography and Related Processes. John H. Dessauer and Harold E. Clark, Eds. Focal Press, New York, 1965. 520 pp. Illus. \$38. Chapters contributed by staff members of Research and Engineering Division, Xerox Corporation and Applied Research Division, Battelle Memorial Institute.

A Zoo Man's Notebook. Lee S. Crandall and William Bridges. Univ. of Chicago Press, Chicago, Ill., 1966. 224 pp. Illus. \$4.95.

Biological and Medical Sciences

Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought. George C. Williams. Princeton Univ. Press, Princeton, N.J., 1966. 317 pp. Illus. \$6.50.

Annual Review of Pharmacology. vol. 6. Henry W. Elliott, Windsor C. Cutting, and Robert H. Dreisbach, Eds. Annual Reviews, Palo Alto, Calif., 1966. 504 pp. \$8.50.

The Bamboos: A Fresh Perspective. F. A. McClure. Harvard Univ. Press, Cambridge, Mass., 1966. 365 pp. Illus. \$10.

Biological Mechanisms of Aging. Howard J. Curtis. Thomas, Springfield, Ill., 1966. 147 pp. Illus. \$6.50. American Lectures in Living Chemistry Series, edited by I. Newton Kugelmass.

Biology. Willis H. Johnson, Richard A. Laubengayer, Louis E. DeLanney, and Thomas A. Cole. Holt, Rinehart, and Winston, New York, ed. 3, 1966. 800 pp. Illus. \$9.50.

British Pharmacopoeia 1963: Addendum 1966. Published under the direction of the General Medical Council. Pharmaceutical Press, London, 1966. 126 pp. Illus. 45s.

Chromosome Techniques: Theory and Practice. Arun Kumar Sharma and Archana Sharma. Butterworth, Washington, D.C., 1965. 484 pp. Illus. \$17.50.

Cybernetics and Development. Michael J. Apter. Pergamon, New York, 1966. 200 pp. Illus. \$8. International Series of Monographs in Pure and Applied Biology, edited by G. A. Kerkut.

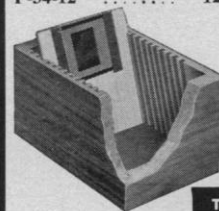
Diagnostic Criteria for Plants and Soils. Homer D. Chapman, Ed. Division of Agricultural Sciences, Univ. of California, Berkeley, 1966. 799 pp. Illus. \$17.50.



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Endosymbiosis of Animals with Plant Microorganisms. Paul Buchner. Based on a translation of the revision of the German edition (Stuttgart, 1953) by Bertha Mueller and Francis H. Foekler. Interscience (Wiley), New York, 1965. 927 pp. Illus. \$35.

The Foundations of Genetics. F. A. E. Crew. Pergamon, New York, 1966. 216 pp. Illus. Paper, \$3.75. The Commonwealth and International Library.

Foundations of Nutrition. Clara Mae Taylor and Orrea Florence Pye. Macmillan, New York, ed. 6, 1966. 576 pp. Illus. \$7.95.

General and Comparative Physiology. William S. Hoar. Prentice-Hall, Englewood Cliffs, N.J., 1966. 829 pp. Illus. \$15.50.

General Biology. Fred M. Speed. Merrill, Columbus, Ohio, 1966. 479 pp. Illus. \$8.50.

Grasshoppers and Locusts: A Handbook of General Acridology. vol. 1, *Anatomy, Physiology, Development, Phase Polymorphism, Introduction to Taxonomy.* Sir Boris Uvarov. Published for the Anti-Locust Research Centre by Cambridge Univ. Press, New York, 1966. 493 pp. Illus. \$18.50.

Higher Cortical Functions in Man. Aleksandr Romanovich Luria. Translated from the Russian edition (Moscow, 1962) by Basil Haigh. Basic Books and Consultants Bureau, New York, 1966. 529 pp. Illus. \$17.50.

Laboratory Techniques in Zoology. Roy Mahoney. Butterworth, Washington, D.C., 1966. 410 pp. Illus. \$12.50.

Mammalian Cell Water: Physiologic and Clinical Aspects. Edwin G. Olmstead. Lea and Febiger, Philadelphia, 1966. 200 pp. Illus. \$8.

Mathematics in Medicine and the Life Sciences. George R. Stibitz. Year Book Medical Publishers, Chicago, 1966. 391 pp. Illus. \$12.50.

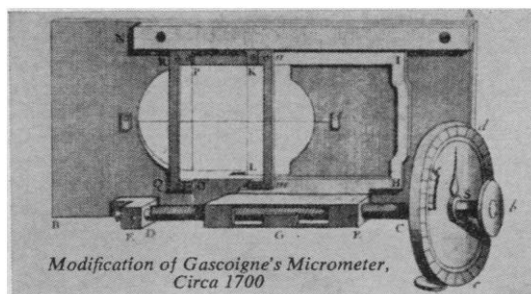
Die Mehrfaktorenanalyse in der Biologie. Werner Schmidt. Deubner, Köln, Germany, 1965. 146 pp. Illus. Paper, DM. 9.60.

The Metabolic Basis of Inherited Disease. John B. Stanbury, James B. Wyngaarden, and Donald S. Fredrickson, Eds. McGraw-Hill, New York, ed. 2, 1966. 1446 pp. Illus. \$35. There are 61 chapters by 72 contributors.

Méthodes nouvelles en embryologie: Détection de molécules par l'immunochimie. Etienne Wolff, Ed. Hermann, Paris, 1965. 231 pp. Illus. Paper, F. 54. Six lectures in French or English.

Methods of Animal Experimentation. vol. 2. William I. Gay, Ed. Academic Press, New York, 1965. 624 pp. Illus. \$18.50. Eleven papers: "Radiation hygiene" by Neal S. Nelson and John H. Rust; "Use of ionizing radiation for measuring biological phenomena" by Neal S.

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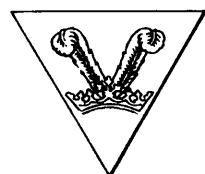
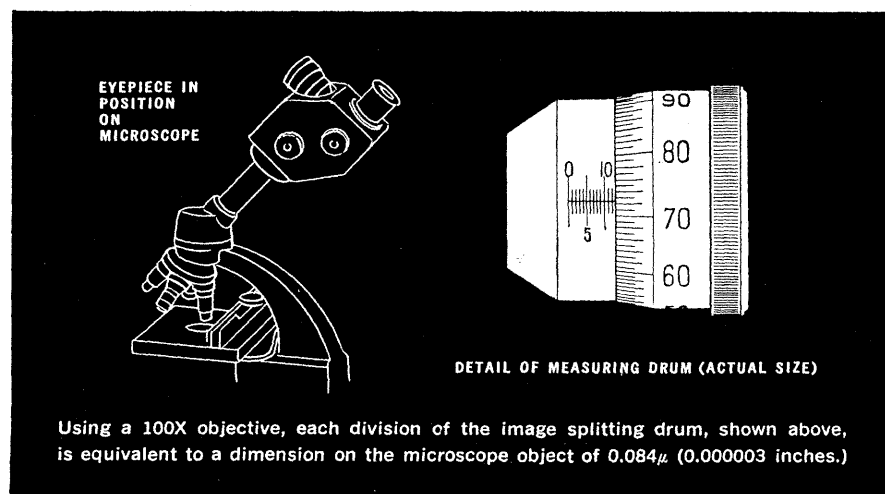


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A Monograph on Chlordane: Toxicological and Pharmacological Properties. L. Ingle. Velsicol Chemical Corp., Chicago, 1965. 88 pp.

Nuclear Hematology. E. Szirmai, Ed. Academic Press, New York, 1965. 605 pp. Illus. \$22.50. Seventeen papers.

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