

the field, considers the general relationship of roots to some soil microorganisms, and attempts to define mycorrhizae.

The second part, dealing with ectotrophic mycorrhizae, is the most important portion of the book. The author, eminently qualified to discuss the physiology of ectotrophic mycorrhizae has leaned heavily on his own researches and on those of British colleagues. The discussions of the structure and development of mycorrhizae and the physiology of salt absorption are the most impressive portions of the book. Since so much of the experimental evidence on salt absorption was based on excised mycorrhizae, Harley's own words seem appropriate. He writes about carbohydrate absorption (page 97) "No one would make wild ecological assertions concerning the significance of sugar uptake by carrot discs, peas or cereal roots, and I pray that none will be made for beech mycorrhiza."

The final section on endotrophic mycorrhizae is admittedly a conglomerate of observations made by many investigators. It is a good review and makes physiological sense out of some of the better research and observational reports.

This book will serve as a valuable reference for workers on mycorrhizae and could be very useful to students in a seminar-type course.

EDWARD HACSKEYLO
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Diagnosis of Veterinary Parasitisms. J.

H. Whitlock. Lea and Febiger, Philadelphia, Pa., 1960. 236 pp. Illus. \$10.

This handbook brings together information essential for the generic diagnosis of the common arthropod and helminth parasites of domestic animals, some of which occasionally attack man. The author is to be congratulated for using up-to-date nomenclature. The book is profusely illustrated with the author's photomicrographs, which reproduce with extraordinary precision the structures of cleared nematode specimens, and with many line drawings and other illustrations of parasites which have been taken from the literature.

According to the author, the book is not intended to take the place of

diagnostic monographs, which must still be consulted in order to identify these parasites to species, but to serve as a bridge between the parasitological laboratory and the clinical laboratory of the veterinarian.

The title is something of a misnomer since the Protozoa are not included. Although practically all of the material considered essential for the author's purpose is quoted from other sources, the book falls short of being an introduction to the relevant literature, perhaps because of space limitations. Since it does not contain original contributions, it is doubtful that professional parasitologists would find the book of more than passing interest.

In some instances, the lack of uniformity in handling citations makes it difficult to locate the original source. Occasionally, the student may be misled: the Class Pentastomida is included under the Order Acarina (page 83), and the Phylum Acanthocephala is discussed in the chapter entitled, "The suborders Dioctophymata and Trichurata" (page 221), but this arrangement may have been made for convenience. The portions of the book dealing with the bionomics of the parasites and with parasitological philosophy might appear to be somewhat out of place in a book on the diagnosis of parasitism. The book is singularly free from typographical errors; I found only two. One of these, however, occurred in the running headings on the odd-numbered pages 145 to 155 where "Strongyloidea" appears instead of "Strongyloidea." The book is very attractive; the paper, typography, and illustrations are excellent.

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Service, U.S. Department of
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New Books

Biological and Medical Sciences

American Meat Institute Foundation. *The Science of Meat and Meat Products*. Freeman, San Francisco, 1960. 448 pp. Text edition, \$8; trade edition, \$9.60.

Calderone, Mary Steichen, Phyllis Goldman, Robert P. Goldman. *Release from Sexual Tensions*. Toward an understanding of their causes and effects in marriage. Random House, New York, 1960. 353 pp. \$4.95.

Clausen, Robert T. *Sedum of the Trans-Mexican Volcanic Belt*. An exposition of taxonomic methods. Cornell Univ. Press

(Comstock Associates), Ithaca, N.Y., 1959. 390 pp. \$7.75.

Darrah, William C. *Principles of Paleobotany*. Ronald, New York, 1960. 302 pp. \$6.50.

Desikachary, T. V. *Cyanophyta*. Monographs on algae. Indian Council of Agricultural Research, New Delhi, 1959. 686 pp. Sh. 72.

Esau, Katherine. *Anatomy of Seed Plants*. Wiley, New York, 1960. 392 pp. \$6.95.

Featherstone, Robert M., and Alexander Simon, Eds. *A Pharmacologic Approach to the Study of the Mind*. Thomas, Springfield, Ill., 1960. 427 pp. \$10.75. Papers presented at a symposium sponsored by the University of California's San Francisco Medical Center.

Huberty, Martin R., and Warren L. Flock, Eds. *Natural Resources*. McGraw-Hill, New York, 1959. 574 pp. \$11. Papers in this volume were prepared as a series of lectures given in an extension course at the University of California, Los Angeles. Covering all natural resources, the volume provides information on both renewable and non-renewable resources. The technological developments and aspects considered are nuclear energy, solar energy, geophysical prospecting, conversion of saline water to fresh water, and air pollution. The social and economic aspects are also considered.

Jenness, Robert, and Stuart Patton. *Principles of Dairy Chemistry*. Wiley, New York; Chapman and Hall, London, 1959. 454 pp. \$8.75.

Meyer, Bernard S., Donald B. Anderson, Richard H. Bohning. *Introduction to Plant Physiology*. Van Nostrand, Princeton, N.J., 1960. 546 pp. \$7.50. Written in response to the demand for a condensation of the text *Plant Physiology* by Anderson and Meyer, this book is based on that text, but new material has been added and other material has been rewritten.

Migdalski, Edward C. *How to Make Fish Mounts and Other Fish Trophies*. Ronald, New York, 1960. 228 pp. \$5.50.

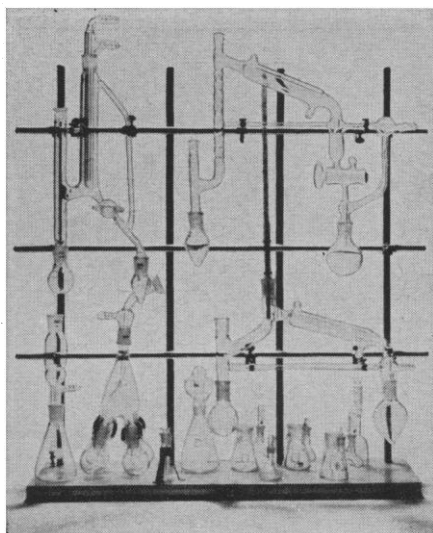
Pharmacopoea Internationalis. Supplement. World Health Organization, Geneva, 1959 (order from Columbia Univ. Press, New York). 254 pp. \$5.

Pirone, Pascal P., Bernard O. Dodge, Harold W. Rickett. *Diseases and Pests of Ornamental Plants*. Ronald, New York, ed. 3, 1960. 785 pp. \$10. This volume, an official publication of the New York Botanical Garden, provides a concise introduction to the problems of disease and pest control and tells the gardener why and under what conditions specific methods and substances should be used. In part 2, the host plants are arranged by their botanical names and indexed by their common names.

Randhawa, M. S. *Zygnemaceae*. Monographs on algae. Indian Council of Agricultural Research, New Delhi, 1959. 478 pp. Rs. 26. First in a series of monographs on algal studies which the Indian Council of Agricultural Research is bringing out.

Ray, Dixy Lee, Ed. *Marine Boring and Fouling Organisms*. Univ. of Washington Press, Seattle, 1959. 548 pp. \$8.50. Proceedings of a 1957 symposium at the Friday Harbor Laboratories.

Rosenbaum, Francis F., and Elston L.



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Belknap, Eds. *Work and the Heart*. Hoeber-Harper, New York, 1959. 559 pp. \$12. Transactions of the first Wisconsin conference on work and the heart, sponsored by the American Heart Association, the National Health Institute, and the Industrial Council of the American Medical Association.

Smith, Alice Lorraine. *Carter's Microbiology and Pathology*. Mosby, St. Louis, ed. 7, 1960. 742 pp. \$7.50.

Society for Experimental Biology. *Utilization of Nitrogen and Its Compounds by Plants*. Symposia No. 13. Academic Press, New York, 1959. 392 pp. \$9.50.

Mathematics, Physical Sciences, and Engineering

Adams, Roger, Ed. *Organic Reactions*. vol. 10. Wiley, New York; Chapman and Hall, London, 1959. 570 pp. \$12.

Agnew, Ralph P. *Differential Equations*. McGraw-Hill, ed. 2, 1960. 494 pp. \$7.50.

Ahlfors, Lars V. and Leo Sario. *Riemann Surfaces*. Princeton Univ. Press, Princeton, N.J., 1960. 393 pp. \$10.

Ball, W. W. R., et al. *String Figures and Other Monographs*. Chelsea, New York, 1960. 495 pp. \$3.95.

Batchelor, G. K., Ed. *The Scientific Papers of Sir Geoffrey Ingram Taylor*. vol. 2, *Meteorology, Oceanography and Turbulent Flow*. Cambridge Univ. Press, New York, 1960. 525 pp. \$14.50.

Beerbower, James R. *Search for the Past*. An introduction to paleontology. Prentice-Hall, Englewood Cliffs, N.J., 1960. 575 pp. \$7.50.

Bell, R. P. *The Proton in Chemistry*. Cornell Univ. Press, Ithaca, N.Y., 1959. 230 pp. \$4.75.

Birkhoff, Garrett, and R. E. Langer, Eds. *Orbit Theory*. Proceedings of Symposia in Applied Mathematics, vol. 9. American Mathematical Soc., Providence, R.I., 1959. 200 pp.

Blackburn, John F., Gerhard Reethof, J. Lowen Shearer, Eds. *Fluid Power Control*. Technology Press, Massachusetts Inst. of Technology, and Wiley, New York, 1960. 730 pp. \$17.50.

Bockris, J. O'M., J. L. White, J. D. Mackenzie, Eds. *Physicochemical Measurements at High Temperatures*. Academic Press, New York; Butterworths, London, 1959. 402 pp. \$13.50.

Carroll, Robert L. *The Aerodynamics of Powered Flight*. Wiley, New York, 1960. 284 pp. \$8.50.

Charlot, G., J. Badoz-Lambling, B. Tremillon. *Les Reactions electrochimiques*. Les methodes electrochimiques d'analyse. Masson, Paris, 1959. 401 pp. Paper, F. 6000; cloth, F. 6800.

Churchill, Ruel V. *Complex Variables and Applications*. McGraw-Hill, New York, ed. 2, 1960. 306 pp. \$6.75.

Cremer, Herbert W., Ed. *Chemical Engineering Practice*. vol. 11. Academic Press, New York; Butterworths, London, 1959. 507 pp. \$19.50.

Cullwick, E. G. *Electromagnetism and Relativity*. With particular reference to moving media and electromagnetic induction. Longmans, Green, New York, 1960. 314 pp. \$12.50.

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Dumont, J., Ed. *Les Sciences.* Exposition Universelle et Internationale de Bruxelles, Brussels, Belgium, 1960. 128 pp. F. 110. A survey of the international science exhibits at the 1958 fair.

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Fowler, John M., Ed. *Fallout.* A study of superbombs, strontium-90, and survival. Basic Books, New York, 1960. 247 pp. \$5.

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Friedman, Walter F., and Jerome J. Kipnees. *Industrial Packaging.* Wiley, New York, 1960. 551 pp. \$11.50.

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Ginsburg, David, Ed. *Non-Benzenoid Aromatic Compounds.* Interscience, New York, 1959. 555 pp. \$18.

Griggs, David, and John Handin, Eds. *Rock Deformation.* Memoir 79. Geological Soc. of America, New York, 1960. 392 pp.

Hamilton, Leicester F., and Stephen G. Simpson. *Calculations of Analytical Chemistry.* McGraw-Hill, New York, ed. 6, 1960. 346 pp. \$5.95.

Hartshorne, N. H., and A. Stuart. *Crystals and the Polarising Microscope.* A handbook for chemists and others. Arnold, London; St. Martin's Press, New York, ed. 3, 1960. 572 pp. \$17.50.

International Atomic Energy Agency. *International Directory of Radioisotopes.* vol. 2, *Compounds of Carbon 14, Hydrogen 3, Iodine 131, Phosphorus 32, and Sulphur 35.* 213 pp. Paper, \$3. *Nuclear Electronics II* (sessions 6-9). Proceedings of the international symposium organized by the French Society of Radioelectricians, 1958. 389 pp. Paper, \$4. International Publications, New York 22, 1959.

King, Ronald W. P., and Tai Tsun Wu. *The Scattering and Diffraction of Waves.* Harvard Univ. Press, Cambridge, Mass., 1959. 235 pp. \$6.

Kit, Boris, and Douglas S. Evered. *Rocket Propellant Handbook.* Macmillan, New York, 1960. 366 pp. \$12.50.

Landes, Kenneth K. *Petroleum Geology.* Wiley, New York; Chapman and Hall, London, ed. 2, 1959. 454 pp. \$9.50.

Langer, Rudolph E., Ed. *Boundary Problems in Differential Equations.* Proceedings of a symposium (1959). Univ. of Wisconsin Press, Madison, 1960. 334 pp. \$4.

Leontovich, M. A., Ed. *Plasma Physics and the Problem of Controlled Thermonuclear Reactions.* vol. 3. Translated by J. B. Sykes. Pergamon, New York, 1959. 421 pp. \$24.

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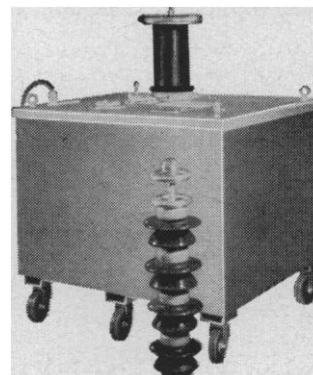
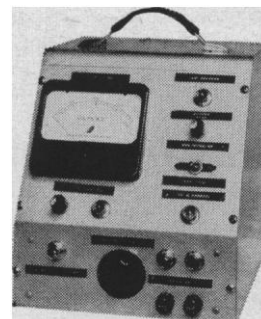
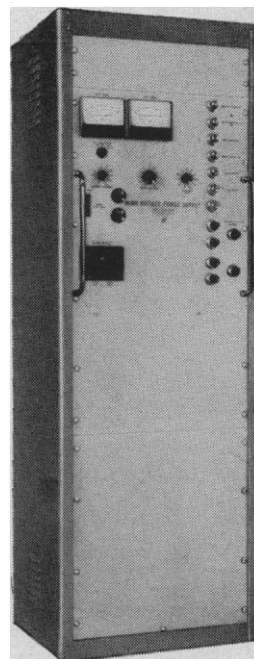
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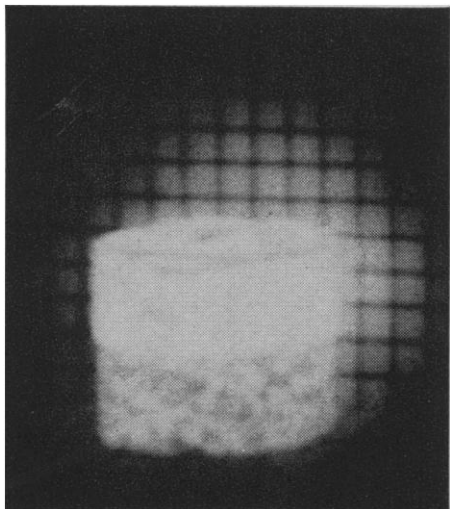
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Pauling, Linus. *The Nature of the Chemical Bond*. And the structure of molecules and crystals, an introduction to modern structural chemistry. Cornell Univ. Press, Ithaca, N.Y., ed. 3, 1960. 664 pp. \$8.85.

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Slater, Noel B. *Theory of Unimolecular Reactions*. Cornell Univ. Press, Ithaca, N.Y., 1959. 241 pp. \$4.75.

Sloan, Robert W. *An Introduction to Modern Mathematics*. Prentice-Hall, Englewood Cliffs, N.J., 1960. 73 pp. \$3.75.

Stanford Research Institute. *High Temperature Technology*. Proceedings of an international symposium (1959). McGraw-Hill, New York, 1960. 354 pp. \$15.

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Taylor, Charles F. *The Internal-Combustion Engine in Theory and Practice*. vol. 1, *Thermodynamics, Fluid Flow, Performance*. Technology Press and Wiley, New York, 1960. 584 pp. \$16.

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1959, 384 pp., \$4.40, cloth;
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