

to experimental test. The present status of genetics can be summed up by saying that the gene has been clearly apprehended, but certainly not fully comprehended.

As befits the occasion, *Genetics in the 20th Century* is opened by Goldschmidt's essay on the relation of genetics to science in general. It is a panorama which he saw unfold and grow and to which he contributed in no small measure. This introduction is followed by three papers that survey the early days of Mendelism and the period that preceded it. Muller then brings himself and his fellow-scientists up to date in a closely argued paper on the development of the gene theory, a procedure that Ephrussi and Sonneborn follow with the theories of extranuclear inheritance, particularly as they relate to microorganisms. The short but solid paper by Sturtevant will bear rereading often—if only as a reminder that some of the widely accepted ideas on crossing over and other genetic processes are still unsettled questions in need of further exploration. This stands in sharp contrast to the stimulating but more free-wheeling hypothesizing of Darlington at the cytogenetical, Mather at the biometrical, and Mirsky at the cytochemical levels. Dobzhansky and White, in characteristic fashion, cover their respective fields of evolutionary study, and the role of genetics in applied breeding and in human studies occupies a series of eight papers. As representative of developments at the chemical frontiers of genetics—cytochemistry, immunogenetics, and biochemical genetics—Mirsky, Caspersson and Schultz, Irwin, and Beadle discuss the remarkable advances of the past 15 years. Lederberg ably presents the progress made in the new field of bacterial genetics, for the development of which he is in large measure personally responsible. Julian Huxley's essay on "Genetics, Evolution, and Human Destiny," erudite and thought-provoking in content and range, ends the book.

As a group, these papers make up a commendable volume, and the reader will be amply rewarded for the time spent in its perusal. It is, in addition, a fitting memorial to Mendel, and a credit to its editor and to the Genetics Society of America, which sponsored the symposium at which the papers were presented. The wide variety of subject matter and approach is in itself a testimony to the spreading influence, both theoretical and practical, of genetics in many other fields, and the diversity of ideas, freely expressed and as freely criticized, is further evidence of free inquiry intelligently pursued. Yet one wishes that other topics had been included in the volume. Nothing would have been more appropriate than to have had summarized the fundamental contributions of the maize geneticists. Mangelsdorf's essay on hybrid corn touches only a part of a much larger subject; those who heard Stadler speak at the symposium will regret that his talk has been omitted; McClin-tock's recent studies of gene variability, if discussed, would have indicated new vistas for future study. Conspicuous by their absence, also, are the studies of the entire group of Carnegie geneticists and cyto-

geneticists, as well as of the plant evolutionists from the West Coast. One must be reasonable, however, for it is obvious that a symposium has its limitations in time, and a volume in space, and the omissions in no way detract from the general excellence of the book as a survey of the current status of genetics here and abroad.

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Scientific Book Register

- Biological Antioxidants.** Transactions of the Fifth Conference, November 30–December 1, 1950, New York. Cosmo G. Mackenzie, Ed. New York: Josiah Macy, Jr. Fdn., 1951. 187 pp.; cumulative index. \$3.75.
- Important Tree Pests of the Northeast.** 2nd ed. Henry I. Baldwin *et al.*, Eds. Concord, N. H.: Evans Ptg., 1952. 191 pp. \$2.00.
- When Doctors Are Patients.** Max Pinner and Benjamin F. Miller, Eds. New York: Norton, 1952. 364 pp. \$3.95.
- The Theory of Electromagnetic Waves.** A symposium held at New York University, June 6–8, 1950. New York–London: Interscience, 1951. 393 pp. \$6.50.
- Die Relativitätstheorie: Die Spezielle Relativitätstheorie,** Vol. I. 5th ed. M. v. Laue. Braunschweig, Germany: Friedr. Vieweg, 1952. 198 pp.
- Isotopes in Biochemistry.** Proceedings of the symposium held in London under the auspices of the Ciba Foundation. G. E. W. Wolstenholme, Ed. Philadelphia: Blakiston, 1951. 288 pp. \$5.00.
- Dialogues Concerning Two New Sciences.** Repr. Galileo Galilei; trans. from Italian and Latin by Henry Crew and Alfonso de Salvio. New York: Dover, 1952. 300 pp. \$1.50 paper.
- Nomography and Empirical Equations.** Lee H. Johnson. New York: Wiley; London: Chapman & Hall, 1952. 150 pp. \$3.75.
- Trauma, Growth, and Personality.** Phyllis Greenacre. New York: Norton, 1952. 328 pp. \$4.50.
- Bacterial Physiology.** C. H. Werkman and P. W. Wilson, Eds. New York: Academic Press, 1951. 707 pp. \$8.50.
- Motor Phonetics: A Study of Speech Movements in Action.** 2nd ed. R. H. Stetson. (Published for Oberlin College by North-Holland Pub. Co., 1951.) Order from Psychology Dept., Oberlin College, Oberlin, Ohio. 212 pp. \$3.50.
- Manipulations de Chimie.** 2nd ed. Clément Duval. Paris: Masson, 1951. 382 pp. 2500 fr.
- Thomas Jefferson: Scientist.** Edwin T. Martin. New York: Schuman, 1952. 289 pp. \$4.00.
- Cultural Sciences: Their Origin and Development.** Florian Znaniecki. Urbana: Univ. Illinois Press, 1952. 438 pp. \$6.00.
- Collected Papers of the Macaulay Institute for Soil Research, 1948–1951,** Vol. III. D. N. McArthur, Ed. Aberdeen, Scot.: Macaulay Institute, 1951. 52 papers.
- Liver Injury.** Transactions of the Tenth Conference, May 21–22, 1951, New York. F. W. Hoffbauer, Ed. New York: Josiah Macy, Jr. Fdn., 1951. 320 pp. \$3.75.
- Liver Disease.** Ciba Foundation Symposium. Sheila Sherlock and G. E. W. Wolstenholme, Eds. Philadelphia: Blakiston, 1951. 249 pp. \$5.00.
- Introduction to Mycology.** J. A. Macdonald. New York: Academic Press; London: Butterworths, 1951. 177 pp.