SINNOTT, EDMUND W., DUNN, L. C., and DOBZHANSKY, TH. *Principles of Genetics.* 4th ed. McGraw-Hill Book Company, Inc., New York. xiv + 505 pp. illus. $5.00.

In this revision of an excellent textbook a third co-author, Professor Dobzhansky, appears for the first time. The extensive rewriting and expansion (25% increase in number of pages) involved many additions, deletions, translocations, inversions, and changes in wording. The new material consists chiefly of three new chapters on population genetics, race formation, and speciation, to replace the single chapter on Genetics and Evolution in the 1939 edition. One of the most noticeable changes is the discussion of human traits (including pictures of some of these) in various chapters.

The illustrations have been improved by the substitution of better figures in certain cases and the increase in their number from 147 to 202. As in previous editions there are selected lists of references at the ends of the chapters and extensive lists of problems for the first 13 of the 18 chapters. A new and valuable feature is the printing, as an Appendix, of an English translation of Mendel's classical paper on peas. This should continue to be a popular handbook for students of genetics, especially for those who are majoring in the biological sciences. Teachers of the biological sciences at all levels will find it a very useful and reliable reference.

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DEMEREC, M. (Editor). *Biology of Drosophila.* John Wiley & Sons, Inc., New York. x + 632 pp. illus. 1950. $10.00.

The aims of this book are "to supply a comprehensive and detailed treatment of the anatomy, histology, and development of a single species of insect that had become an important laboratory animal; to present its basic norm as a standard for the analysis of experimentally induced genetic variations and for other physiological studies; to provide detailed descriptions that should be of considerable value in comparative morphological and embryological studies of other invertebrates; and to give a brief summary of the methods used for collecting material in the field and culturing it in the laboratory."

There are seven chapters by as many authors: 1. Normal Spermatogenesis by Kenneth W. Cooper, 2. Early Embryology by B. P. Sonnenblick, 3. Histogenesis, Organogenesis, and Differentiation in the Embryo by D. F. Poulson, 4. Postembryonic Development by Dietrich Bodenstein, 5. External Morphology of the Adult by G. F. Ferris, 6. Internal Anatomy and Histology of the Imago by Albert Miller, 7. Collection and Laboratory Culture by Warren P. Spencer.

Each chapter has its own literature list. There is an Index of Names and a Subject Index for the entire book. The work is lavishly illustrated with photographs, photomicrographs, and drawings. Emphasis has been placed on the volume's usefulness as a reference manual. It would seem to be indispensable for those who are working with Drosophila.

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PATTEN, BRADLEY M. *Early Embryology of the Chick.* Blakiston. 244 pp. illus. 1951. $3.50.

This book needs no introduction or review, the three previous editions having made it a standard everywhere that vertebrate embryology is taught. The plan of the book has not been changed, but the pages have been enlarged somewhat and some of the illustrations have been improved by enlargement and better depiction of details. In addition there are many new illustrations. The fine bibliography, characteristic of the previous editions, has been brought up to date. The index has been enlarged somewhat, with the addition of more synonyms and cross references. This book should be available wherever there is interest in vertebrate embryology.

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