
Genetics and Eugenics

Most books on genetics and eugenics are written from the point of view of the specialist. In this volume Dr. Fasten has attempted to write to the beginning student in terms he can appreciate and enjoy. The book covers the usual field of the beginning course in heredity, with considerable emphasis on human inheritance and eugenics. An excellent chapter on acquired characters is included. Unfortunately the student is not introduced to the principles of heredity themselves until nearly half way through the book, and then the many kinds of hereditary behavior are crowded into three or four chapters. Sex-influenced and sex-limited factors are not adequately differentiated, and many of the more specialized types of hereditary behavior are inadequately covered. The book will require much "teaching," but in the hands of a competent instructor should prove satisfactory for the beginning course in genetics.—L. H. S.

Principles of Genetics and Eugenics, by Nathan Fasten. viii+407 pp. Boston, Ginn & Co., 1935.

BOOK NOTICES

The Genetics of Dairy Cattle

Modern genetics has developed modern methods of selection. The work of Heizer, Yapp, Wright and others in perfecting progeny tests has given to the animal breeder a new opportunity for improving production. The Mount Hope Farm has been active in developing and applying such progeny tests to dairy cattle, and the owner of this establishment has now put into book form the principles and practices of progeny selection. The result is a readable and inspiring book, beautifully illustrated with colored plates, and containing in addition to the technical applications of progeny tests a fine history of dairy cattle throughout the world. The breeder will certainly want this book, and the geneticist will find it equally indispensable for reference.—L. H. S.

Breeding Profitable Dairy Cattle, by E. Parmalee Prentice. xiii+261 pp. Boston and New York, Houghton Mifflin Co., 1935.

Biology for Everyman

Biology for Everyman, a fascinating work of two volumes with an appropriate title, is the crowning work of the late Sir Arthur Thomson, one of the world's truly great biologists. The two volumes contain sixteen hundred pages and over five hundred illustrations, conveniently arranged in four Books. Book I is a systematic discussion of the animal world, from Protozoa up to and including mammals. Book II is a discussion of animal life in general, including such interesting topics as haunts of life, life and the seasons, physiological aspects of animal life, glimpses of animal behavior, sex and heredity, and evolution. Book III is a survey of the plant kingdom and a discussion of plant life in general. Book IV is of probably the greatest interest to the general reader, in that mankind is here considered from such angles as constitutional makeup, race, and relationship to plants, animals and general biology. Biology for Everyman is unique, in that up-to-date biologic information is presented with scientific accuracy, yet in such an interesting and nontechnical style as to be read easily and intelligently by the layman. It is to be highly recommended, not only to the general reader, but also to the professional biologist.—D. C. RIFE.

Biology for Everyman, by Sir J. Arthur Thomson. Two vols. New York, E. P. Dutton & Co., 1935.

Prehistoric Animals and Man

Paintings of early man and of prehistoric animals are known to most of us; few of us know the artists who paint them. Among these artists Charles R. Knight is outstanding both for his artistic work and his scientific insight into the forms he paints. Thus his recent volume, "Before the Dawn of History," is very welcome, especially to those who cannot visit the galleries where the paintings hang. This pleasing work contains forty-four halftones of the author's conceptions of prehistoric time from "The World Before Life" to the "Polished Stone-Age Man." Each picture is accompanied by a good descriptive explanation on the opposite page. There are thirty pages of text that deal with various types of fossils and fossil men. It is not a text, however, but a book of plates showing some of the wonderful paintings of Knight. Sad to relate the paintings lose something in the reproductions, which cannot be helped when oils are reproduced in uncolored halftones. We compliment Mr. Knight on collecting these reproductions, and Whittlesey House on publishing them. Knowing Mr. Knight, and being a great admirer of his work, we hope that he will find time to publish more books of this kind so that all his paintings will be available in this usable manner.

WILLARD BERRY.

Before the Dawn of History, by Charles R. Knight. 120+xiii pp. New York, Whittlesey House (McGraw-Hill), 1935.

Principles of Heredity

Fortunately an investigator, active in developing a sound approach to the problems of human heredity, has taken time off to write a beginning text in genetics. This book is as nearly up-to-date as is humanly possible in an infant science just now putting on weight at an alarming rate on a diet of irradiated genes and salivary chromosomes.

Publisher and author are to be congratulated on the refreshing absence of typographical errors in a first edition.

Among the points which commend this work are: the use of examples from human heredity where they serve appropriately to illustrate genetic principles; the division of the subject matter into short, compactly written chapters, each dealing with a specific topic; the realization that the complete understanding of a principle can frequently only be attained as the student develops a background of subject matter, and the consequent specific reference to later chapters where the more extended discussion is to be found; conversely, the frequent reference back to earlier material in forming in the student's mind a synthetic cytological and genetic picture of heredity; the apt use of original illustrations and those drawn from current scientific journals; the clear presentation of the necessary elements of probability, statistical analysis, and the gene-frequency method of studying human heredity; and an understandable discussion of the complex phenomena of modern cyto-genetics.

The reviewer should have welcomed a chapter on the effect of environmental agents on gene activity. However, in his opinion, this is the best beginning text in genetics in its clarity of presentation, aptness of illustration, proper balance and compactness. Such a textbook will do much to establish both the general cultural value of genetics and its necessity as a pre-requisite for the medical course of the near future.—W. P. SPENCER.

The Principles of Heredity, by Laurence H. Snyder. xiii+385 pp., 153 illustrations. Boston, D. C. Heath and Co., 1935. \$3.00.

Petroleum

The title of the book would lead one to expect that the author was a petroleum geologist or of some allied profession; rather he is an eminent though elderly botanist. To briefly show the contents: we find first a discussion of the relation of animal oils, especially fish oils, to petroleum. Then taking the Mowry shales of Cretaceous age the author shows to his own satisfaction that these shales extend from Canada into Mexico. He then demonstrates that the petroleum in the shales was derived from fish which were killed by volcanic eruptions to the westward. These same eruptions furnished the necessary volcanic ash to complete the process and bury the fish and make the petroleum. He states that the Mowry shales must have accumulated in from 5,000 to 20,000 years as against Ruby's estimated time of 500,000,000 years. Then he discusses the freshwater Green River shales from the same viewpoint and reaches the same conclusions. The last beds taken up are the marine Miocene oil shales of California where he reaches the same conclusion again. His conception of the origin of petroleum is that it was formed by the action of seismic movements and volcanic eruptions working destruction on great shoals of fish. He firmly believes that extreme temperatures played an important part. Using **Conodonts** as evidence of fresh water conditions he states that most of the Paleozoic, at least those with **Conodonts** in them, are of freshwater origin.

In studying the book and noting the abundant quotations one feels that the author has not studied his subject "written in tables of stone" in the field and has not applied any modern laboratory work. The book appears to be a careful library support for an idea of the past which is considered by the experts of today as untenable. All the present theories on the origin of petroleum are in favor of low temperatures of less than 100 degrees F. Certain of his geologic statements seem to be out of accord with the accepted ideas and some of them are quite the opposite to modern conceptions.—WILLARD BERRY.

The Quantity and Sources of Our Petroleum Supplies, by J. M. MacFarlane. 250+xiii pp. Philadelphia, Noel Printing Co., 1931.