

Gregor Mendel und das Schicksal seiner Vererbungsgesetze. vol. 22, *Grosse Naturforscher*. Ingo Krumbiegel. Wissenschaftliche Verlagsgesellschaft, Stuttgart, Germany, 1957. 144 pp. Illus. DM. 10.80.

Among the truly great figures of the 19th century, Gregor Mendel will always remain a half-revealed, somewhat enigmatic personality. So little has been preserved for us about him—especially so little relating to his scientific work and achievement. Almost everything known or conjecturable about Mendel, priest and scientist, was put into the classic biography by Iltis (1924). To this Krumbiegel has added just a little that is new, in an appreciation that covers with respect and admiration the years of childhood, teaching, genetic experimentation, and priestly administration.

In his effort to fill out the story, the author has supplied chapters on the historical background of research into the secrets of heredity, on the nature of Mendelian heredity, and on the relations of Mendel's work to that of other biologists, contemporary and later. Here Krumbiegel is not always accurate, particularly in the effort to discuss the chromosome theory of heredity, which in its inception was independent of Mendel's own way of thought and method of experimentation. The author overlooks the role of Linnaeus in beginning the studies of species hybridization in the 18th century; he is not fully informed about the relations between the three rediscoverers—Correns, de Vries, and Tschermak; he over-emphasizes, perhaps, the admittedly great role of Richard Goldschmidt in modern genetics, by overlooking completely other giants in the development of this 20th century science. He is at his best, on the other hand, in the chapters that deal with Mendel's personality, life, botanical work, and scientific activities outside botany—in meteorology and in his efforts to breed and study bees. In numerous places the author emphasizes Mendel's great interest in Charles Darwin's novel theory of evolution by means of natural selection, a theory which Mendel apparently accepted.

All in all, this modest volume is a very worthwhile addition to the far too few books about Mendel. For the English reader, it may also prove a good test of one's command of the German language, since it is written in a charac-

teristic elevated style: "Gregor Mendel war ein Feuergeist, der der Welt gezeigt hat, dass man mit bescheidenen Mitteln unendlich Grosses leisten kann. Einige Tüten Pflanzensamen waren sein Werkzeug, sein Geist seine Waffe, mit der er einer Welt die Stirn geboten und gesiegt hat." Quite a tribute! Somehow I cannot avoid comparing it with the simplicity of Mendel's own way of expressing himself, which achieved a style combining utmost clarity with trenchant insight, as, for example, when he says of the queen bee, in a remark quoted in this volume: "Sie soll sich nun einen ordentlichen Mann aussuchen, denn es ist hier, wie bei den Menschen, traurig, wenn eine gute Frau einen schlechten Mann bekommt."

BENTLEY GLASS

*Department of Biology,
Johns Hopkins University*

Nature and Man's Fate. Garrett Hardin. Rinehart, New York, 1959. xi + 375 pp. Illus. + plates. \$6.

Nature and Man's Fate is a book of many faces. It is one of the best accounts yet written of the evolution of the theory of evolution and, as such, reflects the expenditure of much time and scholastic effort. Inevitably it is concerned more with genetics and selection than with the aspects of either nature or the fate of man. Genes, in fact, dominate the theme, and as a lively, vivid, and informative presentation for the general reader of the nature and importance of genes to the present and future well-being of man, Hardin's book is excellent and could hardly be better.

Obviously it has been a labor of love. The first third is mainly an account of the development of the theory of evolution, beginning with Erasmus Darwin—an account in which Charles himself emerges more fully as a complete personality than in any other I have seen. At the same time, the theory of natural selection is discussed both in relation to other concepts current in the 19th century and to present-day cybernetics, all in a most enlightening way. Any student of evolution, lay or professional, would profit from a reading of this section alone, not to mention the following part, which deals with Gregor Mendel and the rediscovery of genetics.

After his introduction to genetics by way of Mendel, Hardin discusses the role of eugenics and the general value of genetic information to human individuals everywhere, both in terms of personal problems and political doctrines. This part contains the only error of fact noted, which was in the reprinting (on page 163) of Scheinfeld's list of "Human Heredity Clinics," where McGill University is located in Toronto—a sin which is equivalent to placing Johns Hopkins University in Pittsburgh and which may account for the absence of inquiries made to the aforementioned clinic. More genuinely disturbing, however, is Hardin's rough treatment of H. J. Muller's past ideological unorthodoxy, included here in a historical account of Lysenko's unfortunate impact upon genetics and geneticists in Russia. Clear vision is of course to be coveted, but hindsight is so much easier to acquire than foresight that it would have been charitable to recognize this fact, particularly since Hardin was in his teens during the period in question.

The last section of the book, dealing with the possible future channels for human evolution, is the most challenging. This is especially true of the final chapter, "In praise of waste," which is a refreshing emphasis upon the primary value of human individuality in a progressively conformist world. Taken all together, with its pervading enthusiasm, its blunt criticism of people and mores, and its innately optimistic outlook toward the long-term future, *Nature and Man's Fate* is a book that every intellectually mature adult everywhere should read and reflect upon.

N. J. BERRILL

*Department of Zoology,
McGill University*

Classical Mechanics. J. W. Leech. Methuen, London; Wiley, New York, 1958. ix + 149 pp. Illus. \$2.50.

In this brief monograph, Leech gives a broad general review of classical mechanics, which avoids many of the tedious details that so often mask essential ideas. The book is intended to assist the experimental physicist in building up a background for theoretical understanding of classical mechanics and