by international cooperation.—The London *Times*.

SCIENTIFIC BOOKS

Readings in Evolution, Genetics and Eugenics. By HORATIO HACKETT NEWMAN. Chicago, 1921: The University of Chicago Press. Pp. XVIII plus 523.

Doubtless every college teacher who gives a general course in organic evolution has at times wished for the presentation in a single textbook of the materials he has found it necessary to have his students glean from numerous volumes. This need has been met by Professor Newman in the present book. The work is drawn up on much the lines of the "source books" in history which have become popular in recent years, and it will doubtless fulfill a similarly useful function for courses in evolution, genetics and eugenics. The wide range of matter necessary for such courses has been selected from the books and papers of many authors and reprinted in their own words, but the whole has been deftly knit together by means of occasional brief comments and passages written by the compiler himself.

One's preconception of such a presentation is that it must inevitably be a patchwork, but, as a matter of fact, Professor Newman, by judicious selection, has achieved a surprising unity. Another inherent difficulty in such a collection of articles and excerpts is the impossibility of touching out in otherwise excellent older accounts what, in the light of our more recent knowledge, are minor mistatements or contradictions; but here again, through careful choice, the defect has been reduced to a minimum.

The typographical errors observed by the reviewer are few. In line 6, page 294, *this is* should read *that is;* the numeral in line 16, page 365, should be 18 instead of 19; figures 87 and 88 on pages 434 and 435 have been exchanged.

The thirty-seven chapters (512 pages) are divided into five main parts: (1) Introductory and Historical (pp. 3 to 53); (2) Evidences of Organic Evolution (pp. 57 to 182); (3) The Causal Factors of Organic Evolution (pp. 185 to 283); (4) Genetics (pp. 287 to 456); and (5) Eugenics (pp. 459 to 512). Since the historical survey in Chapter II plunges one into the midst of genes, x-chromosomes, selection, orthogenesis, heterogenesis, Mendelism, biometry, etc., the general reader could find his way through this maze far more readily if a full glossary of scientific terms were appended. Such a glossary would also be very helpful in relation to other parts of the work.

In many colleges and universities the work in genetics and in organic evolution is given as separate courses. The reviewer, in fact, has used the volume under discussion in a practical way only as a text for a course in evolution. For such a purpose it would be advantageous to have the sections dealing with variation introduced before or along with the discussion of the causal factors of organic evolution. It is probable also that many teachers would, as does the reviewer, prefer to have the evidences from morphology presented before those from paleontology, but there is, of course, no reason why the user of the book may not take the various sections in this order if he so chooses. While to the initiated the chapters on Neo-Mendelian Heredity, Sex-linked and Other Kinds of Linked Inheritance, and Linkage and Crossing-Over are clear, succinct accounts, it is questionable if the beginner would get far with them without considerable additional elucidation on the part of the teacher.

In the opinion of the reviewer, Professor Newman has, in this series of readings, prepared for the general student the most complete and acceptable one-volume account of organic evolution and allied subjects in print.

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SPECIAL ARTICLES

STATIC DEFLECTIONS OF THE VACUUM GRAVITATION NEEDLE, IN 1921 AND 1922

To obtain a comparison, it will be necessary to measure the distance apart, Δy (y being the telescopic scale reading, with the needle at rest), of the equilibrium curves corresponding to the two opposed positions of the attracting

[1] Advance note, from a Report to the Carnegie Institution of Washington, D. C.