

diving petrels peculiar to the southern seas, and absurdly resembling the little auk of the northern seas both in appearance and habit—diving, fishing, and flying—although widely differing in structure. Darwin wrote of one of them:—

"No one seeing the bird for the first time, thus diving like a grebe, and flying in a straight line, by the rapid movements of its short wings, like an auk, would believe that it was a member of the family of petrels, the greater number of which are eminently pelagic in their habits, do not dive, and whose flight is usually most graceful and continuous."

Since the completion of Salvin's catalogue the present monograph has derived much benefit from the considerable additions to the national collection made through the several expeditions sent to the Antarctic regions, among which may be mentioned the voyages of the *Discovery*, the *Southern Cross*, the *Scotia*; and from the cruises of the *Valhalla*; as well as from the expedition sent to the Hawaiian Islands by the Hon. Walter Rothschild; these together have considerably increased our knowledge of the distribution of the petrels. A full index brings this important volume to a close.

OUR BOOK SHELF.

Eugenics, the Science of Human Improvement by Better Breeding. By C. B. Davenport. Pp. 35. (New York: Holt and Co., 1910.) Price 50 cents net.

THIS useful little book consists of two parts. The first is an account of the principles which determine whether a given marriage will produce fit or unfit offspring, the second contains suggestions for future eugenic research. In the somewhat limited class of characters and diseases for which definite Mendelian laws of inheritance have already been made out, it is possible to predict with an approach to certainty the proportion of the children which will or will not be affected. Thus the malformation of the fingers known as brachydactyly is a Mendelian dominant.

"An abnormal person married to a normal will beget 100 per cent., or 50 per cent. abnormal, according to circumstances, and such a marriage is unfit; but two parents who, though derived from brachydactyl strains, are themselves normal, 'will have only normal children . . . such a union is entirely fit.'"

Deaf-mutism may be due to any one of a variety of defects, but in different individuals of the same family the chance is large that it is due to the same defect. Such defects are often recessives, and may appear in the offspring of normal parents of deaf-mute stocks. Intermarriage between two such parents, especially of cousins, is "unfit." Again, too, imbecile parents, whether related or not, produce only imbecile offspring, a fact which should impress those responsible for the long delay in embodying in legislation the recommendations of the Royal Commission on the Care and Control of the Feeble-Minded.

In concluding his suggestions for future inquiry, Mr. Davenport rightly points out the contrast between the difficulty of raising funds for such scientific inquiries, and the ease with which money is obtained for charitable and humanitarian action which often proves to have been ill-judged.

"One cannot fail to wonder that, where tens of millions have been given to bolster up the weak and alleviate the suffering of the sick, no important means

have been provided to enable us to learn how the stream of weak and susceptible protoplasm may be checked."

W. C. D. W.

The Book of the Dry Fly. By G. A. B. Dewar. New edition. Pp. xxvii+277. (London: A. and C. Black, 1910.) Price 7s. 6d. net.

THE second edition of Mr. Dewar's "Book of the Dry Fly" follows the first after an interval of thirteen years. It is to be regretted that this second edition is, in reality, little more than a reprint of the first; the art of dry-fly fishing has been developed, and knowledge of the natural history of the trout and of the aquatic creatures upon which it feeds has advanced during these years, and it is a little deceptive to find that references to "last year" in a book with 1910 on the title-page refer to 1896. The deception may even be turned to confusion by the addition of a footnote modifying or contradicting the statements made in the text.

However much we may regret that the book has not undergone a more complete revision, we may still be glad to find that a second edition has been published. Mr. Dewar is a student of nature, as well as a fisherman, and he writes with obvious enthusiasm and interest of various chalk and limestone streams and their surroundings. He deals well with the elements of dry-fly fishing, and appears to touch on most points likely to interest a student of that art.

There are some matters in which we find Mr. Dewar hard to follow, such as his discussion of the modern higher education of trout, but as a rule his explanations are lucid and his opinions clearly expressed. The grayling is, perhaps, treated with rather scant courtesy in the text, although the footnotes show signs of a change of view. A singular misuse of the term "dropper" in chapter ii. is obviously the result of an oversight, and this should be corrected in any future edition.

An attractive feature of the present edition of Mr. Dewar's book is the series of excellent reproductions of water-colour sketches of typical chalk and limestone streams; these should assist the fisherman who does not know the waters of Hampshire or other southern and Midland counties to appreciate the conditions which have brought dry-fly fishing into being far more easily than any mere description in words.

Last, but not least, there is a good index.

Die Entwicklung des menschlichen Geistes. By Max Verworn. Pp. iv+52. (Jena: Gustav Fischer, 1910.) Price 1 mark.

THIS is a lecture by the well-known professor of physiology in the University of Bonn, and is a kind of popular survey of human development. After dealing with the fact that "the development history of the individual form is a short recapitulation of its race development" (Fritz Müller) and with the elaboration of this by Haeckel, Dr. Verworn goes on to emphasise the importance of child-study with relation to pedagogics. A eulogy of Charles Darwin follows, and a curious and interesting table of supposed psychological development from the Eolithic to the present time.

The British Empire in Pictures. A Geographical Reading Book. By H. Clive Barnard. Pp. 64 (London: A. and C. Black, 1910.) Price 1s. 6d.

THE thirty-two excellent illustrations in colour which form the distinguishing characteristic of this book will serve excellently to predispose young pupils in favour of the study of geography. As a supplement to the more serious work of the class-room, the book should prove useful, and it should not be difficult to get children to read the book as a leisure-hour undertaking.