

source of inspiration to all who have followed him, This Work is gratefully and respectfully inscribed by The Author."

Another portrait in the work is one of the author and it is most welcome.—W. L. M.

**Birds as Distributors of Barberry.**—The common barberry (*Berberis vulgaris*) has come into unfavorable notice in recent years as the most important intermediate host of the black stem rust of wheat and other grasses. A campaign for eradicating the plant is described in a recent bulletin<sup>1</sup> of the United States Department of Agriculture in which information is given as to the distribution of barberry seeds by birds, both in text and illustrations. The statement is made that "birds and cattle are the chief natural means of distributing escaped barberries in the United States, the birds serving to distribute the seed over an extensive area, and the cattle intensively over more limited areas" (p. 4). No proposals are made for aggressive action against birds.—W. L. M.

**Economic Ornithology in Recent Entomological Publications.**—Interesting information on the bird enemies of various insect pests in articles that have appeared recently is cited below, in one case with reference to additional data from other sources.

**Grasshoppers.**—An outbreak of grasshoppers, the most extensive since the invasion of the Rocky Mountain locust in 1874, occurred on the Canadian prairies in 1919-1923. Norman Criddle, both entomologist and ornithologist, has written several papers on the subject, of which one in the 'Fifty-fifth Annual Report of the Entomological Society of Ontario' (1924 [1925] pp. 13-16) contains interesting references to bird enemies of the pests. "Gulls," states this author, "proved an important local factor in preventing and controlling grasshopper outbreaks and their value within an area of twenty miles of their breeding places can hardly be overestimated. The most important species in Manitoba was Franklin's Gull.

"Crows could always be counted upon to frequent grasshopper infested fields and several incipient outbreaks were checked by these birds. They also learn to locate the *Cannula* egg beds, among which they did valuable service. Many birds feed regularly upon grasshoppers, and some, such as the Sharp-tailed Grouse, depend very largely upon them as food for their young. These species are all useful in maintaining a balance, but it is to those birds that gather in flocks that we owe most when grasshoppers have got beyond their normal numbers." (p. 15.)

**Pale Western Cutworm (*Porosagrotis orthogonia*).**—This pest which sometimes destroys thousands of acres of grain in the western United States and Canadian Provinces has bird enemies which are briefly mentioned in a pamphlet<sup>2</sup> of the Dominion of Canada Department of Agri-

<sup>1</sup> No. 1451, Dec. 1926, 44 pp., 13 pls.

<sup>2</sup> No. 71, June, 1926, p. 5.