and Yellow Palm Warblers; another to the Redpolls, and still another to the incursion of Evening Grosbeaks in 1890. The puzzling group of Gyrfalcons is also treated at some length, diagnoses being given of the four forms occurring in New England, with notes on their distribution and a reassignment of the New England records, based on a personal examination by Mr. Brewster of nearly all the extant specimens.

An excellent portrait of the author forms an appropriate frontispiece to the present edition, which also contains a short biographical notice of this remarkable man, who met his death in a railroad accident in Pennsylvania, November 14, 1890. (Cf. Auk, VIII, 1891, p. 121).—J. A. A.

Degen on the Evolution of the Bird's Wing.1-Mr. Degen finds his text in a feather of the wing which he terms "carpal covert" and ranks with the major cubital series. It is situated at the carpal joint, its exact position varying in different groups, and is apparently not associated with a remex. A vestigial or plumaceous feather is generally found lying beneath it. The late Mr. Wray called attention to these feathers and considered the former to be a median covert while the vestigial feather he classed as the major covert of the first metacarpal remex,- errors which Mr. Degen corrects. Mr. Degen regards this condition as analagous to aquintocubitalism and predicts that a reduced cubital remex may still be found. Assuming that among archornithic birds all the digits bore remiges he reasons that a subsequent fusion of the metacarpals has resulted in a crowding and consequent decrease in number and readjustment in position of the digital remiges and finds here an explanation of both aquintocubitalism and the vestigial carpal remex.

The paper is a noteworthy contribution to pterylography and should especially appeal to those who seek to find in this branch of ornithology something more than an aid to classification.— F. M. C.

Bulletins 4 and 5 of the Wilson Ornithological Chapter.—Bulletin No. 4² contains the reports of some thirty observers, living in as many different localities, on the manner of occurrence and times of migration of about forty-five species of Warblers. The notes are largely from stations in the upper Mississippi Valley and New England, though one contributor writes from California and another from Texas. *Dendroica kirtlandi* is recorded from Winnebago County, Illinois, May 25, 1894, and there are other records of special interest, while the report as a whole

¹ On Some of the Main Features in the Evolution of the Bird's Wing. By Edward Degen. Bull. Brit. Orn. Club, II, 1894, pp. 33, pl. I, and 6 figs. in text.

² Bulletin No. 4, Wilson Ornithological Chapter of the Agassiz Association. Record of the work for 1893 and 1894 on the Mniotiltidæ. By Lynd Jones, Chairman of the Committee. Oberlin, Ohio, January 15, 1895. 12mo. pp. 22.

will prove of value to students of the migration and distribution of these interesting birds.

Bulletin No. 5¹ is an admirable paper on the nesting habits of the American Crow, based on notes from observers representing twenty-eight States and two Provinces.

In the preliminary remarks and reports upon the character, habits, and food of Crows, the author states that he "fully believes the benefits derived from their destruction of injurious insects, rodents, etc., and their work as scavengers, largely offsets the damage done by them, if it does not over-balance it." Under 'nidification' we have paragraphs devoted to the situation, position, height, construction, composition, and measurements of the nest, while a succeeding section treats with equal detail of the eggs. The matter is well selected and the author's remarks upon the causes which influence the position and construction of the nest, the number and size of the eggs. etc., are worthy the attention of all students of philosophic ornithology.

These two papers evince in a most satisfactory manner the results which may be obtained by well directed, coöperative effort.— F. M. C.

Clark on the Pterylography of North American Goatsuckers and Owls.2

-Mr. Clark's paper is a welcome contribution to a much neglected subject. Of the Caprimulgi the genera treated are Phalænoptilus, Antrostomus, Nyctidromus, and Chordeiles. The pterylosis of each is described in detail, figured and compared. While found to be the same in plan in all, the genera all differ from each other in more or less important details. Among the Striges the ptervlosis of only Asio accipitrinus is figured in full, with that of the head of Megascops asio, Nitzsch having already figured the pterylosis of most of the other genera, and Dr. Shufeldt that of Spectyto. The leading points of the subject are, however, reviewed, and comparisons made between the different genera, and also with the Caprimulgi. In these comparisons perhaps rather too much stress is laid upon unimportant details, which in some cases may be merely coincidences of no particular suggestiveness rather than features entitled to serious taxonomic consideration. Such perhaps is the relative length of the primaries, and the number and relative length of the rectrices, features variable in otherwise closely related genera in a large number of families.

Mr. Clark concludes from his study of the pterylography of these groups "that the Caprimulgi are related to Striges, and not very distantly

¹Bulletin No. 5, *Ibid.*, The American Crow (*Corvus americanus*). With Special Reference to its Nest and Eggs. By Frank L. Burns, Oberlin, Ohio, March 15, 1895. 12mo. pp. 41.

² The Pterylography of certain American Goatsuckers and Owls. By Hubert Lyman Clark. Proc. U. S. Nat. Mus., Vol. XVII, pp. 551-572. June, 1895.