

at home, young willow wrens, ring dove or wood pigeon, young cuckoo and sedge warblers, hedgehog, young long-eared owls, gannet or solan goose, peewit or lapwing, sparrowhawk adding sticks to her nest, and the great tit or oxeve.

These handsome pictures provide the best possible tribute to the patient power of silent watching which the Brothers Kearton have developed during the last thirteen years in order to take advantage of opportunities of photographing animals in their natural surroundings.

*Meteorologie und Klimatologie.* By Prof. Dr. Wilhelm Trabert. Pp. 127; with 37 figures in the text. (Leipzig: Deuticke, 1905.) Price 5 marks.

IN this little book, which forms part xiii. of Prof. Klar's "Die Erdkunde," the author attempts to outline the general principles of meteorology and their application to the study of climate in a single work. The meteorological elements, and the making and reducing of observations are first dealt with; next comes a section on atmospheric physics, the distribution of temperature and its variations, the circulation of the atmosphere, evaporation and condensation; and, finally, a section on weather and climate, which includes chapters on weather forecasting, the chief types of climate, and the climatic characteristics of the main land divisions of the globe.

Where so much is attempted in so small compass, there is, of course, constant risk of the treatment of parts of the subject becoming hopelessly inadequate, but Prof. Trabert has succeeded in avoiding this; the essential points are selected with extraordinary skill and presented with great clearness and conciseness. The omission of details of construction of instruments in part i. is especially satisfactory—most books on meteorology are overburdened with matter which is only wanted by practical observers—although in some cases more modern types of instrument might have been selected for illustration. The most successful section of the book is, in our opinion, that on atmospheric physics, in which the vertical distribution of temperature and the forms of isobaric surfaces are given the prominence they deserve, but do not always get.

Prof. Trabert's book is an excellent introduction to such classics as Hann's "Lehrbuch" and "Klimatologie," on which it is to a certain extent modelled, and we strongly commend it to elementary students and teachers.

*A Popular Introduction to Astronomy.* By the Rev. Alex. C. Henderson. Pp. 114. (Lerwick: T. and J. Manson, 1905.) Price 2s. 6d. net.

IN this book there are three chapters, occupying sixty-three pages, and a series of thirteen "notes" which take up the remainder of the text. In chapter i. we find a very general, yet simple and instructive, description of the solar system, its probable origin, and the nature, appearance, dimensions, and distances of its various individual components. The explanations given are brief, but they are lucid, and the verbal illustrations are homely enough to appeal to the simplest minds. Chapter ii. deals with the apparent and real motions of the heavenly bodies, and here again the beginner should find no difficulty in grasping the fundamental ideas. Comets are discussed in chapter iii., which really consists of a description of Biela's famous comet and of the meteoritic genesis of these bodies.

The thirteen "notes" comprise a *mélange* apparently consisting of extracts and examples taken from the author's note-book, and it is rather difficult to see to what class of reader they will appeal. Portions

of them are certainly too erudite to suit real beginners, whilst they are not of the form to appeal to more advanced students. For example, the observing of the sunrise, combined with the consultation of a year book, would hardly answer to the description of an "accurate method" of determining time. Double stars, climatic variations, auroræ, eclipses, the lunar phases, and the zodiac are amongst other things dealt with in this section of the book. W. E. R.

*Fragmenta Phytographiæ Australiæ occidentalis.* By L. Diels and E. Pritzel. Pp. 608. (Leipzig: W. Engelmann, 1905.)

ALTHOUGH the floras of the different Australian colonies present a certain homogeneity that unites them into a definite "Flora Australiensis," there is also a considerable diversity between the floras of the eastern and western sides of the continent; that of the western half is distinguished by its richness, the singular modifications due to physical conditions and the large proportion of endemic species. Exclusive of the northern tropical region, the vascular plants of Western Australia, according to the evidence of the Government botanist, Mr. A. Morrison, do not fall far short of 4000 species, and most of these are found in the south-west. The writers of this volume travelled through this portion of the colony, and also penetrated into the interior from Geraldton to Cue, and as far as Ranowna and Menzies in the Coolgardie district. Phytogeographical limits are determined mainly by the rainfall, which reaches a maximum of 39 inches in the neighbourhood of Cape Leeuwin and diminishes rapidly to 9 inches at Shark Bay in the North and Southern Cross inland; the botanical provinces outlined in this volume have been mapped out in accordance with the rainfall.

The book is primarily a systematic compilation of the authors' collections, and although there are interesting notes on morphology and habit, the principal feature is the intimate knowledge which the authors display of the distribution of the various species. A revised arrangement of the Verbenaceæ is given, with analytical keys and numerous illustrations. Additions have been made to most of the typical genera, to mention only *Acacia*, *Drosera*, *Hibbertia*, and several of the *Myrtaceæ*. Taken in conjunction with Bentham's "Flora Australiensis," Baron von Mueller's "Fragmenta," and Spencer le Moore's notes, these "Fragmenta" provide the necessary data for a fairly complete flora of the colony. Dr. Diels proposes to write a continuous phytogeographical account later, wherein it may be expected that he will summarise the extraordinary modifications of the desert and other plants that are no less unique than those of the Egyptian desert flora which Volken's has so vividly portrayed.

*Sporting Sketches.* By E. Sandys. Pp. vii + 389; illustrated. (New York: The Macmillan Company; London: Macmillan and Co., Ltd., 1905.) Price 7s. 6d. net.

MR. EDWYN SANDYS is so well known to bird-lovers and sportsmen in general by such works as "Upland Game Birds" that any volume of a somewhat similar nature is almost sure of a hearty reception on the part of that section of the public to which it more specially appeals. In the volume before us the author has collected together a number of articles on sporting subjects which originally appeared in that excellent American sporting magazine *Outing*, and to these he has apparently added others which now see the light for the first time. Whether, however, new or old—and the author seemingly gives us no clue on this point—the articles have such a freshness about