Familiar Butterflies and Moths. By W. F. Kirby, F.L.S., F.E.S. Pp. 114; with 18 plates containing 216 illustrations in colour. (London, &c.: Cassell and Co., Ltd.) Price 6*s*.

THE interest of this book centres in the coloured plates, which for the most part are excellent, and, so far as they go, will enable any one to name his insects supposing them to be among the number figured, for it must be remembered these are only a "selection." Probably the only really bad figure is Fig. 11 on Plate x. Nearly one-fourth of the number are butterflies, and nothing is figured beyond the Geometridæ. A not inconsiderable number of the species noticed do not occur in Britain, but this should be no drawback, because so many of our amateur entomologists travel abroad nowadays and form collections on their tours. The text is written to the figures and is sound, and the whole book is remarkably well got up. It does not pretend to be of the strictly scientific class, but we can commend it to the notice of those desirous of making a cheap, handsome and useful present.

Lehrbuch der mathematischen Chemie. Von J. J. van Laar. Pp. xiii + 224. (Leipzig: Johann Ambrosius Barth, 1901.)

THIS book does not cover the whole ground of mathematical chemistry, but is concerned solely with equilibrium. The treatment is thermodynamical throughout, Planck's potential function being taken as mathematical basis.

The first section of the book gives the general thermodynamical theory; the second section, which has eight times the bulk of the first, applies the theory to concrete cases, examples being given of all ordinary equilibria in gaseous, dissolved and condensed systems.

To those who desire a formal mathematical treatment of this important branch of chemical theory the book may be heartily commended, more especially as due attention is paid to experimental work where possible, so that comparison between theory and experiment is made easy.

Philip's Educational Terrestrial Globe. Diameter 9 inches. (London: George Philip and Son, 1901.) Price 15*s*.

IT is unnecessary here to urge that familiarity with the features of a good terrestrial globe is an excellent faculty for the student of geography to possess. Good globes of a serviceable size should be regarded as essential to the satisfactory teaching of the subject. Messrs. Philip's new globe shows commercial routes, ocean currents and the new political boundaries; and it is a very clearly-printed representation of the world. The distances in nautical miles are shown upon the principal steamship routes. Of course it is impossible to represent details upon a globe nine inches in diameter, as the scale is so small that the British Isles can be covered with a three-penny piece. But the correct general view obtained by the inspection of even a small globe has many advantages in the early stages of geographical instruction. For real work, however, it is essential that a complete meridian divided into degrees, and a wooden horizon, be provided. The importance of this is apparently not sufficiently appreciated by globe makers, for all the comparatively cheap globes, such as that under notice, are mounted with a semi-meridian of brass, which is sometimes not even divided into degrees, and they have no horizon. It ought not to be difficult to devise a light and inexpensive globe having both meridian and horizon, and doubtless such a globe could be produced if geographical publishers cared to give attention to it. The great value of a globe of this kind in connection with problems of geodesy, navigation and physical geography can only be appreciated by those who have learnt or taught the use of the globes.

Die Krystallisation von Eiweissstoffen und ihre Bedeutung für die Eiweisschemie. By Dr. Fr. N. Schulz. Pp. 43. (Jena: Gustav Fischer, 1901.) Price M. 1.20.

THE investigation of the chemical and physical nature of albumins[1] has always been hampered by the absence of criteria for the determination of the purity of the specific preparation. In chemical research we possess in crystallisation our most valuable method for purifying a substance, but the application of this method to albumins presents a complex problem.

For albumin crystals—crystalloids as they are termed—possess remarkable properties which distinguish them from other crystals: when treated with various reagents they absorb liquid and swell up; they do not separate from pure solvents, but the crystallisation is effected by salting out, or by the addition of mineral acids; as soon as the crystallisation is started, the separation is spontaneous and independent of the concentration, rendering it impossible to grow large crystals.

In other respects, however, these crystalloids resemble true crystals, in so far as they belong to well-defined systems, possess similar optical properties, and their inclination towards crystallisation depends on their state of purity.

Dr. Schulz in this pamphlet gives a complete account of all albumins which occur or have been obtained artificially crystalline, and of the methods used to obtain the latter results, and indicates that in many cases the elementary analyses of crystalline albumins, by different experimenters, show a welcome agreement.

Though Dr. Schulz in no wise dogmatises on the two theories of the crystallisation of albumin, he inclines to the view put forward by Hofmeister, who considers the phenomenon simply a case of gradual purification, in preference to Gabriel's assumption of the depolymerisation of the molecules of amorphous albumin.

The object of the author, we think, is in the first place to demonstrate the comparative uselessness of scientific research on substances of the purity of which we have no guarantee; he does not believe the amorphous character of certain albumins to be an inherent property, but attributes it to our ignorance of experimental conditions, intensified by the sensibility and labile nature of the albumin molecule. We can warmly recommend Dr. Schulz's pamphlet to the physiological chemist.

W. T. L.

Flowers and Ferns in their Haunts. By M. O. Wright. Pp. xix + 358. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1901.) Price 10*s*. 6*d* net.

THE authoress, in the "invitation" which prefaces this book, asks her readers to "spare an idle hour to look with the eye of the mind and the camera at a few of the flowers and ferns in their haunts." From this it will be evident that the work is not in any sense a scientific one and must not be criticised as if it were. It is a pleasantly written account of the more familiar flowering plants and ferns met with in a district in North America as they present themselves in the landscape. It is very fully illustrated with plates and drawings, the former being reproduced from photographs, the latter based on them. The plates, which represent the plants as they grow, are very good. The book will interest those who are familiar with the plants of which it treats, while others who know the wild plants of England will obtain from it a general idea of the common wild flowers of another country. A useful feature is a list of the scientific names of plants, which are mentioned in the text by their local popular names.

W. H. L.

[1] English current literature writes albumen and albumin indifferently—in America the term "egg-white" is frequently used, but rarely albumen.