the coasts. In this matter, modern American authors might have been called on. As it is, some such generalisation is promised on p. 112, but the volume ends abruptly nine pages later in the midst of local details of the Netherlands. M. Girard has certainly not allowed his subject to lead him into realms of speculation; on the other hand, his book lacks the system and arrangement which so often make a French work, even when its information is incomplete, seem like a well grouped picture in absolute harmony with its frame.

There are too many misprints in personal names throughout the book, the worst of which is "le baron de Reichtofen" on p. 55. "Scottisch" on p. 53 has also a quaint aspect. G. A. J. C.

Radium and other Radio-active Substances, with a Consideration of Phosphorescent and Fluorescent Substances. The Properties and Applications of Selenium and the Treatment of Disease by the Ultra-violet Light. By William J. Hammer. Pp. viii+72. (London: Sampson Low, Marston and Co., Ltd., 1903.) Price 5*s.* net.

MANY will probably be attracted by the first word of the title of this book, and buy it in the hope of obtaining light and leading on the new discoveries. Such, we fear, are likely to be sadly disappointed. The book is an apparently verbatim report of a lecture delivered at a meeting of the American Electrochemical Society and the Institute of Electrical Engineers. It is difficult to understand why it was reprinted in its present form, for most of the interest seems to have centred in the experiments and exhibits that accompanied the lecture. For example, we read, "Here are a couple of postal cards which I secured in Europe showing the Blue Grotto at Capri. They are printed with phosphorescent paints, and on exposing them to the light you will see that they are very pretty." Reproductions are provided of an elaborate "stage setting" to the lecture, of various tubes with the word radium written beneath, but which, so far as the reader is concerned, might as well have contained sugar, and of some photographs taken with the aid of radium. The latter, although of more general interest, are sometimes misleading. Thus Fig. 7 is a radiograph of glass lenses, and is used to throw doubt on the generally accepted fact that the radium rays cannot be reflected, refracted, or polarised, whereas it is obvious that the photograph is taken with ordinary light, either the phosphorescent light of the radium itself not being eliminated, or else by simple "fogging." With regard to the text, the part dealing with radium consists of the collection of a large number of facts collected together without discrimination or arrangement. Thus two pages are spent on Heydweiller's experiment on the loss of weight of radium, the opinions of various eminent authorities with regard to this experiment are quoted as obtained by the author, and at the end we learn that the observation in question has been admitted by the observer to have been the result of an accident. Snippets of information are provided from most of the important researches which would be quite unintelligible to those not intimately acquainted with the subject and superfluous to those who are.

The Experiment Station Record. Vol. xiv. Nos. 5–9. (Washington: the United States Department of Agriculture, 1903.)

THE "Experiment Station Record" consists in chief of a series of abstracts of papers dealing with agricultural science all the world over, together with occasional general reviews and summaries. Abstracts are very rarely wholly satisfactory to the scientific worker, but there are few subjects more in need of work of this kind than is agriculture. The recognised organs of agricultural science are numerous enough, but much valuable work escapes their notice and appears in the irregularly issued reports and bulletins of some State or institution or society, or, again, is published in a journal devoted to one of the many pure sciences on which agriculture touches. Hence the value of the "Experiment Station Record"; so thorough is the organisation of the United States Department that very little escapes its net, and the student with an intelligent capacity for reading between the lines will by its help be generally put on the track of anything which concerns him specially. Particularly he will be saved the trouble of looking through the very numerous annual reports and bulletins issued by the separate States in America, for they are fully reported in the "Record," and almost wholly neglected by the German abstractors. We believe our own Board of Agriculture is about to undertake a somewhat similar work for the many scattered publications of county councils and colleges which have been doing agricultural experiments in this country during the last ten years or so. We doubt if the "Experiment Station Record" is as well known as it deserves to be; at any rate, several of our best specialist libraries in London possess it very partially, if at all, useful as it is even to men engaged in pure science. Meantime, it has become indispensable to all workers in agricultural science, and they owe a debt of gratitude to the United States Department of Agriculture both for its publication and for the liberality with which it is distributed. A. D. H.

Jahrbuch der Chemie. Twelfth Year, 1902. Edited by R. Meyer. Pp. xii+544; and General Register to same, i.–x., 1891–1900. (Brunswick: Vieweg und Sohn, 1903.) Price 15*s.* and 11*s.*

MEYER'S "Jahrbuch" is too well known among chemists to require description. It aims at giving a summary or review of the chief chemical contributions of the year. When one considers that in this comparatively short period upwards of 6000 researches (the number is taken from the *Centralblatt*, and does not include patent literature) find their way into print, the process of selection becomes a very arduous one, requiring on the part of the different collaborators—experts in their several provinces—not only much reading, but careful discrimination.

This large mass of material seems on the whole to be well sifted, but the condensed form in which it is presented robs the book of any literary merit, and gives it the indigestible and fragmentary character of a dictionary. English chemical literature scarcely receives full justice, not that the proportion of references is small (out of 160 papers published by the Chemical Society 28 are referred to), but these, it will be generally admitted, do not in all cases represent the most valuable English researches of the year.

The general index for the first decade is published with the "Jahrbuch," and as a book of reference should be useful. J. B. C.

Flowering Plants: their Structure and Habitat. By Charlotte L. Laurie. Pp. x + 157; with illustrations by W. L. Boys-Smith. (London: Allman and Son, Ltd., n.d.) Price 2*s.* 6*d.*

THIS little book is intended for students who have already studied the elementary principles of botanical science. It is divided into three parts, dealing with respectively, the most general conclusions of ecology relating to the habitat of plants, the minute structure of the plant and its adaptations to its habitat, and certain natural orders, regarded more particularly from the point of view of their ecological characteristics. The treatment is simple, though brief, and the illustrations are unusually good.