sections—as, for example, those on dairy products, meat, cereals, spices, oils, sugars, colouring matters, and flavouring extracts. A special chapter upon the determination of acidity (hydrogen-ion concentration) by the electrical method is contributed by Dr. G. L. Wendt; this contains a lucid explanation of the theory and practice of the process, with details of the apparatus employed. Very few errors have been noticed, but in the section on alcoholic beverages there are some slight inaccuracies respecting English proof spirit. This contains 49·28 per cent. of alcohol by weight, and 57·10 by volume, instead of the values given in the text (49·24 and 57·06); whilst the correct factor for calculating proof spirit from volume percentage is 1·7535, not 1·7525 as stated. Analysts in this country should be on their guard against using the table on p. 754 for determining the original specific gravity of beer. This table was superseded several years ago, so far as statutory purposes are concerned, and it is now mainly of historic interest. The last remark applies also in some degree to the methods described for detecting and estimating methyl alcohol.

As a whole, however, the new edition well maintains the reputation of the work. It contains so much trustworthy information that chemists concerned with foodstuffs will find it invaluable.

C. S.

Adventitious Plants of Tweedside.

The Adventive Flora of Tweedside. By Ida M. Hayward and Dr. George Claridge Druce. Pp. xxxii+296. (Arbroath: T. Buncle and Co., 1919.)

THIS is an interesting book. The usual lists and records of alien plants are not particularly inviting to the botanist generally, and there is no doubt a tendency to look with a tolerant eye upon the labour which is devoted by many workers to the botanical treasures of waste grounds and rubbish heaps. But the present book, like its prototype in Southern France, treats the whole subject on a high plane, and brings out many important general conclusions. The record is founded mainly on the careful field-work of Miss Ida Hayward continued for several years. The main share of the identification and classification of the plants has fallen to Dr. G. Claridge Druce. Dr. Druce is so well known for his intensive studies on the flora of Great Britain that one need only say that this part of the work is in keeping with his high reputation. Not the least interesting section of the book is the introductory part, where a summary of the origin of this adventive flora is given along with a short history of the development of the town of Galashiels and its woollen industry. There follows a review of the sources from which Galashiels derives the wool it manufactures into tweeds. Some little space is given to the remarkable survival of the seeds after the very drastic treatment they are subjected to when the wool is passed through some of the preliminary processes. The results obtained of the temperature-resisting power of certain seeds are certainly very remarkable.

In these days of printing difficulties one must refer specially to the excellent way in which the book has been printed. The general list has not been spoiled by paring down the text from pressure of space. Quite ample summaries of the orders and of the genera concerned are included in the text. With the limitations now imposed on the publications of scientific matter by the greatly enhanced cost of printing, one looks with a certain amount of envy on the appearance presented by the book under review, which is quite up to pre-war standard. The correctness of the records and the proof-reading leave little scope for criticism. On p. 235, Fig. 71 is subscribed "Polygonum" instead of "Polypogon." On p. 122 *Cotula coronopifolia* is mentioned as recorded for the first time in Scotland by Miss Hayward for August, 1908. It was previously recorded in the Trans. Bot. Soc. Edin., vol. xi., 1873, p. 256, by Mr. William Evans, near Aberdour, Fife. But these are minor points.

The authors need have no care for what Dr. Druce terms the "scoffs of some suburban botanists at the inexhaustible rubbish heaps of Tweedside." The book is worthy of its place beside "La Flore Adventice de Montpellier." Those interested in the flora of Great Britain, especially from the point of view of the influence of cultivation and industry upon the native flora, would do well to have this book upon their shelf. It raises much wider issues than the mere record of accidental aliens.

Meteorological Constants.

Smithsonian Meteorological Tables. Fourth, revised, edition. (Smithsonian Miscellaneous Collections, vol. lix., No. 1.) Pp. lxxii+261. (Washington: Smithsonian Institution, 1918.)

THE first edition of the "Smithsonian Meteorological Tables" was issued in 1893. It is now fourteen years since the last edition came out, and the opportunity has been taken in the