

who seek water supplies in unexplored or undeveloped regions.

Mr. Thompson comments on a fact which he states attracted notice and inquiry during the War, namely, "the comparative permanence of springs high up on mountain ranges after long periods of drought when those lower down commenced to fail," and he advances five reasons, separately or collectively, to account for the phenomenon. It would be interesting to know the extent to which this characteristic was observed and whether it was so general as to be really remarkable.

BRYSSON CUNNINGHAM.

*The Plant Alkaloids.* By Dr. T. A. Henry. Second edition. Pp. viii + 456 + 8 plates. (London: J. and A. Churchill, 1924.) 28s. net.

WHEN Dr. Henry published the first edition of his "Plant Alkaloids" ten years ago, general satisfaction was felt and expressed at the appearance in English of a really comprehensive work on so important a subject, and at the masterly way in which the author had dealt with it. Since then, notwithstanding the general interruption of such work due to the War, many investigations have been made and many researches published on the isolation, constitution, and properties of the alkaloids. One need only mention such examples as the investigation of the alkaloids of ergot, opium, areca nut, pomegranate bark, belladonna, cinchona, Calabar bean, ipecacuanha, yohimbe bark; of the oxidation products of brucine by Leuchs and his collaborators, of the constitution of chelerythrine by Karrer, of chelidonine by Gadamer, and so on, to realise the immense amount of material that Dr. Henry had to examine critically and sift in the preparation of the second edition of his work. He has succeeded admirably. Researches published in the spring of this year have received attention, although it may not have been possible for him to deal with them so fully as he may have desired.

Notwithstanding the large amount of fresh material to be dealt with, the size of the volume has not been increased, as that which had been superseded has been omitted as unnecessary. Methods of determining the percentages of alkaloids in drugs have received rather less attention than formerly, and rightly so; indeed, it is rather to be doubted whether these could not in the future be relegated entirely to the books that make such assays the subject of special attention. On the other hand, rather more space has been devoted to the discussion of such information as is available on the relation of chemical constitution to pharmacological action, a subject of surpassing interest but one in which it is not yet possible to draw general conclusions. The six pages given to the pharmacology of the tropane group is a good example of the clear and concise manner in which the author deals with this difficult problem.

Dr. Henry is to be congratulated on the successful accomplishment of his task. All who are interested in plant chemistry in general, or in the plant alkaloids in particular, will be glad to have at their disposal a work of reference that is thoroughly up-to-date and as trustworthy in its information as it is possible for such a work to be.

*Handbook of the British Flora: a Description of the Flowering Plants and Ferns Indigenous to, or Naturalised in, the British Isles; for the Use of Beginners and Amateurs.* By George Bentham. Revised by Sir J. D. Hooker. Seventh edition, revised by Dr. A. B. Rendle. Pp. lxi + 606. (London: L. Reeve and Co., Ltd., 1924.) 12s. net.

THE publication of a new edition of Bentham's "Handbook of the British Flora" is of considerable importance to students and teachers of botany in Great Britain. There is no published work which better serves as an introduction to the British flora than this, and, though it can be strongly urged that we now need a completely new "Handbook," approximately on the lines of Schinz and Keller's "Flora der Schweiz," it is a good thing that the republication of Bentham and Hooker's Handbook has not been undertaken without a revision.

Dr. Rendle has most decidedly improved the work, and in many respects has made it more in accordance with modern knowledge and usage. The nomenclature now approximates—after allowing for very considerable differences in species standards—closely to that of Babington's "Manual" (10th edition). The chapter in the introduction on vegetable anatomy and physiology has been omitted, the etymology of generic names and indications of pronunciation have been added, while certain improvements have been made in classification, particularly of the Cryptogams. Descriptions of the relatively few additions, since the last revision, of "Benthamian species" to the British flora are inserted, and bibliographical references are given to some of the more important recent researches on the critical genera. In spite of these improvements, it seems a pity that the very "large" species standard has been retained even for the use of "beginners and amateurs." Modern field-botany tends so much towards ecology, and systematists often feel that the determination of species by ecologists is none too critical, that the need of a handbook with complete keys and adapted for field-work, but based on a conception of smaller, and often more actual, species, is greater than ever.

*La Photographie des couleurs.* Par Prof. J. Thovret. (Encyclopédie scientifique: Bibliothèque de Photographie.) Pp. viii + 300 + 4 planches. (Paris: Gaston Doin, 1924.) 17-60 frs.

THE photography of colour is a subject that has been gradually growing in importance and extent during the last few decades, so that the time has come when it may well be treated of in more detail than is possible in moderate-sized manuals of photography in general. This volume is therefore a welcome addition to photographic literature. The author deals first with light and colour, including the transmission, refraction, diffraction, interference, and absorption of light, the production of spectra and their uses, and wave motion. The reproduction of colour by interference, dispersion, and by three-colour and two-colour methods follows, with practical instructions and theoretical considerations. Processes that have only a classic or historic interest are treated of sufficiently, but the special adaptation of methods to photomechanical processes is not included. The book is well and usefully illustrated, and has four good plates in colour.