

of tabular data and the many references give this treatise a lasting value. Not unimportant is the clarity of style; most of, if not all, the chapters can be read with pleasure as well as for instruction. All this is a tribute not only to the authors but above all to the editor.

This treatise will be of the greatest value to all who have anything to do with plasma proteins; it is undoubtedly a major contribution to the literature on proteins.

R. CONSDEN

## FERNS, MOSSES, SHRUBS AND TREES

### British Ferns and Mosses

By Peter Taylor. (The Kew Series.) Pp. 231 + 15 plates. (London: Eyre and Spottiswoode (Publishers), Ltd., 1960.) 25s. net.

### Garden Shrubs and Trees

By S. G. Harrison. (The Kew Series.) Pp. 318 + 15 plates. (London: Eyre and Spottiswoode (Publishers), Ltd., 1960.) 25s. net.

THESE new volumes in the Kew Series on British plant life are uniform in format and outlook with the two already published, and maintain the same rather humdrum level. At just one point the atmosphere changes. Mr. Taylor's account of the horsetails occupies some 32 pages, and one is immediately aware of his personal enthusiasm for this much neglected group. Backed up as it is by Miss Webster's admirably clear illustrations, this is surely the best account available and is one that every British botanist and field naturalist will wish to have at hand. The ferns themselves are displayed competently but unexcitingly. There is a resolute determination in this series not to frighten any reader by too much modern science. It is a misguided attitude. Sir Joseph Hooker knew better, and in the preface to his "Student's Flora" referred to "those physiological and morphological observations on British plants which have of late given so great an impulse and zest to botanical pursuits". He regretted that he could not fulfil his original intention of giving details of such work. The incorporation of the results of Prof. I. Manton's magnificent experimental studies on British ferns in a popular book of this kind is just what is needed to give a fillip to field botany.

Any selection of material invites criticism, and Mr. Harrison's choice in "Garden Trees and Shrubs" cannot escape it. How could he include *Erica carnea* and omit *Calluna*? Or mention six species of *Magnolia* and not one of the beautiful *M. sieboldii*-*M. wilsonii* group? Also, why no single yellow rose (such as *R. hugonis* or *R. xanthina*) to stand beside the red *R. moyesii*? These are strange omissions in the presence of *Decaisnea fargesii* and *Griselinia littoralis*. The chosen plants are, however, neatly and lucidly described, and the book, with its pleasant coloured illustrations, will yield some informative browsing for botanically minded gardeners. It is not really a book for identification purposes, for the key will often work only for the actual species described, and a different one may come down to the wrong genus. *Ledum* (keyed out on p. 37) has free petals and should be placed next to *Skimmia* and *Cotoneaster* on the previous page.

The black-and-white figures in this volume leave something to be desired: the characteristic pattern of the leaves of *Coriaria* (Fig. 24) has been quite lost, and the upright shoot of *Halesia* (Fig. 45) gives no idea of the gracefully pendent flowers; *Taxus baccata* var. *adpressa* (Fig. 65) looks far more like a species of *Pernettya*. It is not, however, the minor defects of this series which one regrets: it is the faint atmosphere of stagnation. Current interest in wild and cultivated plants is more lively and inquiring than the authors seem to realize.

B. L. BURTT

## MICROSCOPIC STAINS

### Encyclopaedia of Microscopic Stains

By Edward Gurr. Pp. xii + 498. (London: Leonard Hill (Books), Ltd., 1960.) 95s. net.

THIS book is to be regarded as an  $F_1$  hybrid (Conn  $\times$  Colour Index). It retains the characteristics of both parents, being intermediate in size between the slimmer Conn and the stout Colour Index (first edition), and deriving its style and format largely from the former.

Most of the book (420 out of 498 pages on very thick paper) takes the form of an alphabetical list of dyes, together with synonyms, molecular weights, empirical and structural formulæ, and solubility data. These last, giving solubilities in water, ethanol, 'Cellosolve', ethylene glycol and xylene, are particularly useful in practical histology.

Each dye is listed with a number and trade mark ('Michrome') so that, although no price is mentioned, an aura of the catalogue overhangs the whole work. In his preface the author defends his own system of numbering on account of its stability by comparison with alternative systems (the second edition of the Colour Index differs widely from the old one). If the constancy of the dyes listed is as good as that of the numbering system there is much to be said in its favour.

The descriptive notes which accompany each listed dye give numerous references to possible and actual uses, but, in a disconcertingly large number of cases, the author has been unable to find any histological or histochemical use to justify the inclusion of the dye in his lists. In some cases dyes with identical formulæ, molecular weight and solubilities are recorded as separate items, without the appropriate synonym (brilliant croceine; croceine scarlet).

The author makes a case for regarding the molecular weight of a dye as an important indicator of its properties. He therefore presents, at the end of the book, a table of molecular weights as an aid in "selecting dyes for particular purposes".

Two other sections, perhaps added as an afterthought, briefly concern the diazonium salts used in histochemistry and the tetrazolium salts similarly employed. In the case of the former the quoted molecular weight is relatively useless unless the concentration of vehicle and stabilizer in the commercial product is known.

Histological departments and students of histology may like to have this book on their shelves; it contains a large volume of interesting and necessary information.