

OUR BOOKSHELF.

Handbook and Guide to Dundee and District. Prepared for the Members of the "British Association for the Advancement of Science," on the occasion of their visit to Dundee, under the direction of the Local Publications Committee. Section i. Edited by A. W. Paton. Section ii. Edited by Dr. A. H. Millar. Pp. xiv + 683. (Dundee: Printed by David Winter and Son.)

AMONG the various publications obtained by members and associates at the meetings of the British Association one of the most valuable is always the handbook which serves as a history of the place in which the annual assembly is held and a guide to matters of interest in the district. The "Handbook and Guide to Dundee and District," which has been prepared for the meeting to be opened on September 4, is one of the best arranged and most comprehensive we have had in recent years. The first section, which has been edited by Mr. A. W. Paton, the convener of committee, includes a history of Dundee, a forecast of its future, an account of its social service and city problems, its public services, its industrial and commercial life, and its importance as an educational centre. The second section, edited by Dr. A. H. Millar, includes seven scientific contributions dealing with the geology, the flora, ornithology, and so on, of Dundee and district; biographies of some distinguished men of science born in Forfarshire, and interesting information as to local architecture, ancient trades and incorporations of the district; and Dundee art, music and drama.

The biographical articles are of particular interest. Sir Archibald Geikie writes on Lyell and Forfarshire geology, Sir David Prain on Robert Brown and other botanists, Dr. Millar on James Bowman Lindsay, whose experimental researches in electricity were a generation in advance of his time; and there are many other biographies of scientific celebrities in whom Dundee has pride.

The volume runs to 683 pages, and in addition to a large number of illustrations and diagrams in the text, it includes a coloured botanical survey map of Fife and Forfarshire, a coloured geological map of Dundee and district, and a general plan of the docks and river wharves of Dundee.

The Testing of Wood Pulp: a Practical Handbook for the Pulp and Paper Trades. By Sindall and Bacon. Pp. 148. (London: Marchant Singer and Co., 47 St. Mary Axe, 1912.)

THIS is a practical handbook dealing with secondary features of value of papermakers' staple raw materials. The home production of the wood pulps representing only a small fraction of the consumption, there is necessarily a large trade with foreign products, chiefly Scandinavian, German, and American, involving close control on both sides. The primary factor of value is "cellulose quality"—a somewhat elusive and complex term, and largely dependent upon empirical

judgment; next in order, but of inverse importance, is the incidental moisture which for obvious reasons requires exact adjustment.

The authors devote the first and larger section of their handbook to practical methods of estimating moisture in commercial deliveries. The important element in this operation is the sampling. This requires the expert. The authors are particularly qualified by long experience, fortified by full inquiry into the scientific basis of the operation of reducing, say, 100 tons to a representative 100 grammes to be actually subjected to the quantitative drying in the laboratory, and the volume reflects both qualifications.

Details of manipulation are adequately set forth, and the mathematics of the several schemes of drawing average samples are analytically enunciated.

The second section deals with the laboratory control of the bleaching of pulps. This is a question of bleach consumption and standard of colour in relation to that of cost. Here, again, it is a question of a plus-minus margin of value, and those few shillings per ton which in this highly competitive industry can by no means be left to "chance."

This little work is a useful contribution to the education of technologists, and the information of all business men who handle wood pulp as merchants or as manufacturers.

The Grouse in Health and in Disease. Being the Popular Edition of the Report of the Committee of Inquiry on Grouse Disease. Edited by A. S. Leslie. Assisted by A. E. Shipley, F.R.S. Pp. xx + 472 + plates. (London: Smith, Elder and Co., 1912.) Price 12s. 6d. net.

THE limited number of copies in the original edition of this work rendered it practically certain that a new one would soon be called for; in issuing this in a condensed and more popular form, at a much lower price, the publisher and editor have been well advised, for it will now be within the reach of head-gamekeepers and other persons to whom it ought to be of special interest. The editor and his staff of experts are, moreover, to be congratulated on the fact that no material alteration has had to be made (so far as can be gathered from the preface) in respect to the cause and diagnosis of the disease, thereby demonstrating the admirable and thorough manner in which the original investigation was conducted.

In the present edition much of the purely technical part of the original report has been omitted, only such pathological conclusions as are essential to a right understanding of the subject being retained. Most of the original plates had been cleaned from the stones, but the loss of these is compensated by the reproduction from the Zoological Society's Proceedings of a series of coloured plates illustrating the seasonal and other variations in the grouse's plumage. The wide circulation which this edition can scarcely fail to attain may lead to additional information on the subject.

R. L.