

The account of his explorations in Kweichou and Hunan, where he broke new ground, are of great interest; and the illustrations show wonderful scenery and rich vegetation. He left Changsha for Shanghai on Feb. 26, 1918, and this date marks the end of a succession of perilous journeys in the cause of science.

A. HENRY.

### Our Bookshelf.

*Classified Problems in Chemistry.* By D. B. Briggs. Pp. viii + 152. (London: Sidgwick and Jackson, Ltd., 1926.) 3s. 6d.

THE author has made a praiseworthy attempt to provide a number of numerical problems in chemistry, arranged in methodical order for use in schools. Many of the examples are taken from examination papers of British universities, the Civil Service, and other authorities, quite a number being culled from Cambridge Tripos papers. The arrangement of chapters and sections is excellent, but the explanatory notes might have been expanded, since they will scarcely suffice for the solution of all the problems. Instead of four pages of notes on the use of logarithms, a section might have been included dealing with limits of error and accuracy, a stumbling-block to many beginners. The method of calculation on p. 24 is admirable, but in dealing with volumetric analysis it would have been better to explain the use of equivalent weights, the dependence of equivalents on the reaction studied, and the effect of any change in the equivalent weight of a compound. Experience has shown that many pupils on leaving school have failed to grasp the simplicity of this method of calculation, and until it is generally adopted, volumetric analysis will appear to be more difficult than it is.

A number of inaccuracies have been detected; for example, in question 10, p. 31, the molecular weight of ammonia can not be deduced from the data, nor can the atomic weight of the metal be found accurately in question 12, p. 47. The weight of potassium chlorate in question 22, p. 78, is not 1.08 grams, and the percentage of silver in question 44 on p. 134 is incorrect. Teachers will nevertheless find the book most useful.

*Organic Syntheses: an Annual Publication of Satisfactory Methods for the Preparation of Organic Chemicals.* Editorial Board: Henry Gilman, Editor-in-Chief, Roger Adams, H. T. Clarke, J. B. Conant, C. S. Marvel, Frank C. Whitmore. Vol. 6. Pp. vii + 120. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1926.) 7s. 6d. net.

THE preceding volumes of this series have been reviewed in these columns and are well known to most chemists. The present volume is in every respect similar. Some of the syntheses described are likely to be of use to research workers in the preparation of their starting materials, such as the syntheses of acrolein, benzil, octanol, and hexanol,

but others are more of the nature of students' preparations. The reviewer himself has tested the synthesis of acrolein given, and found that the notes simplify the process considerably and that the yields quoted can easily be reproduced. The volume also contains the recent references in the current literature relating to syntheses published in the previous volumes, and the policy is adhered to of repeating syntheses when improved methods have been afterwards described, e.g. benzil. While these volumes serve a very good purpose, it is a great pity that the price charged should be so large. As it would ultimately be best to have the volumes bound together, it would be a good plan if a cheaper edition were published with less elaborate bindings.

*A Manual of Navaho Grammar.* Arranged by Fr. Berard Haile. Pp. xi + 324. (St. Michaels, Arizona: Franciscan Fathers, 1926.) 6 dollars.

THIS study of Navaho grammar, which it may be said is a very thorough piece of work, might well be recommended not only to the student of the linguistics of the North American Indian, but also to those who are interested specifically in his psychology. The chief grammatical devices for the expression of ideas in Navaho are the noun and the verb. Of these the verb is of special importance in this connexion, as it most markedly brings out the distinctive point of view of the Indian mind, which emphasises minute detail in relation to perceptible things. These are described with infantile accuracy. The verb structure therefore gives expression to the attention which the Indian pays to size, shape, form, directional position, and like qualities of the subject. A great deal of work is thus thrown on the verb by means of adverbial prefixes and suffixes. In Father Haile's arrangement of the grammar, careful attention has been given to this aspect as well as to the verb stem. Notwithstanding a considerable amount of research along this line, the author acknowledges that much still has to be done.

*Exploring England: an Introduction to Nature-craft.* By Charles S. Bayne. Pp. 216 + 16 plates. (London: Jarrolds Publishers London, Ltd., n.d.) 7s. 6d. net.

THE 'exploring' of this work is the exploration of the naturalist in the familiar places of the country-side, and 'England' need scarcely have limited the study, for with few exceptions the creatures described occur throughout the British Isles, while at least one of them, the crested tit, is confined to Scotland, and others, like the dotterel and the grey lag-goose, are mentioned only in connexion with their nesting there. In turn the author visits the hedgerows, the woods, the streams and marshes, the coast, and so on, and describes the plants and animals which are likely to be found in each type of area. There are many shrewd observations on the habits of wild creatures, but the descriptions and illustrations are insufficient in many cases to guide the novice to the identity of his quarry, and that is a first essential in nature-craft.