

the botany of Surrey the late George Masee leaves a curious note of chronology by saying (p. 65): "The edible boletus (*Boletus edulis*) has a cap corresponding in size and colour to a penny bun." When will the penny bun once more rival the cap of a boletus?

Practical Organic Chemistry.

The Preparation of Organic Compounds. By E. de Barry Barnett. Second edition. Pp. xv+273. (London: J. and A. Churchill, 1920.) Price 10s. 6d. net.

THE work which the universities were invited to undertake in preparing synthetic drugs and "poison gases" in more than usual laboratory quantities forced them to replace their costly glass and porcelain apparatus, wherever possible, by larger and stronger vessels of tinned iron and by earthenware basins of cheap material. This experience has been wisely turned to account in the new edition of Mr. Barnett's book, in which a description of such apparatus is given. Although it is desirable for the beginner to use transparent vessels, in which reactions can be easily watched and controlled, and to manipulate quantities which do not demand too great an expenditure of time, the knowledge of how to apply larger scale methods he may later be called upon to adopt will prove invaluable. Moreover, the habit of discarding, as occasion demands, the usual laboratory vessels in favour of less elegant but more serviceable utensils is a good mental and moral exercise. With the exception of the above-mentioned description and the addition of a few new preparations, no fundamental change has been made in the size and scope of the new edition. It takes the form made familiar by Gattermann's and Freundler's well-known treatises, and by many other books dealing with this subject.

Which of the two systems is the more satisfactory, namely, discussing general methods and apparatus first, and then referring to them in the later preparations, or allowing the student to familiarise himself with them by actual examples involving their use, must be left to the individual teacher to decide. He must also determine what amount of detail he thinks it desirable to supply in his account of the preparations. There is no doubt that some simple modification in the conduct of a reaction which additional details would supply will often convert failure into success, with a corresponding economy in the student's time. On the other hand, advantage may be gained by the student having to surmount his own difficulties.

NO. 2656, VOL. 106]

There is, on the whole, not much to choose between the two methods. The present writer is inclined to think that, as the purpose of the practical work is mainly to assist the student in developing his general knowledge of organic chemistry, the greater the variety of reactions he can perform during his course, which is often not too long, the more he will profit by it. Later research will afford ample opportunity for the exercise of his ingenuity in meeting and overcoming difficulties.

J. B. C.

Our Bookshelf.

The Essentials of Histology: Descriptive and Practical. For the Use of Students. By Sir E. Sharpey Schafer. Eleventh edition. Pp. xii+577. (London: Longmans, Green, and Co., 1920.) Price 14s. net.

"THE Essentials of Histology" preserves, in its eleventh edition, the well-known characteristics of the previous editions of this standard work. The volume is growing in size, but the additions are mainly of new illustrations. These are uniformly good, and conform to the general tendency of successive editions to present photographic representations of actual preparations, as well as semi-diagrammatic drawings emphasising points which the artist deems of special import. The latter are of great service to the beginner, but carefully selected photographs mean more to the advanced student. Both varieties are utilised in the "Essentials," and monotony in the figures is avoided by a pleasing use of colour. Although mainly a descriptive work, the practical side is better represented than a cursory glance would reveal, and the directions briefly given at the head of each lesson are amply sufficient, if exactly followed, to enable the student to obtain the preparations desired. Further practical directions are given in the appendix, which is a synopsis of general and special histological methods.

A Naturalist on the Amazons. By H. W. Bates. Abridged and edited for schools by Dr. F. A. Bruton. (English Literature for Secondary Schools.) Pp. xix+182. (London: Macmillan and Co., Ltd., 1920.) Price 2s. 6d.

In this abridged edition selections from Bates's original work have been chosen which deal mainly with the natural history of the forests of the Amazon. A short account of the more remarkable forest trees is included, but the bulk of the book consists of selections describing the fauna of the country. Illustrations from photographs are given of most of the animals mentioned. Dr. Bruton contributes an interesting introduction and some helpful notes. We are glad that Bates's vivid descriptions of Nature and man are made available for appreciation by young people in schools by the issue of this abridged edition of his masterpiece.