

Our Bookshelf.

Bibliography of Industrial Efficiency and Factory Management. (Books, Magazine Articles, etc.) With many Annotations and Indexes of Authors and of Subjects. By H. G. T. Cannons. (Efficiency Books.) Pp. viii+167. (London: George Routledge and Sons, Ltd.; New York: E. P. Dutton and Co., 1920.) Price 10s. 6d. net.

CAN this country pay the interest on the money borrowed during the war without reducing large sections of the community to poverty? The answer to this question appears to be that only by increasing the annual production by at least as much as corresponds to the necessary increase in taxation can we provide enough for everybody. Industrial efficiency is thus seen to be of vital importance. Employers and employed alike should therefore welcome any book which helps to improve methods of production. It will be generally agreed that our manufacturers have still much to learn in this direction.

Mr. Cannons is to be congratulated on having collected no fewer than 3500 references in this bibliography. It would appear that more attention has been given to the subject in the United States than in Great Britain. For example, in a list of thirty-two periodicals dealing more or less specifically with industrial efficiency and factory management, we notice that twenty-three are published in America.

The bibliography is divided into sixty-four subsections. The titles of a few of these will serve to indicate the scope of the book: "Academic study and teaching," "Principles of industrial efficiency," "Factory and workshop management," "Scientific management applied to special branches of industry," "Fatigue study," "Hours of labour," "Personal factor in scientific management," and "Safety methods."

We wish Mr. Cannons had done more to indicate which among the articles referred to are more likely to be worth careful study. Some help in this direction is, however, given in brief notes of the contents of many of the books and papers indexed.

Aliments Sucrés. Sucres—Miels—Sirops—Confitures—Sucrieries—Sucs et Réglisse. Par Dr. E. Roux et Dr. C.-F. Muttelet. Pp. vi+474. Paris and Liège: Ch. Béranger, 1914. Price 12 francs.

THE manual of Drs. Roux and Muttelet on the analysis of foodstuffs of which sugar is an important constituent is naturally of somewhat restricted interest. The first part deals with the general optical and chemical methods of determining sugars and various other substances, such as dyes and antiseptics, used in confectionery. In the second part these methods are applied to the examination of commercial products such as honey, sugar, syrups, and preserves. The French laws and regulations dealing with the subject are given at some length together with extracts from those of other countries.

NO. 2647, VOL. 105]

Letters to the Editor.

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British and Foreign Scientific Apparatus.

It may, perhaps, be useful if I attempt to sum up the conclusions that seem to me to be justified from the somewhat divergent views that have been expressed by those who have written upon this question.

It is satisfactory to find that the makers are keenly desirous of meeting the requirements of the scientific worker. I think I am correct in saying that the majority of these prefer to obtain British rather than foreign goods, even at a somewhat higher price, provided that the quality is sufficiently good. It is here that the difficulty shows itself. It is significant that most of the makers who have written on the matter belong to the optical industry, and it is in this case that the state of affairs appears to be the least to be complained about, except, perhaps, in the smaller accessory apparatus, such as the object-marker referred to by Mr. Dunkerly (NATURE, June 3, p. 425). It is chiefly with regard to glass, porcelain, and chemicals that experience has been unfortunate. There has undoubtedly been improvement, but the impression given is that the makers as a whole have not altogether grasped the necessity of putting some of their best men to the work, and that there has been some carelessness in sending out goods of inferior quality. I have been told of flasks the necks of which drop off on the draining rack. It is natural that the users should be critical, especially when a large expense in time and money may be incurred by the breakage of a beaker in the final stage of a process.

The exhibitions arranged by the British Science Guild in 1918 and 1919 showed that excellent apparatus can be produced, and the difficulty is presumably in the main a matter of price. Glass and porcelain of quite satisfactory quality are being made in this country, and due credit should be given to the makers. The Worcester porcelain works, for example, supply excellent crucibles. At the same time, consumers meet with the experience that a large order cannot be relied upon to be of uniform quality. It is unfortunate, though perhaps unavoidable, that unsatisfactory apparatus was put on the market in the early stages of the supply of British glass, and it was to enable a greater perfection to be attained that I made the suggestion of a subvention (NATURE, May 6, p. 293). It is to be remembered that this is being done through the research associations of the Department of Scientific and Industrial Research, and it is in the direction of more scientific investigations that progress is to be looked for. In this connection, I may direct attention to the statement in the leading article of NATURE for June 24 that the profit of some three or four German dye-making firms in 1919 was more than 3,000,000*l.*, as compared with only 172,000*l.* by the British Dyestuffs Corporation.

The manufacturers want prohibition of import of foreign apparatus, at all events for a time, with the granting of special licences to import. I think it will be generally agreed that this would not meet the case, owing to the difficulty and delay that would necessarily be involved. They do not wish for a tariff, and the only alternative seems to be a grant in some form. When British goods have attained the neces-