

cal Proof," Dr. F. C. S. Schiller argues at great length that one of the main obstacles to scientific progress has been the analysis of scientific procedure which Logic has provided, and he pleads that it should abandon its pretensions to rigour and conclusiveness. A philosophical treatment is also adopted by Dr. J. W. Jenkinson on "Vitalism." Dr. Jenkinson was a distinguished embryologist, who, although forty-three years of age, took his commission and fell only ten days after his arrival at the Gallipoli Peninsula.

MILK PRODUCTS.

Manual of Milk Products. By Prof. W. A. Stocking. Pp. xxvii+578. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1917.) Price 10s. 6d. net.

THIS book is one of the "Rural Manuals"—a series edited by Prof. L. H. Bailey. It is a very complete treatise on all matters connected with the dairy industry. The general scheme of the book is to bring together in one volume the most recent and trustworthy information upon milk and milk products. In pursuance of this object, Prof. Stocking has quoted the writings of specialists in the various branches, so that the student and the practical man are in a good position to learn what is known on those aspects of dairying which are to them of the greatest interest.

The preliminary chapters deal with the process of milk secretion, and the evidence in support of the various theories is given. The much-debated question as to the effect of food upon the quality of milk is discussed in chap. iii., as are other factors which may also have an effect—particularly upon the fat-content of milk. Owing to the fact that the standard method of estimating fat in the United States is by means of the Babcock test, the chapter on milk testing is scarcely so useful to the British reader.

Of late years the American dairy trade has made great advance in the provision of a supply of clean milk for public consumption. In New York there are three grades of milk and cream, and the regulations governing the sale are quoted, as are also the score cards used in connection with milk inspection. One chapter is devoted to certified milk, which is used almost exclusively for the feeding of infants, the cost of production preventing milk of this class being available for any large number of the general community, much as it is desirable that the high standard of purity should be attained for larger quantities of milk. It is clear, however, that the educational value of the efforts now being made to get a clean milk supply must favourably influence the trade as a whole.

The making of butter and cheese occupies about half the space in the book, and full particulars are given of all the necessary appliances and machinery together with details of operations.

There is no doubt that, with the increased demand for cheese, more milk will be used for

the production of the latter important article of food in the future. The standard makes of English cheese, such as Cheddar and Stilton, are dealt with, the former variety in considerable detail, as it has become the chief cheese made in America. Working directions are given for making a large number of other cheeses, such as Gouda, Edam, Camembert, Neufchâtel, cream, etc. There is a chapter dealing with the part played by bacteria in dairying, but this section would have to be supplemented by a knowledge of dairy bacteriology if the best use were to be made of it.

OUR BOOKSHELF.

The Improvement of the Gregorian Calendar. By Alexander Philip. Pp. 30. (London: G. Routledge and Sons, Ltd., 1918.) Price 1s. 6d. net.

OUR present calendar has many inconveniences: the author's recommendations are limited to the correction of the most serious. Notably, August should give a day to February, reversing the reprehensible change attributed to Augustus. If the day were removed from August in one year and added to February in the following year, no alteration would be involved in the Easter tables. Also the leap-day should come at the end of a year; its present position causes many complications. This might be managed, the author suggests, by beginning the year on March 1. He points out the desirability of making each quarter exactly thirteen weeks. He would have one day in common years and two in leap years that would stand outside the weekly reckoning, which would thus recur exactly every year. This would be a great help in the arrangement of meetings and similar events, their relative positions being invariable, while at present they are subject to shifts of a week. These changes would cause some temporary inconvenience, especially to almanac-makers, but would in the long run be a great simplification.

A. C. D. CROMMELIN.

Annual Reports on the Progress of Chemistry for 1917. Issued by the Chemical Society. Vol. xiv. Pp. ix+264. (London: Gurney and Jackson, 1918.) Price 4s. 6d. net.

THE Chemical Society commenced the practice of issuing a collection of reports on the different branches of chemistry fourteen years ago, with the probable object of supplying to the individual chemist a review of that division of chemistry in which he was particularly interested. At the same time, the book is to furnish the reader with a concise survey of branches in which he has only a general interest. These two objects seem to have been attained with a fair degree of success both in the previous volumes and in the present one. It must be admitted, however, that the chemist who endeavoured to read the book through from cover to cover would run considerable risk of suffering from a severe attack of mental indigestion. This characteristic is, of course, an inevitable result of the compression of a year's material into a com-