

group: they may have been cast in Ceylon, but as a group they are allied to the school of South India. Their existence may represent a Tamil occupation of the island, but it is possible that both Buddhist and Hindu cults may have been contemporaneous. Siva here is found performing his orgiastic dance, and he is accompanied by his Sakti, or female energy, the Mother of the Universe, source of power and fertility. Finally come the local deities, like Pattini, patron of chastity and guardian of disease, who was a deified woman executed on a false charge of stealing the anklet of the Queen of Madura. The bronzes thus represent a complex of cults: Buddhism, Brahmanical Hinduism, and the worship of local deities, all combined by the eclectic tendencies of modern Hinduism. Those who are interested in Ceylon will welcome the promised publication in this series of monographs on the local archæology, ethnology, and botany.

A Text-book of Practical Assaying, for the use of Mining Schools, Miners, and Metallurgists. By Prof. J. Park. Pp. xii + 342. (London: C. Griffin and Co., Ltd., 1914.) Price 7s. 6d. net.

THIS capital little book is a welcome addition to the lengthening list of treatises on assaying which are available in this country. It has already appeared in New Zealand, where it has been used for the last ten years as a text-book in many class-rooms. It is arranged as a course of instruction for students, intended to be spread over two years, beginning with the easier operations and gradually leading up to more difficult ones.

The book contains a comprehensive course, and in his zeal for completeness the author towards the end so far diverges from his own definition of assaying as to include the analysis of soils, manures, sugar, and milk. Nevertheless, it must not be assumed that everything is fair game which comes into the net of this well-known professor of mining. There is little which could be omitted with advantage. It will readily be believed, however, that one of the merits of the book is conciseness, and in some sections strength would be gained by expansion and the addition of a few more details, as, for example, in the assay of copper by electrolysis.

The book is also commendable in its accuracy, and it will be prized by students who are familiar with it after they have passed out into the works laboratory.

The directions for arithmetical computation of results are perhaps unnecessarily full and explicit for university students, and such a remark as the following might be omitted:—"Suppose one gramme of copper ore yielded 0.46 gramme of copper, then the percentage is equal to 46." Some other directions in the book are similarly elementary, but teachers of classes in secondary and technical schools will not object to it on that account. For these classes it is an eminently suitable book. A few more illustrations of apparatus would not be amiss.

T. K. R.

New "Acribo" Sectional Pads. Fifty sheets in a pad with cover. (London: W. H. Harling.) Price of each pad, 2s. 6d.

MR. HARLING'S new pads of squared paper are printed in grey with a view to obviate eye strain and to ensure prominence for the curves plotted. Three rulings are available: inches and eighths, inches and tenths, and centimetres and millimetres. The size of the ruled portion of each pad is 10 in. by 8 in. or 26 cm. by 20 cm. The paper is excellent, the ruling is accurate, the pad is convenient, and the production is British throughout.

The Counties of Clackmannan and Kinross. By J. P. Day. Pp. viii + 145. (Cambridge: At the University Press, 1915.) Price 1s. 6d. net.

The Counties of Moray and Nairn. By Charles Matheson. Pp. x + 139. (Cambridge: At the University Press, 1915.) Price 1s. 6d. net.

THESE recent additions to the series of Cambridge County Geographies maintain the high standard of attractiveness and utility to which attention has been directed in the case of many previous volumes. The books should become popular guides for tourists, who will appreciate the interesting style in which they are written.

MODERN SUBSTITUTES FOR BUTTER.

UNTIL the last few years the word margarine was usually associated, in the mind of the British public, with poverty; but now, under the new name of "Nuts and milk," with which advertising enterprise has made us familiar, it is becoming freely used in the kitchen, and is even found on the breakfast table in many households. On the continent, where the general standard of luxury is not so high as here, butter substitutes are used far more generally; and the demand for the raw materials from which they are made has increased to such an extent as to cause a noteworthy increase in their cost. In most cases the legislation affecting butter substitutes has been influenced by vested interests, so that, whilst only partially effective in preventing fraud, it has checked the development of the industry. Taking into account also the universal prejudice against margarine which prevailed formerly, it is very remarkable that the industry should have made such advances. It is of interest, therefore, to examine its development in some detail, more particularly from the scientific point of view; for it is desirable at the outset to emphasise that the margarine industry is essentially scientific in character, and that considerable technical skill is demanded in its manufacture.

The finished margarine must be satisfactory in taste, odour, and texture; this necessitates that the fats composing it shall be entirely free from fatty acids, and show no tendency to become rancid. Much depends on the texture of the fat, which the user expects to be the same as that of butter. The margarine maker so blends his raw materials that the mixture has the same melting