

Biography of Coffee

The Saga of Coffee :

the Biography of an Economic Product. By H. E. Jacob. Translated by Eden and Cedar Paul. Pp. 384 + 27 plates. (London : George Allen and Unwin, Ltd., 1935.) 15s. net.

COFFEE has had much to contend with since its use as a stimulant was first made known to the world, and this biography of coffee deals in a very readable way with its vicissitudes during the last four to five hundred years, and with its influence on the development of western civilization.

The author first conceived the idea of writing the economic history of this product after seeing the bonfires of coffee at Santos which have been inaugurated by the Brazilian Government to meet the menace of serious over-production. It has been stated that 600,000 bags of coffee are destroyed every month in this manner.

How coffee-drinking and coffee houses were objected to by religious, political and medical bodies, how they were opposed by the ordinary taverns and the interests of the wine and beer

trades, and how they were taxed for revenue purposes make fascinating reading. So also does the influence of coffee-production on colonial expansion in the tropics by the Western nations—the Netherlands in the East Indies, France in the West Indies, Portugal in Brazil, and, later, Great Britain in Ceylon.

The author, writing of the competition of tea and its popularity in Britain, makes a serious error in attributing this to the British conquests in India in the early part of the eighteenth century. No tea was produced in India until a century later, and only then were attempts made to grow it there because the East India Company feared trouble in China, which was the only source of supply. The first tea from India was sent to Great Britain in about 1840. At the period mentioned by the author the Dutch held the monopoly for spices and coffee in the East, and the British—who were there only as traders—were forced to bestow their attention on other commodities, of which tea from China was one of the most important.

Emulsions : Theory and Practice

The Theory of Emulsions and their Technical Treatment.

By Dr. William Clayton. Third edition. Pp. ix + 458. (London : J. and A. Churchill, Ltd., 1935.) 25s.

DR. CLAYTON'S book on "Emulsions" has been transformed completely since the first edition was issued in 1923. Indeed, an inspection of the references shows that a very large proportion of the contents of the present volume is of later date than the second edition issued in 1928. The present volume may therefore be considered in most of its aspects as if it were a new publication.

The earlier chapters are naturally devoted to the fundamental principles of surface-phenomena, including air-liquid and liquid-liquid interfaces, which play so large a part in the production and stabilization of emulsions. Since water-in-oil emulsions are not formed, and stable emulsions of pure oil-in-water are limited to particles of the order of 10^{-6} cm. and to a maximum concentration of 1 in 10,000, the formation of emulsions depends on the presence of an emulsifying agent. These

were formerly hydrophilic colloid such as gelatine ; but in more recent years sulphates and sulphonates and sulphinates of known structure, and bases such as triethanolamine, $N(\text{CH}_2\text{CH}_2\text{OH})_3$, have been used extensively.

Properties and theories of emulsions occupy two considerable and well-illustrated chapters, in which the recently defined property of 'thixotropy' plays an appropriate part ; and inversion of phases is discussed in a chapter on dual emulsions. The problem of emulsification forms the subject of two chapters, concluding with a substantial section on the important process of 'homogenizing' milk and cream ; but the converse process of de-emulsification is discussed in a separate chapter in which the majority of the references are of recent date, and an appendix is devoted to the separation of technical emulsions, with special reference to crude oil-field emulsions.

The practical character of the book is maintained throughout the new edition and is one of its most valuable features. Thus whipped cream is discussed in Chapter ii, and churning and