

the book are to be found, he would have to go to the German edition of the book.

The translation contains several inexcusable mistakes. For example, on page 3 the statement is made that aniline is a dye-stuff, and on pages 52 and 53 that nitroso-compounds are formed when *sulphurous acid* is allowed to act on phenols. The German terms benzol and toluol are used throughout the book in place of benzene and toluene. On pages 62 and 63, sodium *nitrate* is used for sodium *nitrite* in diazotizing salts of primary amines.

Those who read German at all readily, will find it advantageous to purchase the German edition of the book. For those who read only English, the translation is the best book on the subject now available, notwithstanding the many errors of translation.

W. R. ORNDORFF.

LES DÉRIVÉS TARTRIQUES DU VIN. PAR LE DR. P. CARLES. Troisième Edition. Bordeaux : Feret et Fils ; Paris : Libraires Associés, Éditeurs. 1903. 169 pp. Price, 4 fr. 50. Franeo poste, 4 fr. 80.

The brochure before us, in its third edition, offers the results of years of study and practice in the recovery and utilization of the tartaric products obtained from wine and its residue, and its value has been recognized by the Institut de France in the award of the Montyon prize of 2000 francs to the author. It is well worthy of the careful consideration of those interested in tartaric materials. In his valuable little work, Dr. Carles discusses the methods whereby these products are recovered and the different forms in which they are sent to the market. This is followed by thorough discussion of the analytical methods—described in detail—which are employed for the valuation of the various crude products. Generally these consist in (1) determination of the quantity of potassium bitartrate (the “actual test” of the United States), (2) the determination of the total tartaric acid present as potash and lime salts (“total test”).

The first is comparatively simple and, according to Dr. Carles as well as in the experience of the reviewer, gives accurate results. The second is complicated by the presence of various foreign substances in the crude tartars, and the method of Goldenberg, Geromont & Co., most widely employed, often gives results which,

according to Dr. Carles, are low in proportion to the quantity and character of the non-tartaric constituents in the material to be tested. To avoid these difficulties, Dr. Carles has devised a method in which the total tartaric acid is precipitated and weighed as tartrate of lime.

Discussing the choice of methods to be employed, Dr. Carles says: "Reviewing what has been said, we see that we must separate and determine.

"1. Potassium bitartrate alone.

"2. Tartaric acid existing in mixtures of potassium bitartrate and calcium tartrate.

"3. Tartaric acid existing as tartrate of lime.

"For potassium bitartrate alone, in form of crude tartar, the same value is to be accorded to the methods of Teschemacher, Klein, and the 'Actual.'

"For lees, particularly low-grade, viscous and gummy, the American 'actual test' is the best.

"For mixed tartrates, with predominance of bitartrate, of value simply for the content of tartaric acid, the Goldenberg method of 1898 is to be recommended.

"When tartrate of lime is of importance or predominates in a crude tartar, the method of Carles, of 1903, is preferable.

"For factory residues, containing phosphates of iron, lime and alumina, plaster and tartaric acid, in unknown forms, there is little choice between the method of Goldenberg of 1898 and that of Carles of 1903."

The author, furthermore, discusses adulteration of crude tartars, a subject of interest and importance to refiners. In addition to this, attention is given to the many details of the tartar industry, offering information obtained by long experience and of value to all interested in the important industry under consideration.

In his letter, transmitting his book, Dr. Carles says: "I shall be happy to send other copies of the book to those of your members who may wish it, or to those of your manufacturers, who may ask for it." It is practically the sole authoritative exposition of the subject, and it is, therefore, of great practical value.

WM. McMURTRIE.