

SUGAR: ITS QUALITIES; AND WHICH IS THE CHEAPEST.

If cane sugar was the article intended by Hebrew *René* (translated *calamus* and *sweet cane*)—and this is at the least quite doubtful—then the oldest mention of this now common sweet is to be found in Exodus, thirtieth chapter, and twenty-third verse. But the first mention of sugar, relative to which there can be no question, is found in Herodotus, about B. C., 445. The Greeks called the article at first the *honey of canes*, *Indian salt*, and *saccharon* or sugar. The term “Indian salt” is noticeable. It seems, besides pointing to India as the original country of the cane, to show that sugar had been in a high degree clarified and crystalized even then; as it could not otherwise be compared to salt. Galen very gravely prescribes sugar as an internal remedy in some diseases! It was not known to Germany and Britain until the Crusades; nor was it considered a necessary of life until tea and coffee had come into general use.

The Arabs have the credit of first concentrating the juice of sugar by boiling. And the process of sugar-refining was communicated to the people of Europe, in 1503 by a Venetian—probably borrowed by him from the Chinese. The lovers of *candy* will be surprised to hear that, in the present sense of the word, it did not exist until more than a century after the discovery of America by Columbus! Our ancestors had not the privilege of killing time by mumbling *gum-drops*, *lozenges*, and *cream-sticks* minus the cream; but then they saved their teeth, temper, and stomachs for more substantial occasions.

There are many species of sugar—some of them obtained from a variety of sources. The most common—CANE-SUGAR—is found also in the beet, and some other roots; in the sap of the maple, walnut and birch; and in small quantity in grains. What is this sugar? Chemistry kindly steps in and informs us that it is made up, in its purest forms, of *twelve parts coal-dust*, combined with *eleven parts water*—nothing more, and nothing less! A *gr* at drives off the water, leaving the coal in a black mass.

GRAPE-SUG is that found in rasins, and of course in the juice of the grape, as well as in other fruits, and in honey. It is *coal-dust twelve parts, water twelve parts*, and is less sweet and crystalline than the former variety. Another form of sugar is found in the drug *manna*; a fourth in the *licorice* root; a fifth in *mushrooms*; a sixth in *animal muscle*, and so on.

The juice pressed from the sugar-cane is a solution of sugar in water, with various vegetable and mineral impurities, such as would naturally be found in the sap of plants. The process of manufacture has two objects: to get rid of the water not held in combination in the sugar itself; and to get rid of the impurities of the juice. It is seldom that either of these ends is attained on the sugar-plantations. Owing also to the speedy fermentation of the juice, if neglected, to too long and frequent exposure to the air, and to burning, much material which might afford an article of the first quality, is turned out deteriorated and greatly inferior; so that a writer has styled the common boiling process “an elaborate and effectual means of converting pure sugar into *molasses* and *scum*.”

It is generally known that *molasses* consists of the drainings from the sugar after it has undergone crystallisation. It necessarily contains a larger share of impure matters than any sugar; although many of the lower grades of the latter, as is easily seen, are still full of *molasses*, and are very far from being pure. The improved methods now adopted by some of the planters, both secure a larger percentage of sugar from the juice, and that of a better quality. The following is a good rule for judging of the grade and value of the article as it is imported, that is, of *raw* or *muscovado sugar*; namely, “The more coarsely granular, the harder, drier, and whiter, the greater the value of the sugar.” Of all the grades the white Havana is best, being almost as pure as that which has been refined.

In refining, the sugar is re-dissolved, purified by filtering through bones burned and crushed, then again concentrated, but by means of a “vacuum apparatus,” and therefore at a low degree of heat. The syrup is then poured into moulds, crystallises, is drained (the drainings furnishing the syrups now so much in vogue), and the crystalline mass is dried; when it is ready for the market.

If it be sold as loaf, the mass as it comes from the mould, is wrapped in purple paper, and then forms one of those pendulous cones of sweetness that in days of yore were wont to ornament the grocer’s ceiling; though, now, alas! rapidly giving place to the barrels of “coffee,” “crushed,” etc., that disfigure his floor. Much of the loaf is now broken up in a coarse mill, thus forming the “crushed” article. If this is cracked up into its individual crystals, and then sifted free from the finer dust, it gives the “granulated”