The sugar obtained from the sugar beet, the sugar cane, the maple and the sorghum, differs only in the kind and quantity of impurities it contains. The pure sugar from all of these sources is identical. It is commonly called cane sugar, *sucrose*, the name being derived from the plant from which it was in the past principally made. In addition to sucrose, several other, however, less important kinds of sugar are on the market. The two principal of these are *dextrose* and *lævulose*, sugars resembling each other in many respects. The former is now extensively made from Indian corn by transforming the starch in it with dilute sulphuric acid and neutralizing the excess of acid with lime. It is largely used in compounding the various mixtures sold as syrup on the market—few of which are now pure concentrated cane juice. Honey is a mixture of both these sugars, dextrose generaliy predominating. All sweet fruits contain one or other or both of the-n. Cane sugar when treated with a dilute acid yields an equal quantity of both of them in invert sugar. Even continuous heating at the boiling point of water has a tendency to transform ordinary sugar into invert sugar. Both dextrose and lævulose crystallize with great difficulty. If present in a solution of sucrose they probably exercise a retarding influence on the crystallization of that sugar. Any agent, therefore, having a tendency to invert any of the sugar in the juice or syrup is doubly objectionable. Sulphur dioxide in solution has this tendency, especially when hot. Long boiling at high temperatures has also the same tendency. Both should be avoided as much as possible on this account.

In addition to the three sugars already named, at least seven others occur in nature, among these are milk sugar and malt sugar, *lactose* and *maltose*. But several times the number are known to chemists, some of them are fermentation or decomposition products, others have been made by the synthetical method. However, so far as I know, no cane sugar has ever been made by either of these ways. The stories sometimes heard that cane sugar is now made for commercial purposes from rags and sawdust are a myth. Perhaps they have arisen from the fact that dextrose is made from starch and possibly, at times, from such sub stances as I have just named.

Sugars belong to the carbohydrates, a class of compounds ably treated by Mr. F. T. Shutt, M.A., in a lecture on the Chemistry of