of time the manufacturing of sugar and the growing of cane may become separated, like the producing of milk and the making of cheese have become in Ontario.

As in other plants, the sugar of the cane is found dissolved in the juice. In Louisiana, this juice contains about 9 % 14 % of sugar, sucrose, 1 % to 2 % glucose, and about an equal quantity of other solids. Two methods are at present used, on a large scale, to extract the juice. The one most generally employed for cane is that of pressing it out by passing the stalks as they come from the field between large iron rollers which almost touch each other. These rollers are frequently almost three feet in diameter, and six to seven feet long, and five, six, or even nine of them are placed in successive sets of three near each other. In the case of a five roller mill, the front set has three rollers and the one behind the remaining two. The stalks of cane in passing through these successive sets of rollers are, of course, pressed twice in each set of three; for two rollers are lying side by side at the bottom and the third is placed above and between these, in such a position that it almost touches the second one of the lower rollers but allows a little more space to be between it and the first of the lower rollers. This enables the cane to pass easily into the mill and to be at the same time thoroughly pressed. In order to make the extraction of the sugar from the cane as complete as possible, the cane is generally moistened with water while passing from one set of rollers to the next. When the stalks leave the mill they are practically dry and torn into comparatively small pieces, and present a somewhat spongy appearance. They are now largely used as fuel under the boilers of the sugar houses. The other method for extracting the sugar from the cane is called the diffusion process. It is the method almost exclusively employed in obtaining the sugar from beets. In it the cane is first cut transversely into pieces not more than an inch long, subsequently sliced, or shredded longitudinaly as fine as possible, and packed tightly into a battery of iron cylinders or cells all connected with each other by pipes. Water is pressed into the first cell and from it to each succeeding one, remaining about ten minutes in each. Fresh water is passed through in this way several times, or until the chips in the first cell are practically free from sugar. These chips are then thrown out. After the cell has been refilled with fresh chips of sugar