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CANE SUGAR. No. 3.

BY P. E. BUCKE, OTTAWA, ONTARIO.

Having grown the cane, the next thing is to proceed to make the sugar. It is found, as I before stated, that the storing of cane for any length of time after it has been cut is highly detrimental to the crystalization of the syrup; therefore in order to prevent failure, it should be insisted upon as a general rule that the stalks should be worked up within twenty-four hours after being cut in the field. All the operations of cutting, blading, topping, removal from the field, extraction of the juice, defecation, evaporation and crystalization, should follow each other with the least possible loss of time, as in every stage any delay will cause a proportionate loss to the manufacturer. The only point at which the operation can rest after the cane has been cut, is when the syrup has reached a density of 25° Baume. It will therefore be seen that shed room need not be provided for more cane than can be used up in a single day.

It is not desirable that the crushing mill should work at a too high rate of speed. The best results appear to be obtained by rollers which develop a surface of from four to five yards per minute, so that a roller of two feet in diameter should make about two to two and a half feet per minute. An increase in the capacity of the mill can only be given by adding to the length of the rollers. It is found by analysis that fresh undried canes contain eighty-five per cent. of saccharine juice, but as a rule only from fifty to sixty per cent. is extracted. So great a loss throws open a wide field for some inventive genius, to discover either a more perfect mill, or some new method of extracting the saccharine matter from the cane. An increased yield of syrup may be obtained by running the canes through the mill a second time. The mill should be placed so high that the juice may drain from it by