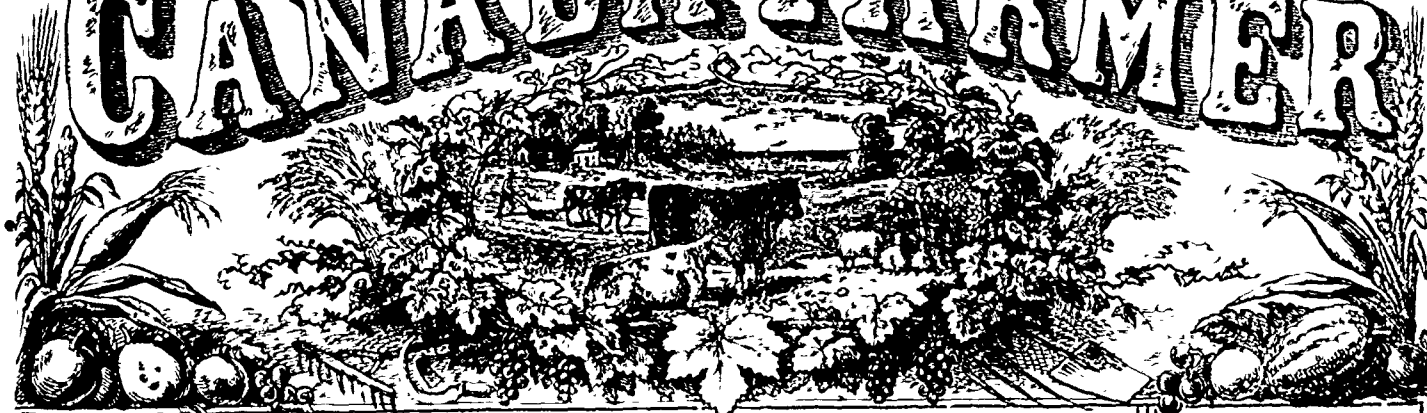


THE

CANADA FARMER



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NEW SERIES.

The Field.

Maple Sugar Making.

The season has now returned when the operation of maple sugar making is usually undertaken by those who have a sufficient number of maple trees in their wood lots. The mode of tapping the trees, attaching the spouts, collecting the sap, either in pails suspended from the spouts, or in rude troughs placed on the ground underneath them, can be learned by the novice from any old settler in his neighbourhood. The boiling of the sap is usually conducted in ordinary kettles or pans, but a considerable improvement has been recently introduced, and one that is not costly, by the use of a shallow evaporating pan, made of sheet iron, and divided by partitions extending nearly across, leaving a narrow passage on alternate sides, so that the fluid introduced at one end of the pan is compelled to follow a tortuous course through all the compartments made by the cross divisions, till it passes out at the lower end. The advantages of this contrivance are, that the sap is exposed to the heat of the fire in a shallow and continuous stream, being subjected to the fiercest temperature at the outset when it is thinnest, and to a gradually lower heat as it thickens, so as to diminish the risk of burning. A description and cut of this improved pan are given in the CANADA FARMER for January 15th, 1868, and an account of a similar contrivance for boiling beet-root syrup in the first number of the current year. For the guidance of those who are inexperienced, we re-produce from one of the earliest numbers of the same publication a few practical hints respecting the processes of boiling and "sugaring off":

Cleanliness at every step of the process is the prime thing to be secured. Boil the sap as fresh as possible. It should never stand twenty-four hours if it can be avoided. Sap varies in quality, and requires reducing by boiling to from one-twentieth to one-thirtieth of its bulk to make good syrup. What-

ever dirt and scum arise on the surface of the sap while boiling, should be removed with a skimmer. On taking the syrup from the fire, it should be strained through one thickness of home-made flannel into a clean tub or barrel, and left to cool and settle from twelve to twenty-four hours. Sugaring off may be done either in one of the pans, or in a separate brass kettle. Pour off the portion of syrup that is clear into the pan or kettle, leaving the sediment in the tub. In sugaring off, the fire requires to be under control either by a damper in the flue, or by means of a crane for the kettle to hang upon. If it is thought needful to clarify the syrup, add a beaten egg and a gill of milk to every gallon, keeping it hot but not boiling until the scum has risen and been skimmed off. Some good sugar-makers think the milk and eggs unnecessary, and contend that if every vessel is kept clean, and the syrup is thoroughly strained and settled, it will be free from all impurities. The final boiling must be carefully and rapidly performed. There are various ways of telling when the sugar is boiled enough. If it is to be put into tubs and drained, it requires less boiling than if it is intended to be put up into cakes. When snow can be obtained, a good plan is to take a dishful, and when some of the hot sugar is put on the snow, if it cools in the form of wax on the surface of the snow, it is done enough to put in tubs to drain. But when it is to be caked, it should be boiled until, when it is cooled on the snow, it will break like ice or glass. On this point the *Register of Rural Affairs*, says:—

"When the bubbles rising to the surface burst with a slight, or just perceptible explosion, from the tenacity of the thickening liquid; or if a drop hot from the kettle into an inch of water forms a distinct solid globule slightly flattened when it strikes the bottom; or if a drop between the thumb and finger will draw out into a fine thread half an inch long, the process has gone far enough." Another mode is thus described by a correspondent of the *Country Gentleman*: "Take a short twig, limber it by dipping its end into

the boiling sugar, and then form a loop with a hole, half an inch in diameter. Dip the loop into the sugar, bring it up quickly and blow through the loop-hole. When it will go off into a ribbon eight or ten feet long, it is done. It will ribbon a few feet before it is done, but wait a few moments and try again till it will perform according to order."

When sufficiently boiled, it is poured into vessels to cake. It must not be allowed to cool too much before being put into the moulds, as it hardens fast at this stage. If fine sugar is desired, it should be stirred moderately while cooling. The mould should be wet with water to prevent the sugar from sticking to it. To obtain dry sugar, place it in a tub, barrel, or hopper-shaped box, with holes for draining off the molasses. The sugar may be whitened by laying a few thicknesses of flannel on the top of it while draining, the flannels to be daily washed in cold water. They will absorb and wash out the colouring matter.

Beet Root Sugar

NO. XIV.

The next process which claims our attention is that of Champonnois, and is called after him the Champonnois process. It is a brown or raw sugar process, but from its simplicity seems to promise well for the use of the farmer, whilst the resulting potash and other mineral salts are entirely left behind in the refuse and feeding stuff, and as such pass to the manure heap, and from thence to the crops—a most desirable result; for notwithstanding that the whole of the cake of the beet root, when pressed, may be fed to the cattle, and thus restored to the farm, yet in the concreting and other processes hitherto described there is a certain and serious loss of the mineral elements of the farm, and which in time must be restored in one shape or other, or the farm suffers.

The Champonnois process is not very fully described in the latest English publica-