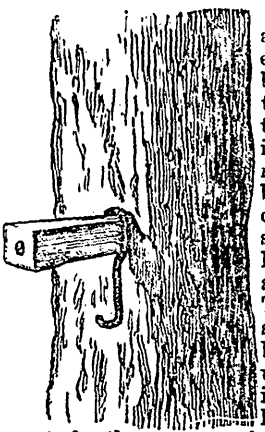
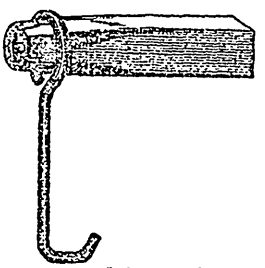
fire, and escape the danger of burning the syrup. This is a safeguard, if the person who is attending to the boiling should be absent for some time collecting sap or otherwise engaged. A large barrel or capacious trough must be provided for the purpose of storing the sap when gathered. A good supply of firewood, (dry if possible), should be on the spot, before operations are commenced. All being ready, when the sap will run, the trees must be tapped, the spouts fixed, and the troughs set. The common method of tapping is by making two gashes in the body of the tree, near the ground, in the form of the letter V. Just below the angle formed by these cuts, the tapping iron is driven in to make an entrance for the sharpened end of the spout before described, and the trough is placed so as to catch the sap as it flows from the spout. A simple, open barrel on an ox-sled, answers well for collecting the sap, and it will greatly lighten the labor if a team can be used for the purpose. A circular board, an inch or two less in diameter than the inside of the barrel will be useful to float on the sap, and keep it from splashing out.

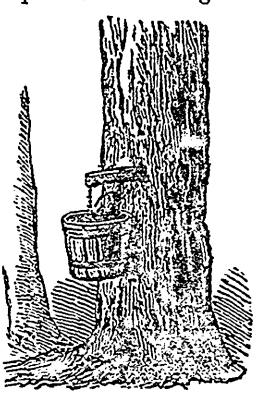
In what has thus far been said we have described the simplest and most primitive arrangements—such as any beginner in the bush may make with scarcely any outlay except for the kettles. That a good article of sugar may be made even with such rude and imperfect facilities, there can be no doubt; but the best quality cannot be produced without better conveniences. Sugar-making, like everything else, must be pursued under difficulties by the new settler, and it is only by unremitting care and attention in the way of regulating troughs, straining sap, skimming and clarifying syrup, &c., that good sugar can be made with such rough and ready contrivances as we have been describing. Pails of wood or sheet-tin are greatly preferable to troughs. Troughs are clumsy things, heavy to lift, liable to get out of place and waste the sap, and are very much exposed to leaves, dirt and rubbish. Wooden pails are the cheapest, tin ones the best. If made of wood the pails should be rather smallest at top to prevent the hoops falling off. It is a great improvement to paint them both outside and inside. They will cost from $10 to $15 per 100, according to size and finish. Tin pails are easily kept clean and are less likely to impart sourness. They should be made largest at top so as to pack away in nests when not in use. They will cost from $20 to $30 per 100, according to size, make, and quality of tin. There is also a better mode of tapping the trees, than the common one to which reference has been made. The V shaped cut inflicts a serious and unnecessary wound upon the tree. It has been found by repeated experiments that a small auger hole will yield as much sap as a large gash, the flow being in all cases in proportion to the depth of the hole. It does not take many years to girdle and destroy a maple tree on the old plan, whereas the auger hole will grow over, and leave the tree uninjured. Spouts may be made as already described, only shorter, or of tinned sheet-iron, which are considered better. Some adopt the plan of hanging the pail on the tree by an iron spike or old horse-shoe nail, the tin pails having a hole just below the wire rim, and the wooden ones a small wire loop for this purpose. The nails are however objectionable, especially if the tree should ultimately be chopped into firewood or sawn into lumber. Altogether, the best arrangement of spout and pail that we have met with, is that represented below.



On this plan a single auger hole say seven-eighths of an inch, is bored into the tree to the distance of about three-quarters of an inch. The spouts are made out of thick inch board about four inches long. They are shaved at one end just large enough to fit the auger-hole in the tree. To get them the right size, bore a hole in a board and shave each until it will exactly fit it. A hole is bored lengthwise through the spouts for the passage of the sap.

The hook for the pail is made of very stout iron wire, and is of the shape figured in the accompanying cut. The small end of the spout is passed through the loop of the hook before it is driven into the tree. The lower part of the hook passes through a hole near the top of the pail and the curve secures its hold. The hook is held against the tree by the slight shoulder of the spout, and is capable of sustaining a heavy weight. The subjoined cut represents the arrangement complete.





Kettles are not good boilers for maple sugar-making. From their shape they become unevenly heated, and a portion of their contents is liable to become burnt. Shallow sheet iron pans are much better. They may be kept cleaner, they evaporate more rapidly, make finer sugar and economize heat. A good form for them is described by a correspondent of the *Country Gentleman*. A convenient size is 3 by 6 feet. The following is his description :—