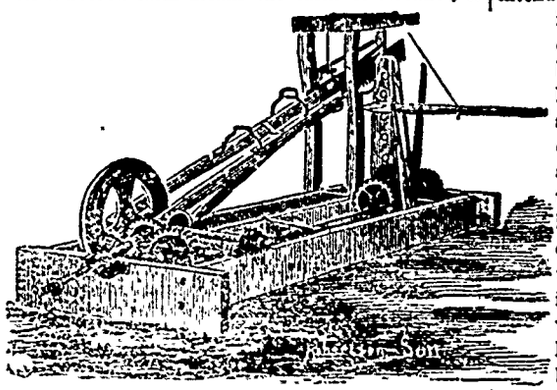
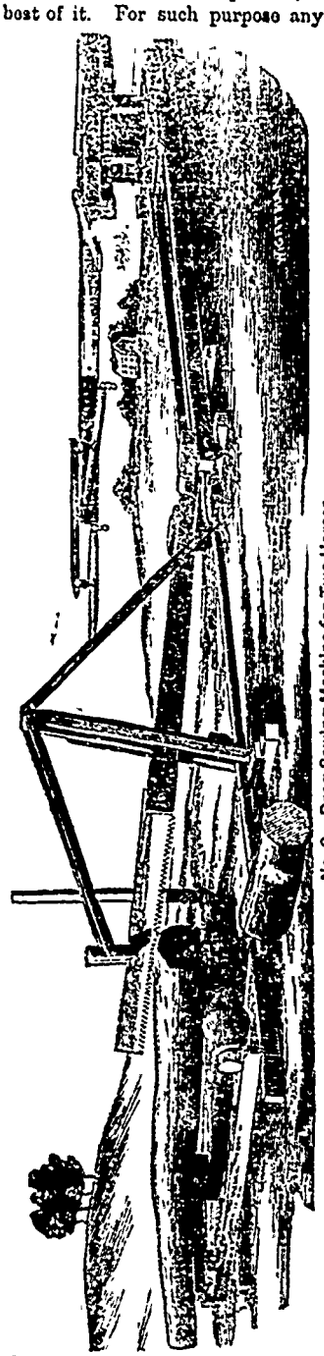
Emplements of Husbandry.

Drag and Other Saws.

As the period is fast arriving in Canada when the well-timbered farm means the farm of fortune; it behoves every farmer who has any surplus of this precious material to dispose of, to make the very best of it. For such purpose anything tending to save from the log-heap what must otherwise of necessity be burnt up with it, should be hailed as a boon. Now, it is a fact that thousands of cords of excellent fire wood are annually consigned to the flames, just because, mayhap, the timber is too knotty or tough to be split fine enough for market purposes, after it has been cut into proper cord-wood lengths. The chopping, in such a case, is looked upon as labor lost, and therefore the log or whatever it may be, is allowed to go to waste.

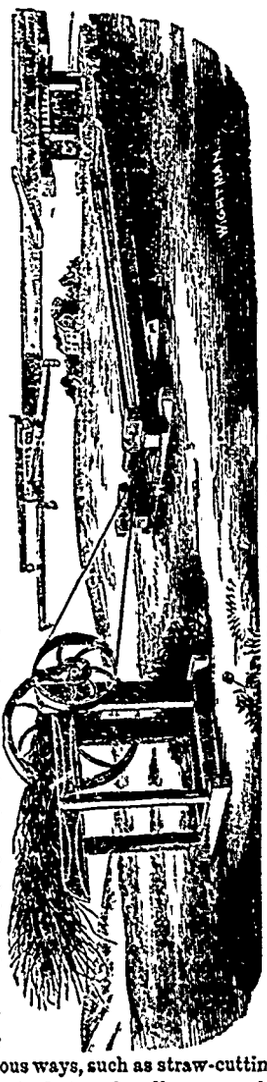


No. 2.—Drag Sawing Machine for Two Horses.



The power saw is designed to obviate such loss. Of course, the shorter wood is cut, the more easily it is split. To chop logs or trees with the axe into stove lengths would never pay, even at the present high rate of fire-wood; whereas, even if it should, the waste in the matter of chips would equal one-fourth, perhaps, two-thirds of the wood saved. In these respects then the saw will prove a double economizer. Indeed many farmers employ the common hand cross-cut saw, in preference to the axe, not so much for rapidity of work, as for the saving already mentioned.

The Drag Saw, illustrated by our first cut in this article, is one got up peculiarly for farmers. It is intended for cutting stove-wood, stave-blocks, heading, or shingle-blocks out of the log, and is driven by from two to ten horses, according to its size. The whole weight of its slides, guides, saw and pitman, bears upon the log being cut, thus keeping it steady, and enabling the saw to work with great rapidity. In it also the screw and worm for feeding up the log—such an objectionable feature in older machines—are dispensed with, and the use of spur-wheels substituted. It is likewise fitted with steel slides, and babbit boxes. It is completely under the control of the man in attendance, who, by simply raising or lowering a lever at hand, putting the wheels in or out of gear, moves forward the log at his pleasure. By means of a break applied to the driving-wheel, he can at any time stop the machine in a few seconds. With the aid of eight or ten horses, and half a dozen men, this machine will cut from eighty to one hundred cords per day. The power used may be Pitts', or any other ordinarily good one.

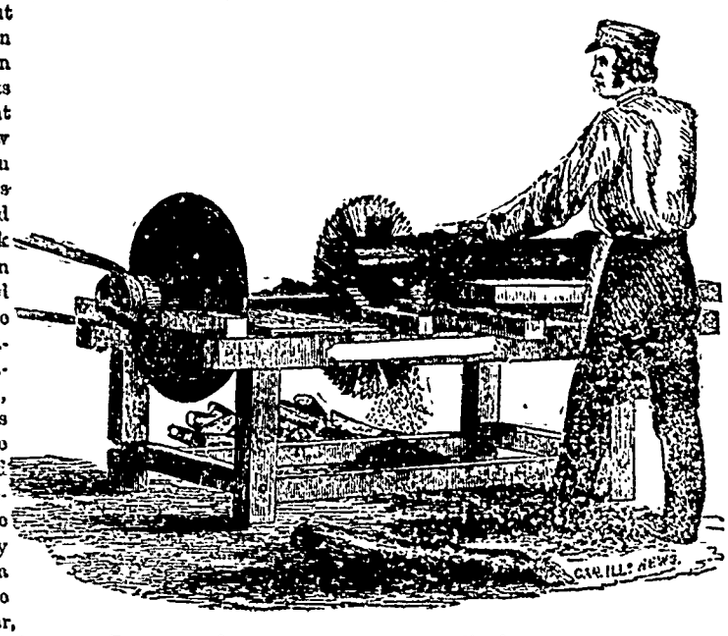


No. 3.—Applied to a Straw-Cutter.

Cut second represents a Drag Saw for two horses, designed to serve all the purposes of the farmer, but of course less effective as regards quantity of work done than the other, in proportion to the power requisite to drive it. Being a cheaper machine, however, and one which works easily and well, we presume it will be more generally used than its more expensive rival. This machine can be loaded on a waggon or sleigh, being comparatively light, and moved about quite handily. It is also fitted up completely with a logging and jigging apparatus, and is altogether easily managed.

By removing the saw and pitman, the power may be utilized in various ways, such as straw-cutting, root-cutting, chopping feed, &c.; in all cases saving the labor of at least two horses; for there are but few powers, *i. e.*, ordinary ones in the country but require at least four horses to drive them.

Our last cut shows, for the benefit of those who prefer it, the latest style of circular saw, to be run by horse-power. The fly-wheel, it will be observed, is not only heavy of itself, but surrounded by an enlarged periphery, which adds



No. 4.

materially to its momentum, and facilitates the driving.

A Gardener's Barometer.—The common camphor bottle makes a very cloudy index of atmospheric weight and weather changes, on which the following is a beautiful improvement: "Dissolve 2½ drachms of camphor in 11 fluid drachms of alcohol. Put 38 grains of nitrate of potash (saltpetre), and 38 grains of muriate of ammonia (sal ammoniac) into 9 fluid drachms of water; when all are perfectly dissolved, mix the two solutions. Shake them well in a two ounce or 4 ounce white glass vial, cork very loosely, or better, tie over the orifice a piece of linen or cotton cloth, and place the instrument in a good light out of the sunshine, where it can be observed without handling. When the weather is fine and clear, the fluid is also; but on the least change, the chemicals which lie as a sediment, rise in beautiful frond-like crystals proportionately, and again duly subside. By watching these changes, one soon becomes able to predict the changes of weather probable for a few hours to come, in any locality, but not for all alike. This instrument may be recommended also as a pretty philosophical toy, with a problem annexed.—*Cultivator.*

Greasing Buggies and Waggons.—Greasing buggies and waggons is of more importance than some imagine. Many a wheel is ruined by oiling too plentifully. A well made wheel will endure constant wear from ten to twenty years, if care is taken to use the right kind and proper amount of oil; but if this matter is not attended to, the wheel will be used up in five or six years, or it may be sooner. Lard should never be used on a waggon, for it will penetrate the hub, and work its way around the tendons of the spokes and spoil the wheel. Castor oil is a good material for use on an iron axle; just oil enough should be applied to a spindle to give it a light coating; this is better than more, for the surplus put on will work out at the ends, and be forced by the shoulders and nut, into the hub around the outside of the boxes. To oil the axletree, first wipe the spindles clean with a cloth wet with turpentine, if it won't wipe without it. On a buggy or carriage, wipe and clean off the back and front ends of the hubs, and then apply a very small quantity of castor oil, or more especially prepared lubricator near the shoulder's point.