

FARM AND DAIRY & RURAL HOME

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Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

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Bringing All the Resources of the Farm Into Line

How Stumps and Stones May Be Removed—An Aid to Greater Production—By Gustav Delberger

THERE are two ways of increasing the acreage which may be cropped. The first is through the purchase of more land, the second by clearing up the idle acres which go to make up part of a great many farms, and by putting these to productive work. Of these two methods, the latter will usually be found to be the least expensive. A few years ago, the matter of clearing land was a difficult one. Stumps had to be removed, either by a block and tackle arrangement or through the use of one of the old-fashioned ponderous stump pullers. But since the introduction of stumping powder and of up-to-date high-powered stump pullers, it is poor economy to have high-priced lands taken up with stumps and stones.

Getting Rid of Stumps.

After the rains have softened the ground sufficiently, smaller stumps and roots may easily be grubbed out or pulled with a team of horses. Larger stumps, if redwood, may be burned by boring two holes in the middle of the stump, each about two inches in diameter and setting fire either by dropping in red hot coals or a red hot iron bar, or by lowering into the holes a sash cord fastened to a wire. After the upper part of the stump has been burned away, the fire may be kept up by throwing in the bark and litter that are always to be found nearby. By this means the main part of the stump is burned away, leaving only the larger stringers with their small roots. These may be pulled out with a team. This leaves only a few small roots to be grubbed out by hand. A man could clear about one acre a week by this method.

Today, powerful one-man stump pullers are on the market, with a pulling power of 48 tons or more on the stump. This usually brings out fir stumps as large as five feet in diameter, roots and all, without the use of blasting powder. Powder, however, is used more or less on large oak stumps, or where the ground is hard to dig down from the roots of the stump. Using dynamite exclusively requires an expert, to know where to place the charge and the number of cartridges necessary to lift out the stump. To a beginner this may prove an expensive, and perhaps dangerous proposition. The one-man stump puller is about the cheapest method of clearing land of stumps and big trees, and with a little blasting powder on very large stumps, a man can clear an acre in from one to two days.

Poplar Bushes.

Poplar bushes are about the easiest to clear, but usually where they grow are stones, so you have to be careful with sharp axes. I pull them with a cable by hitching a logging chain (I think a wire cable would be better, and not apt to get twisted and break), 8 to 15 feet from the ground to the poplar, taking care not to hitch too high on a thin one so as to bend or break it, or too low on a thick one to lose leverage power. This is the most important point. I used a pulley arrangement and a 1½-inch rope in the pulley. One end was fastened to a ditch poplar for anchor and run to pulley No. 1, and pulley No. 2 had a hook for the logging chain which was fastened to the tree. The rope used was 100 feet, but it could be longer. It would save frequent change of anchor to have a medium sized team and one man with a sharp axe at the tree to help along.

I have pulled out poplars up to eight inches in diameter with roots and all. If you have poplar stumps do not attempt to pull them out with a stump



Clearing Land With a Hand Stump-puller.

puller by hitching on the top of the stump. The top will break off and leave the roots in the ground. You are then worse off than before. The best implement to get a hold of these is a root hook (easily obtainable), or have two steel plow beams bolted together and spread apart about twelve to fourteen inches, where the curve starts, having them pointed where they are bolted to the land side on the plow. You can fasten handles and use it also as a root cutter by attaching straight cutters to the beams. Fasten clevis on the bolted ends and you have a root hook as strong as money can buy. This hook on the roots, a good anchor, and a stump puller or a good team with the blocks on the other end will bring the stumps and roots out.

Willows are the most difficult to combat on account of their long root system, and especially when they have been burned off on the top or dry. The larger the willows the easier they are to pull by slinging a logging chain or cable as low on the bottom as possible around the bunch. If the bunches are not large you can sling your chain around the next bunch up to six, or as long as your chain or cable is, always leaving a little slack in your chain so that the horses will not have to pull all the bunches at once, but one after the other. Pulleys and anchors are also to be used for heavy work. For burnt off or dry willows use root hook as described for poplar stumps.

Getting Rid of Stones.

On my farm I am blessed with stones, large and small. I save them all except the large ones, which I bury. A stone as large as a piano box may be buried in about half a day. Commence by digging a trench around to find out the size and nature of the stone. Sometimes you can undermine one end, lift with a wooden post, then dig out the soil beneath the other end, undermining alternately opposite sides will let the stone down to a depth of at least four to six inches deeper than you expect to plow. If the stone is on the surface, it is best to dig a hole alongside of it, and tip the stone in the hole. Be careful not to dig too close to the stone, lest it slide on top of you. It is better to do a little lifting with a crowbar and coax the stone into the hole than to run chances. It's always safer when two men work together.

A stone not suited for interment, or one that may be useful can be attacked with a crowbar, sledge hammer weighing about ten pounds and wedges. Be-

fore attempting to slam the rock, dig around it, prop it up and put stones underneath. Then look for the grain of the stone. Most every stone has a grain like wood, and if you hit it on the right spot it will break.

Never hammer a stone when on the ground. The earth gives it a splendid cushion against your blows, and hides its vulnerable parts. Don't lose patience, for if you do the rock will stubbornly, but will yield suddenly, just when you perhaps are ready to quit.

Splitting Stones.

There are three other ways to get even with stones. First, by drilling a hole a inch in diameter, six or eight inches deep. Put a little water at the bottom of it, cut a soft wood plug to fit tight in the hole, wet it and drive it down. Give the plug plenty of time to soak up the water in the bottom of the hole, which will swell it up and make a still tighter fit. Now, drive into the centre a round tapered steel wedge, the point of which is slipping back. Drive the wedge from the top with a heavy sledge hammer will split a rock of quite large size.

Second, by drilling a hole as before, but a little deeper. Pour water in the hole in the fall, plug tight and the expansion of the water freezing will usually split the stone.

Third, where plenty of bush wood is around, bring has been very effective on rocks. Dig a trench all around the stone, in which build a hot fire covering up with an old sheet iron to keep the heat in. hours (according to the size of the rock) dash a couple of pails of water, cold, on the stone. You will hear it crack, and with the top of a crowbar you can reduce the size considerably. Look for the grain. It may run right through a big stone, and with a heavy require two or three firings before they give up.

When you've got your stones out, place them on the farm where they will never be in the way or have to be moved again. Dynamite, of course, is the quickest and easiest way to get rid of stones but it costs money, and is always a dangerous agent to work with.

Better results are obtained by feeding young calves three times a day, with the periods between feeding as nearly equal as possible. When fed in this way the calf does not overload its stomach, and the digestion of the feed is more evenly distributed. Regularity in feeding is important. When calves are fed but twice a day, the feeding should be as nearly as possible 12 hours apart.

In the United States corn belt where a farmer is growing 10 acres of corn for ensilage and 10 acres for husking purposes, he is being asked to seed the 10 acres for ensilage with southern varieties, and sell his surplus of home grown seed to his neighbor, who is not so fortunate as to have a supply. Mr. P. L. Fancher, Ontario's corn specialist, suggests that corn growers in southwestern Ontario follow the same practice.