

so that in an emergency (such as that suggested) by making a little dam across the outlet, you may be able to raise the water as much as desired. This accident of putting in more hemp than can be sunk in the vat, should not, and with proper care will not often happen. It is, of course, best that the whole mass of hemp should float, neither resting on the mud at the bottom nor yet so buoyant as to leave any part above the water.

In warm weather, after four or five days, the farmer should carefully examine the hemp every day until he ascertains that it is sufficiently rotted to take out. This he knows to be the case when the hemp has entirely lost its roughness to the finger, when moved along the stalk; and has become smooth, soft, and oily or slimy in feeling. Having reached this point, preparations must be immediately made for taking it out. For this purpose you will need six hands, to wit: two at the vats, two to drive, two common slides, and two to spread the hemp early upon the ground.—The stone is first removed from the whole vat, beginning, of course, with that which is on the nearest plank, and then standing on that to take the stone off the next, and so on in succession. Having removed the stone, you next remove several planks next to the platform, on which has been previously placed on one of the slides to which one yoke of oxen are hitched. The slide is so placed as that the end shall be, just opposite the water, leaving very little space between it and the water, a bundle of hemp is then floated alongside the platform and opposite the end of the slide. The laborers on each side of the slide then take hold of the bundle of hemp, and lifting it gently out of the water, place it across the slide. A hook or short forked stick, resembling such as farmers use in raking up hemp, will enable the two hands at the vats to take the hemp without tangling or breaking it. The weight of a bundle of hemp when just taken out is astonishingly great, and a very few will make a load for the slide. The first slide when loaded is driven off, and the second placed upon the platform, continuing thus to take off the plank as fast as the hemp is removed; it is evident that the whole may be floated to the platform, by persons walking on the embankments or remaining plank, and be taken out with the assistance of hooks without necessarily wetting the laborers.

The hemp is carried on the slide to the place where it is to be spread, and the driver lifts the bundles off the slide at such distances apart as when spread will cover the whole surface of the field. The 'spreading' is the most unpleasant part of the business. The next day, it should be turned over, which can readily be done by running a rod or small pole under the points of the hemp, and throwing it over, thus causing the tops of the hemp to describe semi-circles of which the butts are the centres. For the purpose of preventing mildew and unequal rotting, it is very important that the hemp should be turned over as soon as the upper surface is dry, and as this is but very little labor, should never be omitted.

The hemp should remain down two or three weeks. Several rains falling upon it will improve the quality of the hemp and change it. Unless suffered to lie some time on the ground, the fibres become glued to the stock, rendering it so difficult to break, that under this system of management, I am informed the ordinary task of an able bodied man was only from 50 to 70 lbs. per day. This error among others in the management of hemp when taken from the vats, causing such difficulty in breaking, no doubt in a greater degree led to the abandonment of the business by those who were some years since engaged in rotting hemp.

After lying two or three weeks on the ground, the hemp is taken up dry, and carefully 'stocked' up till it is worth for break-

ing. Ninety pounds per day was the task given by Mr. Charles B. Lewis, to good hemp breakers, but 120 to 170 lbs. were frequently broken.

I have thus endeavored, in the plainest manner to give you the system adopted by Mr. Lewis; nor have I any hesitation in expressing the belief that his management of hemp in most particulars was correct. The hemp which he prepared, for Mr. David Myerle last year, was of the finest quality, and did not when delivered at Lexington cost \$10 per cwt. *all expenses paid.*

Having had no experience myself in the business of water-rotting hemp, it is by no means improbable that I may have erred in some of the numerous details of this business, if so, I will take occasion hereafter to correct all errors.

GEO. W. JOHNSON.

(From the Albany Cultivator.)

Canada Thistle.

Have you Canada Thistles, whether plenty or few,
And would I wish to destroy them as no doubt you do,
Flee well the directions a friend would here give,
And not prick your fingers as long as you live;
But pulling, by plowing, by grubbing or hoeing,
 REGARD NOT THE METHOD, BY CUTTING OR MOWING,
But repeat it as oft as a shoot can be found
Over three inches high at a time, above ground;
Don't stop at one cutting, nor count them as slain,
For in ten or twelve days they'll want cutting again.
Persevere my good friend (for I tell you no lie),
And in two or three years they'll all bid you good bye.



Canada Thistle Forceps.

The Canada thistle is a perennial plant, and will thrive well on any soil where there is not a superabundance of water; and it will come to maturity long before grain or grass, which may be growing on the same ground. Therefore it will not do to let both grow, until both are ripe, if we wish to destroy them, but they should be mowed, before they blossom, when it is not convenient to use the plow. But in fields where there is no grain, they should be plowed, commencing in the spring, and keep them down until the hot and dry weather, when two or three times plowing will completely eradicate them, and destroy them root and branch.

To cut them with a hoe and salt them is a very good way, but plowing them is far more effectual, and consumes less time and labor. We have succeeded in destroying many large patches, simply by plowing them three times in hot weather, when there is scarcely any moisture on the ground. And we have destroyed many by the application of the pomace of apples, applied about two inches (one inch is sufficient) which proves the most effectual of any way or thing that I know of. It will destroy any weed to which it is applied, and even elder bushes, thorns, &c. But among the various modes, there is one which I am sorry to say, is known to but few throughout the United States; and that is pulling them with the forceps, of which every farmer should have two or three pairs. They are easily made—the cost is comparatively nothing—a

man of small mechanical genius, will make a pair in an hour and a half—and when they are finished, they are worth about eighteen pence.

The design of these is to pull thistles where there are but few, as in grain, when a hoe could not be used without destroying much grain. In soft ground, we have pulled them with roots eighteen inches long and upwards; and faster than they could have been cut up with any instrument; and going over the ground twice, as there will always some come up after the first pulling, we have destroyed very many. These like all other implements, which belong to the farm, should be made in the winter, when business is not urgent, so as to be ready when they may be wanted. Therefore I present you a cut, and the dimensions of a pair which I made, and which kind is used extensively in this vicinity.

The whole length is two feet and a half, cut out of inch and a half plank, with the grain running lengthways of the crook, in order to prevent their slipping off. The length of the jaws four inches, and an inch and a half thick. Where they cross they are secured by an iron bolt one quarter of an inch in diameter, with a nut to fasten it. They should be made of good timber, and of a natural crook if it can be found. These forceps will be found to be of great use in pulling thistles out of oats and spring wheat, in the former part of the season, when the soil is well saturated with water; and at any season of the year they will be found to be of greater use, than either hoe or sythe. Farmers, try them: and satisfy yourselves, and wait the result.

Tompkins Co. N. Y. Sept. 1841.

ORSON CARDIN.

Agricultural Report for November.

From the Montreal Gazette.

Agriculture, instead of being encouraged and reasonably protected, as I humbly conceive it ought to be, has been altogether neglected. If agriculture does not require encouragement and protection here, where labour is high and produce cheap, it is not necessary in any other country on earth. The free trade system, in the produce of other countries, may benefit a few in Canada. It would, in my humble judgment, be our duty to encourage the improvement of our own occupied lands to the full extent they are capable of, and then, if we find they will not yield a profitable produce, we may leave them to grow thorns and thistles, and resort to foreigners for what we are unable to produce ourselves. Let us, however, first give our own fine country a fair trial, and I maintain that the soil and climate of Canada will prove, under judicious management and encouragement, to be capable of yielding a most valuable and profitable produce. If this opinion be correct, can it require any argument to prove, that it would be the interest of a vast majority of this community, that Canadian industry should be fostered and encouraged, in preference to that of foreigners? If the agricultural class in Canada should become wealthy, they will expend that wealth here. Not one shilling of it is likely to go elsewhere, except for the purchase of British manufactures. This is not always the case with other classes. It is not by any means so certain that their profits and accumulations will be expended and remain in Canada. We want capital here, and the produce created by our lands and labour, is at present almost the only capital that is applied to reproduction and improvement. Consequently, while this produce is short, and the value greatly reduced by foreign competition, we need not expect our agriculture to be in an improving and prosperous condition. On the contrary, it will be getting worse every year, as the land will become exhausted for the want of capital and labour to maintain its fertility, by