

which the substantial and somewhat lofty farmhouse is situated, overlooking an admirable landscape. About two-fifths of the land is in permanent pasture. A good part of the arable land was broken out of this pasture 20 or more years ago. Its present tenant has, we understand, lived all his life upon the farm, and certainly its crops, and its herd and flock, the result of his management—for they are all home-bred—do great credit to his judgment and his skill. There are two sets of farm buildings—one of brick and wood and slate and thatch, including barn and stabling, and several yards, and large accommodation for cattle; the other, newer and more systematically planned, with yards and sheds and central double-stalled cow-house. There are here also some excellent cottages for the herdsman and the shepherd. A herd of 45 cows were being milked as we walked round the building, having come into their stalls for the purpose, and receiving at the time a meal of chaff, and cake, and bean and maize meal. They are a capital lot of large-framed, unpedigreed Short-Horn cows, exhibiting quality as well as size. They are kept for a butter dairy. We saw also an admirable lot of calves, a first-rate set of yearlings, and a still more admirable lot of (some 20 or 30) 2-years old heifers in the fields. Only the cow calves are kept, the others being sold early. A flock of long-wooled sheep (about 240 ewes) are in the fields. A number of pigs are fattening in the sties (the skim milk being available for them); and a rare lot of poultry of all kinds spread themselves over the home pasture.

What is there to feed all this stock? Not much that we could see upon the farm just now. The grass fields are the only home resource, we believe, at present, and they are very bare—there are no cabbages, no vetches, no second cut of clover, and everything else is eaten very bare; but, said our guide, "our master don't make hisself uneasy about that—they've got water laid on in every field, and what little grass there is is as good as hay." Add to this the artificial feeding twice a day, and the cows are taken care of. And for the sheep, though there is a large extent of clover eaten barely down just now, some of the fields are unoccupied and getting rapidly freshened up with last week's rains; and certainly there is no sign anywhere of any want of prosperous well-doing in any of the stock.

The land is laid out in large fields, from 20 to 40 acres apiece, and the grain crops are magnificent. We have nowhere seen better or more even wheat, nor barley anywhere so good; the oat crop, too, is first rate. And these great areas—40 acres at a glance—are very striking pictures of what good cultivation can effect; for the soil is not naturally very tractable or fertile. It has been drained; and a handsome tankard on the sideboard testifies to the fact that it was drained at the tenant's expense more than 20 years ago. Considerable purchases of artificial manure are made for the mangels, Kohl rabi, Swedes and turnips, of which we saw one piece of 40 acres in various stages of growth. There is also a large area in bare fallow which had been worked by hired steam power. And thus good tillage, artificial manuring, and much enrichment of the home made manure by large quantities of cake and meal bought for the dairy stock, together produce the admirable results which this year's crops exhibit. Of the 16 farm horses by which the land is worked, we saw three powerful Suffolks, with foals by their sides, in the field. The four course system for the most part rules the cultivation: (1), wheat; (2), fallow, or fallow crops; (3), barley or oats; and (4), clover—being the succession—beans, for which the land is well suited, being taken occasionally in the last quarter; there are no beans this year, however. We saw about 170 acres of wheat, barley and oats, 90 acres of fallow and fallow crops (more than half bare fallow) and some 70 acres of clover. An immense produce of grain off 160 to 170 acres, such one-year old mutton as a flock of 240 heavy long-wooled ewes can yield, a quantity of pork and bacon, and the butter of 40 or 50 cows;—this, with some store stock and some beef, of which, however, we did not obtain detailed information, is the produce of a square mile of generally stiff clay soil upon the Duke's estate; and for this, after long years of farm management—persistent, excellent, unpretentious, from boyhood upwards—the tenant of a quiet, life-long home awakes to find himself the foremost farmer of the five counties which this year's district of the Society includes.

A GOOD FIELD of corn is described by the *Danville Union*, Indiana, whose editor says: We found upon actual measurement that it would average eleven feet or over, many stalks being found thirteen feet high. We had to stand on the top of a 10-rail fence to see over the field, and the tops of the corn seemed as level almost as water. We have seen many fields of corn this season, but none better than this.

How I Killed Thistles.

The thistles evidently did not suspect my intentions until the latter part of July or first of August. Nothing unusual had occurred till that time. The ground—a clover sod—was ploughed in the spring, but that was only what is always done for a corn crop. It was a Londoner, I think, who objected to farming—that "land was always naturally wrong side up, and had to be turned before a crop would grow." Then the field was dragged, cultivated, rolled and marked out in the usual way, and finally planted on the 23th of May. In all this there was nothing uncommon—nothing indeed that the thistles really objected to. The field was ploughed so early that the young growth had not commenced, and though the plough did cut some roots in two, it only replanted them in mellow soil for a more vigorous growth than before. A week after planting, the field was gone over with Thomas's smoothing harrow; but that also had no reference to the thistle. If the roots were sending up new shoots, the fine tilth of the soil would make them to grow all the faster. Even the first cultivation, both ways, and the hand-hoeing, were not expected to kill the thistles. Farmers generally do as much as that, and yet seldom, if ever, make much headway in this direction. There was no reason why this should prove an exception. If the roots suffered a slight check, it was sure to be made up by the long breathing spell commencing at haying time and continued through the remainder of the season. Most farmers drop the hoe then, and what with harvesting and preparing ground for wheat, they never take it up again. Now a thistle left in mellow, rich ground at early haying time, will often ripen its seed before frost comes to cut it down. It will spread at the root and be ready to choke the next year's crop of oats or barley, and be rampant again in the wheat the year after.

So it was at harvest time that I began the real campaign against the thistles. The clover sod was rotting and the thistle roots were showing effects in their unusual vigor. The cultivator was run each way through the rows, cutting out everything except in the hill. Then every weed of any kind was carefully pulled from among the corn, and those between the rows cut up by a hoe. After this two more dressings with a cultivator at intervals of one week apart. My neighbors advised me to wait a little longer, as "the thistles were not up yet;" but I was determined that they never should get up. By this time the corn formed a dense mass of foliage, completely shading the ground, and the stalks were so bent and twisted that further horse cultivation was impossible. Just then the barley had to be got in and I waited a whole week after the last cultivation. I then went through with a sharp hoe, cutting out every thistle as deep as the hoe would reach in mellow ground, and where the hoe could not go I used the thumb and finger. Taken thus young thistles are a very harmless weed, as they have no thorns worth speaking of, but they do stain the fingers badly. I went over the field once after that, bending under the crossed and twisted cornstalks. But there were few thistles. Keeping them under ground so long, together with the dense mass of foliage above them was too much, and they never recovered. The corn was followed by barley and that by wheat, and not a thistle was to be seen in either crop excepting close to a stone fence on one side of the field.

Now for summing up the cost and results of the operation. The field was one of the most weedy on the farm; yet it was cleaned in one season, at a cost of two cultivations each way and two hand-hoings more than every farmer gives. These came at a season of the year when labor is most expensive; but estimating it at its highest, it did not cost me \$6 per acre, or say \$50 for the nine acres in the field. This would include pay at \$1 per day for an old mare to do the cultivating, while if not so used said mare would be in pasture doing nothing. I am sure I made \$50 worth more of corn than I should if I had not tried to kill the thistles. The second hand-hoeing and pulling the weeds from the hills more than paid the cost. It came just as the corn was earing, and made the ears fill better if not grow longer. At least something caused an unusual number of stalks to produce two ears, I had it to killing thistles. The only loss was the usual stolen crop of pumpkins, which I did not plant that year because I expected to cultivate later than is common, but the pumpkin crop grown in this way, like everything else that is stolen, always costs more than it is worth.

No farmer is excusable for having thistles on land that has been in corn. Killing them costs nothing but the use of \$5 or \$6 extra labor per acre, from July till the crop of corn can be harvested and sold and every cent repaid. But this is not the whole or greatest advantage. The land is clearer for all future crops. Millions of weed seeds are stimulated to growth by the unusual thoroughness of cultivation, and these are got rid of forever. Frequent stirring of the ground breaks the crust which forms on the surface, and makes the soil absolutely more fertile than it would have been. I got ten bushels per acre more of barley than I would if the corn had not been cleaned of thistles. I am sure I got at least five bushels per acre more of wheat. And the field still shows the good effects, and is worth at least \$10 to \$20 per acre more than if covered with thistles. So then for the use of \$50 for three months, I got a return almost immediately of the capital, dividends of 100 to 200 per cent. for two years, and the capital is unimpaired and capable of yielding equal dividends for years to come. Can anything pay better than this?—*Cor. Country Gentleman.*

Cleaning Carrot Seed.

Gather the heads when fully ripe and thrash them with a flail before the stems are brittle enough to crumble or break up. Rake these stems from the seeds, then put the seeds in some out of the way place until dry, cold, freezing weather in the winter. By thrashing the seed with a flail when frozen dry, the fuzz can be separated from it by running it through a fanning-mill. The seed, and a very fine dust, will fall through the wheat screen into the screen-box. The seed that goes over the screen can be thrashed again. After the seed has once passed through the wheat screen it can be separated from the fine dust by putting a grass-seed sieve (or any sieve too fine to allow the carrot seed to go through) in the place of the wheat screen. The fine dirt, too heavy to be blown out, will now go through this fine sieve into the screen-box, and the clean seed will pass over. Two men will thresh and clean 300 to 500 pounds of seed in a day. Or if you wish to prepare your seed for market this fall, you can do so by drying it a day or two in the hot sun after separating it from the stems as before recommended. When thoroughly dried in the sun it can be thrashed and cleaned as readily as when frozen; but it can only be done when the atmosphere is very dry. I frequently see inquiries, how to clean cucumber and tomato seeds? When the cucumbers are fully ripe, but still sound, cut them into halves, give each half a sudden squeeze with the hand, and nearly every seed will be forced from the cucumber. Tomatoes may be left till very soft and the whole jammed up fine, or they may be rubbed over a sieve coarse enough to allow the seeds and juice to pass through into a tub. Let the pulp and seed (either cucumber or tomato) stand in a barrel from one to four days, according to the weather, to sweat just enough to allow the pulp to separate from the seed. The whole can then be washed through several waters, and the seed dried. Care must be taken not to let it sweat long enough to injure the vitality of the seed.—*Cor. N. Y. Tribune.*

IT HAS BEEN SHOWN that at the Michigan Agricultural College a single bushel of plaster added a full ton of hay to the yield of an acre of ground in the five, most of it in the four mowings that followed—two crops being taken off the ground each of the two years succeeding the sowing of the plaster.

KEEPING OLD POTATOES.—Potatoes, to be good, should never be exposed to the light, but be kept in as dark a place as possible. After they begin to sprout in the spring they should be taken up from the bins or heaps and be kept in boxes or barrels. If you have a few barrels saved out for family use, instead of picking them over and spreading them every few weeks, put them into enough barrels so that you can easily turn them from one to another. Have one extra barrel, and once every week turn them all out from one barrel to another. This keeps them moving so often that the sprouts cannot grow enough to do much harm. The sprouts which come out from the potato use up the nourishment it contains, and leave it soft, watery, and insipid. By treating them as proposed above, they may be kept in condition for the table several weeks longer than by sprouting them, and at the same time save a deal of work.