

well be grown from seed so obtained; but the results of a small lot so saved could be sown, and seed thus collected for another year.

Mr. Hallett, of the Pedigree wheat notoriety, has shown that the above ideas are quite correct, and has also for many years so increased the yield of wheat by these means that he once grew 103 bushels to the acre, as the greatest yield he ever obtained; 50 to 60 bushels were ordinarily grown, and 65 lbs. a bushel often attained. He went further; he selected all the larger ears, and from these he selected the largest kernels, and also in preference those specimens in which there were four grains in a chest, and by following out this system he obtained this enormous yield. But mark, not from exchange of seed simply, or any remarkably fertile land, but by adopting with plants the principle of reproduction among wild animals already alluded to.

All the new sorts of potatoes exemplify the same principle. Garnet Chilis now produce heavy crops, and the Early Rose still larger, and this increased yield is not due to the increased fertility of the land, but to the improved quality of the seed. Of course, food in abundance must be supplied to all plants, but manure and good culture are not the only means by which we can hope to increase our crops.

The course followed by one man in the township of Manvers has for many years been to obtain a sieve of just such a size as will allow all the smaller portions of his wheat crop to pass through, and all the larger and finer grains to be retained. He sifts his whole crop after this way, and always sells the siftings for flour, and retains the remainder, about eight-tenths, for seed, and his neighbours come for miles round to obtain it. He charges fifty cents a bushel more than the highest market price for his best seed, and never fails to sell all he has to spare.

Another way that was in use by one man for some years was called "thrown wheat;" many thought it named "throne wheat," but the name entirely originated with throwing the wheat on a long floor as hard as possible, with a small wooden shovel adapted to the purpose, and by which the large heavy grains of wheat went much further through the air than the light smaller ones. The man who first used this plan kept it secret, and made some money by thus selling his seed wheat, and attained a considerable notoriety, as the wheat was by many thought to be a new variety and very fine; but the plan soon was known, though its very simplicity caused it to be abandoned, or perhaps it is seldom practised because few have floors long enough, or indeed skill sufficient to throw the wheat to advantage.

To test the foregoing principles and practice, I would advise any one to procure a sieve, and by selecting their wheat as before described, out of 100 or 200 sifted bushels, they will obtain 50 bushels of very fine wheat, the growth

of the middle portions of the ear, combining many of the requisites of a first-class seed. The cost is little, and trouble nothing; about a day's work will suffice to complete the sifting process; and when buying the wire gauze for the sieve, take a gallon of your wheat with you, and test the exact size required.

C.

Ploughing Stubble after Harvest.

We are inclined to think that there is not enough care bestowed on land that has just gone through the process of producing a crop of grain. It seems to be thought that once the harvesting is done, the husbandman's labours are ended on that particular piece till such time as he requires to use it again for the production of another crop, be that crop what it may. Farmers are too much inclined to look for present profit rather than endeavour to secure continuous prosperity.

The simplest operations of tillage are of more value and importance to the soil than most farmers are aware of. The more the soil is turned and exposed to the sun and air and the more its particles can be brought into contact with atmospheric influences, the more soluble and available becomes the plant food stored up in it.

Prof. Stockbridge, in a recent essay, says: "Silently and unseen, but surely and incessantly, are these agents accomplishing their appointed work. The frost of winter, with its crushing, disintegrating power, is reducing the rock particles to powder to prepare them for the more efficient action of its co-working agents. The heat of summer is decomposing the organic ingredients, and giving to the soil gases and acids for their secondary work. The air is permeating it with its oxygen to form acids and corrode and take to pieces its metallic elements; with its carbonic acid and ammonia to unite with other acids or alkalis in the soil, forming new and needed compounds. The moisture of the atmosphere is condensed to rain, and, descending to the earth, carries into the soil its gases for plant food, and dissolves the material prepared by the other agencies."

But this is not the only benefit to be derived from keeping the soil as much under tillage as possible, when it is not either occupied by crops, or locked up in the grim embrace of the frosts of winter. The soil is more or less full of the seeds of foul weeds, and the pupæ of grain-destroying insects, which can be in a measure diminished, if not destroyed, by tillage operations. We know it is usual to consider that the stubble fields are worth something as pasturage for stock, and to turn the poor beasts into them for a while till the pastures proper become recuperated. They doubtless manage to pick up a living, and for the first week or two may thrive passably well with the help of the fallen grain; but in many cases the animals come off them in a worse condition than if

they had been kept on the pastures. If, instead of this being done, the stubbles, where not seeded down, were ploughed up, scarified with a gang plough, or by a cultivator, within two weeks after harvest, the work being so shallowly done as not to bury the weed seeds on the surface too deep, there would be heat enough to start germination of those seeds, yet not time enough for the plants to grow up to a second seeding. Even harrowing the stubble, provided a very heavy sharp-toothed harrow was used, would, in those cases where the soil is not too heavy or compact, accomplish this end. When the land is much infested with the midge, ploughing to a moderate depth, say five or six inches, and turning the furrows wide and flat, would throw most of the midge pupæ so near the surface that the birds would destroy many of them, and the frost, if severe in the fall, would put the remainder out of the way of doing much injury the coming season.

A Backwoods Farm—An Old Settler's Experience.

It may not be uninteresting to many of our immigrant readers to have portrayed before them the history of a new farm in the backwoods, comprising about five hundred acres. The following narrative, having been compiled from actual experience, is entirely reliable, and cannot fail to prove valuable to new settlers, who, whilst reading the record of some failures, can at the same time revolve in their own minds the course they would have pursued under the same circumstances. By this means many mistakes may be avoided, that the writer of these reminiscences occasionally fell into. Of course, he had many successes and triumphs, and also some reverses; and, when a truthful account is given, the reader can have the benefit of all the experience thereby gained.

As the history extends over nearly twelve years, it must necessarily require more than one or two articles; but we think we serve the interest of the farming community in general, and that of the immigrant in particular, by allowing space for the interesting record.

ED.

LOCATING AND CHOICE OF LAND.

Our first task was carefully to examine the tract of five hundred acres of land we contemplated purchasing. We hired a surveyor, and under his direction and guidance we walked over the land backwards and forwards almost all one day; and since that time, and now that we have the farm almost all cleared up, and have learned to know every hole and corner, tree and shrub on it, we can fully appreciate how little we were clearly enlightened by walking over the land. To test the quality, we were told to examine "turn-ups," that is, upturned trees, and found about eight or ten inches of dark soil, and below that a subsoil of clay,