

PRIZE ESSAYS.

Settling in Manitoba.

SIR,—In last month's number of the *ADVOCATE* you ask for instructions to new settlers in Manitoba or our Northwest Territory, commencing on turning the first sod.

I farmed in Manitoba last summer, and raised fifty acres of different kinds of grain and roots, and I will endeavor to give my experience as far as I am able for the benefit of those commencing to farm in Manitoba this season. Turning the first sod is called breaking, and parties desirous of growing a crop on a portion of the new breaking this season should commence to plow as early in the spring as the ground will admit, and plow not less than four inches deep; if a little deeper all the better. Sow as early in the season as possible, and harrow thoroughly. I have known oats to yield fifty bushels to the acre, grown on new breaking treated in this manner; but I do not advise new settlers to risk sowing much on the new breaking. Much depends on the season and the time of sowing, and the crop is often a failure. By plowing deep, to get mould enough to cover the seed, the sod does not rot as good as if the ground had been broken only two inches deep—the proper depth to break, consequently you can not get it into as good order for next year's crop. June and July are good months to break in, but May is the best month; the grass is not so long and the sod is not so tough, which make it easier work on the team, and the sod rots quicker and better than it does if broken later in the season. Break not more than two inches deep, and I strongly advocate rolling; it hastens the rotting of the sod and leaves a fine even surface, which is a great advantage in turning back, i. e., plowing it a second time. To do good breaking a good deal depends on keeping the plow-share in proper shape, and good and sharp, not by filing, but by beating it out with a hammer—a method that will appear odd to many of our Ontario plowmen. The grass roots are tough, and if you do not keep the plow-share sharp it will slide over a portion of the sod and make poor, uneven work. To beat or sharpen the plow-share, turn the plow over on the land side, with a common-sized hammer in one hand and a beating-iron about the size of an iron wedge in the other. Place the iron on the under side of the share near the edge, and strike on the upper side with the hammer, and draw it out to a thin, sharp edge, almost as sharp as a knife, which is easily and quickly done after practicing it a few times, and should be done three or four times a day when in use. The plows used in breaking are light and all steel, except the beams and handles, made on purpose with light gauge wheels in front and revolving coulters, and are cobble breakers. The American plows are the best. Those made in Ontario are not as good, and do not work equal to the American plows. The Ontario plows that I used and saw used in Manitoba last season gave very poor satisfaction; in fact, a good many of them were useless. All plows and implements used for stirring the ground in Manitoba should be made light and of the best steel, and well polished. All other material used that comes in contact with the ground is useless. The soil is so rich and adhesive that it sticks even to steel in wet weather, more so after it is broken and cultivated. The plows are of different sizes, and the size of plow to use depends upon the size of the team. For a common-sized pair of oxen or horses use a ten or twelve-inch plow, and a pair of thirteen hundred horses will handle a fourteen or sixteen-inch plow, and will turn two acres a day if properly fed and cared for. Oxen have advantages over horses to many new settlers who have their feed to buy the first season. They will do more work on less feed than horses, and are far less liable to disease. Horses require better feed, better care and plenty of oats to keep them up in condition, and all new settlers are not in a position to furnish those necessities. A good many die the first year they are taken into the Province.

As the breaking season draws to a close the new settler will have to see to providing fodder for his stock during the winter. Grass grows in abundance in the slues and hay marshes dotted here and there over the prairie. The best time to cut it is in the latter part of July or the beginning of August, although any time before the fall frosts will do. But the early cut hay is the best and most nutritious. If not previously provided, he will now have to turn his attention to furnishing

suitable buildings for the comforts of his family and shelter for his stock. So much depends on the means that the settler has at his command, and the locality that he is located in, that I can give but little information as to what kind of material to use, and the mode of constructing them. Each settler must use his own judgment in that respect, and build according to his means, and of the material that lays within his reach. Little or no fence will be required the first season, or until a crop is raised to be protected. The cheapest and best fence is made of barbed wire and costs about 30c. a rod for wire when only two wires are used, and that is all that is necessary for turning cattle and horses. The posts do not require to be as large as those used for a board fence, and the cost of posts depends on the access to timber. I set my posts 24 feet apart, and found that distance to answer very well, but in the future I will put one to every rod. Two men will easily put up over half a mile of fence in a day, if the posts are properly cut and sharpened, and the fence row marked out. My method of erecting the fence is as follows: Take the plow and throw two furrows together, which form a ridge; then take a team attached to a wagon and drive along the fence row; stand in the hind part of the wagon, and with a heavy sledge or maul drive the posts in the centre of the ridge the required distance apart, two feet into the ground, or deeper if required. After the posts are all driven, fasten one end of the wire to a corner post, which should be well braced; put the spool into the wagon and drive gently along until four or five rods of the wire is run off the spool; hitch a chain, which should be fastened to the hind end of the wagon, on to the wire, and start the team gently, which will tighten the wire perfectly, and the other hand comes along and tacks the wire on the posts in its proper place. Finding the use of wire tighteners to be slow and inconvenient, I adopted this plan, and prefer it to any other. The cost of erecting such a fence as described should not be more than 35c. a rod; mine only cost 34c. a rod, allowing one dollar a day for labor; the timber was my own and grew convenient to the fence, which would reduce the price of the posts.

The next step to be taken with the ground previously broken, to prepare it for a crop, is to turn it back, i. e., plowing it a second time, and it should be plowed the same way as it is broken—that is, lengthwise, not crosswise, and two or three inches deeper than the previous plowing. A breaking plow will answer for turning back; after that a stubble plow will be required—a light plow similar to a breaker, made for using in loose ground. A good many turn back shallow, being under the impression, when the ground is new and rich, that it does not require to be stirred deep. But that is a mistaken idea. The ground will be more or less soddy at this stage, especially if the breaking was not properly done, and early in the season. When seed time arrives you cannot cover the seed a proper depth, and in a dry time it does not come up even. The weeds take an even start with the grain, and a poor crop is the result. When I was turning back last spring a neighbor of mine said that I was pulling my team for nothing, plowing so deep; that he was turning back quite shallow, and considered it just as good. When the grain began to grow and harvest time approached, he saw his mistake, and in the fall when he commenced to plow again he turned over a good solid furrow, fully satisfied that skimming the ground was not the thing, even in Manitoba. All new settlers should endeavor to turn back or plow as much of their breaking in the fall as possible, and the same rule holds good for old settlers as well as new. Fall plowing has many advantages over spring plowing. The ground plows better in the fall; it is drier and does not stick and clog the plow so much as it does in the spring, lessening the draft. The team has firmer footing, making lighter and easier work for them. If the land is plowed in the fall, you can commence seeding in the spring as soon as the frost is out of the ground a few inches; if the plowing is delayed until spring you cannot do this. The early sown grain is the best, with the exception of barley, and I think that it does equally as well sown the last week in May as if sown any other time. Sowing by hand is not practicable only on a small scale; the rounds are generally long, making it tiresome carrying the grain over the loose ground, and in windy weather you cannot sow even and regular. A broadcast seeder is the best machine for sowing on the turning back, or until the sod gets thoroughly rotten. Then I think a drill would be preferable in many cases.

A number of different kinds of wheat were grown last year in the Marais Settlement, situated on the Marais River, six miles north-west of Emerson. The Fife turned out well and appeared to take the lead of many other varieties. A wheat brought from Russia by the Mennonites yielded good, and will be much sought after this spring for seed; it grows a fine, bright, stiff straw, red chaff, and a short, plump, bright berry. The miller at Emerson spoke highly of it as a milling wheat. I sowed a bushel of the Tee wheat, and that promises to be a good wheat to grow in that locality; it grows a large head, large plump grain, very much resembling our Scott fall wheat. Owing to it getting mixed in threshing I was not able to ascertain the yield to the bushel sown. The Golden Drop was well spoken of in the Pembina Mountain Settlement, around Mountain City and Nelsonville, and the sample that I saw of it was plump and fine. The Redfern did not yield equal to the other varieties named. It grew abundance of straw, but soft, and lodged badly, and the grain was small. Any of the above named varieties I can safely recommend to new settlers as profitable wheat to sow, except the Redfern, and I would not advise them to sow much of it until they see how it turns out in their own locality. Oats will be a profitable crop for all new settlers to grow; they will find a home market and ready sale for all they have to spare at a paying price, to supply the wants of emigrants who are constantly settling in the Province and Territory. The Black Main oats appeared to take the lead of any other variety grown on the Marais last year, although other common varieties yielded well. The worst drawback to growing oats, especially in the timbered sections, is the black birds; some seasons they are very numerous, and destroy a good many at the time they are in the milk. To guard against this as much as possible, sow the oats as early in the spring as you can, so that they will ripen before the birds hatch out their young; in the setting season they are not so destructive. In timbered sections sow the oats as far from the timber as possible; on the open prairie the birds are not so troublesome. I tried both thick and thin seeding, and am satisfied that moderately thin seeding is the best, providing the ground is clean and well cultivated, and the seed sown in good season. I sowed a bushel and a peck of wheat to the acre, and found that it grew too thick and rank, and I think that a bushel drilled in to the acre would be quite sufficient in most cases. The soil is rich and the seasons favorable to the growth of the plant, so that it stools out to a far greater extent than it does in Ontario.

Turnips, potatoes and other vegetables are best sown or planted early. They then have a longer season of growth, and mature better than if planted late, and may be secured from frost during the winter with less trouble and expense than many imagine. I raised a thousand bushels of turnips last year, and wanting to keep them so that they could be fed regularly to the cattle during the present winter, pitting would not answer, and not having time to build a root house, I was almost at a loss to know how to proceed. I made a bin in the stable behind the cattle, and put six inches of straw all round between the turnips and the sides of the bin, and before the cold weather in the fall filled the space between the turnips and the roof with chaff, and banked a portion of the north and west sides of the stable with horse manure on the outside. I am pleased to be able to say that they are keeping fine, and are quite handy to feed to the cattle. Potatoes are keeping nicely in a cellar under the house.

I would strongly impress upon the minds of all new settlers the necessity of making a fire break round their stacks and buildings, to prevent the ravages of the prairie fires in the fall. Keep all grass and weeds cleaned away near the buildings, and plow a strip eight or ten feet wide round them; this, if properly done, will afford ample protection. Hundreds of dollars worth of property was destroyed by prairie fires in Manitoba and the Northwest last fall; and I know several families that lost their entire crop and buildings by neglecting to use these precautions.

J. S. I.

The remarks made about Canadian plows should cause our manufacturers to look well to their reputation. We have made some enquiries about the imputation, and find L. Cossett, late of Guelph, made a large number and sent them to Manitoba. The shares, on account of an improper bend, cut too deep, and all made after that pattern gave dissatisfaction, but the error was afterwards corrected. Some of our manufacturers are making plows that are equal to the American plows. Our manufacturers must speak for themselves.]