

"As to the true value of the flour made from the plant, that is yet to be ascertained when made into bread. If a grist of four or five bushels were ground, I feel sure that the flour might be made much whiter than that in Major Bruce's possession."

In reference to the foregoing letter I wrote as follows:—

"Having eaten of some bread made from the flour of this plant, I would pronounce it as very palatable, being similar in flavor and color to that made from rye. Doubts may arise with regard to the wholesomeness of the bread, and perhaps it might be suggested that a committee of competent persons—assisted by several medical gentlemen—be invited to meet and test its value, and should its qualities be found to agree with Professor Hallett's published remarks, a report of it could be made to the Hon. Mr. Carling, the Minister of Agriculture. This plant is allied to the Millet (*holcus sorghum*), and stands first in value in its genus, and if cut green, as fodder for milch cows and other cattle, it would be found more valuable than if used in any other way, since from every plant cut, from four to six shoots spring up, forming an abundant second crop. It is doubtful if sugar can be made from the matured stalks, because there is but little sap left in them at this stage, and as ascertained forms shortly after the plants are cut, it would not crystallize in boiling.

"Captain Huggess sent about half a pint of seed to me last spring, with directions to plant once in May, and twice in June. That planted on the 30th of May vegetated freely; that sown on the 4th and 8th of June failed. From the 15th to the 20th of May is the time to plant, in order to insure ripe seed. From sixty to seventy bushels per acre would be a fair return. The dry leaves are an excellent hay. I should be glad to afford any information in my power, respecting the culture of the plant either for seed or fodder."

Deeming the subject of the new product one of great importance, I have sent the foregoing account, and shall be glad to see the information widely diffused through your journal among our agricultural population.

H. BRUCE.

LONDON, Dec. 30, 1867.

NOTE BY ED. C. F.—Since the foregoing was put in type we have received from Major Bruce, samples of the flour, shorts and bran from this particular variety of *Sorghum* seed, as well as a loaf of bread made from the flour. The flour is of a darker shade than superfine wheat flour, but not darker than much that is ground from spring wheat. The bran is somewhat rougher and coarser than buckwheat bran. The bread was submitted to critical discussion at our table, was preferred by some to wheaten bread, and was generally voted quite capable of becoming a useful and palatable article of food.

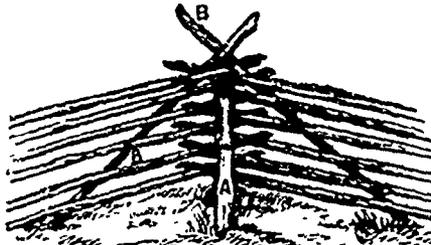
Packing Snow upon Wheat.

LAST winter we suggested the experiment of packing snow upon winter wheat by rolling it down with a common hand roller; but it was rather late in the season to be of any practical use at the time. This hint was taken from reading an account of an accidental experiment of the kind. A man having occasion to haul wood, one winter, across his neighbour's field of winter wheat, he engaged to pay him whatever damage it might do to the wheat, presuming that more or less damage would accrue. The road was staked out, so that it could be accurately distinguished at harvest time. But there was no need of stakes, for all through the season the wheat upon the track was a whole head and shoulders above any other part of the field, and the yield of grain was proportionally larger.

The difference was so marked that it seemed impossible that it should have been the result of the little manure dropped upon the track as the teams were passing, and the cause of the difference was regarded as a mystery. It is well known that snow well packed will resist the spring thaws and remain on the ground much longer than snow left as it falls, and that it is early bare ground in the spring that injures the wheat. Hence the suggestion to take opportunities when the snow is soft enough to pack well and roll it down on fields of winter wheat. It is certain that it will cause the snow to remain on the ground longer and hold the soil more firmly in its place and protect the roots of the grain from some of the early frozings and thawings, which are supposed to be the chief cause of winter killing.—*Wisconsin Farmer*.

Brace for Lock Rail Fence.

In many localities rails are extensively used for fencing, and as they are now built, are quite apt to be prostrated by every heavy wind, the rails broken, stock let into fields of valuable grain, time spent, and patience exhausted in rebuilding them. With these points in mind, I would call the attention of farmers to an improvement that nearly overcomes the above difficulty. There are a multitude of ways of laying up a worm fence. Those meeting with most favor by farmers, are staked and ridged, staked and wired, staked and capped, locked and ridged, and staked and locked and ridged. All these fences are expensive, and are deranged every year by the heaving



of the frost and other causes. Many farmers say, (also many authors,) that a lock and rail fence is not the thing, being too easily blown down, too cheap and too easily made to be of lasting service. I would present to such persons a plan by which a lock and rail fence can be made strong, and to withstand the wind even better than a staked and ridged fence. It consists in placing on the inside leeward corner, a piece of rail underneath the third rail from the top, and setting bracing as shown in the engraving. A is the brace; B, B, locks, which, as well as the rails, are laid up in the ordinary manner, always bracing the fence on the side opposite that from which the heaviest wind blows. A fence made in this manner has stood three years without repairing, while a staked, locked and ridged fence by the side of it, and in a less exposed situation, has been blown down a number of times; thus demonstrating the superiority of this fence, when built as shown and described.—*Cor. in Country Gent.*

Ploughing down Turnips.

To the Editor of THE CANADA FARMER:

SIR,—I beg to send a few observations on the latter part of the article of your correspondent "Vectis," which appeared in your issue of the 2nd Dec., in which he advocates ploughing down turnips as a preparation for wheat.

The cost of growing an acre of turnips in a yeoman-like manner is about \$20. The expense of producing a heavy crop of wheat, harvesting, threshing, and taking to market, is about \$11 per acre. Add rent of land for two years, \$6—making a total of \$37.

Say that "Vectis" gets forty bushels of merchantable wheat, and sells at \$1, he will have little profit at the end of the 2nd year. But his crop would not be forty bushels; probably not four.

"It has been found by experience that more than one-half of a fair crop of turnips, consumed on the ground by sheep, leaves more manure than is proper for the ground to receive at one time for the succeeding grain crop." (Stephens and Norton's "Farmer's Guide," page 189.)

It is considered that a green crop, ploughed down, produces three times as much effect as it would have done had it been fed off. I therefore think that I am justified in saying that the wheat would probably be lodged by the weather and ruined by rust.

But a field of turnips may be fed off on the ground even in Canada.

Sow Aberdeen yellows early in June. Early in September pull a part and store them in small pits distributed about the field, leaving as many in the ground as the stock are likely to eat before the hard frost: when winter comes feed out from the pits during fine weather, scattering the turnips widely.

The rotation I attempt is—turnips, wheat, hay, pasture, oats, peas.

L.C.B.

GUELPH, Dec. 27, 1867.

Profitable Farming.

JOHN JOHNSON'S remarkable success as a farmer might be attributed to his underdraining, and to the large quantity of plaster he used for many years on clover. But this would only be a partial statement of the truth. His success is owing, first, to the man himself—to his rare good judgment, combined with indomitable energy, persevering industry, close observation, and prompt, intelligent action. Second, to underdraining. Third, to the free use of plaster on clover. Fourth, to consuming all the clover, straw and corn on the farm. He has raised 3,000 bushels of corn in a year, but none has ever been exported from the farm except some which he gave to be sent to Ireland at the time of the famine. He never sold a bushel. It has all been fed out with the clover, straw, stalks, etc., raised on the farm. In addition to this, he has bought large quantities of oil-cake to feed sheep and cattle, and this has added greatly to the quality of the manure heap. Fifth, he bestowed great care on his summer fallows. They were not allowed to grow up to weeds, but were repeatedly ploughed and harrowed, and rolled and cultivated, until the stiffest clay was reduced almost to as fine a tilth as an English turnip field. Such thorough tillage is itself more than equivalent to a heavy dressing of our common manure.

Underdraining enabled him to work his land thoroughly and in good season. This thorough tillage set free the latent plant-food in the soil. The clover took it up and organized it into food for sheep. The sheep extracted the fat from the clover hay, and left the nitrogen and mineral matter in the manure heap. So of the corn, straw and stalks. They all found their way back to the land, with oil-cake in addition. It is easy to understand why his land is vastly more productive than when it first came into his possession. Underdraining, good culture, and good manure will make any land rich.—*American Agriculturist*.

Land Occupied by Fences.

THE materials and labor required to build and keep fences in repair are among the heavy items of farm expense. The cost of the land on which they stand is another item, on which J. Harris, of Rochester, discourses as follows in the *American Agriculturist*:

How much land does an old-fashioned fence occupy? I have always thought it took up a good deal of land, but never had the curiosity to measure. But this summer we have been building a stone wall along the whole west side of the farm, and after it was completed, and the old fence removed, I was surprised at the quantity of land we had gained. The ground, of course, might have been ploughed closer to the fence, but taking the case as it actually was, the old rail fence, with stones, weeds, rubbish, &c., occupied a strip of land one rod wide. A field, thirty-one rods long and thirty-one rods wide, contains about six acres. If surrounded by such a fence, it would occupy a little over three-quarters of an acre of land. A farm of 160 acres so fenced would have twenty acres of land taken up in this worse than useless manner. Not only is the use of the land lost, but it is, in the majority of cases, a nursery of weeds, and, in ploughing, much time is lost in turning, and the headlands and corners are seldom properly cultivated.

Salt as a Manure.

To the Editor of THE CANADA FARMER:

SIR,—I suppose some of my brother farmers are looking to see what has become of my salted wheat. I have it all yet, and a very fine sample it is, much better than the part that received no salt. I have eighty-five bushels from three acres salted, and sixty-one bushels from three acres not salted. The land was about the same in both cases. This leaves twenty-four bushels to pay for three barrels of salt, which cost \$1 25 per barrel. I knew when I was cutting the salted wheat it would turn out best; the sheaves were much heavier. Next year I will try salt on mangel wurtzel, and if I can get it for \$1 25 per barrel, I will apply one barrel to the acre on all the wheat I have, and would say to those who doubt its effects—try one barrel on one acre of wheat next spring, and be convinced.

JAS. K. TODD.

Kilsyth, Co. Grey, Dec. 5, 1867.