

Mr. Blesard's Board Drains.

To the Editor of THE CANADA FARMER:

SIR,—Your Mornington correspondent wishes to know more particulars about the wooden pipes for drains, that I mentioned in the 6th number of your paper. The top and bottom boards are 4 inches wide, any length you choose, but 4 or 5 feet long is the handiest, side pieces 2 inches projecting 4 inches forward, so that they slip 4 inches into the next pipe at the sides. Your correspondent is afraid the pipes will not let the water in. I thought so myself at first, but you cannot keep it out, for willow roots will grow into the pipes, in low ground where they grow, and choke them, and the pipes will burst and the water come out to the surface. I suppose the water gets in at the saw marks at the sides, as well as the bevels at the ends. I have seen the water coming out of the pipes at the end of the drains, as much as the pipes would hold. Water will follow wood. You may put single rails into drains and the water will follow to some extent, but when stone drains are filled up 1½ or 2 feet with loose stones, sand and earth will run in and choke them. They are like a mason's wall, built with mortar—no water can get in. Most of my land lies sloping to the south or east, and there are layers of sand in some places about 3 feet from the surface, and 2 inches thick. When the land is wet this sand becomes quicksand, and runs into the drains: undermining the land above the drains so that the surface drops down. I have put 10 loads of stones in these holes, and it still undermines above these stones, if not stopped by sods or something else. This device may be of use to some farmers. It would have saved me hundreds of dollars if I had put pipes in place of stones, as pipe drains do not cost one-half what stones do. Stones laid in the bottom, on each side, and covering on the top, do not choke as soon as stones filled in loosely.

I dig stone drains 3 feet deep, drains for wooden pipes 2 to 2½ feet deep. Pipes cost about a cent a foot, boards, nails, and labour; 80 nails to the pound and 2 nails to the foot, will nail together 40 feet of pipe.

Otonabee, May 28, 1864.

J. B.

Read's Patent Subsoil Plough.

To the Editor of THE CANADA FARMER:

SIR,—Your correspondent "G. Y." of Ormstown, Canada East, wishes to be informed where he can obtain a good subsoil plough. I have no hesitation in stating that Read's (English) Patent Subsoil Plough is one of the best—I consider it the very best—ever invented. I have seen a great number, but not one that can break up a hard pan equal to it. Two horses will break up the hardest subsoil with it. It is very simple and easily made. I have one, imported several years ago. I am known to most, if not to all, of the farmers in Ormstown. I will, with much pleasure, loan my plough to their Agricultural Society, so that they can put it in operation and, if approved of, get one made.

The Society paid me a high mark of respect, in the *Huntingdon Herald*, 27th September, 1862, for what they were pleased to say the benefit I had rendered to that part of the country. They will, therefore, know who I am and how to address me. My plough was the first of Read's imported into Canada.

AN OLD SUBSCRIBER.

May 10, 1864.

How to Lay Drains in Quicksand?

To the Editor of THE CANADA FARMER:

SIR,—Having had considerable experience in draining in Aberdeenshire, I would suggest, in answer to the above enquiry, that the drain be opened from the mouth to the top; then commence at the top, lay a board in the bottom, and one, two or three drain tiles, as the quantity of water may be, cleaning out the drain as you proceed to the mouth; at the same time not forgetting to provide yourself with some tough June grass-sod to lay above the tiles, beating them hard down at the edges, so as to be close to the bottom board, and not to allow any water to enter the pipe, but by filtering through the sod, the sod will keep out the sand.

WM. WOOD.

Mornington Harvey, June 1, 1864.

COVERED MANURES.—A late number of the *Journal of Agriculture* contains a statement of the result of an experiment made to determine the relative value of manure made under cover, and that exposed in the barnyard. Both manures were applied to potatoes in equal quantities. The yield on equal portions of land was as follows:—Manure from barnyard, 252 bushels per acre; manure made under cover, 297 bushels per acre.

ERADICATION OF THE OX-EYE DAISY.—J. J. Thomas states in the *Country Gentleman* that on a farm which he lately visited in Pennsylvania, the ox-eye daisy has been so thoroughly eradicated that not a plant could be seen, though it is generally abundant in the neighborhood. The mode practiced for its extirpation is to plant two hoed crops in succession, usually Indian corn, both being well manured, to be followed by wheat and seeded by clover. The few weeds which show themselves are dug up.

A FLAX CROP.—A correspondent of the *Country Gentleman* gives his experience in flax growing as follows:

"About the first of May I sowed 4½ acres of well ploughed corn-hills, at the rate of one bushel of Saplín seed per acre, harrowed once before and once after sowing. Paid \$10 per acre for pulling, and \$2.50 for whipping off seed. Had it whipped and rotted last fall. I got about 50 bushels of seed, which I sold for \$3 per bushel, and sold the rotted straw for \$55 per acre, which, after paying all expenses, leaves a very good profit."

CLOVER AND GRASSES ENRICH THE SOIL.—The *Maine Farmer* well remarks: "Ploughing under a thick, heavy grass sward furnishes an ample manuring for several successive grain crops. The decomposition of the abundant roots and stems of the grass supplies nutrition for the growths of a different character, and having a greater money value to the farmer. Hence it may be good policy for the farmer to give a large share of his labor and attention to producing a heavy growth of grass on all lands when devoted to this crop, knowing that this most cheaply and effectively prepares his soil for the production of other crops." This is true, especially in the case of clover.

NEW SPECIES OF POTATO.—The *Gazette du Village* calls the attention of farmers to a new species of potato, called after its propagator the Chardon potato, of which the produce is on an average seven times as great as any potato hitherto cultivated. Some market gardeners in the neighbourhood of Paris have observed that the Chardon potato is very productive, very healthy, and of a luxuriant vegetation, even in poor land, determined to cultivate it on a large scale. They consequently planted several fields, being convinced that they should derive a greater profit from the propagation of the new root than from the cultivation of any other description of potato in use. They did not recollect that the Chardon is exclusively suited to the feeding of cattle. The numerous retailers of fried potatoes in the streets of Paris found it very advantageous for their traffic, as it requires but little grease; but their customers were not so well pleased. They, as well as the housekeepers who purchased it for the table, found the flavour detestable, and declared that they would not be treated as oxen or cows.—*Times' Paris Letter*.

A FEW FACTS ABOUT STRAW.—We rely pretty much upon straw as a manure—too much. There is little strength in straw, such as we generally find it, ripe—we may say over ripe. It is however very beneficial in one respect—it attracts the strength of other real manure mixed with it, that is, it fixes the ammonia, the most important part of all manure. In this way it acts like soil plaster, muck, &c., by retaining the gasses. There is another thing for which straw is good, it is good to feed, when properly produced and properly managed. There is great difference, as we have before repeatedly stated, in harvesting straw. If cut when yet green, it amounts to hay, especially pea and oat straw. If cut early enough to just secure the grain, when the berry is somewhat soft, straw produces sixteen per cent nutritive matter, according to a recent English authority, whereas, when fairly ripe, there is but ten per cent, while over-ripe straw has but three per cent. This is important information, and should by all means be remembered and acted upon. It must further be remembered that this same rich straw makes so much the richer manure. But there is another thing. Straw, when fed with grain, is better, goes farther, than if fed alone. Why it is so, we have not ascertained. We have always found it a benefit; and we find many people indulging in the same practice. Good, nutritious straw is probably as good, fed with grain, as hay; we mean the best kinds of straw, such as pea straw, oat and barley straw. These straws, when early cut and properly harvested, are under-rated as feed for stock.—*Valley Farmer*.

NOVEL MODE OF MAKING HAY.—We have alluded repeatedly, in our columns, to the successful method of hay-making pursued by our townsman, Gen. James D. Thompson. On Saturday last he filled our office with delicious fragrance, by bringing in a sample of hay, cured by still another process. The grass, cut about 11 o'clock in the forenoon of a day in July last, was immediately packed closely in a cask, the head of which was at once put in, its hoops driven, and the cask rolled into a shed. There it remained untouched until Saturday, when it was opened, and its contents were as sweet as the day when they were first packed. There were all the freshness, greenness and aroma of new-mown hay—not a suspicion of mustiness, nor a sign of decay—it was bright, flexible and juicy. At the present price of casks, this mode of curing hay would be expensive; but our neighbour suggests that grass, cut as this was, might be screwed into bundles in the field, and thus be equally well preserved.—*New Bedford (Mass) Mercury*.

WHAT AILS SOME OF OUR WHEAT LAND?—Some of our wheat crops are failing, not from the midge or fly, but the crop is deficient—not what it used to be. There are many such cases. These crops are generally grown on the same soil where wheat has been grown for years—in some instances, always. The difficulty here is, the ammonia of the soil is taken up—the soil lacks this ingredient, which is the principal ingredient in wheat. For other grains the soil is as good, or nearly, as ever. To make it good again for wheat, simply apply ammonia. This can best be done by the manures which most contain ammonia, and they are such as draw their strength largely from the atmosphere, such as clover and peas, and the root crops. These fed and the manure applied will give you wheat. So will the manure from oats fed, and some other nitrogenous grains. This manure will also hasten the ripening of wheat, and tend to give plumpitude to the berry, whereas, the other manures, obtained from straw and green crops plowed in, will grow straw, and have a tendency to keep green longer. F. G.—*Valley Farmer*.

SPRING WHEAT.—A New England farmer gives his reasons for sowing spring instead of winter wheat as follows:

In the first place, the weevil is pretty sure to attack it if it blossoms when the fly is ready for it. To avoid this difficulty the seed should be put in early. To accomplish this the plowing should be done late in the fall. A slight coat of manure on the surface is what I begin with in the spring. The ground is well harrowed and levelled. The wheat is washed, poured upon the barn floor and thoroughly coated with slaked lime. My grass seed is mixed with the wheat.—It is all put on the ground together, thoroughly harrowed and levelled. Thus managed, my crops are all good, and six years of this kind of experience gives me full confidence in the plan.—Good crops are raised on sward ground, turned under in September, and treated in the spring as described above. The exposure of the soil to the frosts of winter prepares it for grain, and the straw will stand up better and the grain will be more perfect than when the plowing is done in the spring.

THE ROLLER.—There is no better pulverizer to follow the plough than the roller. We have evidence enough of this fact. No matter how cloddy the ground lifts, if the roller follows, crushing the clods as they are freshly turned, the action of the sun and air will do more towards completely pulverizing these clods than a thorough harrowing and cross harrowing. This is of importance to farmers who may have occasion to turn dry stubble land early in the autumn with a view to seeding it with fall grain. Let the roller follow the plough before seeding. It will scarcely be necessary to touch it with the harrow, if the rolling is done the same day the soil is turned. The soil is left with a smooth surface on which the grain falls, and which is likely to ensure its being covered to a uniform depth; or if to be drilled in, this work is better done; but more important than all, an excellent seed bed is secured, in which the seed will germinate and grow quickly and continuously, without the aid of a shower, for a packed surface secures moisture generally.

If the clods are allowed to get thoroughly dry, the good effect resulting from the use of the roller is much diminished thereafter. It cannot be too strongly urged that this work of rolling be done as soon after the ground is turned as possible.

And, talking of the roller, it should be here asserted that a farmer can just as profitably put in crops and cultivate his soil without a harrow as without a roller. It is gratifying to know that very many farmers have learned this fact; but there is still a large per centum who are either ignorant or indifferent respecting it. It should be impressed upon them.—*Rural New Yorker*.