

TILLING BURNED LANDS.

CORN AND STEAM POWER.

SIR,—As I have unfortunately had some experience in clearing up burnt land, I will offer the result for the benefit of any of your readers who may have had their land swept by the destructive fires so generally prevalent last year. It has been recommended to sow barley as a first crop, and if there is any black soil left it may answer well if sown early, but for a stiff clay loam, such as I have, it would prove a failure. Such a soil holds the water too long in the spring, and when it burns dry bakes so hard that barley would have no chance to get on. The first piece of such ground that I cleared was ploughed in the fall, and sown with spring wheat, but although the season was not particularly dry, the result was not very favorable. It was again ploughed in the fall, and sown with peas in the spring, and the summer being showery the peas (Golden Vine) was eight or nine feet long, and well podded, but the pods were not well filled; but the peas smothered the weeds and mellowed the soil. The next crop was oats and peas, sown thin with clover, which took well. The next piece I cleared was sown with fall wheat, which stood the winter well, and in the spring I sowed early red clover at the rate of twelve pounds to the acre. The clover took very well, but the wheat was injured by the rust, which was very prevalent that year, and a little by the midge. The following season I took off a crop of clover hay, and in Sept. attempted to plough in the after-grass, but the ground was so hard that I had to desist, as the plough would not penetrate more than two inches deep, so, being rather short of fodder, I cut the clover again, and in Nov., when the clover was about six inches high, ploughed it under, and found that the roots of the clover had penetrated the hard subsoil from four to six inches. Last year I had peas on another piece, but the severe drought made the straw very short, but the pods were well filled. It was again sown with wheat last fall, which promises well, and I have again sown it with clover. The next piece was a ten acre field, which I sowed with bread wheat, which stood the winter well, except in some level places, where the water remained too long. And the clover also took well, and in spite of the drought I had a fair crop of clover last year. The clover failed on the piece on which I had wheat last year, so I have this year sown it with Kentucky oats, which are now coming up, and I will report results next fall. I would prefer to plough in the clover after the wheat, instead of cutting it, and repeat the wheat with clover again, but, except in a wet summer, it would be scarcely possible to do so, consequently, peas and oats must follow, and then wheat and clover again for a few years, until the vegetable soil destroyed by the fire can be restored. In the case of a swamp I should prefer to log all the timber and sow it with suitable grass seed for a meadow; but as the log heaps would require to be very careful to burn them off before the ground became very dry, as if the fire once gets into the black soil, it will burn under the roots of the grass and destroy the meadow. Where the ground can be sowed the first year, I should prefer a summer fallow, with two or three ploughings and harrowings before sowing wheat. But settlers in the bush cannot always afford to lose a year's crop, and if they have not much pasture they might allow the clover to remain for a year or two. The corn horse figured in your last paper may be found figured and described in the "Illustrated Register of Rural Affairs" for 1861, p. 45, from which I made one, and found it very useful. Indian corn, except for table use, is not extensively raised in this part of the country, as it is a very uncertain crop, owing to the early fall frosts.

An effective way to check the depredations of the crows is to pour scalding water on the corn, let it remain about five minutes, then drain it off, and mix a little coal tar, stirring it about so that every grain may be well coated, and then mix with a sufficient quantity of plaster to prevent the grains sticking together, although wood ashes may do if there is no plaster at hand. Mr. Crow (not being a sailor) has no partiality for tar, so, after trying a grain or two, he will shake his head, and seek his breakfast elsewhere. Before I knew this I was much pestered by their depredations, and having at last shot one I opened it and found in the gizzard some grains of corn, and a few small bones, one of them evidently the back bone of a small bird.

I fully agree with yourself and some of your correspondents as to the necessity of sending more farmers to Parliament, as till this is done we need not expect to get our rights, and organization amongst farmers appears to be the best way of accomplishing that object. The Queen may govern all, the bishop may pray for all, the soldier may fight for all, but it is the farmer who must pay for all.

Your correspondent, "Old Subscriber," wants an iron horse to do all his farm work, but he appears not to be aware that Thompson's Edinburgh Road Engine will answer all his purposes. It weighs six and a half tons; has

three wheels, with India rubber tires, two feet broad and six inches thick, and will run on any ordinary waggon road, however rough it may be. The India rubber tires will bite on ice or frozen snow, so that it would run on our roads in winter as well as in summer. The first time it was publicly exhibited, it easily drew three double furrow ploughs in a field where three stout horses had enough to do to draw one such plough. I have seen it stated that that one was imported into the State of Massachusetts, and when exhibited turned over seven furrows at once, nine inches deep and fourteen inches wide. Before the Franco-German war one of them was used to draw an omnibus containing fifty persons through the streets of Paris, and looked like a small tug towing an East Indian. On those smooth, level streets it attained a speed of twelve miles an hour, but on ordinary roads it generally runs about eight miles an hour. The price, before the late rise in iron, was \$600 sterling, but probably it would now cost about \$1000, laid down in Toronto—rather an expensive horse for a farmer to buy for his own use, although it might pay to perform the ploughing, thrashing, etc., for a neighborhood.

The fall wheat in this section of the country, having been well protected by snow, looks well, as far as I can learn, but it has been a hard winter for cattle, and worse for the manure heaps, but the grass is coming on now, and the lactical produce of the cows is increasing in quantity. Not to occupy too much of your space at one time, I must defer some remarks on other subjects for another occasion.

CHARLES JULYAN.

Edgewater Farm, Sarawak.

[Mr. Julian, and all other contributors who send us useful information, will accept our thanks. Every one that contributes information that will be of value to others is a benefactor to his country. There are many, many readers who may, perhaps, criticise our attempts—may think they know more than can be taught them; and others, no doubt, are better versed on some subjects, but they are like sponges, absorb all they get, and never impart without pressure; they keep their lights under a bushel. We hope more of our farmers will shed their light around, and send us more communications. Write for your paper.]

BEE HIVES.

To enable the bee-keeper to make the best of the few stocks he may have to manage after the great mortality of the past winter, I would offer a few ideas on this, the first step to bee-keeping. A hive adapted to the wants of the bees and convenient to manage has been the study of many ingenious minds. We find the frame hive in use in the old country as early as 1845, and about that time the Langstroth Hive originated in the Eastern States. This hive being expensive, rather broad, and not deep enough, has caused many improvements on it, both in the United States and in Canada. Hives have sprung up in great numbers in all parts of the country, which makes the task of selecting the more difficult.

To assist the new beginner in selecting a hive, the following requirements are necessary:—The body of the hive should be about 12 inches square inside, and fourteen inches high, with cap to sit on to hold honey-combs. Double-walled hives are very necessary in this changeable climate. They can be constructed by making the hive large enough to take frames 1 1/2 inches in breadth, eight of them filling the hive; making an inner wall sitting on cells at the bottom; leaving space at the sides forming hollow walls; at the rear of the hive a frame with glass closes the frames in, and a door closes up the hive. By using these folding frames you avoid all noxious or projecting frames, which require drawing at the top in order to open up the hive. A honey-board is placed on the top of the hive with holes to allow the bees to pass up into the hive. The bottom board of a hive should be made to draw easily, so as to be cleaned out at all times and ventilated when required. By the use of a frame with a wire cloth the bees can be kept in place when ventilated, and all chips falling through can be removed at any time by drawing the bottom board. In cold weather the screen is removed and all dead bees and damp that falls to the bottom board can be removed at any time through the winter.

Cobourg, May 15th, '72.

B. LOSEE.

KILLING CANADA THISTLES.

SIR,—Having seen in your valuable paper a recipe for killing Canada thistles, I send you my method of destroying them:—In the spring of 1867 I seeded down with clover a piece of ground where there was a large bed of these

thistles, and on the last of June of the next year I cut the clover. I let it grow a second crop, and cut it again about the 15th of September, and it completely killed them all, for I have not seen the least sign of any thistles since.

JACKSON FOSTER.

Uppingdon, May 14th, 1872.

DRAINAGE IN ENGLAND.

Drainage is of such vast import that no farmer can work to advantage unless this operation is fully and well done. It requires the most careful supervision and attention in all its details; for should drainage be imperfectly done, 'tis worse for the land than if it had not been drained—for imperfect work destroys the natural leakage that has been going on for generations. When 'tis necessary to operate, the first consideration should be the nature of the sub-soil, and whether intended for permanent pasture or arable. If for the latter, and the subsoil should be of a strong clay tendency, the depth should not be less than four feet, and not more than twenty-one feet apart from drain to drain; on more porous soils, both the depth and width should be increased, and in some instances a single drain will sufficiently dry a whole field. This is the case where a single spring exists and the residue of the land of a dry nature; but my experience is that drainage does great good in the most apparently dry subsoils, even should no water ever lodge on such land. I have known sandy land in England always foul and rough with couch grass—which is the arable farmer's greatest enemy—till one or two very deep drains have been inserted, and where even at the depth of ten feet no water was visible, still the subsoil, if held in the hand a short time would leave moisture upon it. After drainage the couch grass would entirely disappear in two years. The next important thing is the size of the drain tile. The pipe should always be of such dimensions that never more than half should fill with water and the other half remain for the dimensions of air, for should the drain-pipe become quite filled with water, and no air admitted, it can never operate, but will become stagnant in the soil.

The drains, when freshly cut and the pipe properly placed, should remain for a week or two, so as to enable the subsoil to become thoroughly pulverized, and should always be replaced in the drain in a dry state. The drainage will at once act upon the land. Whereas, if the sub-soil should be replaced in the drain in a raw or fresh state, it will take two years before action takes place. I have drained some thousands of acres in England—soils of all descriptions—and I found by experience that it was impossible to drain too deep. The average price per acre on one large estate was from £5 to £8 completed. The work was generally executed by piece or task-work, the men earning good wages; and as the winter season is the best time to operate, gentlemen requiring draining to be done cannot better employ their capital than giving such kind of work to the laborer during inclement weather when little else can be done.

WHAT AN AMATEUR EDITOR KNOWS ABOUT FARMING.

Mr. C. W. Fay, of the Trenton Sentinel, is after Greeley's agricultural laurels. Here is a sample of what he knows about it:

The proper time to pull hemp is any Friday that a good judge may select. Castor oil beans succeed best in the bowels of the earth. They will soon work their way out. The best preparation for hops is a toad or two in each hill. They will make the vines fairly jump. The usual time to put in rye is early in the morning. Some bus'andmen, especially those in the city, continue to run it in at intervals of half an hour until bedtime. The practice is only allowable in case of a dry season. In reaping wheat never take it by the beard. It is found to go against the grain. Buckwheat is not healthy food. It is apt to clog upon the stomach. Corn in the ear is apt to effect the hearing. If eaten green it will make the voice husky. When dealt out as army rations the kernel should always be served first and then the men privately.

Never plant your potatoes early. It is the early potato that gets the worm. To be certain of the right kind of squashes, compare them with your head. In adopting this rule I first mistook pumpkins for squashes, but by continued comparison, I soon learned to detect the difference. But for some new beginners it requires great caution. In making cider out of apples I found it a pretty tight squeeze, notwithstanding my long connection with the press. 'Never drink cider made from crab apples. It is pretty certain to "go back on you." If you would lay in a supply of old wine be sure to make it of older berries.

BIG VEGETABLES.—It is a common mistake of inexperienced people to consider size as the most important of all qualities, alike in flowers, fruits, and vegetables. Within certain limits, size is undoubtedly of importance, but the instant we favour size at the expense of colour or flavour in vegetables or fruit we encourage retrogression, and voluntarily surrender some of the greatest advantages that have been secured by painstaking cross-breeding and discriminative selection. It is quite a common occurrence for editors of horticultural papers to be invited to admire gigantic rhubarb, and celery, colossal asparagus and cabbages, remarkable only for their coarseness. That they denounce the overgrown samples and express their pity for the cultivators who have wasted their time in producing them, is not surprising, and is the more desirable because of the prevalence of an injurious belief in "big things" that for all their ostensible uses are absolutely worthless. Great cauliflowers are usually as rank in flavour as they are ugly in appearance. Very large celery is usually hollow, stringy, and flavourless. Good flavour, tenderness, and beauty of appearance are three most important qualities, and should be sought in preference to size, although, as remarked above, when certain limitations are recognised, every advance in the size of any particular vegetable is an advantage. In any and every case quality should be sought for first, and, as a rule, of two sorts equal in quality the largest must have the preference. This subject is to be considered in connexion with cultivating as well as in the purchase of seeds. The ambition to grow large cucumbers causes many an amateur to cut for his table, or his friends, coarse fruits of great size that are simply tough, bitter, and unwholesome, instead of smaller fruits of tender texture and delicious flavor, and perfect wholesomeness. Nearly all the vegetable marrows in cultivation are too large. The largest beet roots are much more suitable for the pig trough than the salad bowl. We have frequently advised the cultivation of the smallest in preference to the largest sorts of cabbage, because of their superior elegance and delicacy of flavor. The largest onions are the worst keepers.—*The Gardeners Magazine.*

WHAT RATS WILL DO.—Farmers who have large amounts of corn do not realize what quantities rats will take away to their nests and storing places. Thousands of bushels are annually consumed by the pests, and as it is the small drainages usually which take off the profit of farming, the matter of securely storing corn should be attended to. An exchange gives an account of the works of rats in a hard-wore store, from which something of an estimate can be made. Forty-five pounds of choice pop-corn were left in a box on the floor in the centre of the store. Next morning the box was nearly empty, and upon examination it was found that during the night the rats conveyed off thirty one and two-thirds pounds of the corn, and concealed it in three different parts of the building. About ten pounds were taken through a small hole in the door, between the store and the warehouse, some of which was concealed under the stairs in that part of the building, while four pounds were carried up the stairs—composed of twelve steps—and hid away in a pile of paper rags lying on the floor of the second story of the warehouse. The rats evidently worked faithfully all night, and no doubt chuckled hugely next day over the princely supply of corn laid away for the winter's use.

From St. John's, New Brunswick, the reports for the last winter speak favorably of the results of the lumbering for the past winter, and milkmen report that their prospects are better than they have been for the past ten years. There are immense quantities of logs on the lakes and rivers, and a prospect of plenty of water to bring them to their destination. This fact, with the high prices in the lumber markets at home, must make the year's lumbering operations profitable to those engaged in the market.

A farmer in Westminster offered for sale in the London market a few days since some seed potatoes: Early Rose, Bresser's Prolific, and Climax. From four pounds of each of the above varieties he states he had two barrels. He found a ready sale for them at good prices. Potatoes of old and less-prized varieties were at the same time sold at low rates.—He got his seed from the Emporium at what he thought high prices.