

absorbent in cow stables? R.F.P. "Boston, Mass." (We do not think it can. You could better afford to draw common earth, or better, sods or leaf mould, into the barn when the weather is dry in mid-summer, and store it for winter use, than to pay any such price for hard plaster. Three or at most four dollars a ton is all you could afford to pay for it as an absorbent.)

"Country Gentleman."

This agrees with what we have always held, and Dr. Girdwood of McGill, supports us in our opinion.

PRACTICAL FARMING.

Dehorning Cattle—Green oats—Straw—Making Beef—Treatment of Cows—Sheep—Young Cattle—Turnips.

(By James Dickson)

DEHORNING CATTLE.—I shall perhaps be excused for again referring to this subject although discussed in a late No. Since then, I have had a further experience, and am more convinced than ever that there is no risk, and that there is not so much pain as I formerly supposed. A few days ago, I had a pair of three years old steers, 15 two year olds and 10 yearlings dehorned in thirty two minutes. The three year olds were in their stalls the others were in two separate lots loose, and deducting the necessary time lost in driving them into a proper pen, the time occupied was less than a minute each. In twenty minutes afterwards, two of the yearlings were chewing their cud, and when driven into their stable, they all kicked up and ran. The next morning I found seven of the yearlings chewing their cud. The two year olds took their food properly, but they were not happy and the three year olds were discouraged for a couple of days. It is a week since, and now they jam amongst each other as though not afraid of hurting themselves or each other. Why there appears to be so little pain I cannot tell, but there are many things in agriculture which we do not understand, practical facts, which when known to be such, we are not slow to appreciate.

GREEN OATS.—I am much pleased that so many adopted my suggestion as to cutting green oats for fodder. But it has not been so successful with many as it might have been. They did not cut early enough. The object is, to cut as soon as the straw is dead (1) at the root. It is of course impossible then to extract further nourishment from the soil. At that time the straw is soft and juicy. The hull of the kernel is tender, and the whole is more digestible, and without waste. Farmers are conservative in their methods, but they will not go back to the system of ripening their grain, trashing, and grinding it, if they once feed the larger part of their grain in the green state. There is loss in paying for thrashing and grinding, and feeding the straw to stock. An animal can subsist on straw for a time, at the expense of the fat, etc., it laid up in summer, but there is no money in that kind of farming and the sooner such farms are provided with silos the better. For many years, not more than half of my grain has been thrashed, and during the last four years I have had

only one day's work with a threshing machine. With two sticks and a string, we manage in cold weather to beat and shake out enough for the horses, and for my own seed. (I have a piece reaped for the fall work of the horses and cut the heads off.)

FATTENING CATTLE.—With my system, I fitted for market twenty-three (23) cattle, two, and three years old (part) to weigh an average of 976 lb., and sold five weeks ago, at 3½¢, \$10.00 off the lot. They had two feeds of oats and one feed of hay each day, the turnips that were grown on an acre, and \$16.00 worth of corn meal after the turnips were finished, the cattle remaining in their stalls continuously. I think the result will bear favorable comparison with any other method, including that of silage.

TREATMENT OF COWS.—From the number of questions in Agricultural Journals, it would appear that some dairymen have more trouble in that way than has been my experience. And I have no doubt they take greater trouble than I do, but I have always been careful to use the "ounce of prevention," and after a long experience with a dairy, sometimes above the twenties, I have not had the troublesome experience of many with a smaller stock. I lost one cow from the effects of having twins, only once had I one that cast her calf and I never had a case of milk fever. It is not farming, to starve a cow until nature cannot properly fulfil its functions. And if I came into possession of such, I would at once, carefully get some flesh on her bones, remembering that she will give me extra after she calves to pay for extra feed, besides the pleasure, and certainty of her doing well. It is not necessary that cows be fat, but it is necessary that they be in "good working order." Feed carefully. Don't hurry her. How seldom cows do badly, calved on the grass. Give her the next best substitute, green oats or hay. Yes, I said green, without giving a reason, all farmers know the difference. And if you adopted my suggestions last spring you have some turnips for her, 15 to 20 lbs. a day for a month before she calves will be well repaid. Better to have a poor cow gaining than a fat one weakening. The floor upon which she stands ought to be nearly level; bed her with dry horse manure and a little straw, and immediately after calving raise her high behind, until certain that the straining is past. I have had them raised two feet around behind higher than her front feet, and there is nothing so simple or better for the purpose than horse manure. After calving, before she cools, in some stables it will be necessary to blanket her. Give her a warm gruel drink a bran mash warm. No cold water until danger of trouble is past, and then not more than a pail at a time. Keep her warm. If she has shown a great flow of milk, her turnips must be stopped some time before calving, substitute oats, warmed just sufficient to make them soft, having previously been sprinkled with water; feed them so that they must be eaten slowly. (scatter them in the manger) sometimes a cow will eat oats treated in this way, when nothing else tempts her. In some countries Doctors are paid according to their ability to keep their patients well, and not according to their ability to cure. Cows always pay their Doctors on that principle.

SHEEP.—Considering the amount of investment, the labour and feed, there

is nothing on the farm that pays better than sheep when properly cared for. And if the Government cold storage scheme is successfully applied, weekly supplies of *Canadlus lamb* will be appreciated in Great Britain. It is not necessary that they should be fat, like those we see at Exhibitions. The usefulness of a sheep is past that does not keep in good heart on early cut, fine, green hay. But the lambs will be stronger making less trouble with both lambs and sheep, if they get even half a lb. of oats every day, and for a short time before to lamb, start the milk with turnips.

YOUNG CATTLE. If these have been fed on straw, it pays well in spring to feed a few oats. A friend of mine, 50 years ago, said oats are worth 50 cents a bushel to feed to early beef steers. At present prices it certainly pays. Those who have been feeding green oats during the winter will have a new experience in beef-making next summer.

TURNIPS.—If there are any weeds in the manure (when are there none?) you will use for them, they must be destroyed by rotting. Now is a good time to haul it out to make the "mid-dle." Be careful that it does not get overheated, use snow or water to regulate with, do not turn it over. Stop the heating only in the centre of the heat, that it may continue to the outside. Experiments at Ottawa show that tanned, rotted manure produces no more than unrotted. Undoubtedly the reason is that the virtue of the manure is lost during the rotting process, and that exposure wastes manure.

SPRING-WORK FOR GRAIN-CROPS.

Wheat sowing—Harrowing—Press-roller—Pickling—Barley and oats.

The sowing of grain-crops in the spring is, in this part of the world, carried on, as a general rule, in too great a hurry. As far as observation goes, it is pretty much of a toss up whether two, three, or more strokes of the harrow are given before and after sowing; as for the sharpness of the harrow-tines, that is left too often to chance, and the use of the roller, as a finish, is far too seldom seen. If a couple of bushels of wheat, for instance, are needed to complete the seeding of a field, no care is taken to pickle it before using, and the consequence is, that the germs of disease invade the whole yield of the piece, an injury that a little forethought would have obviated.

It is too commonly supposed that the same preparation for sowing and the same style of harrowing, etc., suit all kinds of spring grain. This is not the case. Wheat requires a firm bed, barley land can be hardly made too fine. Oats are usually considered to be easily satisfied with any kind of treatment, but you may rest assured that even oats, "rugged" in constitution though they be, will pay for thorough work. Let us first consider the proper way to grow spring-wheat.

Wheat, we need hardly say, demands a certain amount of clay in the soil to which it is to be entrusted; in other words, it will not do well on sands, though in England, owing to the practice of feeding off root-crops with sheep, the firmness imparted to light land by their feet enables it to bear very decent crops of fall-wheat: spring-wheat is rarely seen in England, though, in Scotland,

it is not uncommonly grown on soils too stiff for barley. Therefore, if you mean to grow spring-wheat, choose the stiffest part of your farm for that purpose.

We will suppose the field has been ploughed in the previous fall, and has previously borne a hoed-crop of some sort, potatoes or roots, say. Begin by pickling your seed, at the rate of two bushels an arpent or rather less—say 7 pecks—if the land is in really good condition, as it ought to be. Do remember that, as we remarked in another part of this number, spring-sown grain has no chance to tiller. Most of us know how to pickle seed-wheat: place a pailful of hot water on the heap of grain, and drop a few pieces of quick-lime into the water; when the ebullition has ceased, pour the mixture over the wheat and turn it over several times. If you like to sprinkle the seed with chamber-lye first, it will do no harm; but we have always found the former treatment act satisfactorily.

Of course, if you have a drill you will use it, but, in whatever way you sow, take care to bury the seed well. Sowing machines are so common now, that broadcast work by hand is seldom seen in the older districts. We do not approve of too much deep work with the grubber-teeth attached to the broadcast machines, as a firm bottom is the best for wheat; in fact, we prefer the drill and the repeated work of the harrow for this crop, and if we had no drill, we confess we should, if there was a fair interval between the crests of the furrows to hold the grain, rather sow on the stable autumn furrow undisturbed, even if in this way we lose the advantage of deep sowing. In England, our "wheel-presser", taking two furrows at a time, makes the finest bed possible for spring-wheat, and admits of the seed lying in a narrow bed three inches deep.

And now the seed is in the ground, don't be afraid of harrowing. Harrow, not three or more times, but until the "tread" of the land is equal all over, as you walk across the field. As we have often remarked, the harrowing is never perfectly executed until you can draw, with our foot, straight lines "across" the lie of the furrows as easily as if you were dealing with a bed of ashes. Treating the land thus, you will have finely pulverised three inches of soil for the seed to sprout in, and a solid, firm bed of soil to afford support to the roots. Then, when the "braid," or young plants are well up, roll, across the ridges, with the heaviest roller you can get, and if your crop is not a good one at threshing time, you will have the consolation of knowing that it is not the fault of the treatment you gave it in the spring.

Note:—Never omit a double stroke of the harrows across the ridges. No fear of pulling the seed up again should deter you from doing this; a few grains may appear on the surface, but plenty will remain below. Finish, of course, with one or two "tines" along; you will find that, after broadcast-work, six harrowings are none too many.

OATS.—The sowing of oats is to be conducted upon the same plan as the sowing of spring wheat, except as regards the quantity of seed to the acre. The quantity sown in Scotland would surprise many of our farmers. "The seeding of common oats," says Stephens, "is usually 6 bushels to the acre (5 to the arpent), and in deep friable land, in good heart, 5 bushels of potato-oats." Well, these are rather large doses: we must content ourselves with 3½ to 4 bushels to the imperial acre, but as for

(1) Or rather yellow. Ed.