

sowed in, a plug will not answer, as improper care, or force of churning will drive it out. No churn ought to be half full at starting. As the cream takes air in churning, it increases in volume for the first while, and the churn should never after that occurs be more than half full. To draw off the buttermilk, a punched tin tube of proper size to insert in the churn is very handy.

Certainly by this method, butter can be made in winter with less care, less work, more cream, and better butter than by any other system.

JAMES DICKSON.

Trenholmville, February 1896.

GREEN MANURE.

Ploughing in Green Crops.

Ploughing in green crops is one of the most effective methods of enriching and cleaning the soil. Suppose a farmer to have a field overrun with couch-grass, scented clover, wild tares, or other weeds, of which there are far too many in this country. As soon as the harvest is off, plough about three inches deep. (1) In two or three weeks, harrow and cultivate thoroughly to turn the roots up to the sun, which will dry and kill them. In about 3 weeks more plough across about 5 or 6 inches deep, followed in 2 weeks by another harrowing and cultivating; and in the fall ridge up carefully. In spring as soon as the land is in good order sow with two bushels vetches and oats, buckwheat, or peas and barley; but there is more fertilizing matter in vetches than in the other grains. About the 20th or 25th June plough this in. It might be an advantage to roll before ploughing; but an equally good plan is to attach a chain to the head of the plough, with a weight at the end, and allow it to trail as close to the mould-board as possible. This draws down the green crop and leaves the land in such a state that it can be easily harrowed. Then, sow the buckwheat, 3 to 4 pecks to the acre; some say one peck is enough but I find we can get more crop and clean the land better with 3 or 4 pecks than with one. On the Island of Montreal a great many potatoes are raised for the early market and sold out in the beginning of July. This land is generally sown with buckwheat, oats and vetches or some other grain. The last few years I have tried, with great success, sowing turnips, putting on 5 or 6 lbs. per acre broadcast, with the best results.

SUMMER-FALLOWING.

I am very much in favor of summer fallowing. It is true one crop is lost, but it is made up in the first year after. I know this from my own experience. When I bought my farm a good deal of it was in very bad shape. There was one field particularly dirty, with all kinds of weeds but especially couch grass. The first year I ploughed and sowed oats which yielded 15 bushels per acre, which I knew would not pay for seed and labor so I sum-

mer-fallowed it. We had frequent rains that year, therefore the weeds were not killed. Not wishing to give it up half done I repeated the summer-fallow the following year. The season was dry, I ploughed and drilled it 22 times during the summer and fall besides harrowing and cultivating. Less might have done, but I had time that summer, and wanted to make a thorough job. The next spring I sowed oats and seeded down for hay, but the oats grew so rank the grass seed did not take, but I had 47½ bushels oats per acre, without any kind of manure. The following spring I again sowed oats with 4 lbs. red clover, 2 of alsike and one peck timothy per acre. I had 45 bushels of oats per acre and very heavy crops of hay afterwards, and all, as I said before, without the aid of manure or fertilizers. (1)

CLEANING THE LAND.

We can also clean land with potatoes or corn; but I should advise plenty of cleaning with the plough as soon as the harvest is off to prepare the land for the fallowing crop. (Good. Ed.) Never put roots such as mangels, sugar-beets, or carrots into poor or dirty soil. I would advise applying the manure in the fall with at least two ploughings and be guided by the richness of the soil, as to the quantity of manure to be applied. 25 or 30 to 40 cartloads per acre would be a good average. When applied, plough across about 3 inches deep and later plough lengthways 6 inches deep, to thoroughly mix the manure. What would improve the land and crops very much at this ploughing would be to subsoil. Not necessarily to bring the subsoil to the surface, but to run through a rooter, as it were, 5, 6 or 7 inches deep after the plough. Few farmers have a subsoil plough, but nearly all have an iron plough. Take off the mouldboard, get the sock, or point as some call it, put in good order with plenty of grip, or dip and follow the other plough. Subsoil ploughing will greatly increase the crop and its effects continue for years. (2)

FEEDING PIGS ON CLOVER

In our rounds as judges of Agricultural Merit we find many enterprising farmers who make many experiments, and among others that of feeding pigs on clover, which impressed me very favorably. Suppose I take, for example, 2 acres on which to raise clover for pigs. In the fall, work it well and manure it. Sow, the next spring, with grain and 1 lb. white clover, 1 lb. alsike and 10 lbs. red clover per acre. When the grain is ripe, cut it pretty high to save the clover during the winter. Do not allow any cattle on it that fall: in the spring, about the 1st or 2nd week in June, it would be ready to turn the pigs on. This would be capable of keeping from 20 to 25 pigs, with what little milk or whey the farmer may have. In one instance, I saw 26 pigs feeding on clover in the way above mentioned and the whey from 15 cows. Nothing else was fed to them until the fall. I saw them in the end of August and advised the owner to take a lot to the fair in Quebec in September, which he did, taking several prizes. They were nearly all Chester Whites and a few Yorkshires; the Chester Whites seem to be the best. It would be necessary to have portable sheds so as to have the land manured equally. In the fall, when

(1) Nothing like summer-fallow for cleaning heavy land.—Ed.

(2) All right.—Ed.

the pigs have done with the clover, plough it as flat as possible about 4 inches deep and harrow so as to rot the clover, of which, if the land is good there will be a lot to plough in. (1)

Then, in spring prepare the land well and put in corn. I think our own Canadian corn would be the best, or any corn that will ripen and give a heavy crop. The manure from the pigs and the clover ploughed in would produce a good crop of corn, but 200 or 300 lbs. of phosphate (2) per acre or 8 to 10 cartloads of manure would greatly augment the yield of corn. The corn and cobs should be ground for the pigs and cooked. Now by keeping up this system of feeding what a quantity of land could be brought into a state of good cultivation. It would be better to have the young pigs come in the months of January or February in order that they might be old enough to fatten on the grass and corn. They would only need to be hardened up with about one bushel of peas to each pig, (3) which I believe would make excellent pork. When everything is in good working order, both the corn and clover, those 4 acres would be capable of keeping 25 to 30 pigs. Now those pigs ought to average 250 lbs. each which, at \$5.00 per 100, would give \$375.00 for the thirty. There would also be an extra profit in the 2 acres of corn stalks which would be fed to cattle.

GEORGE BUCHANAN.

Household-Matters.

Home Dressmaking.—I have just come across the most delightful little magazine, called "Weldon's Home Dress-maker," and really it is just the very thing one has wanted for so many years, and it meets every want on the subject as far as one can see.

Nothing is left to chance, you are started from the very foundation, told exactly how much material to buy, and then taken step by step, through the whole process.

You are given a tissue paper pattern, a smaller copy of the same is drawn out and placed on a diagram of the goods, shewing you exactly how to cut out the pattern so as to get it well fitting and cut to avoid waste of material.

The first thing is to cut out the lining, you are not only told how to do this, but shown how and just where to tack this to the goods.

Great stress is laid on plenty of tacking, no amount of pins will take the place of good and careful tacking, for this, use a very fine needle, also fine cotton to avoid the tacking showing after the threads are pulled out, which must not be done till the garment has been pressed and is quite finished.

I hope I have said enough to incite people who wish, or are obliged, to make their own dresses in these hard times, as a great number of people are not able to pay the exorbitant charges of many dressmakers of the day.

Weldon's Dressmaker can be got at any book store and I have no object but one and that is to let my friends know what a good and perfect thing I have found it, and I hope it may prove a great help to all those who, like myself, have to make their own dresses.

(1) But the writer surely cannot mean that the land should lie all the winter in the harrowed state!—Ed.

(2) But what phosphate?—Ed.

(3) Three weeks on peas is our rule in England.

Protection from moths.—Do not forget that now is the time to fight for the preservation of valuable clothing.

The remedy is so simple, only a bag of unbleached calico, into which put anything you value, a good brushing and combing of furs is necessary to be quite sure the little enemy has not already been there, for if the eggs are not laid you have nothing to fear.

The bag must be tied securely at the mouth, and look well that there is no flaw or hole in the calico and you can feel quite safe of your goods.

A bag, for present use, into which to put valuable jackets, &c., after using, may be tied up with perfect security. I opened a bag of wool, last week, put by for a year, and found every thing just the same as when put in, thus proving that a little care will prevent great waste.

Cooking.—Stewed liver and heart.—Cut up and let the heart soak in a little salt and water; cut out the inside sinewy part of the heart, wipe dry, cut up liver and heart into slices about ¼ of an inch thick, after dipping each slice in flour, fry slightly and turn it into a saucepan to stew.

Fry a large onion brown, but do not let it burn, add water sufficient to cover the meat; a little pepper and salt to the whole: stew for about 2 hours.

A little tomato sauce, or any other flavouring might be added just before serving up, and a little more flour if the gravy is not thick enough.

Home pudding.—Two cups of flour, two of chopped suet, half a cup of brown sugar or molasses.

One teaspoonful of mixed spices, half pound of figs; chop suet and figs together, a sprinkling of flour over the suet will prevent it sticking to the knife, mix the whole well and add a little milk or water if necessary, but as there are no eggs used, be careful to have it quite stiff. Tie it up in a cloth and boil for two hours. If divided in two it will be equally good and take less time to cook.

This is a very cheap and nourishing pudding; every body seems to like it.

Dates used in just the same way are very good but they must be stoned.

The earache season.—It Means Much Suffering for Little Ones, if Mothers are Careless.—Half the time it's the mother's fault when the little ones

toss and moan and suffer all night with the earache. What if "the little darling" does look just too sweet for anything "in the stylish broad brimmed hat, think of the danger to those cruelly exposed little ears. The ears of all babies, and even of older children, should be well protected from the cold at this season. If this were more generally done in our changeable climate much suffering might be avoided. The big stylish hats may be very picturesque, but the dainty, warm little hoods are surely "sweet" enough to please any mother, when they surround the pretty baby faces, and think of the comfort and safety to the small wearers, and the unbroken sleep for the whole family instead of the distressful night-watches, when the little chaps are suffering with earache. Yet earache frequently attacks infants as well as older children—even the little ones who are never taken out except when securely

(1) Our English grubbers tear up the soil and keep the weeds uppermost. The plough cuts the couch-grass into lengths.—Ed.

(2) Is there ever too much winter-food on a Canadian farm? If so, we can understand ploughing in such a valuable crop as vetches and oats, &c. Three bushels and a half of mixed oats, peas, and vetches, will not be found too much for an arpent.—Ed.

(3) Buckwheat, if allowed to ripen its seed, almost always spoils the sample of the succeeding grain-crop.—Ed.