roots and the crop of wheat or barley next year, I leave this field to rest until the other fields have been improved in the same way, and according to the method above described. When this shall have been effected, that is to say in the space of six years, or in the year 1856, the worst will be over, and the battle may be considered as gained. The fields will then be in a clean and fertile condition, and their value will consequently be greatly increased. The Farm of 70 or 80 acres, which in 1849 only sustained three or four miserable cows, and perhaps no more than an equal number of sickly sheep, will be capable in less than ten years of furnishing an abundant subsistence for ten or twelve cattle and other stock in the same proportion.

One of the great avantages of this system of rotation of crops is, that the pastures, which in summer furnish summer-feed for the stock, are in due proportion to the quantity of roots and hay destined to winter-feed them, and in due proportion to the straw which the grain-crops yield for their bedding. I will observe here that farmers—except those who live near towns, where they can easily procure manures—ought never to sell a single load of their hay, straw, or roots, since the whole ought to be consumed on the farm, with the view of procuring a sufficiency of manure therefrom, whereby the fertility of the soil is to be sustained. But if the farmer is not to sell hay, or straw, or roots, what is he to sell? I answer, the third of the land being under this system appropriated to grain crops, he will always be able to sell a large part of them. The half of the farm being in hay and pasture, will allow it to produce a large quantity of butter, cheese, butchers' meat and wool, and to sell a considerable part of these after having supplied the wants of the family. It may be said, that six years is a long time to wait for the renovation of the whole farm; but I will reply, that I know no other means by which it may be done in less time, from its own ressources; and it is worthy of observation that the land is improving every year. The produce is larger, even for the first year, under this system than it is under the present method of culture, and from year to year, the land is improving, field by field, and is producing more and more, so as to pay the farmer better than it does at present, and to recompense him doubly afterwards when the whole shall have been improved under a system of rotation.

Another advantage of this system is, that it enables the farmer to give his cattle a succession of changes of pasture from May to December. There being always two fields devoted to pasture, one old, and the other new, the old pasture will supply the earliest grass, the heavy cattle should be turned into this field first, the land being firmer from the former years pasturage, and the sward closer, it will receive less injury from the feet of the cattle, while the land is soft. Ewes and lambs may be put on the new pasture and should remain there all summer. Where a dairy is attended to on a small arable farm the number of sheep should not exceed that of the cows. The sheep will consume only a small part of the grass on their pasture, and when too rank the cows should be turned in with them. By the time they have eaten the excess of grass on this field, the old pasture will have grown enough to supply a sufficiency, until the after grass on the hay-field is ready for them. Then follows the oat and pea stubbles, the new sowed down grass field may also be pastured when the land is dry, and when all grass fails the tops of a few acres of carrots, mangols or turnips will prove an excellent substitute for grass, until the hard winter sets in. The roots must be protected from the frost, and served out to the cattle during winter and early spring.

It may be objected that two years of pasture is a long time of rest for the land; but you will observe that the land does not remain unproductive during this period of repose. This plan not only contributes to re-establish the almost exhausted fertility of the soil (and it will be admitted, that this is the only one now practised by the Canadian *habitans*), but it is also the best means of furnishing the farmer with the first necessaries of life, and the articles which, so to speak, will most readily find an outlet in our markets, such as beef, lard, mutton, butter, cheese, wool, and other products already named.

Manures.

Manures are of the first importance to the farmer, and he must do everything in his power to increase their amount. The system here proposed is calculated so as to increase the quantity of manure in proportion as the soil becomes improved. As already said, the farmer ought not to sell a particle of his hay, or straw, because these are the principal materials for the manure, and consequently it is infinitely worse to sell the manure itself. The manure thus economized will suffice each year for the field which is to receive the root crop (No. 1).

After the crop of Oats (No. 6), the land is not yet exhausted, and might even yield another grain crop. It is better, however, to preserve this fertility then to be obliged to bring it back continually.

In this short treatise, it is impossible for me to mention one hundredth part of the means which we have of increasing our stock of manure. I shall content myself with alluding to the rich deposits of bog-mould which we possess, and the lime-stone which can be had every where. The very weeds even, which are the curse of our fields, may be converted into good manure.

Draining.

Although Drainage is a profitable improvement of the land, it is so expensive that I will say nothing more about it than what the Canadian farmers know already, that is, that the land ought to be so ditched that water cannot lodge and render the soil unproductive.

[There are always spare days, however, such as a damp day in harvest, or when the frost stops the ploughing in the fall, when under-draining might be done to a considerable extent. All drains in this climate should be at least 3½ feet deep, cut as narrow as possible, and filled with eighteen inches of broken stones, or laid with draining tiles. Whenever the land is springy, or the subsoil heavy and retentive, draining will do good. The drains should be cut parallel, from 20 to 30 feet apart, and should run in the direction of the lowest level.]

Stock.

As for the sort of Stock which ought to be kept, I would advice a regular proportion of all the animals which prosper with us, because one sort may be fed on the food which another will not touch. For instance, Sheep eat greedily and get fat upon French beans, which no other creature but man can use.

Horses.

The Canadian Horses are, everything considered, the best breed for the country, but we ought to take care to raise only the best sorts: the system of leaving entire all the small miserable stallions, is sure to deteriorate the breed: Colts ought to be fed abundantly, particularly during the first winter after weaning. Nothing can be more absurd than the idea of starving a young Colt, for the purpose of making it hardy: still the idea is rather commonly entertained. Colts, like children, require ample liberty and ample nourishment.

Cattle.

The Canadian breed is perhaps the best for the country, and the best to yield milk, butter, &c., provided care be taken to select the best bulls and cows to breed from. Too much care cannot be given to this point, and the calves must be supplied with good and abundant food. If it be desirable to cross the breed, so as to increase the quantity and quality of the milk, this can only be done with the Ayrshire breed, seeing that the larger breeds do not do so well for the country, at least in the present condition of its pastures.

[By keeping a thorough-bred Bull, and changing every three or four years, and rearing only the best heifers, the stock would gradually be brought up nearly approaching to the breed of the sire.]

A good Canadian Cow will, in my opinion, give more milk for the same allowance of food, than any other breed which I know.

[The profits of the dairy depend almost entirely on the care taken of the cattle during winter. Cows, warmly housed and well fed through the winter, and put on good pasture in summer, will yield much more than sufficient to pay for the difference of keep. In the Province of New-Brunswick, cows are generally fed on dry hay in winter, kept in cold stables, and are pastured in the woods, or on fields which have been impo-