

by the board of education with a careful selection of the most approved works upon agriculture for the use of the older pupils, and with easy manuals, say in the form of catechisms for the younger ones.

But theory without practice will not make a farmer, and where the parents can allow it, the English system might be followed with advantage. It is the custom there for young men who have learned what they can from books, to reside as pupils for a year or two with some Agriculturist of eminence, and to complete their education, thus acquiring a knowledge of the mechanical and field operations necessary on a farm, and putting into practice what they have acquired theoretically.

I must now take leave of this subject, but not without pointing out the bad effects likely to follow from a want of attention to a matter so all-important as this.

In some statistic returns of the neighboring State of New York I see mentioned that "between the years 1845 and 1850, 671,692 acres were added to those previously under improvement, and of course there ought to have been at least a corresponding increase in the agricultural products of the State. But what was the fact? Of pease and beans "there was a decrease of 1,132,054 bushels.

"Of wheat the decrease was 270,724 bushels, and there was also a great decrease in the following articles, viz.:—potatoes, buckwheat, and cattle.

"There was an increase in the amount of corn, rye, oats, barley, Hay, butter, and cheese produced in that State, but not greater than would be expected from the increase of the population, which was 494,123 during those five years." Now, whence does this state of things arise? From a want of proper education amongst the agricultural classes, and a consequent defective system of culture. And can it be denied that the same influences are at work in Canada, I fear it cannot; true, a statistical return might probably exhibit no such falling off in crops here, but that would be delusive. Hundreds of acres, of virgin soil, are annually sown in wheat, and thus more than keep up the average, but are old lands as productive as they formerly were? Has not the cultivation of winter wheat been abandoned in many places where it grew abundantly? Has the climate in those localities altered? No, but the soil has become impoverished by bad management. And how is this to be avoided? By educating the Farmers, and thus leading them to adopt an improved system of culture which would restore the land to its former fertility.

One of the greatest discoveries of modern farming, one which in its effects, assists greatly in bringing land into a high state of cultivation, and keeping it productive, is thorough draining.

Too much water in the soil prevents the sun's rays, which are intended by nature to warm the land by their heat, from doing so, as they are expended in evaporating the water from its surface, plants are consequently deprived of that genial warmth at their roots which so strongly favors their rapid growth.

By removing the water from the soil, particularly from clay land, it becomes more mellow, pliable and open, is more easily worked, and admits the air, which is most essential to its fertility and to the healthy growth of crops; as draining not only removes the water, but causes the air by suction to penetrate after it; a process renewed at every successive shower of rain, nature abhorring a vacuum, the air penetrates into the pores of the earth as the water is drawn from it by the rains. Manures also produce greater effect on drained land, as where air is introduced into the soil, vegetable matter decomposes rapidly, producing carbonic acid in large quantities, as well as other compounds beneficial to plants. It is a curious but well known fact that farms on which the crops are liable to be burned up in seasons of drought, are often much improved by draining; this is caused by the noxious water being washed from the subsoil, and inducing the roots to descend deep into it, so that on a drought recurring, although the surface may again become parched, the plants are not injured as heretofore, being fed and watered by the deep soil into which their roots have penetrated.

But draining is a very expensive operation, and at present beyond the reach of most farmers in this country. Should it remain so? Without assistance doubtless it will; but might not some plan for that purpose be devised by our Minister of Agriculture? Might not a certain sum be set apart by the legislature to be loaned to farmers who are desirous of draining their land? This plan was adopted in Ireland, where hundreds of acres of waste land have by this means been reclaimed and rendered profitable. Although draining on a large scale cannot, as yet, be undertaken by most of our farmers, unless assisted by Government, it is in the power of almost every one to try it in a small way, if done as recommended by the late venerable Judge Buel, and called by him "Brush