

ormously increased. At 150 pounds of butter per cow annually, it would require an addition of 4,000,000 of cows to make 60,000,000 pounds of butter to match the 60,000,000 pounds of cheese now exported. The land required to support such a herd would preclude the possibility of raising any spare meat or grain. The nation would have all its eggs in one milk pail, which would be no better policy for a nation than for an individual. The present proportion of cows to population cannot be very much increased without disturbing the relation between a necessary variety of industries. Whatever increase the present proportion of cows may safely bear, and whatever increase may grow from bringing more land into a state of improvement, may, it appears to me from every standpoint from which I can view it, safely have their milk turned into butter only so far as may be required to furnish the home demand with all it will take at remunerative rates, and that the rest, if any, would be better turned into cheese for export, at a leading price, than into butter for export at an inferior price.

The Best Dairy Barn in the Dominion.

We lately took a trip to "Prospect Farm," the property of Mr. H. S. Losee, of Norwich, Oxford Co., in company with our artist, for the purpose of sketching his new dairy barn, an illustration of which appears on the first page of this issue. Knowing Mr. Losee to be one of our most successful farmers, and far in advance of the times in his system of husbandry, we were also desirous of hearing the story of his successes, for the purpose of presenting it to our readers, but we are obliged to defer this for our next issue.

The circumstance which gave rise to the conception of the plan of this barn was a change from summer to winter dairying. Mr. Losee has been carrying on a cheese factory for some years, and has attained a high reputation for the excellence of his cheese; but his project now is to divide his herd into two portions, 12 cows dropping their calves in November, and in March 15 cows will come in for the cheese factory. With his winter herd he will conduct a butter dairy, and when the cheese season opens he will utilize the milk of all his cows in the manufacture of cheese. We had a somewhat vociferous discussion with the genial proprietor of "Prospect Farm" concerning the breeds he should use for his complex purposes, ending in a final decision to be given on some future occasion.

Having enjoyed the family hospitalities, our next treat was to take a survey of the barn with all its original features. Our entertainer first explained to us that he had examined many plans, but found none reliable for his purposes, and that the designs originated with himself. We had to confess that in all our travels, both in Canada and the United States, we had seen nothing like it or to be compared with it. He explained how it was impossible for the structure to give or sag in any shape or manner, that the basement floors and walls being lined with Portland cement, there was scarcely a limit to their durability, that the double boarding above the cemented walls of the stables, with the double sash windows, insured effectual

warmth, and that the timbers and the liberal coatings of paint gave correspondence to the whole structure in point of durability.

"How much did this barn cost?" inquired we.

"Upwards of \$3,000," was the reply.

We felt astonished as we thought of the utility of presenting such an expensive structure to our readers. It struck us that it was altogether too far ahead of the times for the average farmer, and that all our labor and expense in getting up the illustration would be in vain. We then inquired if the barn could not be built for much less money.

"Yes," said he; "I intend to cheapen it by expending another \$1,000 in its completion."

This is Mr. Losee's characteristic way of making money; but for those farmers who cannot fathom these mysteries, let us add that, if posterity is to look after itself, no farmer who needs a building and can raise \$2,000, can afford to be without a barn constructed on this plan. We were then asked to criticise the structure.

"We came to learn, not to criticise," said we.

However, upon being pressed, we said: "We see a mistake in the construction of your stables, which, although it may not be a serious one in your case, is a matter of vital importance to the average farmer. With your underdrained farm and your inexhaustible source of manure, occasioned by the use of your cheese factory, you have no difficulty in keeping up the fertility of your soil, and you can therefore afford to put less value on your manure heap than many other farmers. From your system of high feeding, your farmyard manure is very valuable, but the arrangement of your stables is not calculated to preserve it efficiently. You are, of course, aware of the importance of thoroughly mixing the cow and horse manure, but your contrivance makes it difficult to do so, having to wheel the horse manure through the cow stable, and in order to save this labor we observe that you have a separate yard for your horse manure. We think that your tank and gutter arrangement is expensive and calculated to create unnecessary labor. In order to get sufficient drop for the urine to flow into the tank, the gutter is uncomfortably low at the cistern end. You intend to build a shed to protect the manure; but this can only be profitably done when the heap is saturated with the urine. You have clay and muck beds within easy reach of your barn, and could easily use dry clay as an absorbent for the manure intended for your muck soils, using dry muck as absorbent for your clay soils; thus more than doubling the value of your dunghill. Instead of the tank you should have a small basement under the stable large enough to back a sleigh or wagon into, and a trapway could be made at the end of the gutter, through which the manure could fall into the sleigh, and spread on the field as fast as made. You say you have doubled the productive capacity of your soil by thorough drainage; you could almost treble the yield by manipulating the manure in the manner we have mentioned."

Mr. Losee acquiesced in these observations, remarking that he felt disposed to give the system a trial.

How to make good milkers—Treat your cows kindly, liberally and gently.

Garden and Orchard.

Our Native Evergreens.

(Continued.)

BY HORTUS.

We think the hemlock (*Tsuga Canadensis*) the most beautiful and graceful tree in the whole evergreen family, not excepting the unique and interesting half-hardy varieties of evergreens introduced from foreign climes. As a single specimen on a lawn it is always an object of admiration. Its color, a pleasing dark green, forms an effective contrast to deciduous trees in foliage, or when dotted on the hill-sides in winter amongst the grey barked beech or the silver birch. It forms the handsomest of all evergreen hedges, easily kept in any desired form by the use of the shears or pruning knife. No evergreen can be more suitable for growing and training into any grotesque shape or pleasing conceit than the native hemlock. This tree loves to grow in cool, damp soils, on shady side of hills, mixed with other trees, for it thrives in company. It is particularly suitable for planting in cemeteries, and in such positions may be trimmed in an upright pyramidal form, to take the place of the Irish juniper, which is not quite hardy enough to thrive well in Canada unless specially cared for. The foliage and bark of the tree emits a pleasing balsamic fragrance; while the bark is useful for tanning purposes. The wood of the hemlock is very durable and largely used for railroad ties. Persons desirous of forming ornamental plantations and decorating home grounds, are recommended to use plenty of the hemlock for such objects.

While praising the hemlock so highly, we cannot say enough in praise of our native white spruce (*Picea alba*). It is an exceedingly ornamental tree, also growing erect and very uniform; tapering from a broad base to the past season's single growth, it forms in any position one of the most pleasing trees in the whole evergreen family. Like the hemlock, it may be kept back in its growth and allowed to extend its dimensions only at the will of the grower. Its color is of an attractive silver-grey green. It grows plentifully in the woods in the company of balsam, fir, cedars, etc., and is very easily transplanted. The balsam spruce or fir (*Abies balsamea*) makes up the principal group of pines and spruces, and like all of them, cannot be overpraised. This tree is a northern tree proper, not thriving or growing near so well much further south, while it may be found as far north as vegetation extends. While the timber is not of particular value, it is still very useful for poles and posts for small buildings. In habit it grows very erect, forming a pyramidal tree of graceful proportions. It well deserves a place in all plantings, and is adapted for planting in shelter belts, as are all evergreens.

For wind-breaks and shelter-belts our whole collection of native evergreens is invaluable, and for this purpose no particular classification or arrangement is needed, as they all thrive well together, and the soil suitable for a pine to grow luxuriantly will be found equally adapted to produce stately spruce or fir trees, while our native white cedar (*Thuja occidentalis*) will raise its dense evergreen pointed