



The Dairy.

Cheese Factories.

To the Editor of THE CANADA FARMER:

SIR, - I promised in a former communication, some remarks on the cheese factories, as they are termed, in the State of New York. In doing so I must confine myself to the general principles involved in the system, more particularly as compared with private dairies; for to enter on the minutiae of practice, would require much space, even if I thought myself competent to the task.

In my recent trip to the States I had an opportunity of visiting several cheese factories in the counties of Oneida and Otsego, and a few of the best private dairies in the county of Herkimer; in the latter, American cheese making may be said to have originated, as a special branch of agriculture. Herkimer cheese has long been celebrated for excellence of quality, and in no other part of the State have private dairies to such superiority and systematic management. It was not in this county, however, that this factory system took its rise, and private dairies still prevail almost exclusively. Herkimer cheese continues to command the highest prices, from the peculiar excellence of its herds and pastures, and the great pains bestowed on this department of rural economy. I was told, however, by some of the best dairymen, that if the factory system was thoroughly introduced, they had little doubt that in time it would be generally accepted.

About twelve years since Mr. Williams, of Oneida county, conceived the idea of applying the principle of co-operation and division of labour, which has proved so eminently successful in manufacturing pursuits, to the department of the dairy, and he succeeded in persuading a number of neighbouring farmers to send their milk to a common depot, where the whole might be converted into cheese upon more economical and systematical principles than the best regulated private dairies could command. This was the first cheese factory established in the States, and it is now said that the county of Oneida alone, has about forty of such establishments, the number of cows to each varying from three hundred to one thousand. In other counties the system has made a great advance, and I am told that it is attracting attention in the different States, where the dairy forms a prominent feature of their agriculture.

Now what are the principles and advantages involved in these cheese factories? First, there are the usual benefits arising from associated capital and labour on a definite plan; and it is maintained that a better and cheaper article, far more uniform in quality, is made in this way, than can be produced in small private dairies. Cheese making is a delicate, I may almost say scientific operation, requiring a room or building properly situated and arranged, with the most approved apparatus and appliances, with no small amount of experience and skill to conduct the operations with economy and success. Now it is manifest that in most private dairies, even of the best description, some of these conditions will be occasionally absent. Sickness, difficulty of getting sufficient and reliable help, the necessity sometimes occurring for withdrawing attention and labour from the dairy, to special emergencies of the farm; these and other defects incidental to private establishments, the factory system, in a great measure, remedies. It has been found, too, in the dairy districts of N. Y., that the constant labour and care imposed on females have most injuriously affected their health. Some of the operations involved in cheese making require the strength of men, but in ordinary farm dairies they are usually imposed on women, to their evident discomfort and detriment. Now, upon the modern plan, some half dozen persons of both sexes are capable of making into cheese the milk of a thousand cows, thus

relieving the female portion of the farmers' family from what is not unfrequently felt to be exhaustive and injurious labour.

Cheese factory associations may be organized by ten, twenty, or more farmers, according to the number of cows kept by each, living within a convenient distance of each other. It is usual for some one or more to erect the necessary building, and furnish the utensils and hands to carry on the operation of making the cheese at a fixed rate. That rate is one cent a pound; an amount which, in the present state of American finances, and the much increased price of cheese, is thought to be insufficient. The whey usually belongs to owners of the factory, and is fed to pigs and occasionally to cows. Farmers connected with the factory send in their milk at regular hours, morning and evening, which is either measured or weighed, and the result carefully entered into a book. Sometimes one or two persons will contract with the rest to deliver all the milk at a fixed rate. The milk from the different dairies is put in one or more vats, and a board of directors or committee, appointed by the members, decide at regular intervals from the returns of milk, and the amount of cheese obtained, the proportion belonging to each. The cheese, after attaining to sufficient ripeness, is sold by the directors to the agents of wholesale dealers, and the amount paid to each member. Dealers prefer factory cheese to that of private dairies, as they consider it on the whole to be of better and more uniform quality, and therefore offer a higher price. Besides both time and expense are saved to dealers or their agents, in purchasing large quantities at factories, instead of having to visit a great number of private dairies, or attend different and distant markets. These are some of the principal advantages of the factory system, which is steadily, if not rapidly, making its way in the dairy districts.

The only objections which I heard may be summarily stated. A common one, so often applied against all improvements, a disinclination to change old ways and habits. This, however, does not appear to apply to the American people in any thing like the same degree as it does to the older countries of Europe. The milk of some dairies may be above or below the ordinary standard, arising from differences in pasture, breeds of cows, &c. And in some instances the milk may arrive at the factory tainted or too far acidified, from want of proper cleanliness in the utensils in which it is conveyed. In other cases, which are but rare, it is believed actual adulteration has been made by adding water, &c.; matters not always admitting of ready detection. Of course such milk affects injuriously the common stock, both as to the quantity and quality of the cheese which it yields, and gives rise to feelings and disputes not in harmony with the well working of the institution. It is difficult to see how some of these objections can be fully met, but by excluding persons from the factory who willfully commit fraud, or disregard those salutary conditions so essential to the welfare of the whole body of stockholders. I am inclined to think, however, that in practice these difficulties but rarely occur. The Superintendent of the works has every motive to use his best energies for the interests of the Association, his professional character and the status of his establishment very materially depend upon the value of the article produced.

It is stated that cheese making cannot be advantageously carried on as a specialty in factories, with less than 400 cows; I found many of them with from five to seven and eight hundred. The expense of making cheese diminishes somewhat in proportion to the increase of the amount of business. The buildings need not be expensive; they are made of wood in the ordinary way of farm structures. I saw none with basements—underground places are not considered favourable for curing cheese. The vats most approved are those made by Ralph, & Co., Utica, which admit the uniform warming of the milk with an extraordinary small quantity of fuel. The presses which I saw, were of the simplest character, consisting of a short iron screw, with wooden frame and platform. A copious supply of pure spring water must be regarded as one of the essential conditions of a factory site; and a running stream is preferable to a well. The buildings and necessary utensils for a dairy consisting of five or six hundred cows, might probably be erected for about ten or twelve hundred dollars.

The question arises could cheese factories be profitably introduced into Canada? Without attempting a dogmatical decision, I may express myself favourable to the affirmative. In some of the central and eastern parts of Canada, where the soil is naturally adapted to grass and grazing, and where cheese is to some extent already made, the system is certainly entitled to full and favourable consideration. We have a few excellent private dairies on a pretty large scale in the Province, that produce a good article, but on the whole but little can be said in favour

either of the quantity or the quality of our cheese. Instead of being importers of this article there appears no good reason why we should not be extensive exporters. It is to be hoped that such of our farmers as may be favourably situated for carrying out this enterprise, will give it an earnest and impartial consideration.

I must draw to a close this, perhaps already too long an epistle, by observing that after passing through parts of the States of New York, Jersey, Delaware, Maryland, and Pennsylvania, I returned with a deep impression of the vast resources of this portion of the American Union. In each of these States are to be seen farms and gardens that will not unfavourably compare with the best portions of Europe. The material progress has been truly wonderful. Let us hope and pray for a speedy and enduring peace, and that a people so abundantly blessed by Providence, may enter upon a new and uninterrupted career of prosperity and happiness.

Yours truly,

GEO. BUCKLAND.

University College, Sept. 21, 1864.

Sheep Husbandry.

The Shepherd's Dog.

In all mountain sheep farms the shepherd's dog acts a very prominent part, and especially on the rocky mountains of Cumberland, where travelling is difficult at all times, even to the ironshod shepherd, but most so in frost and snow, when hundreds of acres which the shepherd ought daily to inspect, may be so slippery and dangerous as to greatly limit his excursions. Though at all times the dog's services are indispensable, on such emergencies he will sometimes do the work of twenty persons in patiently bringing down sheep from places almost inaccessible to man under any condition.

The Cumberland sheep-dog is in no way deficient in intelligence and sagacity, but may compete with his compeers of any country, and though the selling price of a dog of ordinary qualifications does not range higher than 20s. to 40s., there are many shepherds who would make any sacrifice short of life rather than part with a good dog at any price. One or more sheep, and even a cow, have been offered and refused. In fact, first-rate sheep-dogs are not to be bought. They may be reared or bought young, and may turn out well, but no shepherd of standing will dispose of his favourite on any terms; even when broken down by adversity, the dog is the last chattel the storms of life compel a feeling man to part with, and then not without evident sorrow. Well might a popular writer say—"Without the shepherd's dog the mountainous land in England and Scotland would not be worth a sixpence." It would require more hands to manage a flock of sheep, gather them from the hills, force them into houses and folds and drive them to market, than the profits of the whole would be capable of maintaining. And though this may be more true as regards the wild and headstrong black-faced sheep of the Scottish mountains, it is also correct as applied to our own; and most of the difficulties of gathering and driving will vanish in the presence of a really good dog. The sheep seem to know, as if by instinct, before they have been many minutes under the charge of such a dog, that all their efforts to break away are fruitless, let the flock be ever so wild and numerous, or the field of operations ever so rugged and unfavourable. It is surprising to observe what cunning a drove of pure Herdwicks will sometimes exhibit in their efforts to baffle an ill-trained dog.

While the driving or gathering ground is favourable to the dog, all goes on well enough; but no sooner do the wily creatures discover a suitable opportunity than perhaps one or two break off on one side, and while the dog attempts to head them, others steal away in different directions on the other side; while the dog attends to them, the mischief increases, and nearly the whole flock will disperse, to the utter discomfort and amazement of the dog; but, if at this juncture the tactics of a clever dog are brought to bear on the flock, in an astonishing short period the whole of them will be subdued and brought into order, and may be driven without difficulty so long as the master spirit is within call. Some dogs have the faculty of discovering sheep when buried to a considerable depth under the snow, as happens occasionally. A dog possessed of this quality is of immediate value, equal to the amount of sheep he releases or marks. A single dog has been known to point out unerringly the locality of many scores of drifted sheep in a day, even when several of them were at a depth below the reach of the shepherd's snow-pole.—*English Agricultural Journal.*