Stock and Dairy.

Dairymen's Convention.

Prof. Bell, said the subject he had chosen for discussion was "Canada in the Dairy and in the Market," and which, he said, was of the greatest importance both for Englishman and Canadians. He referred to the steady increase in the manufacture of cheese in the Province, and gave some statistics as to the quantity of cheese made, and the number of factories in operation, and also the quantity shipped, which he said was largely in excess of last year, the estimated value of the whole product for 1874 being over $3,000,000, The Prof. also alluded to the amount which the English market could receive before it would be overstocked, and placed the figures at about 600,000,000 lbs. There was also a quantity of cheese shipped from other countries to the English market, which were imported into that market more as a luxury than for their good qualities. He then gave a description of the different kinds of cheese imported from foreign countries, which were mostly of an inferior quality to the Canadian and American makes. The Canadian cheese had already attained a position in the British market profitable both for the consumer and the manufacturer; and in order to gain a still higher position, Canadians should strive to improve their dairies. He then addressed himself more particularly to the patron, as it was with him the great secret of successful cheese making lay. He referred to the different breeds of cattle, and mentioned the Shorthorns and Ayrshires, and more particularly the latter, as the best for dairy purposes—both the pure breed and the cross with the Canadian cattle, and which were very easily kept. He referred to the management of cows. If cows receive proper treatment, they would amply repay the patron for any extra trouble in the quality of the milk. He also referred to the quality of food that cows should have, and the patrons should see that they had a full quantity of food, and of a wholesome quality. And not only should their food be particularly looked after, but the cows seould not be allowed to drink out of filthy or stagnant pools. The reputation of a factory has often been destroyed by a patron allowing his cows free access to filthy water, thereby tainting the milk, which, when put into a vat with good pure milk, would have a tendency to effect the whole. Cows should also be comfortably housed during the winter months, and when weather permitted to allow them plenty of exercise. The proper treatment of cows was essential for the production of a first-class dairy. The Prof. cautioned farmers strongly not to draw milk from an unhealthy cow. Cases of sickness were often known to arise from cheese being eaten that was made of milk that was drawn from a cow that was unhealthy. He also referred to a habit patrons had of skimming a certain portion of the milk before sending it to the factory, for the purpose of making butter. This was dishonest, and it was reducing the quality of the cheese. If patrons wish to make butter as well as supply the factories with milk, they should keep an extra number of cows for that purpose; but by all means be honest in the milk sent to the factory. Another means of injuring the quality of cheese manufactured, and not unfrequently resorted to, was the habit some factories had of seeing how much cheese could be manufactured, out of a certain quantity of milk.

The cheese thus manufactured would necessarily be of an inferior quality, and would bring a lower price, which certainly would not rebound to the credit of the factory

The question of drawing milk to the factory oncs or twice a day was discussed, and the twice a day plan advocated on the ground that milk can be better taken care of at the factory than at the farmhouse, and also because if the milk is kept over night cream arises on it, and there is a very strong temptation to remove the cream and so impoverish the milk the only argument for once a day delivered is the saving of expense. The improvement of pasture-land was then urged and a variety of directions given to secure the result. Whether it is the better plan for the dairy farmer to raise his own milch cows or to buy them was discussed, there were circumstances under which the one plan was preferrable, and those under which the other was best. The establishment of large breeding farm, for a supply of dairy stock was advocated. Some objections to the cheese factory system were adverted to, such as a scarsity of butter and high price of butchers' meat. Taking up the second objection first, the cattle farms recommended would do much to provide a better meat supply, and in regard to the latter butter as well as cheese ought to be made at cheese factories. There was considerable butter in whey, which on the present system was lost. There was no reason why a large trade should not be done in butter as well as cheese Another neglected element in milk was the sugar it contained.—It differed from cane or common sugar, was of medical value, and in England sold at eight shillings, ($2) a pound. It was desirable that experiment be made in this direction. In conclusion, thoroughness in everything connected with the cheese business was urgently insisted on as essential to high success.

The proceedings of the meeting were interesting throughout, and we regret te be compelled by the pressure of other matter to postpone till our next issue the remainder of our report. Corn fodder for milch cows; the size of cheese that will command the best price, in the English market; the coloring of cheese were among the subjects of discussion. These and abridged reports of the other addresses delivered we must postpone.

The Premium Factory Butter—Where and How Made.

At the late Central New York Fair the first premium on creamery butter was awarded to the Cold Spring Creamery, East Hamilton, Madison Co., N.Y. About the middle of September we visited the Cold Spring factory, and it may be of interest to our readers to learn how the butter is made at this factory. The factory is a small one, 28 x 30 feet, taking the milk of only 90 cows. There are nine patrons, and milk is delivered morning and evening, the most distant patron living about one-half mile from the factory. East Hamilton is situate on the east branch of the Chenango River, in a charming valley, with lofty hills on either side. The pasturage is sweet and nutritious, and there is an abundance of clear spring water. This section has all the elements for producing choice butter. The farms are mostly small, ranging from 50 to 100 acres, and the farmers are neat and thrifty, being mostly descendants of New England stock.

PLAN OF SETTING THE MILK.

The Jewett pans are used at the Cold Spring Spring Creamery. The size of the pans are 11 x 4 feet, six inches deep, and four pans complete the set. The pans are of the ordinary size for 150 cows, but the manager of the Cold Spring factory thinks they are not too large for 100 cows. The milk is set four inches deep in the pans.

In order to adapt the pans to variation in quantity of milk received, the pans are divided lengthwise with a partition of tin. This, we think, is objectionable when both sections of the pan are used, since the temperature of the milk cannot be readily regulated. The milk during summer is held in the pans until it is 24 or 26 hours' old, and is generally allowed to sour. When the milk begins to lopper at the bottom, and the cream is wrinkled, it is skimmed. The pans stand with one end butted against the wall, and at this end are the pipes for admitting the flow of water under the milk. The temperature of the water in the spring is 56°, and it is desired to keep the milk at about 60° while the cream is rising. This temperature, Mr. Holmes, the manufacturer, says, cannot be maintained during the hottest weather in summer, since the milk-room, being above ground, and constructed with thin walls, gets heated up, while the large surface of the milk spread over the pans absorbs the heat from the room rapidly, and thus the milk is made several degrees warmer than is desired. In the spring and fall, or during cool weather, a coal stove in the room regulates the temperature, so that the milk stands very uniformly at 60°.

CHURNING.

The churning is done every morning, Sundays excepted, the Saturday's cream being churned Saturday night. The dash churn is used, barrel and a half size, and it is operated by horse power. Mr. Holmes thinks no churn equal to the dash for making a nice grained butter. During the hottest weather the cream in the churn is tempered to 58°; but at the time of our visit, the 17th of September, the temperature of the cream, when the churns were started, was 60°. About an hour is occupied in churning, and when the butter begins to come the motion is deadened, or made slower, and four quarts of cold spring water is added to each churn. Enough water is added so as to raise the liquid mass to cover the dash, to prevent it striking the cream. Then, just as soon as the butter is formed, the churns are detached from the power, and the butter gathered by hand.

The buttermilk is now drained off, and the butter thrown into a large tub with cold spring water, where it is washed by working it gently with the ladle. Washing in two waters thoroughly expels the buttermilk, when it is immediately salted, at the rate of three-quarters of an ounce of salt to the pound of butter.

THE SALT WEIGHER.

Mr. Holmes has a very handy implement for butter-makers, which may be denominated the "butter and salt scales." It is simply a pair of scales so arranged that by placing the butter in a bowl on a standard, and by adding salt to the dish on the end of the scale-yard until the scales are balanced, you get the exact quantity of salt required for the lump of butter. It is arranged so that the scales may be set for salting at the rate of from a quarter ounce to 1½ ounces of salt to the pound of butter. It is a simple and cheap affair, and should be in the hands of every butter maker, as it saves time and trouble in weighing and calculating the amount of salt for a given weight of butter.

The salt is worked through the butter while in the washing tub, the ladle being used for that purpose, when the butter is removed to the cooling vat, or where the vessel holding it may be surrounded with cold spring water, and it remains there until next morning, when it is thrown upon the butter-worker and worked over, and then goes to the packages. The butter is put up in return butter pails, and goes to New York city, and the price received at the factory is two cents less per pound than the highest quotations for fancy butter in New York city.

BUTTER FROM A GIVEN QUANTITY OF MILK.

During the summer, under the system above described, 100 pounds of milk yield four pounds of butter; but as the season advances a pound of butter is obtained from a less quantity of milk. At the time of our visit the ratio was one pound of butter from 23 of milk.

SOUR MILK.

The sour milk is taken away daily by the patrons, and fed to hogs and calves. A question of considerable importance in discussing the relative profits from cheese or butter-making is the value of sour milk for feeding purposes. We endeavored to get the views of the patrons of the Cold Spring factory, inasmuch as the question has been fully tested in their practice. Some put the value of sour milk at 20c. per 100 pounds; and indeed we were informed that at the Union Creamery that price was freely paid by patrons who had occasion to need sour milk for feeding purposes. On the other hand, Mr B. C. Ackley, an intelligent farmer, who had kept a pretty accurate account of the value of sour milk for feeding purposes, said 100 pounds were worth about 15c., either as a feed for calves or hogs during ordinary years. In this connection we may remark that Mr. Ackley was raising some very fine calves which had been fed, and were being fed at the time of our visit, on sour milk. The milk was quite thick, or loppered, and the calves seemed to enjoy it in this state.

TEST OF BUTTER AT THE FACTORY.

We tested some of the packages of butter at the factory, and found it of excellent flavor and quality. It may be remarked here that, considering the fine sweet feed on which the cows are kept, the abundance of pure, cool spring water, the small herds, the neat farms and their surroundings, the short distance over which the milk was hauled to the factory, we are not surprised at the award of the first prize at the great fair in Central New York.—*Rural New Yorker.*

The Dairy.

The variations in the yield of milch cows are caused more by the variations in the nutritive element of their food than by a change of the form in which it is given. "A cow kept through the winter on mere straw," says a practical writer on this subject, "will cease to give milk; and, when fed in spring on green forage, will give a fair quantity of milk. But she owes the cessation and restoration of the secretion to respectively the diminution and the increase of her nourishment, and not at all to the form, or of outward substance, in