The Dairy.

Cheddar Cheese in Canada.

EDITOR CANADA FARMER :—I desire through the medium of your valuable paper to bring before the notice of the Dairy interest a few facts concerning Cheddar cheese as manufactured in English dairies and factories, and endeavor to show that, as a system, it would become profitable to those who may adopt it in your enterprising Canadian Dominion.

Those who have at any time perused the great standard work on associated dairying, "Practical Dairy Husbandry" by the Hon. X. A. Willard, will remember the importance he attaches to the Cheddar system, as he found it at the residence of my father-in-law, Mr Joseph Harding, of the Vale Farm, Marksbury, Somerset, and other English dairies. And the cheese show at France, Somerset, last autumn, completely outstripping as it did, those of former years in the fine quality of dairy goods exhibited, only added one more grand proof to the already established fact, that for fine texture, mild, mellow flavor, and great keeping quality, the Cheddar cheese is surpassed by none, and equalled by very few, if any.

When the first factories were erected in England, they were run on what is here known as the "American" system, its principles being those which Mr. Willard advocates in the work above mentioned, and it was not until 1874 that the first successful season at the Mickleaver Factory, Derbyshire, under my brother-in-law, Mr. Henry Harding, brought to light the fact that, by following out the essential principles of the Cheddar system, modified to suit the alteration of circumstances, an article equal to the average private dairy produce could be made in these establishments.. During that season Mr. Harding made cheese at Mickleaver on the same principles which had made the Cheddars of Marksbury famous, and, exhibiting at the Derby Agricultural Show, he carried off the first prize of £10 or $48. Then another factory was built at Etwall, about two miles distant, and the old one which was inconvenient, being an old school house fitted up, was abandoned, the new establishment being run by Mr. Harding till the close of last season, when he left England to inaugurate the system in Australia. Early in the same year a factory was built at Brailsford, about 7 miles distant from Etwall and Derby, the best building in all respects of its class in England, and capable, with a little alteration, of running the milk of 1000 cows: and in this I made cheese and whey butter from June 25th to December 4th, with success. I may here say that the Etwall and Brailsford factories are the only ones in which the Cheddar cheese is made as yet. The standard price given for milk was 13 cents per 10 lbs., and if, after expenses had been subtracted from receipts, there remained a balance in hand, this was to be divided pro rata among the patrons, a committee of seven having the control of affairs. As the balance sheet has not yet been published, whether or not such a balance exists, I cannot say. The cheese produced sold at 16 cents per lb. in September, and 15¼ cents in November, when quotations had considerably fallen. In the manufacture of whey butter we were especially successful, turning out an article which realised prices gradually rising from 24 cents to 40 cents per lb, 10 cents in advance of the prices gained by any other factory; and toward the close of the season, within 2 cents per lb. of the best milk butter sold in Derby market. Now, it is well known here that under the American system, as pursued in various English factories, this fine quality of butter cannot be produced, as the whey is to a certain extent spoiled in the process of cheese making. Whether or not this is the case in Canada I am not aware, but I have an idea that the manufacture of whey butter in your factories is not supposed to pay well.

But, while I hold out the great advantages to be derived from the adoption of the Cheddar system, I must fairly state also its disadvantages. First among these comes the fact that we do not produce quite as much weight of curd per gallon of milk as the American makers, the reason of which is that the latter leave a greater amount of whey in their curd than Cheddar makers, and consequently, in that case, the American dairymen have an advantage over us as far as concerns weight and money. But this objection is compensated for by the keeping quality, as will presently be seen. The effect of the whey remaining in the one class, and being separated in the other, is marked throughout. The cheese of American make, from which, as I said, the whey is not thoroughly separated, developes acidity much more rapidly while in the vat, cures in from 30 to 50 days, and in from 3 to 6 months after, has lost its original mildness and acquired a sharp, stingy taste; while the Cheddars require from 40 to 65 days to ripen and afterward retain their pleasant mild flavor for a period of from eighteen months to two years. Now it is evident that if on the one hand there exists the first objection, that less curd is produced by the Cheddar method than the American, and the second disadvantage of a longer time for curing, with the attendant need of more spacious curing rooms, and more turning (which latter form the remaining objections), there are also the advantages of a high priced article, and no risk in keeping, on account of overgorged markets which brought the dairymen of America such serious losses last year.

Having resided in Canada, I can confidently assert that the climatic influences would be rather in favor of the successful carrying out of the Cheddar principles. The clear air of your healthy country, together with your superior arrangements for cooling the milk on the homestead, would, without doubt, remove the risks which their absence would cause. I do not look for the general adoption of the system in Canada, as there are various classes of consumers, all of whose tastes must be provided for; but I am satisfied that, in very many cases, the introduction of the Cheddar make would bring good returns.

I cannot at this time go into a description of the system itself, but must leave that for a future number, trusting that the readers of the "Dairy" section of the CANADA FARMER will give the subject the consideration it deserves.

Brailsford, Derby, England JNO. OLIVER.

Drying off Cows.

Col. S. D. Harris, in the *Country Gentleman*, files his objection to the usual method. When the milk shrinks so as not to fill the bag once a day or once in two days, people as a rule think it safe to neglect it and leave the cow to go dry. Upon this question Mr. Harris says:

The little milk which is secreted must be taken away, or it will work mischief in the organs of the udder, too serious to be overlooked by the careful dairyman. It is one of the processes of nature that when matter of this kind is deposited (unless it be in large quantity), it must be soon removed, or it is reabsorbed into the system; and when matter is once perfected, as in the case of milk, it is no longer congenial to the system, and if not taken away, it becomes a deleterious element for reabsorption, poisoning instead of feeding the animal.

Thus you will find in the udders of cows thus affected, hard lumps near the base of the teats, which are caused by the solidification of putrid milk, left there in drying up the cow the season before, and the cow will never get over it; but when these organs encounter any difficulty in the season of flush milk, this lump will be the nucleus of inflammation, just like a thief who is already secreted in a house, ready to help another who is to break in from the outside. To be free from all such troubles, the cows should be carefully watched for weeks and months after the regular milking is stopped, and the teats tried to see if there is milk to be taken away. This operation should be performed at irregular intervals, so as not to invite a regular secretion of milk, until the milk vessels cease to lead anything in that direction.

Glistening Butter.

Miss M. says the editor of the Berkshire *Eagle*, is the best butter maker in Massachusetts. That is her father's assertion, and I can vouch for it.

"Take some butter," said the farmer. "M. makes the best butter in the country."

I took some. The roll showed care, and glistened like glass, and tasted beautifully.

"What do they pay for butter in your place?" asked the lady, in monotone.

"I think 28 and 30 cents."

"Wal," said the farmer, "I git 40 cents. I've got an agreement with two families in your place, to furnish each 20 pounds of butter a week, for five years, at 40 cents a pound.

"Change in the market does not affect us," remarked the damsel, slowly speaking.

"Yer see that glaze on that butter?" said the farmer proudly "That's what sells it. Your big folks like that shine I never see any, only my butter that was glazed."

"How is that done?" I asked.

"Well," said the lady, "I am not adverse to telling, now that we've made this five years' agreement. Formerly my success was a mystery, but now I don't mind telling."

I always find it good policy to flatter old maids, and so I expressed a desire to know how she made and glazed her butter. The truth is, I was not highly interested, but—it is excellent to hear the discourse of a real old maid, you know!

"I go by rule," she said artlessly fingering a bean. "My milk I set just two inches deep; my cream I skim the third day; I churn Friday; my cream is just so hot. In five minutes it comes, I then sponge out the buttermilk. It stands in the bowl till night. I then make it into balls and stamp them. They are spread in rows on a wire-cloth shelf—and are done. I have usually twenty-five pounds at a time. I then glaze each ball, as you see this one is, to polish them.

"The way to do it, is this; I take a pint of water, and dissolve in it a teaspoonful of sugar. I have this hot. My butter is on a wire shelving. Then I turn it on each ball. When it touches the butter it just melts the outside, and when it cools it is just icy."

She talked by jerks, and very fast. This is the first I have heard of "glazed butter," and when I saw the glassy polish on the rolls, I resolved they were worth forty cents.

Milking Kicking Cows.

Judging from the numerous plans which we from time to time see recommended in the agricultural papers, for milking kicking cows, the class must be numerous. A cow that is a kicker is apt to be a good one, and if so, every effort should be made to reform her. I never owned but one cow that was an inveterate kicker, and have tried the various remedies which I have seen recommended with the following results:

Remedy No. 1.—"Tie up the fore foot of the cow on the milking side, and when she attempts to kick, she will fall down and soon become disgusted and abandon the habit." I have tried this remedy thoroughly and pronounce it worthless A cow can balance herself upon two legs and kick just as well as a man can when standing upon one leg. The "falling down" part, if it occurred, would prove to be nearly as bad as the original vice.

Remedy No. 2.—"Tie a rope or strap around the cow's body, immediately in front of the bag and extending over the flank and loins. If you cannot tie or girt it tight enough, put in a twister, and the cow will stand." The inhumanity of this remedy should be sufficient to prevent its adoption. But it is not effectual, unless the girth be twisted tight enough to paralyze the nerves and destroy the sense of feeling I have seen cows made almost frantic in attempting to apply this remedy. I never attempted it myself but once.

Remedy No. 3.—"Tie both hind legs together as closely as possible, just above the hock joints." This remedy has the advantage of throwing the bag well forward in convenient position for milking. It will also prove effectual in most cases But my cow when she found she could not kick with one foot at a time, fell to kicking with both feet at once, sending her heels high in the air, equal almost to a horse. This plan did not answer for her.

Remedy No 4.—"Chain the cow by the neck to the manger, if in the stable, or to the fence if without, so that the side of the animal opposite the milker will be supported by the fence or wall, as the case may be. Then take a strong rope, five or six yards long, double it and noose it in the centre around the hind leg upon the milking side just above the fetlock joint. Then pass the other end of the rope through a ring or staple in the wall, or the bottom post hole in the fence, draw the leg back to the desired position and fasten the rope over the top of the post, or on a hook in the wall on a line with the cow's back. I have found this plan to be both *safe* and *effectual*. The cow will not resist after two or three applications. My cow, as soon as the rope is around her leg, puts herself in position and stands contentedly chewing her cud while the operation of milking is performed. This remedy has the merits of simplicity, safety and efficiency. Try it.—*Cor. Practical Farmer.*

EXTRACT OF RENNET.—In a recent number of the *Milch Zeitung* it is stated that this extract is now so prepared that it is perfectly pure, and will keep for years. Its purity insures perfect freedom from danger of bad cheeses originating in the use of bad rennets. The extract can be made of any desired strength, and the operator can have any desired relation between the time of coagulation, the temperature at which the coagulation shall take place, and the quantity of extract used; for example, a quart of milk can be coagulated in 20 minutes at a temperature of 85°, or 25 minutes at 86°. The extract can be used with equal convenience with large or small quantities of milk. At one factory in France this extract has been in use for 10 years. In Copenhagen one firm worked up, last spring, over 20,000 rennets, and sent each month from 2,000 to 3,000 quart bottles of the extract to Denmark and Sweden. It is prepared in both the liquid and solid form, but the former is generally preferred.