DAIRY.

Fleecing the Dairy Farmer.

Practically single-handed, for a quarter of a century the FARMER'S ADVOCATE has resisted and exposed an endless number of schemes designed to fleece the farming public. When the movement in favor of improved butter dairying set in, occasion was taken to caution persons against starting creameries without a certainty of a sufficient supply of milk within a reasonably limited area, and without exercising the greatest possible care in the selection of plans and plant. It is no secret that there are probably a thousand creameries in the United States, which have actually cost double what would have yielded the conscienceless concerns supplying the outfits a reasonably large margin of profit. Not a few of them are to-day standing idle for lack of milk, and some have been "mysteriously burned down." We have in the past published plans and given estimates of the cost of plant and building under reasonable conditions, and at the experimental dairy stations established in the different Canadian provinces practical information as to every detail can be obtained. Reliable men who have been in the business in Canada for years are always ready to impart to beginners the benefit of their experience, so that when an oily-tongued agent from abroad strikes a district with his grip full of plans and golden statements of prospective profits it would be well to send him about his business and make enquiries nearer home. Usually this is not done. A little mother wit ought to tell any one that these glib-talking travellers are not philanthropists, and that when a couple of "prominent farmers" are invited at "the expense of the company" on a trip of 400 or 500 miles to see a real creamery running, and are wined and dined into the bargain, it is not for their benefit nor for the benefit of their fellow-farmers who are to become shareholders. However, they bring home a glowing report, the stock is taken up with a boom, the agent gets a $5,000 or $6,000 contract signed hard and fast for what ought only to cost $3,000, or when the cow population of the community would not warrant a larger expenditure than that, and then takes his departure for pastures fresh, leaving his victims to fight it out with the collector of the company. It seems necessary to reiterate previous warnings on this subject, in view of the increased attention being given to buttermaking on the factory plan. The essential facts about this business can be got quite near at home, and it can be successfully developed, just as Canadian cheese dairying was, without the application of Chicago hot-house methods. A little common sense is a very good thing on which to lay the foundation of a creamery.

Private Dairying in Manitoba.

BY S. M. BARRE, WINNIPEG, PRESIDENT OF MANITOBA DAIRY ASSOCIATION.

Dairying is taking a larger hold than ever in Manitoba and the Territories. But on account of the sparsely settled condition of the western country the greater part of the products must for years to come be made in private dairies. We should, therefore, make an effort to improve our ways in making and handling dairy butter. The following suggestions will, I trust, prove useful:—

Cleaning the Milk-House.—The first thing to be done at the beginning of the dairy season is the thorough cleaning of the milk-house, and of all utensils connected with the dairy. Take everything out of the milk-house, use plenty of scalding water and lye to clean the shelving and all the wood-work. Whitewash inside and outside, to sweeten the atmosphere and absorb moisture. Use a weak solution of copperas or sulphuric acid to clean the floors. Keep nothing but milk in the milk-house. A vegetable cellar-kitchen is no place for milk and butter. If you have no milk-house partition a corner of your best room, and keep milk in a cool, clean place.

See that the cows get a full supply of succulent food, plenty of pure water and salt at all times of the year, and particularly during the milking season.

Sow a patch of corn, or of oats and peas, for soiling purposes during the hot, troublesome days of summer.

Milking and Cream Separation. The best time to milk is immediately after feeding. Milk *cleanly, regularly, quickly* and *completely*. With less than eight cows use deep or shallow setting. Deep setting without ice or cold water is of no practical use in summer, it is defective in the fall, or at the end of the milking period, and under the above conditions should be superseded by shallow setting. Under proper conditions deep setting is far better than shallow pans in the average dairy farm. Skim before the milk is sour; so soon as the milk begins to turn, the cream has done rising; it is of no use whatever to let it remain any longer on the milk.

The Hand Separator.—With more than eight cows farmers will find it a great advantage to use a cream hand separator. The public was at first prejudiced against its use, because the hand separator was supposed to be hard to turn. This prejudice is now fast disappearing, and we are now in position to safely state that a hand separator can easily be turned by a good-sized boy. In fact, boys prefer turning this separator to milking; they claim it is lighter work. With thirty or forty cows it is best to use a larger machine, and run it with horse gear—a bull, an ox, or a pony could do the work. A tread-power is the best for this purpose, on account of securing more uniformity of speed, but hundreds of *sweep horse powers* are used for the purpose of turning separators, with good results, on the continent of Europe and elsewhere. The separator should be set in a clean, cool, suitable place (it needs no costly building), not too far from the cattle yard or shed. The separator is started about the time milking commences. Both operations are completed about the same time, and the warm, sweet skim-milk is ready for the calves to drink. There are no pans to wash, no cream to skim, no cold water to pump. The whole dairy operation is wonderfully simplified.

Preparing the Cream for the Churn.—The great secret of making sweet, fancy butter lies in churning often, say every day when possible, and at least every second day during hot weather. If the quantity of cream is too limited for churning so often, add new sweet milk to it in order to increase its bulk. The cream should be well mixed and stirred every time a fresh supply is added to the contents of the cream vessel. No new milk or sweet cream should be added to the contents of the cream vessel within ten hours of the time of churning. Keep the cream vessel in a cool, clean, dark place. Bear in mind that separator cream requires to be cooled immediately after separation to a temperature below 60° Fahr.—I like to cool it to 50°. This point should not be overlooked if you wish to avoid difficulties in churning, secure quality and yield of butter. The acidulation of the cream should not be left to chance and circumstances, but be so regulated as to have the cream ready for the churn at a given time. It might begin ten or twelve hours before churning and be accomplished with heat, a ferment, or both, so as to produce the best results. Cream in the right condition for churning should not be too thick nor too sour, the casine shou d be well separated from the fat (this is indicated by the fomentation of small pellets or grains in the liquid), and it should have a mild, clean, sour taste.

Churning, Washing and Packing Butter.—Churn the cream in any kind of revolving or rocking churn at a temperature never above 58° Fahr. in summer, if you wish to obtain quality and quantity of butter. Color when necessary, and always use a thermometer before churning. When butter shows signs of breaking, add a little brine to the contents of the churn to assist separation. When the butter grains are of the size of small shots, before taking out the butter-milk, add water at about 50° during summer in quantity equal to about one-third of the contents of the churn, agitate a little, draw off the diluted liquid, and repeat washing with water at 55° until the water comes clear. Well water is generally the best for washing butter. Let the butter drain a while. Salt at the rate of seven-eighths to an ounce of salt per pound of butter, and work just enough to incorporate the salt with the butter. Let it then stand a few hours in a cool, clean, dark place, and when hard enough rework slightly to make it uniform in color. Beware of over-working; nine-tenths of dairy butter is over-worked. Always use regular butter salt.

Three-quarters of our dairy butter is spoiled by being packed in poor tubs, and people use them because they are cheap. This is a very near-sighted policy. Pack butter solidly in neat mountain spruce tubs, which hold the pickle. Keep the butter submerged in brine so as to exclude the air from it. This can be done by keeping a weight over the butter until the tub is full. Fill the tub up to within three-quarters of an inch of the top, place two layers of butter cloth over it, and fill the remaining space with a thick coat of salt paste. This is done by mixing fine salt with water. Soak the tubs in brine five or six days before using.

How to Tare Butter Tubs.—1st. Weigh the empty tub. 2nd. Weigh again when full. 3rd. Put in the salt cloth, cover and tins, allow an extra half pound of butter for soakage, and then tare. Then your weight will hold out if the butter is not kept too long. Keep butter in a clean, cool, dark place.

We cannot condemn too strongly the evil practice of packing butter, and holding it from summer until fall and winter in foul cellars, or other places unfit for storing butter. Butter is a perishable article anyway, and will not keep long even in a cold storage. I am fully convinced that unless dairy butter is shipped weekly from the farm to some reliable dealer, who could at once place it immediately, all efforts to improve private dariving will prove useless.

Let us, therefore, organize cold storage transportation on our lines of railways; the railway companies are desirous of providing such transportation. Let the farmers and country merchants ship the butter every week. Let this butter be honestly and properly classified, and paid for according to quality. Let it be at once sold and brought into consumption to make room for fresh supplies, and a great step will then have been made in the right direction.

The Future Cheese and Buttermaker.

[Read before the last meeting of the Western Ontario Dairymen's Association, by J. S. Pearce, London, Ont.]

The success or failure of not only the cheese and butter factories, but also the whole dairy industry, depends largely upon the skill and ability of the cheese and buttermakers. A large number of our cheese factories will soon require not only a cheesemaker but also a buttermaker, and the proprietors of such will not employ two separate individuals when one should be fully competent to do the work. It will, therefore, behoove all progressive and intelligent cheesemakers to post themselves thoroughly on both lines of dairy work. To become a competent buttermaker is not nearly so difficult, nor does it require the experience that it does to be an A1 cheesemaker. I want to sound a note of warning both to cheesemakers and those who employ them regarding the proficiency of those who undertake to manage and run a factory. Many of these young men, and sometimes old men, are sadly deficient in knowledge of their business, and this deficiency is encouraged and winked at by those who employ them, because they work for less money than a fully competent man will. These persons will take the risk, for they have nothing to lose. Those who employ this class of makers lose sight of the fact that by so doing they are putting their factory on a par with the medium and second class factories. Cheesemakers and buttermakers may be divided into three classes, viz.: First, those who are striving by every means in their power to make the finest goods, and who are incessantly trying to improve. Men of this class are never content with present attainments, but are anxious and willing to learn from every one. Any intelligent maker will tell you that the more he knows about his work the more he wants to know, and the more he learns about his business the more ignorant he becomes in his own eyes. Second, there is another class of makers who are now making a fairly good article, and seem to think they have reached the top of the ladder, and imagine that if they only make a cheese that will, by hook or crook, pass the inspection of the buyer, they have done their duty. These cheesemakers will wake up some day and find they are being left behind in the race, and will wonder how it is and blame every one but themselves. If you criticise their cheese and try to bring the fact home to them that the trouble is with themselves, they will tell you that their cheese sells for market price, which is sufficient in their eyes. But they forget that if their cheese was up to the best fancy article, the price they would then get would be correspondingly higher. They seem blind to the fact that there is a wide range of both quality and price, from the finest or fancy down to the point where the culling commences. There is one more class of maker, and but few words will be needed to describe his class. It is he who is so utterly lazy and shiftless that he does not seem to care what the result of his labor is. You can tell him by his work and surroundings often before you see him. His days as a cheesemaker are numbered, and I am happy to say that these men are becoming few and far between.

A man or woman in order to be an A1 cheesemaker must possess no ordinary ability and intelligence, and those who reach this point may well feel proud of their position. You may rest assured that there are many makers who never can or will reach this goal. They have not sufficient ability to enable them to get there. But there are scores of others who, if they would only wake up to their opportunities and keep alive and abreast of the times, would soon make great progress. The dairy industry has made some very rapid strides in advance the past two or three years, and we shall soon see other very important changes. Are the makers alive and awake, and watching and preparing for these changes? I often am amazed at the indifference of many makers to what is their own as well as their factory's interests.

And what about the future cheese and buttermakers? Skill is and must become more and more the watchword of the educational movement in all lines of business. There is just as much need of it in the dairy business as in any mechanical or manufacturing work. Skill and brains will be very important requisites in the future cheese and buttermaker, who will have to be an A1 man in more ways than one. He will have to know more than the mere routine of making cheese or butter or even both. These will not be the only requisites that the proprietors of cheese and butter factories will demand. The day is not far distant when a maker, to hold his position, must understand the principles that underlie his practice. He should understand the dairy cow, what she should be fed, how she should be fed, and how she should be cared for, how the milk should be handled before he gets it, as well as how to handle it himself. He should also be able to impart this knowledge to his patrons, and by so doing get them upon a higher plane of intelligence. He should also know and be able to tell all about the milk he is taking in, and know its composition. He should be able to handle the Babcock tester and Quenne Lactometer, and all other dairy appliances. There is a grand field of labor and usefulness in store for those who prepare themselves for work along these lines. How many of our cheese and buttermakers have given this matter any thought, or begun to prepare themselves for this work? For instance, how many of our makers have the tact and judgment to keep on pleasant relations with their patrons, and yet take from them only perfect milk? It is one thing to tell a patron that