

tions, there is strong competition between adjoining factories, milk supplied by patrons living on the border line between two factories, when rejected at one factory, is taken in at another. This creates difficulty, and makes it impossible to get that patron to take proper care of his milk." I have known of many instances of this kind, and if the makers only have backbone enough to stick to the regulation adopted at Woodstock, it will have a wholesome effect on some "straddle of the fence," patrons of cheese and butter factories. Coercion is not always the best method to adopt, but when other methods fail, it becomes a necessity. There is a fine field for a branch of this organization in the Eastern Townships, but I do not expect its principles to find much sympathy with the numerous proprietors of small factories, whose milk supply is so small, and the line between profit and loss drawn so close, that an extra patron or so may mean their financial salvation for that season. However, some plan should readily lend itself to the requirements of the situation in this Province. It is the patron who is not educated up to his part of the business at the present day. Even the patron whose milk is always a source of delight to the maker, is as a rule in the dark with regard to his own system of keeping his milk. He knows that he must have perfectly clean milk pails, cans, strainer, aerator, etc., he knows that his cows should be clean, but he also knows that his milk has not been found fault with when his cows may have been abominably dirty for some reason or other; he knows that his milk must be kept in cold water over night, in summer, to keep it sweet, but he hasn't the slightest idea the exact temperature which his milk should be cooled to, in order to be perfectly safe from fermentation. He places implicit confidence in that water supply of his, that it is cool enough to preserve his milk, and the use of a thermometer is the one thing farthest from his thoughts. Yet, investigation along this line has disclosed the fact that the temperature of some springs from one season to another is extremely variable. It has almost been proved conclusively that the greater the rain fall, the higher the temperature of the spring will be. One of our patrons, who left us this summer, was trying to keep his milk in water at 59° F., he did not know this of course until told, but even then, did not realize the necessity of covering his tank to keep the sun's rays from heating it up still more, nor did he consider it worth while to sink his pipe

lower in the ground, or better still, move his milk tank right up to his spring, where the water was 53° F., but rather, he preferred to go on in his own way, and carry his milk three miles farther to a cheese factory.

The highest temperature at which milk may be kept with perfect safety is 58° F., but there are certain conditions which are essential: the cans, pails, etc., etc., must be perfectly clean, there must be no lactic acid or other germs left in them with which to inoculate the fresh milk. Then again, this temperature of 58° F. must be reached within a reasonable time, say one hour, and this can only be accomplished by thorough aeration in the first place, and judicious stirring at intervals of half an hour or so in the second place. It will never do to count on the milk cooling down to this temperature before morning, as very undesirable ferments will commence to work if milk remains at a favourable temperature for germ development (60°-90° F.) for a few hours, and this bacterial development, which in its early stages, before the formation of lactic acid in any quantity occurs, is always noticeable by particularly obnoxious and disagreeable odors and flavours, which are checked and fastened in the milk, when it does eventually cool down to 58°. So the one essential object is to get the milk cooled down to safety point, before any changes whatever take place in it, bacterial or otherwise. The more is this necessary, when such unfavourable conditions as thunder-storms and close hot weather, are in present.

The mistake of mixing the warm milk with the cold is not often made in ignorance now-a-days, but it is wilfully done frequently, nevertheless.

So few patrons have a conscientious sense of their obligation to furnish good milk. I fear the majority aim only to have their milk accepted, and are content as long as they have no milk returned, and so take no more care than they find absolutely necessary, instead of taking every care possible, that suggests itself to them.

This carelessness in keeping milk is only one of many things which is keeping the dairy industry from attaining its perfect development in every line. Farmers, as a rule, seem very reluctant to keep cows, which is a bad sign, as there is no doubt that as compared with most other methods of farming, dairying certainly demands more intelligence, greater perseverance and business ability.