

I will not give you here the formulæ and details, as no doubt you are already familiar with them; but, if the information is wanted, I will give it to you at anytime as I have full notes of all these formulæ.

The third week was devoted to lectures on the formation, care and diseases of milk, showing the necessity of great care in thoroughly aerating and cooling milk in order to produce good butter.

Microscopical illustrations were given and the presence of microbes and their work explained.

The last week was given to a resumé of the work, with practical work with the Babcock and the acid test for cream.

As I explained in my first letter the butter-making was under Prof. Gurler and much valuable work was accomplished.

Instruction was given to all the classes in the running of the different kinds of separators, churns, butter workers, etc.

Records of the day's work were kept, and in the afternoon the whole school assembled to discuss the day's work, and under the direction of the Professors, the most useful points were brought out and opinions as to the best methods given.

The separators used were the Alpha, De Laval Steam Turbine and belt machines; The Russian Steam Separator, Danish Weston, and the Extractor Separator.

Excellent work was done by all these machines, especially the Danish Weston and the Alpha.

The Churns used were the square box and the barrel churns. The workers used were the Mason's Power worker, and the Alpha, an entirely new machine, which did splendid work.

Experiments were made in the different processes of the ripening of cream to produce the finest flavour, and in the churning of sweet and sour cream at different temperatures to produce the most exhaustive churning.

All these experiments were conducted in a thorough manner, and in the afternoon, the results were discussed by the class.

These discussions were most interesting and proved one of the best features of the school. I feel that if we could have such a school established here, easy of access to the butter-makers of the Province, where they could assemble during the early winter, after their factories are closed, and discuss the season's work; and where means would be provided to experiment on the different methods under the supervision of a chemical expert on dairy products and a practical butter maker, it would be of vast benefit to our dairy-interests as a Province.

I think that, if government has an honest desire to help the agricultural interests of this Province, it can do nothing that will bring better results for the money expended than to help the dairy interests, for undoubtedly the dairy-interests of the Province are far ahead of every other agricultural interest, and anything that can be done to increase the quantity and improve the quality of our dairy-products will be of lasting benefit to the whole country at large.

We have all the natural advantages of one of the finest dairy countries in the world. We have the sweetest of pasturage, clear cold water, and a good climate; and with all these advantages, if we only make the best use we can of them, we should take the first rank of producers of the finest butter.

The only thing we lack is a more extended market, and with extra goods, in time, we shall find that market.

Hoping this report will be satisfactory, and thanking you for the favour shown me,

I beg to remain

Your obedient servant, J. AUGUSTUS HAYES,
Sheffington, Que.

Vermont State Butter School.

THE ST. ALBANS BUTTER-FACTORY.

Dear Sir:—Last month I gave a short sketch of what I found at the Vermont Butter-School and I should like now to draw attention to some points which particularly struck me. First, it is quite an eye opener to find a *butter-school* in existence and it must bring home to us dairy farmers that there is something to learn in our business when we find the old dairy State of Vermont taking the trouble and spending the money to establish a Dairy School. They have done it because they have found two things. First, just as we Eastern Townships butter makers have found, they found Western Creamery butter taking the lead of their own best dairy butter and that they were being crowded out of the market and the best prices. Second, they found that in creameries more butter can be made from 1000 lbs. of the same milk than can be made in the home dairy. The home dairy is calculated to lose the Vermont farmers \$321,000 a year, that is, by making his butter at home with the ordinary appliances, skill and care exercised in the Vermont home dairies, the Vermont farmers lose that much of what they could make by sending their milk to a creamery run in the way ordinary Vermont Creameries are run. The same is undoubtedly true here in the Eastern Townships. Then, besides this, there is the difference between the price per pound of creamery butter and dairy butter which there, as here, is fully 2 cts per pound on an average. I find this quotation in the market reports of the butter market in Hoard's Dairyman of December 18th. In New York, Elgin Creamery (Elgin is a Western Dairy market) is selling at 30 cents, and other Western 29 to 29½ cents. At St. Albans Vt., selections are selling at 26 to 27 cents and Creamery at 29 cents, general dairy butter 22 cents. In this, "Selections" are fancy private dairies. In the Montreal Herald of Dec. 12th I find: "Lac makes of creameries are quoted 23 to 24 cents—earlier makes about 1 cent less—Townships Dairy 18 to 21 cents"—and about the same can be found in any butter-market quotations. As a result of careful enquiry I have come to the opinion that our private dairies take on an average 25 lbs. or over of milk to make a pound of butter, while the reports of the creameries we have among us show that, with their management and appliances, it takes only about 23 to 24 lbs. on an average. I do not know how much per hundred pounds of milk our farmers get in money for butter in the home dairy, and indeed I don't believe one in a hundred knows himself, but I am satisfied they don't get as much as the creameries pay by about 75 to 80 cents.

On my way home from Burlington, I stopped at St Albans to see "The biggest Creamery on Earth" in fact, and certainly it is well worth seeing. Mr. Claffin the tester there, was kind enough to give me some figures from which I will quote.

In June they made up	6,500,000 lbs. milk.
" July	6,500,000 " "
" August.....	5,500,000 " "
" September	4,500,000 " "
" October.....	3,750,000 " "
" November.....	1,200,000 " "

In April they paid their patrons	\$1.10 per 100 lbs.
" May " " "	.75 " "
" June " " "	.66 " "
" July " " "	.70 " "
" August " " "	.79 " "
" Sept. " " "	.94 " "
" October " " "	1.15 " "

November not yet made up, but probably a little better than October.