

The Dairy.

Dairying in Ohio, No. 1.

BY JOHN GOULD.

One, to quite understand the methods and peculiarities of Ohio dairying and its tendencies, must needs know a little of its history, which is a most remarkable one, for not only is it the pioneer of dairying west of the Alleghanies, but it was "Ohio boys" who solved the problem of a market where its butter and cheese might be disposed of, and made dairying possible at the very time when delay in this matter would have proved fatal to the industry. Why it would, arises from the very fact that over production had so gorged the "barter markets" of the then rude frontier towns, that this product could not be given away, and to continue its manufacture would not only have been to suffer total loss, besides the item of labor, which only rated at 50 cents per day, "store pay," but represented an amount of time that the early settler could not afford to lose, with forests to fell before him, slashings to clear, and homes to establish.

Northern Ohio, better known to the world as the "Western Reserve," is an especially favored place, actually occupying among other localities of the States, a supreme position, a place it won for itself from the start, and largely possibly from the fact that the original inhabitants were from Massachusetts and Connecticut, and were educated and cultured, and had the independent Republicanism about them that insured success in their new undertaking, the settlement of a new State.

With these settlers, fond of butter, cheese and milk, came the family cows in goodly numbers, not unfrequently yoked, and forming the lead team on the long six weeks journey, and besides had the further responsibility of furnishing the material of a "Dairy Supply Co" (limited), along the road. The settler, it will be seen, had the base upon which to secure a stock of cattle which multiplied as fast as the clearings were extended, and with these cows and heifers the supply of butter was soon added to by that of cheese, and when the war of 1812 came, Ohio was well embarked in the dairy business, but which of course suffered a reverse by the war for a year or two, but by 1818 the supply of butter and cheese had so far outgrown the demand, that they had become a drug in the market, and could only in limited quantities be disposed of for "store pay," to say nothing of money, of which at that time there was absolutely none. The signs of the times were that dairying would have to be abandoned, but as nothing better offered, the settlers were forced to take their chances, and await for an opening.

Usually, it is the unexpected that always happens, and the outlet for butter and cheese came from an unexpected quarter, the South. A Portage county boy, Harvey Baldwin, 19 years old, tired of endless chopping and slashing, resolved to go to sea, and chose the distant port of New Orleans from which to ship before the mast. One day as he stood in the little market of that town, he saw a grocery man selling English cheese in quarter and half pound lots, for \$1 per pound, in gold. A moment decided him. He would buy cheese and butter in Ohio, he would float it down the Ohio and the Mississippi rivers, and he would sell it at fabulous prices. It was a long journey, however, nearly two months, but he arrived in August and brought three tons of the very best cheese he could select, agreeing to pay two cents per pound when he returned. It was a hundred and twenty miles to the Ohio river to transport his cheese, but they were delivered at Beaver, Pa., a flat boat was purchased, the cheese transferred to it, and alone, our cheese merchant turned the prow of his boat into the stream and started for an unknown market. Boats in history have carried fortunes, and even destinies. This boat carried both. Its success meant prosperity, money, and the perpetuation of an industry; its failure would blank them all. Failure carried with it calamity to the dairymen behind. Six months past, and no one had heard of Baldwin, but one day he arrived home to the surprise of all, and what was more to

be rejoiced over, his pockets were lined with gold, and he paid every man, and what was still better, he wanted five tons more good cheese at 3 cents per pound. He had visited the river towns with his cargo, had sold cheese simply, and by the pound, and in these choice lots for any kind of barter that was offered in exchange. Barter was exchanged for other barter, and at last the cheese was all sold, and a boat load of "exchange" represented the cheese. The exchange was again bartered for a lot of furs, which Baldwin floated down to Cincinnati with, and sold to John Jacob Astor's agent for gold.

The trip was repeated and with better results. Other speculators went to other markets with butter and cheese, and within ten years not a southern city, or frontier town, or a western trading post, but had had its fill with Ohio cheese. The dairymen at home were in high glee. Prosperity had come and had brought them money. The rapid progress of the Reserve, its rapidly cleaned farms, its early abandonment of log houses and barns, the erection of white farm houses on every hand, the building of a school house at every four corners, and a church every three miles, not to say internal improvements of every kind that so rapidly sprung up, were the result of dairying, and up to the present day the idea of dairying has always been uppermost in the industry of Northern Ohio, and that in this persistency the State has won its great financial standing, there can be but little doubt.

"The methods of Ohio Dairying" will require a separate chapter, for Ohio has methods peculiarly its own, and mayhap will always be original in its practices.

Improving our Butter Industry.

CONDITIONS OF IMPROVEMENT.

There is a remarkable disparity between two of our important and kindred industries. Our cheese product is as noteworthy for its quality and good reputation, as is our butter product for its inferiority and bad character. In the financial statement of the Treasurer of Ontario, statistics are given which show the great improvement in the cheese trade in the short space of ten years, and its present importance; and the inference to be drawn is plain, that the condition of the cheese trade is a subject for congratulation. But with regard to the butter industry an opposite statement is made, so positive as to leave no room for mere inference. The Hon. Treasurer thus speaks:

"We make in Ontario over 45,000,000 pounds of butter annually. I regret to say, as Minister of Agriculture, that it is 45,000,000 pounds of a very inferior article. That is the verdict upon it in England and other foreign markets, and there is no evading the unpleasant fact. It is very evident that with our large annual product a very small percentage of increase in quality would add a very large amount to the total value." The condition of things in the other provinces is, at least so far as regards the butter product, much the same as in Ontario.

The cause of improvement in the cheese industry will naturally be regarded as suggestive of possible means of improving the sister industry. I say suggestive only, because the two industries are in several essential respects dissimilar. The respective processes are different, and the trade in each product has its own peculiar features; hence the conditions of improvement are not in both cases the same. There is enough in common, however, in the two processes of cheese-making and butter-making, and the trade in one product is enough like the trade in the other product, to make reform in one case suggestive of means of reform in the other. The improvement in the cheese industry was owing to the adoption of scientific methods of manufacture, the help of improved mechanical aids, and a better system of marketing the product. All this amendment was itself in connection with, and more or less owing to, the introduction of the associated system, the establishment of factories, and the help under Government aid, of dairymen's conventions. Prof. Bell at the Dairymen's Convention at Bellville, in February last, in a valuable paper on this subject, stated as follows: "The marvellous advance in cheese-making is chiefly owing to the employment of scientific methods of investigation, namely, accurate observation and logical deduction, tested and confirmed or corrected by experiments." Upon the bearing of mechanical aids in the work, Prof. Bell said: "The apparatus supplied now leaves little to be desired, furnishing a striking contrast with the past. I will instance the jacketed vat and the gang press. The recent improvements both in apparatus and methods,

have the advantage over the dairy-maids of former times that the disciplined force carrying the repeating rifle and revolver, would have over a tumultuous mob armed with the javelin and bow and arrows of antiquity." The same good authority goes on to show that the improvement followed a peculiarly bad state of things and the relief came from the adoption of the "joint-stock system of dairying," and was largely attributable to the Dairymen's Associations. These have given us "the views of gentlemen of large experience and scientific attainments, and have sent from factory to factory the most skilled and ablest practitioners, to instruct in the best and most improved methods of manufacture and proportions of material, thus insuring a uniformity of quality which alone can form the basis for a national reputation."

What shall we learn from this that will help us towards an equally gratifying result in the other industry of butter-making? If we recognize Prof. Bell as an authority, and we may well do so, since his statements are abundantly supported by other authorities, we may understand that, first, the adoption of scientific methods, taking the place of rule-of-thumb practices, is a condition of improvement in butter-making, as it was in cheese-making. Let us quote again: "It is desirable that all persons connected with the prosecution of the dairy business, whether the manufacture of utensils, or machines, the supply of raw material (milk) or the conversion of the latter into a marketable product, should have acquaintance with the principles on which success depends."

The second condition of improvement in the butter industry, we shall in a similar way learn will be the adoption of improved appliances. The above change is certainly a not less imperative condition of improvement in butter-making. The former is purely a mechanical process, and requires mechanical aids. The poorer the appliances the greater the skill required to produce a good result. The unsatisfactory results which are obtained, generally in the whole country, prove that the necessary skill is wanting to accomplish the best results with the appliances actually in use.

The third condition of improvement in the butter industry will be a better marketing system. When good cheese is made in the factories it is known in the market not only from what factory it comes, but in what month it was made. The consumer, pleased with the quality, requires more of the same. The cheese-dealer maintains the connection, and recognizes the demand to supply it. With butter it is different. Except in comparatively few instances a supply of good dairy butter is limited, and it goes into market, under the best of circumstances, usually as a sort of "job lot" that is not supposed to be repeated. The chances are that it obtains not even this status, for, being a small quantity of good, and in an unfashioned way mixed with a large quantity of poor butter, it suffers under the common verdict of "bad butter."

All this, manifestly, must be improved. Could the quality of our whole butter product be at once raised the matter would regulate itself; but as the very best that can be expected is that improvement be gradual, one condition of improvement will be some amended method of marketing that will encourage rather than discourage each step of advance.

THE CREAMERY SYSTEM NOT A COMPLETE REMEDY.

It was the adoption of scientific methods, improved appliances, and a better system of marketing that raised the cheese industry to its present high condition. The butter industry will be raised to a higher level only by similar means. It was through the establishment of cheese factories that the above means of improvement were employed.

All this was shown in the preceding paper. The question now arises—may a similar improvement in the butter industry be brought about through the agency of "creameries," as butter factories are called, to take the place of the (home) dairies? One factor in the success of the associated system of cheese-making was the relegation of cheese-making to the factory. After factories were established cheese-making in the dairy was gradually given up, and the dairy, so far as the one industry of cheese-making was concerned, became nearly or quite obsolete. The farmer through the summer season sends all his milk to the factory to be there manufactured into cheese. After the factory season has closed he sends his milk into the dairy to be made not into cheese but into butter. If the creamery is to do for the butter what the factory has done for cheese, in like manner the butter dairy must follow in the way of the cheese dairy and become a thing