THE BENEFITS OF A THOROUGH SYSTEM OF INSTRUCTION IN THE MANUFACTURE OF CHEESE.

HON. I. W. STEINHOFF, Stratford, Canada.

Mr. President, ladies and gentlemen: I wish first to make a couple of corrections—first, in regard to the prefix to my name upon this program. I am not entitled to the title of "Honorable." The only Honorables that we have in Ontario are members of the provincial cabinet, and I am not a member of that body.

Another correction that I wish to make is, I noticed through part of this morning in the discussion that somebody said that I had said yesterday that I found the quality of the Wisconsin cheese superior to the Canadian. You that were here are aware that I did not make that statement. I did say that I found the quality of the cheese finer than I had expected especially in point of flavor, but I could not truthfully say that they were superior to Canadian cheese. It was a great pleasure to me to see the exhibit of as fine quality as it was, and I may say that in judging the cheese in company with Mr. Crosby, I took into consideration the market for which they were made. For the American market, or the Canadian market, if you take the home markets, demand a more meaty cheese, a little softer cheese—I do not mean by "soft" open or ragged, but they do demand a more meaty cheese, a little softer than we want for export. They have a long transportation to go to England, and are frequently held for some time, and we want a cheese with a little more body. Were I scoring that first prize cheese for export only, I probably would not have given it quite as high a score, but that cheese is a very fine cheese, it is a nice, attractive, flavored cheese. I frequently say that the quality I want in a cheese is such that when you eat a piece of it, get the first taste in your mouth, you want to eat more. Really what you want to please is the taste of the consumer. We
have established our market by consulting the taste of the consumer, going from England to Canada, studying the tastes of those English people, and letting them say what they want, and then try to please them, not acting upon our own notions of what fine cheese is, but to please the taste of the consumer, and of course to do that there are different points that have to be taken into consideration. You have to consider how far your market is away and the conditions under which you hold your cheese; how they have to be shipped and all that kind of thing, so that they will reach the consumer in the most desirable form in point of quality.

I would expect that your market here and your demands would be more varied. You see, in Canada, we have been working for years to one uniform quality and the approved system of instruction which we have to-day is helping us considerably along that line.

Now, I want to make a remark or two in answer to some remarks by Mr. Doane. I would rather he was here, but I am satisfied that Mr. Doane did not want to create the impression that we had nothing definite in our practice that would produce a certain result. I frankly acknowledge that his remarks created that impression with me, that you had been putting certain things in practice and you thought that you had certain results, but that some experiments would show that that was not definitely to be relied upon. I am sure that we have followed lines of practice in Canada and we have found out definitely that if we want to produce the right type of cheese, we must comply with certain requirements, we must do it. We cannot go slipshod and produce a uniform article of fine cheese, it can't be done. I think there are a good many points that are definitely settled in that respect, and I will say that if there is any experience which seems to not be as definite as we would like and the conclusions not as clear as may be practical, it is by the experiment stations themselves and we can easily understand that. Take, for instance, our Guelph school. They deal with a very small quantity of milk, two or three hundred pounds, in a little vat, and any of you cheesemakers know that the atmospheric influences are not the same upon a small quantity of curd as they are upon a vat full.

Now, we are trying to use the instructors that are on the road in the summer time and are dealing with conditions such as cheesemakers have to deal with, using them in the dairy schools in the winter time, and we find that it is more satisfac-
tory, because they know practically what you have to deal with during the summer season in larger quantities, and I think that explains probably the point that was mentioned by Mr. Doane as to the information that he tried to draw from the bulletins, which were issued by the different agricultural colleges or dairy schools and the Guelph bulletin would not give him the definite information that he was seeking after.

Now, as to the subject upon which I was to speak this afternoon, I have not prepared a paper, I thought probably it would be better to bring it out by questions and answers to a large extent, so that we might get closer together. We have found in Ontario this last two or three years that the most profitable meetings we hold for the cheesemakers are the small meetings that we hold during the fall just at the end of the season when your experience is bright and fresh upon your memories, and we get up close together and we have a nice warm discussion where everybody feels free to take part and to ask questions or criticise as he may see fit. We find these meetings, so far as practical results are concerned, about the most profitable.

The object of this system of instruction, as we have it now, with the larger number of instructors, was to try to improve the quality of our product. You know there is no place so dangerous as on a pinnacle, and from what has been said, both on this side and in Canada, and the kind of patting that we are doing of ourselves upon our backs, about the quality of our cheese, we might almost conclude that we had reached somewhere near perfection in the production of cheese in Canada. There is no such a thing as standing still in the history of an industry; you are either going ahead, in making improvement, or you are sliding back, and with this object in view and taking up the question somewhat as I did yesterday, the Honorable John Dryden, who was ex-minister of agriculture in Ontario, sought to improve the cheese and butter products by reaching more effectively the producer of the milk and that is one object in appointing an increased number of instructors.

We have found by our experience that you cannot very well drive men; you cannot legislate to make men do what you want them to do in all cases, you had better lead them and the object is to syndicate the factories having twenty or twenty-five in each syndicate, putting an instructor on to visit that twenty or twenty-five, with the object of having sufficient time that he can visit more farmers, discuss with the farmers the difficulties of keeping the milk and caring for the cows, pastures and every-
thing pertaining to their end of it, and try to get the farming community to understand that we are not sending out detectives or even inspectors—we call them instructors. We want to give the impression that we are sending these men out to help them, rather than to condemn them. We find that sometimes in the past there has been great objection to seeing an inspector go into any particular farm plat and the farmer sometimes took offense feeling that it indicated that there was something wrong with that man’s milk. We are trying to overcome that feeling; this last year the butter instructors rode out on the cream wagons in many cases and the cheese instructor rode out on the milk wagons and he called at nearly all the houses on the route so that no one could draw the conclusion that because he went into a certain house that there was something wrong with the milk in that particular place.

With this idea in view, about three years ago we started this system of syndicating factories in West Ontario, where there are about two hundred and seventeen factories. This last year we gave instruction to a hundred and seventy-one. There were nine instructors, including the cheese instructor, eight subordinate instructors, and then there was one chief that directed the work of all the subordinate instructors.

In Eastern Ontario, it was organized on the same lines, but there are a great many more factories in Eastern Ontario, consequently there are three times as many instructors as in Western Ontario.

These men are paid $800 a season and they pay their own expenses, which do not run very heavy, and they report weekly to the cheese instructor, and he to the department of agriculture, so that we have a complete record of all the work that is done by every instructor and we are able to make a comparison as to who is doing good work and who is not accomplishing so much. There is one point, one thing we believe we have learned, and that is, that it is necessary for a factory man to contribute to these funds in order to interest him in the work of the instructor, and as a consequence we have a fee that each factory pays, two dollars per visit, or, if they are syndicated, they pay $12 and the instructor visits them anywhere from three to five or seven times according to their requirements—some factories get off the track more often than others, you know.

Each instructor carries an acidimeter, and they do the testing of milk or for the purpose of discovering adulterated milk. If there are any prosecutions, the maker takes it up, and as a
result of this system of instruction we have a better quality in several different respects. We have, in the first place, better milk, both in flavor, keeping quality and cleanliness; we have better equipment at the factories. As an example, in the Ingersoll group, the amount of money spent in improvements was $10,150; in the Woodstock group, $9,670, and so on down to one group which was started this year, the money spent was $1,350.

I have often said that cheese and butter are among the most delicate articles of human food and should be made in perfectly clean surroundings, and the person making them should be clean and attractive looking in appearance, and I am quite satisfied that if you were to bring customers that you may have for cheese and butter that very often you wouldn't dare to take them out to your factories, I know we wouldn't even in the Province of Ontario, where we have been hammering away at this thing a good while, but with this system of instruction there has been a more marked improvement than we have had under any other system, and much more improvement during the last two years than in any other two years. We get a more uniform quality; we get a better finish. Our Mr. Barr is very strong upon that point of finish, and it is important. We have had for a long time a large percentage of factories which have been finishing their cheese up very sloppily. There are still a few that are very sloopy and careless in the finishing up of their cheese, and I will say, as a buyer, we buy a good many cheese subject to future inspection on boards, and when you drive out to a factory to inspect cheese and upon arriving there you see probably a few flowers in the window, a nice lawn outside and no dirt or smell about the factories, and the maker meets you in a nice cleanly appearance, and things about look clean, I tell you you expect to find the cheese in sympathy with these surroundings, and you generally do find them all right. On the other hand, if there are bad smells and everything out of sorts, you are just expecting when you put your trier in the cheese, that those cheese will rank with the surroundings and you generally find it so. There is another improvement that is very noticeable, and that is in the starters. In the past, there have been quite a number of the boys using starters that were not pasteurized. They are now all pasteurized starters and consequently much better than they used to be. I made the remark to Mr. Crosby that I believed that nearly all the cheese here were made with pasteurized starters. It struck me as one
characteristic of the flavor, the flavor is not quite as juicy as I like, a little flat, not a quick, juicy flavor, but there is nothing objectionable, a very nice even flavor in most of the cheese.

Among other questions this last year, Mr. Barr, the chief instructor in Western Ontario, has been aiming to get information from which he could conclude whether we are making progress or not, and in order to do that this year he sent out a list of questions to the instructors, which they were to answer and send to him, and next year they will be asked again, so that we will be able from year to year to know whether we are making any advancement along these lines. I have here a copy of these questions. The first is,

"Do the makers wear aprons?" and then several others follow along the same line referring to the cleanliness practiced at the factories, both as to the makers' persons, wearing apparel and surroundings.

"Do they keep their clothes clean? Is there any effort made to keep the floors dry? Are the gutters kept clean? Are the utensils kept bright and clean? Is the curing room kept tidy? Is the curing room floor kept clean? Are the shelves in the curing room clean? How often are the shelves washed? Is the engine room tidy? Is the engine kept clean? How often are the whey tanks cleaned? Are there any bad flavors around the factory? If so, what is the cause? Are there any flowers kept in or around the factory? In your opinion, is this factory in a fit condition to receive a license?"

The license question is the question that is before us, as an association at the present time, and these questions will probably assist us in coming to a conclusion as to whether licensing will be wise or not. I have with me the replies from two different factories showing the variety that we find among the factories. In one of these, nearly all of the questions are answered by "No," and the conclusion is that the factory is not in a fit condition to receive a license unless some repairs are made and cleaning done, while, on the other one, it reads, "Do the makers wear aprons? Answer. Yes. Do they keep their clothes clean? Answer. Yes. Is there any effort made to keep the floors dry? Answer. Never wet. Are the gutters kept clean? Answer. Yes. Are the utensils kept bright and clean? Answer. Yes, very." And the conclusion is that this is the cleanest and most tidy factory in the group. We found a few years ago that we were troubled in some cases with the cheese getting mottled in the fall, and mottled cheese is nearly
always accompanied with a horrible flavor. It is a bacteria that gets into the cheese and the trouble comes from dirty curd sinks under the slats and dirty drains, so you see how important it is to keep everything clean. You can see what a pleasure it would be to an instructor to visit such a factory as that last one.

I will conclude by saying that it is always a great pleasure to have an interchange of men, particularly dairymen, between the United States and Canada. We always have one or two Americans at our conventions and our men come here more or less and I believe that there is benefit always to be derived from this interchange of knowledge and discussion, and I will venture the opinion that if there was a greater interchange, more meeting together of men across from one side to the other of this imaginary boundary line I believe that we would have a better understanding, and I go so far as to think that if there was an interchange of opinion and discussion, a better acquaintance in all lines of commerce, as well as in the dairy business, that it might be the means in future years to a large extent of breaking down this wall of the tariff protection. I believe that will only come about by a better understanding, a closer study of the advantages to be derived by the interchange of thought and the unity of effort. This being a co-operative business and a business requiring the very best co-operative talent, wherever we can get it, whether on your side or on ours, I am sure that we should profit by an interchange of effort in this way, and I know that we have derived benefit from men who have come from this side of the line, and that it would be a profit to ourselves to come out here to Wisconsin. A man must be rather dull if he cannot in a convention of this kind always pick up some information that is of profit to himself.

I most heartily wish the cheesemakers of Wisconsin great success this next year. You are on the royal road, I believe, to success, and all you need to do is to watch your course and to be diligent and to keep your high ideals always before you. Keep this aim before you, practice eternal vigilance and I believe that complete success will be yours.
Mr. Monrad: What part of this expense is borne by the government?

Mr. Steinhoff: The government bears all the expense, except the fees that are contributed by the factories; that is about $12 per factory, and the instructors are paid direct by the department of agriculture. The appointments are made and the entire work is under the control of the dairyman’s associations in Eastern and Western Ontario.

Mr. Monrad: Suppose I have a factory in that district and I don’t want to join this thing?

Mr. Steinhoff: It is not compulsory; just moral persuasion. We hold a meeting in each group in the fall at the conclusion of the work, and at that time they generally pass a resolution if they want a continuation of the work. They also pass resolutions to stand together and protect one another upon the point of receiving milk that has been rejected at another factory. That is one of the weakest points that we have had in Canada, where there is rivalry between factories and a man gets a little offended because he is told that his milk is not right and he takes it to a neighboring factory and they take it in. You never can teach that man anything because he is in too independent a position. A good many have bound themselves together to protect one another on that point, and if the matter is laid before the farmers in the right way, they can see that it isn’t right. Of course, the men who are furnishing good milk have a very serious interest in the ability of another man to furnish one hundred pounds of milk to a factory that will contaminate the whole vat of five thousand pounds, and, consequently, damage the whole product.

Mr. Carswell: In our work through the state, we find that is the thing that causes more trouble than any other thing. The makers are afraid to criticise their patrons for fear of losing them and they would rather put the responsibility upon the Dairy and Food Commission than criticise that patron themselves.

Mr. Steinhoff: Our government has always been very good in recognizing this dairy interest in Canada. Of course, it is an important industry, from the export standpoint the most important that there is in Canada, but even way back when it was not so important, they gave it assistance. They bear the
entire expense, with the exception of our membership fees in the association, which do not amount to more than $400 in Western Ontario, and then there is the factory fee that I spoke of. On the other point, I want to say I have always claimed that the maker should be the best informed person in the neighborhood in regard to his requirements, and the condition of the milk, and then his progressive farmers, the men who want to make the factory a success, the men whose cows are giving good returns, will all support him every time in sending home milk that is not right, because they all realize that it is unfair to take this milk in to damage the product as it certainly will. They will have more respect for you, gentlemen, if you are firm in this matter, do your duty in the right way. I do not know of any man who has been more successful along that line than Mr. Johnston. He always had the resolution to send home such milk, and I have known of more than one occasion where he had men come right back at him. A man natural little sore if his milk goes home, but if a maker keeps it at it long enough, and it becomes known, as it certainly will, among the drivers and dairymen, he will be supported and establish his position very soon and be respected for it.

Mr. Haskins: I think it quite often happens that we cheese-makers are unconscious that our factories are being neglected, or certain parts of our work. For instance, the hot water barrel in a factory that I was running—that barrel used to run over every day, and I suppose I let the water in the barrel without changing it, I didn’t notice any difference in the color, and I didn’t notice that it was getting very dirty. One day my wife came to the factory and she asked me how often I cleaned out that barrel. I said I didn’t know, perhaps once in a week or two, and she says, “What would you think of me if I saved my dishwater and let it boil over every day and not make a change?” And that set me thinking. It is a good thing to have instructors around, they set us going right, and because all of you fellows are not blessed by having a wife to set you on your feet, you need the instructors.

Mr. Steinhoff: This gentleman has touched a very pertinent point. We call our Mr. Valentine one of the fathers of the cheese industry in Western Ontario, and his practice used to be, if a man wasn’t doing very well, to send him out to look over somebody’s else factory. A man gets to running in a rut and he is working hard every day late and early, and he gets used to these conditions and he does not realize just what his own
practice is until he goes out and sees the conditions in another factory. That is the benefit of the instructor going from one to another. He goes to another factory and he sees it is run in a slouchy way by a slouchy man and it strikes him as an outside experience. I believe a maker should have a better knowledge of what he has in his factory even than any buyer. During all the years I made cheese, I know I had a better idea of the value of my cheese than any buyer that came into the factory. I used to think that I could get the buyer that came into my factory to bore the cheese that I wanted him to bore, but now that I am buying I will say a man cannot get me to bore the cheese he wants me to bore, because I am onto that trick.

The Chairman: Our friend over here made a good point when he made it clear that a man should take pointers from his wife. I wish more of them would let their women folks do the criticising, and the washing, too.

Mr. Dassow: A few years ago we used to have instructors from the dairymen’s association, but I haven’t seen them around. How is that?

Mr. Carswell: A new man was put on and was at your factory, but you were not at home. There were some women folks there.

Mr. Dassow: Is that the reason he didn’t come again?

The Chairman: Maybe he has not found out yet whether you are going to be away from home the next time. I want to say that Mr. Dassow is one of the most successful cheesemakers in Sheboygan county, and he has one of the cleanest factories in that county and he knows enough to bring his wife to the convention.

Mr. Carswell: In our work as inspectors traveling over the state, it is very annoying to go into a factory and not find a place where you can lay your hat or hang up your coat without laying a piece of paper down first, without getting everything covered with grease and dirt, and there have been a good many of such factories. I believe the gentleman is right when he says that many times the makers are unconscious, do not fully realize the condition of their factory as much as they would if they would get out and visit other factories.