

Wisconsin Station. So far as I can see, there is nothing in the manipulation of the udder, and any of you who wish to try it at home should note the effect upon the cow, especially with a nervous cow. Just the moment you begin it you will notice these muscles of the abdomen contract, and, with the majority of cows, they will not give their milk down.

Taking into consideration the labor necessary to clean this machine, it is a labor saver with a large number of cows, but not with a small herd.

With reference to the point of admitting visitors to the barn, I know the manufacturer makes a strong point of the fact that we allowed visitors into our stables. At first we thought visitors would have a bad effect upon the cows, and for some two or three months we had notices up in our stables saying that visitors were absolutely prohibited from entering the stable during the milking time; but after a very careful study of the question, we found that our cows practically paid no attention whatever to visitors. They are so accustomed to visitors, they being there every day, and, as a rule, they give no attention to visitors; and so far as our own herd goes, I feel quite satisfied that visitors had no effect whatever upon them. I also had a letter from one of the professors on dairying on the "other side," wherein he said that, so far as he knows, visitors have no effect upon their cows. He made the statement in his letter that the cows even milked better when visitors were present than when they were not there.

With reference to the complaint that we had used too much power on the machine, it is true we did have a couple of pails collapse. You will notice the manufacturers are now sending pails out with that ring around them. The first pails we got did not have that rim around there, but when two of the pails collapsed they sent these over as a means of strengthening the pails. They were satisfied their pails were a little bit weak, and they recommended us to put this circle on in order to strengthen the pails. The pressure is got in this way, the air is exhausted from the pail, and, of course, unless it is strong it will collapse; and the first pails they sent out were not strong enough to withstand the pressure of the atmosphere.

The Canadian Record of Performance.

Elsewhere we present some timely information on co-operative cow-testing associations in Canada, their organization, objects and methods. As pointed out, these have been organized largely through the effort of the Dairy Commissioner's Branch of the Dominion Department of Agriculture. They are for the testing of common or grade herds, and the results obtained concern no one but the owners of the particular herds tested, and others who may wish to follow their example.

A quite distinct line of work has been undertaken by the Live-stock Branch of the Department, viz., the official testing of pure-bred cows, whose owners wish to qualify them for entry in the breed associations' Record of Performance. This work is even more important than the other, because it goes right to the fountain-head of stock improvement. It concerns not merely the owners of the cows tested, but every dairyman who depends on pure-bred sires—as all do, directly or indirectly—for the improvement of his herd.

As most of our readers are aware, the "Advanced Register," "Record of Merit" or "Record of Performance," as it is variously called, is a register which several progressive breed societies in the United States and Canada had adopted some time since, according to details of their own devising. Let it be clearly understood that none of these is intended to take the place of ordinary herdbook registration. It is a supplementary or sort of duplicate registration. A cow entered for it must first be recorded in the regular herdbook of the breed to which she belongs.

The American Guernsey Cattle Club has an Advanced Register, based on accurate tests of milk and butter-fat produced in the cow's own stable, but officially supervised by occasional visits from a representative of the nearest experiment station.

The Canadian Holstein-Friesian Association has a well-established Record of Merit, based on official weekly or monthly tests of milk and fat. The Canadian Ayrshire Breeders' Association had been discussing some similar action when the Canadian National Live-stock Records system was established. For reasons of their own the Holstein men declined to come into the National Records scheme, but the Ayrshire, Jersey and Guernsey breeders' organizations have done so. For and through these breed associations the Department of Agriculture has undertaken the work of official testing, according to rules agreed upon. The conditions are that each breed association must publish in connection with its regular series of herdbooks a "Record of Performance," in which are recorded the names and performance of cows that have made officially-supervised yearly records of milk and butter-fat above a certain minimum standard set by the respective breed associations themselves. In the case of the Ayrshires this is as follows:

	Lbs. milk.	Lbs. butter-fat.
Two-year-old class	5,500	198
Three-year-old class	6,500	234
Four-year-old class	7,500	270
Mature class	8,500	305

The Jersey men have adopted the same minimum of milk production, but have gone one better than the Ayrshire breeders, by demanding ten per cent. more butter-fat.

The minimum standard set by the breeders of French-Canadians corresponds to that of the Ayrshire breeders, so far as fat is concerned, but they require twenty per cent. less milk. The standard adopted by the Canadian Guernsey breeders has not been announced at date of this writing, and we are not aware whether they have set one at all or not, but we are advised that they are taking hold of the Record of Performance scheme, and will doubtless formulate their standards in due time, if they have not already done so.

When a man wishes to enter a cow for official testing, he applies to the secretary of the association of the breed to which she belongs. Of course none but a pure-bred is eligible, and rules insure that every cow entered must be a regular breeder. Upon receipt of application by the secretary, the Live-stock Branch of the Department of Agriculture forwards the owner blank forms, and arranges for official inspection. It is the duty of the owner to weigh every milking of the cow entered for 365 days, and keep a record on forms supplied. About the middle of the month he takes samples from each milking for three successive days, and expresses them to the official tester. At the end of the month he must report (a) a record of the daily milk yield for the month; (b) an estimate of the amount and kinds of feed given, and data containing stabling and care.

This latter information has nothing to do with the cow's eligibility for registration, but the figures are desired by the Department for purposes of information.

At the end of the year the owner sends, on forms furnished for the purpose, a compiled record of the year's milk record, taken from the monthly reports, and sworn to before a notary public or justice of the peace.

An inspector visits each stable at least four times a year at irregular intervals and unannounced. He stays two days, weighing each milking of every cow under test, and taking samples for a Babcock test of each cow's milk. These samples shall be the basis for computing the record. He takes a copy of the owner's milk record for the two days immediately preceding his visit, and then promptly reports to the Live-stock Branch at Ottawa. In effect, his visits are an assurance to the public of the accuracy of the records. The Live-stock Branch has the testing done by a qualified tester, the expense of this being charged to the breed association. At the conclusion of the testing period a report of the performance of each individual will be forwarded to the secretary of the breed association.

There are nearly a dozen Canadian breeders of Ayrshires with cows now under test, and so far as we have learned the plan is working well. The importance of the work is far-reaching. By setting up in breed circles a standard of performance instead of the old standard of appearance, it will tend to the improvement of the various breeds in point of utility. Again, by showing the dairyman where he can get sires from good milking stock it will be a great boon to him; and by eventually discounting pure-breeds of unproven merit it will reduce the sale of inferior dairy bulls, put a premium upon performance, and thus work great good to the conscientious breeders who have been striving to breed and disseminate useful dairy stock.

Dairying in Muskoka.

In renewing my subscription, I beg to say that "The Farmer's Advocate" is highly appreciated by all the members of our family. I have lent my bound volumes to some of the young men in the neighborhood, in hopes that they will learn to appreciate its contents and subscribe. Your editorial for 1907 is excellent, and the Home Magazine is most useful and entertaining.

After a residence of 25 years in Muskoka, I believe dairying is the most profitable branch of farming. Hay and oats are grown on the heavy land, and corn and roots can be grown on the light land; both of the latter were very good during the past season. Fodder corn will grow eight and ten feet high, but, of course, does not ripen. We have a small kind that ripens every year. Wishing "The Farmer's Advocate" long life and success.
JOHN H. COLDWELL,
Muskoka, Ont.

Editing a newspaper is a nice thing. If we publish jokes, people say we are rattle-brained. If we don't, we are fossils. If we publish original matter, they say we give them not enough selections. If we give them selections, they say we are too lazy to write. If we don't go to church we are heathens. If we do go we are hypocrites. If we remain at the office, we ought to be out looking for news. If we go out, then we are not attending to business. If we wear old clothes, they laugh at us. If we wear good clothes, they say we have a pull. Now, what are we doing? Just as likely as not some one will say that we purloined this from an exchange. So we did.

Scotch Experience with a Milking Machine.

Not to discount the experience of Prof. Dean at the Ontario Agricultural College, where, after a year's test, the milking machine has been found not as yet a practical success for the Ontario farmer, but merely to present a bit of additional experience on the milking machine, we publish the subjoined excerpt of a lecture by Alexander Miller, Huntly Farm, Dundee, Scotland, before the Glasgow and West of Scotland Agricultural Discussion Society.

"It is fully ten years since I first began to use a mechanical milker.

"The 'Murchland' was my first venture, and I worked it continuously for some years, with varying success. It milked the cows fairly well, but it was so troublesome to keep clean that it created labor rather than saved it. Then, it has a peculiar effect on the cows' teats. Working by continuous suction, it caused the skin of the teat to adhere to the metallic lining of the cup, and thus interfered with the blood circulation, so that when the cups were taken off the teats were often blue. However, it worked away quietly, and never spoke back—and for that I liked it—so I kept it going, hoping against hope that something better would turn up. When at last the Lawrence-Kennedy machine appeared, with its pulsating movement, I saw at once that it solved one working difficulty—the interference with the blood circulation. The 'catch' and 'relieve' of the pulsating movement—so closely resembling the action of the calf's mouth sucking—made it evident that there would be no more blue teats, at any rate, and the rubber tubing of the Lawrence-Kennedy machine looked as if it would be much easier kept in order. So I had it fitted up experimentally at Huntly Farm, and, after three months' trial of it there, I was so well pleased with its work that I ordered an installation for my other farm, and for almost two years now I have had this machine working twice daily on two separate farms, and managed by two separate staffs, milking twelve cows at a time on the one farm, eight at a time on the other. I have thus been having experience in duplicate form, and, having been for years in the habit of keeping an accurate note of the milk brought from the out farm, I am in a position to compare results with years of hand milking. Taking the year ending 15th November last, and comparing it with the outturn of 1904, with the same number of cows milking, viz., fifty, and fed and treated in pretty much the same manner, I find there is a balance in favor of the machine period of 187 gallons. When I compare the average of the four years before 1904, the balance is 196 gallons. This is not very much per cow if spread over twelve months, but it is on the right side. I am not able to give such accurate figures for Huntly, as for a time some were milked by hand and the milk was all totalled together, but I can compare the outturn of butter during twelve months of machine milking and twelve months of milking by hand, and here again the outturn is slightly in favor of the machine period. When I made my calculations previous to ordering an installation, I did so on the supposition that possibly the machine might do almost as well as hand milking, but the result has bettered my expectation. Then, I find another point gradually coming into prominence. The cows actually thrive better when machine milked. Almost all take kindly to it from the very first. It is so regular and gentle in its action that even the most nervous cow soon forgets her nerves. The cow knows exactly what to expect when the machine is set agoing at her teats, but it would be a very knowing cow that could tell beforehand what to expect from a band of hand milkers, especially if there had been some quarrel in the kitchen or on the way to the byres. Of course, with two separate installations, rendered necessary by the distance between the farm steadings, I am not favorably placed for working with the utmost economy. I have two engines to keep going where one could suffice, and I have one operator and one stripper more than would be necessary if all the stock were housed together, but my experience enables me to see that three operators working nine machines, and two strippers, would easily milk 150 cows in an hour and a half. There is thus a saving of ten milkers. Against this, my coal account for the year is £15 more, and repairs and renewals total £8 7s., so that there is a very large balance to make good depreciation of plant and meet the interest on the first cost."

We give the above for what it may be worth, knowing nothing of the author nor the probable value any who reads this article, to peruse also the experience of Prof. Dean at the O. A. C. published in full in these