and must have their manuscripts in our office before January 24th, 1910, to insure consideration.

The prizes will not go necessarily to the biggest stories. The small dairyman will have as good a chance as the extensive one. The prizes are designed to draw out the most helpful and stimulating accounts of good dairy practice, together with the results secured.

Makes Dairymen Out of Cow-keepers.

Start the new year by keeping daily individual milk records. There is no one thing that will do more than this to improve dairy practice and results. The weeding out of poor cows is not by any means the only—we are not sure it is the greatest—benefit to be derived. A very important and a very speedy result is more careful and regular milking, even by those who think they are already particular in this respect; more intelligent feeding and better general care of the herd. The time required is trifling, not over half a minute per cow per day; the results are marked. The writer has kept such records for years, and would no more think of keeping cows without milk records than without stabling or feed. The first year he commenced in the latter part of December, when the cows were shrinking in their flow, most of them being due to calve in March and April. By New Year's the shrinkage was checked, and a small increase commenced; by the end of January the average daily yield was a pound higher than on December 31st; it increased half a pound more during the fore part of February, and the average for that month was a trifle better than for January, notwithstanding that the cows were so much nearer the usual time of drying-off. The milkers were the same, but more interested, and consequently more painstaking, both as to regularity of milking and as to stripping. The stable was the same, but more pains was taken to keep it comfortable. The cows were the same, but they were handled rather more gently, and groomed occasionally. The feed was the same, except that the bran and meal were slightly increased to those cows which responded, but the increased meal thus fed would not have averaged over a pound a day per cow, and was compensated by the increased milk flow, not to mention the saving of shrinkage that would doubtless have continued but for the commencement of the records.

Apart from the profit, was the interest aroused. The children, indeed the whole family, became interested. Even a careless hired man will soon come to watch these records appreciatively, while the effect on the owner is more important than the effect on the cows. There is no other way to make a dairyman out of a cow-keeper so quickly or surely as keeping daily milk records of the individual cows in the herd. If you have only one cow milking, start now.

How to Keep Cow Records.

1. Hang up in the stable, or better, in an adjoining milk-room, a spring balance, a small set of steelyards, or, failing that, use almost any kind of scales you like. If you have all your milk pails of a weight, the spring balance may be adjusted to register zero when bearing an empty pail; then, when a pail is hung on it, the total weight recorded will be of milk. Otherwise, the weight of the pail must be mentally subtracted each time.

2. Tack up on a planed board beside the scales a ruled blank for a month's records, with three columns for each cow, and her name or number at the head of the column. At the left-hand side of the sheet will be the figures indicating the day of the month, with lines running from it across the sheet. The first of each cow's three perpendicular columns is for recording the morning's mess, the second for the evening's, and the third for the total day's mess. This latter may be dispensed with, but the daily totals are more interesting for comparison than the records of the separate messes. Besides, if one adds from day to day, he has a lighter task at the end of the month.

3. In the house have a book in which the monthly totals per cow may be entered from month to month, a fresh sheet being tacked up in the stable.

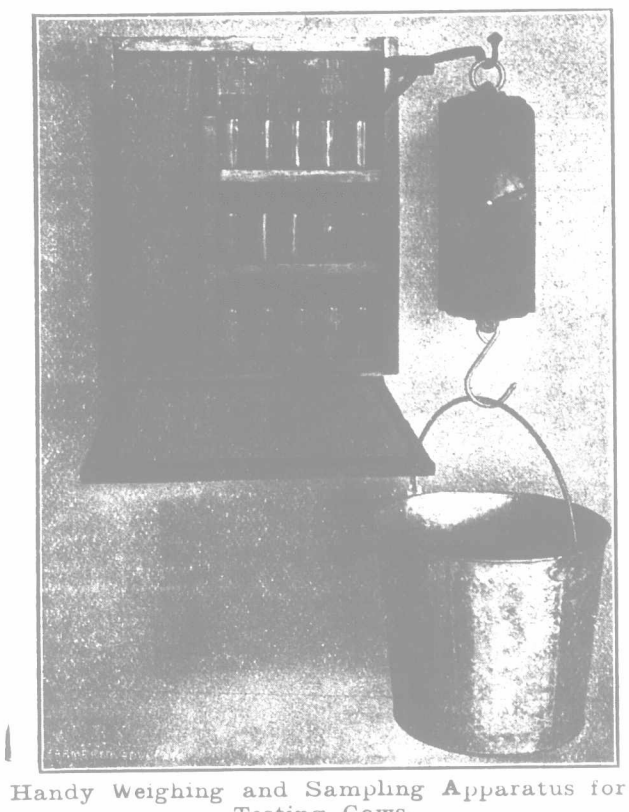
Beside the blank in the stable, have a pencil hung by a string, to insure that it will not be lost.

The rest is so simple that a fool cannot err therein if he can read the scales and make figures.

N. B.—While home-prepared blanks are easily ruled out, and very serviceable, we recommend our readers to write J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa, who will cheerfully supply printed blanks free, on application, as well as sheets which may be used for keeping track of feed. Write to-day.

Regularly, on certain days every month, say the first, the tenth, and the twentieth, samples should be taken from both morning and evening milkings for testing to ascertain the percentage of butter-fat. Each cow should be allotted a bottle, one with a screw metal cap and a rubber washer, which may be procured for 5 or 10 cents. A small, conical sampling dipper, which any tinsmith should make for 10 cents, serves to take the sample. A package of 500 preservative tablets, costing 75 cents, will keep the composite samples in good condition. At the beginning of the month, put one tablet in each bottle, and on the morning and evening of each day that samples are to be taken pour each cow's milk from one pail to another, and take out the small dipperful while still in motion, in order to insure a fair sample. This will give six dipperfuls per month for each cow, representative of six average milkings.

Screw the cap well on the bottle each time to prevent evaporation. Mix the milk in the test bottle each time that more is added, by giving the bottle a rotary motion. The bottles should be kept in a locked cupboard or box, out of reach of children, and marked poison, as the preservative tablets are deadly poisonous. At the



Handy Weighing and Sampling Apparatus for Testing Cows.

end of the month, have the composite samples tested by some creameryman, or by some neighbor, or else do it yourself. A Babcock tester is inexpensive, and very valuable. Having ascertained the percentage of fat in the sample, you can multiply it by the cow's yield of milk, and thus find the estimated total yield of butter-fat for the month. Add one-sixth to this, and you have the estimated yield of butter. Reckon the value of the butter at ruling prices, add the estimated value of the skim milk, and you have the worth of the cow's total product for the month.

Of course, milk-sellers or patrons of cheese factories, where the milk is pooled, have not the same incentive to test for butter-fat, but even they should do it, if only to ascertain the worth of cows that may be valuable to their buttermaking neighbors. Weighing, without testing, should never be depended upon to compare the value of cows. It is the milk yield, plus the butter-fat percentage, that tells the whole story. Even cheese-factory patrons and retailers should place store by a cow that tends to bring up the average richness of the mess.

Report of the Centreville Cheese Factory, Addington Co., for 1909, as furnished by the proprietor, F. C. Gerow, shows a total of 2,212,917 pounds of milk, from which was made 214,474 pounds of cheese, being a yield of one pound per 10.31 pounds of milk, varying from 11.28 pounds in April to 8.70 in November. The average price per cwt. of milk for the season was 92.51 cents. The charge for manufacturing was 1 15-16 cents per pound of cheese. The curing-room is a cement-block building, but without an ice-chamber.

Judging by the number of questions received, a great many readers appear to be interesting themselves in the problem of feeding their cows more profitably. This is encouraging, for there is considerable room for improvement in many instances. Many cows do not get enough nutriment to maintain their body weight and produce a decent mess of milk. Many rations, otherwise satisfactory, lack succulence, while perhaps the most common deficiency is in that valuable element protein, which may be best supplied in the form of alfalfa or clover hay, oil cake, gluten meal, peas and bran.

GARDEN & ORCHARD.

Convention of the Quebec Vegetable-growers' Association.

The first annual meeting of the Quebec Vegetable-growers' Association took place at Cote des Neiges, Montreal, on the 15th December. The Association has started off with an enrollment of 143 members. The meeting proved to be an enthusiastic one, and, judging from the general interest taken in this meeting, the Association, if properly directed, will, without doubt, prove of great value to the vegetable-growers of the Province.

The constitution, as adopted at the organization meeting, was voted on, and unanimously decided upon as being satisfactory in every respect. The Committee on Nomination reported that, in their opinion, it was desirable to continue in office those elected at the organization meeting, with the addition to the Executive Committee of four new members from districts not now represented. This suggestion was voted on, and carried unanimously.

The officers elected are as follows:

Honorary Presidents.—Hon. J. A. Caron, Minister of Agriculture; Hon. J. L. Decarie, Provinvial Secretary.

Honary Vice-Presidents.—Dr. J. W. Robertson, Macdonald College; M. Robert Brodie, Notre-Dame de Grace, and Hon. G. E. Dubord, of Quebec.

Acting President.—Paul Wattiez, of Outremont.

Acting Vice-Presidents.—Messrs. Jack McEvoy, of Petite Cote, and J. B. Beyries, of Cote St. Paul.

Secretary-Treasurer.—Anatole Decarie, of Notre-Dame de Graces.

Executive Committee.—Professor W. S. Blair, of Macdonald College; D. McMeekin, of Valleyfield; F. Lariviere, of St. Laurent; Joseph Deguire, of Cote des Neiges; John Nesbitt, of Petite Cote; James Clark, of Outremont; Father Athanase, La Trappe, Que.; Victor Lacroix, St. Laurent, Que.

The President, P. Wattiez, although at present in Europe, left an address dealing with the organizat on and objects of the Association. He recommended the formation of branch societies in various parts of the Province.

The Mayor of Cote des Neiges welcomed the Vegetable-growers, and expressed the hope that many similar meetings would in the future be held at this place. He could already see that the Association was doing much good in bringing growers of different sections in touch with each other.

The Hon. J. L. Decarie addressed the meeting, giving one of his characteristic, able and inspiring addresses. He was greatly interested in assisting any organization such as the one which had for its object the spreading broadcast of information that would help those engaged in similar industries in various parts of the Province. He said the vegetable-growers were just now beginning to recognize the importance of their vocation, and that education and a knowledge of things they are working with is necessary to make of them the best kind of citizens. He impressed upon his hearers the importance of getting in touch with similar organizations, and securing from every available source information that would make of them better vegetable-growers. He referred at some length to the value of co-operation, citing the work done by co-operative societies in different places. He regretted that the Minister of Agriculture, Hon. J. A. Caron, was unable to be present. He wished him to state that he was heartily in sympathy with the organization, and would do all he could to advance the interests of the vegetable-producers of the Province. Although engaged in other duties now, Mr. Decarie declared he still had the interests of the farmers at heart, and would do all in his power to assist this and similar organizations.

Interest centered around the addresses of Dr. Jas. W. Robertson, Principal of Macdonald College; Father Athanase, of La Trappe Agricultural Institute; and Prof. W. Lochhead, of Macdonald College.

Dr. Robertson gave one of his inspiring addresses on "Education and Co-operation in Agricultural Industries." He referred to the many ways such an organization assisted in making better farmers, better vegetable-growers, better citizens, and the Province a better place to live in. He knew the Domionion well, and thought this Province one of the best parts of the Dominion to live in. Its possibilities were great, and it was through such societies as this that every farmer in the land could be helped by his brother farmer. We want more specific knowledge, and a better understanding of the right application of the knowledge we now have. This Association is not a commercial combine, but a medium whereby one gets in touch with those who better understand how to produce crops economically and well.

Father Athanase gave a valuable paper on "Tomato-growing." He urged the importance of having well-developed plants to start with. They should be well grown and well hardened off before