

Agricultural Chemistry and Geology," I began a diligent study of "Artificial Manures," and the conclusion I came to was that as I had a means of procuring nitrogen by my clover crop, the best manure for me to procure would be one rich in potash and phosphoric acid, and this I decided I could obtain most cheaply in some form of mineral phosphates; animal manures, with the exception of bones, treated with sulphuric acid, to form a pure bone superphosphate, I decided not to use, as they as a general thing vary very much in quality and also decompose very slowly. A few inquiries showed me that the only manufacturers of purely mineral fertilizers in Canada were the Nicholls Chemical Co., of Capelton, P. Q., who, in addition to their sulphuric acid works, have a large establishment at Capelton, where they manufacture large quantities of fertilizers from what is known as *Apatite* (Canadian Rock Phosphate) treated with sulphuric acid alone for the pure superphosphates, and combined with a proportion of both sulphate of ammonia and muriate of potash for what are termed complete fertilizers. Procuring a catalogue, I read it over carefully and then wrote for prices. Now, as I was entirely ignorant as far as practical knowledge of these Canadian mineral fertilizers go, and as I was in the position of a man who has over 100 acres to fertilize, which his sympathizing neighbors, somewhat after the manner of Job's comforters, assure him will not grow buckwheat or even the proverbial white beans, unless stimulated by the application of at least fifteen or twenty loads of stable manure to the acre, I concluded that the best thing I could do would be to consult a few of the farmers whom I could find had tried these manures, and then selecting whichever brand I found most popular and use it chiefly. I soon obtained a list of parties who had purchased from the local agent, and selecting a few men whom I knew to be particularly cautious about experimenting with anything that cost money, I began my inquiries, and as this is not supposed to be a free advertisement for any fertilizer company, but simply one man's experience, given in the hope of benefitting others, I will say no more about the answers I got than that they were in every case satisfactory, and that for a general fertilizer I found the Victor brand in most request. A glance back at the catalogue showed me the following guaranteed analysis for this brand:

Ammonia (N. H <sub>3</sub> )	2 to 3 per cent.
Available phosphoric acid (P <sub>2</sub> O <sub>5</sub> )	7 to 9 per cent.
Potash (K <sub>2</sub> O)	3 to 4 per cent.

This is apparently a complete plant food, containing, however, a very large amount of phosphoric acid and potash in proportion to the amount of nitrogen in the form of ammonia, a fact, however, which made it all the more suitable for my purpose, as I intended sowing clover seed on most of the land along with the oat crop, and clover being a plant that abstracts a large amount of its nitrogen from the atmosphere, I supposed it, as I said before, more necessary to secure a supply of potash and phosphoric acid than of nitrogen, my ideas being strengthened by my finding in the work I have referred to on agricultural chemistry a statement that old meadow hay removes a very large proportion of both potash and phosphoric acid from the soil. Whether I was right in these deductions, I leave it to more experienced heads than mine to say. I am simply giving my reasons as I worked them out for myself, and shall be only too glad to be corrected if wrong. However, *revenons a nos moutons*, I invested in a supply of this brand, ordering also a couple of tons of soluble bone phosphate for use on turnips, as I wished to test the two side by side. J. Y. O.

(TO BE CONTINUED.)

### Errata.

Two typographical errors occurred in the article entitled "Farmers' Institutes in Ontario and Wisconsin Compared," by R. Gibson, which was published on page 81 of our March 1st issue.

The sixth line should read, "think in twenty-seven languages like Prof. Lee, will be more sought after." The seventh line should read, "For every word spoken is vain," etc.

### DAIRY.

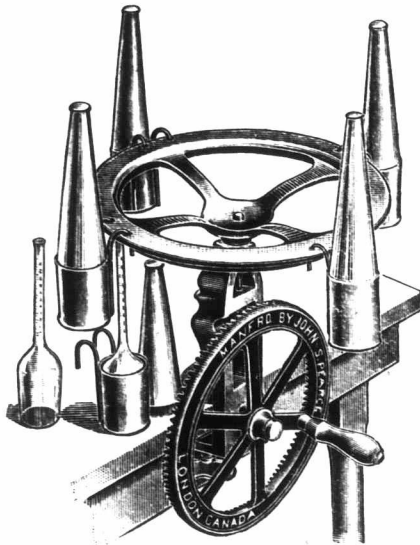
#### Inspector Millar's Programme for April and May.

Instead of having instruction given in a few factories in making early spring cheese, as carried out last year, the Dairymen's Association of Western Ontario have arranged for Inspector Millar to give instruction to cheesemakers for two or three days at a number of factories, covering the whole of Western Ontario. The list of factories selected and dates fixed are as follows:—

Brownsville	April 10 to 11
Mapleton	" 16 to 21
Nilestown	" 23 to 25
West Oxford	" 26 to 28
Victoria	May 1 and 2
Attercliffe Station	" 3 to 5
North Brant	" 7 to 9
Birr	" 10 to 12
Butcher's (Brimo)	" 14 and 15
Leitch's (Mt. Carmel)	" 16 and 17
Appin	" 18 and 19
Dutton	" 21 to 23
Burrow	" 24 and 25
Huron (near Ripley)	" 28 and 29
Dunkeld	" 30 and 31
Barriston	June 1 and 2
Flesherton	" 4 and 5
Avening	" 6 and 7
Wyebridge	" 8 and 9

### A Babcock Tester for the Farm.

With the introduction of the test system in cheese factories, as well as in creameries, the farmer is bound to take into account both the quality and the quantity of milk given by his herd. To sort out the worthless ones from a dairy standpoint, he must not only weigh their milk separately from time to time, but test it for butterfat. Then multiply the pounds of milk by the per cent. of butterfat, and the product will be the total number of pounds of fat. Retain the cows yielding the largest number of pounds of fat in the season. They will be the money-makers. Furthermore, they will be the cows to raise heifers from. As the Tester is going to spread, patrons should begin sorting out at once. Most farmers have scales, but what they lack is a small Babcock Test at a reasonable price. Up to this time the average dairyman has considered Testers too high in price. Ever on the alert to furnish the very latest appliances that the requirements of the times demand, John S. Pearce & Co., of London, have devised a handy four-bottle tester expressly for farmers' use, an illustration of which we give.



It is made to fasten with a screw on a table or bench while in use, and is called the "Farmer's Favorite Babcock Milk Tester." In order to enable any one to obtain one of these Testers easily and cheaply, we have arranged to offer them as premiums. One will be given for a club of eight new subscribers to the FARMER'S ADVOCATE. The names must be accompanied by \$8.00 in cash. Freight or express must be paid by the receiver, but this will be only a trifle. The cash price of this Tester is \$6. As arrangements have been made to make dairying especially prominent in the ADVOCATE, there should be no trouble in securing eight new subscribers in any good dairy district.

### Dairymen's Convention at Huntingdon, P. Q.

BY OUR OWN CORRESPONDENT.

The annual meeting of the Huntingdon Dairymen's Association, which, by the way, is the oldest association of its kind in the Eastern Townships, was held in the village of Huntingdon on February 16th. The meeting was called to order at 11 a. m. by the President, Robt. Ness, Esq., Howick, P. Q., a very large number of members being present notwithstanding the fact that the weather was rough and the roads bad. In his opening address, which was practical and to the point, the President touched on the benefit of winter dairying, for the proper carrying out of which he urged the necessity of good stables and good feeding, more especially pointing out the advantage of having water in the stables and not turning the cattle out at all.

The Secretary, Mr. Wm. Walker, gave a satisfactory statement of the finances of the society, after which letters of regret for their non-attendance were read from the Hon. John McIntosh, Prof. Barnard, Prof. Robertson, and Mr. S. Fisher. Mr. Walker stated that although this was the first year that they had offered prizes for butter and ensilage, there were no less than 27 entries of butter and 12 of ensilage.

Mr. D. M. MacPherson, of Lancaster, Ont., congratulated the Association on the success achieved by the Province at Chicago, urging further efforts towards keeping up the present standard of excellence and at the same time increasing the output. In conclusion he pointed out that the income per acre from the farms of Canada is decreasing, while living expenses are increasing.

Prof. Dean, of the Guelph Agricultural College, gave the meeting some very valuable hints founded on experience gained during the past year, among which the necessity for providing green food during the hot, dry months of the summer and the fact that there is still room for improvement, more especially in butter-making, were especially touched on.

Mr. Thos. Dillon, of the Ottawa Experimental Farm, who has for two years had charge of the Government factories in Prince Edward Island, gave a short account of dairying on the Island, in which he paid a tribute to the intelligence of the Islanders; after which the meeting adjourned till 2 p. m., after appointing Messrs. Dean and Dillon judges on butter, and Messrs. Tylee and Macpherson judges on ensilage. The afternoon session was opened by the election of directors, after which the

report of the judges on ensilage was made, in which they declared the samples submitted for competition to be of uncommon excellence, the prizes being awarded as follows:—First, Joseph Gamble; second, Arthur W. Rowe; third, Thos. Drysdale; a special being awarded to R. Robertson for his exhibit of ensilage made from the Robertson mixture of corn, beans and sunflowers. Mr. Tylee, in making this report, touched on the special need for silos by small farmers, and also stated that he considered three-quarters of an inch quite long enough to cut ensilage, and one-half inch better still.

The Hon. Louis Beaubien, Minister of Agriculture for the Province, gave a brief address, in which he stated that two prominent bankers in Montreal had told him that the Province of Quebec business men had met their obligations more fully and promptly than those of any other province during the winter. (A statement which met with great applause.) A fact which, he pointed out, was due largely to the amount of money brought into the country by the dairy industry.

Mr. D. M. Macpherson followed with a few remarks on the ensilage exhibited, which he agreed with Mr. Tylee was of the very highest order. He then went on to point out the advantages of the silo, and urged any farmer who was without one to delay no longer, but to make preparations at once for putting one up.

Prof. Dean gave an address on "Composite Testing of Milk." First of all, however, he extended greeting from the dairymen of Ontario to those of the sister province and assured them of their sympathy. In the course of his address, which was most interesting and instructive, the Professor strongly advised paying for milk at cheese factories by the Babcock test, declaring that by the most exhaustive tests made it has been found that as the percentage of fat in milk varies so does the percentage of casein. He pointed out that by using the test system all danger of watering and skimming milk was done away with. After drawing attention to the amount of labor involved in testing every day, the Professor showed how this labor might be very much lightened by taking samples every day, treating them with bi-chromate of potash and testing once a month. In conclusion he urged his hearers not to be too confident, but to be very careful in any fresh work they undertook.

Mr. J. Y. Ormsby, V. S., manager of the Isaleigh Grange Farm, Danville, P. Q., gave a short address on "Pigs and Pig Breeding." He called attention especially to the fact that there was no animal on the farm that gave a better return for dairy refuse than the pig. He urged the use of none but pure-bred males, and gave it as his opinion that a cross between two pure-breds made the best feeding pig, and after describing the points most to be sought after in a bacon-pig, he concluded by stating that in his experience he found the pig a very intelligent animal when properly handled.

The evening session was opened by Mr. Thos. Dillon, who made a few remarks on the butter exhibit, which he pronounced very good. Then proceeding to his subject, "Dairy Farming," he gave a most interesting address, in which he touched principally on the following points: The necessity of providing plenty of cheap succulent food for our cows, and carrying on winter as well as summer dairying, at the same time giving it as his opinion that with proper management milk could be produced as cheaply in winter as in summer; the need of more study on the part of dairymen, so that they may profit by the experience of others. The necessity of breeding more especially for milk was emphasized, and using every possible means for developing the dairy qualities. In conclusion he stated that although we hear so much about hard times, prices are better than they were before the Crimean War. Mr. Dillon's address was followed by a discussion, in which the audience declared themselves to a man in favor of silos and ensilage.

Addresses by Mr. G. W. Stephens, M. L. A. for Huntingdon County, and Mr. Grey, M. L. A. for Chateauguay County, followed, with music at intervals, and then Prof. Dean was again called and responded by giving an account of his experiments by which he argued to his satisfaction that we cannot increase the fat in milk by feeding. This statement was challenged by some of those present and an animated discussion followed, in which a number of gentlemen took part.

The Hon. Louis Beaubien said a few words, and a hearty vote of thanks to those who had contributed to the programme terminated a very successful convention.

The following is the list of those who were awarded prizes for butter and the points:

*Prizes.*—First, Mrs. G. Murphy, 92 points; second, J. G. Mair, 91 points; third, J. Y. Currie, 81 points.

*Rolls.*—First, Neil Sangster, 95 points; second, Jno. Lockerby, 93 points; third, Jno. Cottingham, 91 points.

*Factory.*—First, Elgin Creamery, 91 points; second, Jno. Boyd (St. Chrysostome), 85 points.

Everyone interested in dairying should not only read, but study that instructive little book, "Dairying for Profit, or the Poor Man's Cow," which may be obtained from the authoress, Mrs. E. M. Jones, Brockville, Ont. Price, 30 cents. Over 62,000 copies have been sold, and in order to further stimulate its circulation, we will give two copies to every old subscriber sending in his own name (renewal), and that of one new yearly subscriber, accompanied by two dollars.