

# FARM AND DAIRY & RURAL HOME



DEVOTED TO  
**BETTER FARMING**  
AND CANADIAN  
COUNTRY LIFE



Toronto, Ont., 1916

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Date of April Dec 16  
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CORNER STONES OF THE DAIRY INDUSTRY.

On the farm of D. B. Tracey, Durham Co., Ont.

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# FARM AND DAIRY

## & RURAL HOME



We Welcome Practical Progressive Ideas

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

VOL. XXXV

TORONTO, ONT., NOVEMBER 30, 1916

No. 47

## The Injustice of Pooling--the Fairness of the Straight Fat Basis\*

### Striking Results-Obtained by Investigators Publow and Zufelt--Fat a Fair Indication of the Value of Milk for Cheese Making

FOR years there has been a controversy going on regarding the introduction of a fairer method than the present pooling system, of paying for milk at cheese factories. About 20 years ago the Babcock test was introduced into Canada, and it was thought that it would soon be used largely in cheese factories as a method of determining the value of milk. But owing to the opposition and the difficulty of arriving at an agreement as to its reliability as a test for milk for cheese making purposes, little progress was made. Since there was no encouragement to improve the quality of milk the dairy industry in the province was held back. Meanwhile other countries and provinces were forging ahead of us in the introduction of improved methods, and the department saw that the best way out of the present situation was to decide for themselves. The result was the passing of the Dairy Standards Act. Such a radical change as this act provides for is rare to arouse considerable opposition in the country, but for the most part this is due to a lack of the knowledge of the law and of the necessity that existed for passing it. It is to meet the demand for information, and to give the results of our investigations concerning the different systems of paying for milk, that these district dairy conventions are being held.

#### An Old Fallacy That Persists.

It was a common saying 20 years ago that it took 10 lbs. of milk to make a pound of cheese. Even now you will hear men who are prepared to argue that 100 lbs. of three per cent. milk is just as good as 100 lbs. of six per cent. milk for cheese making purposes. Whether people believe it or not,

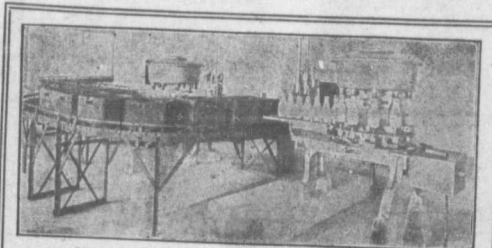
L. A. ZUFELT, Superintendent Kingston Dairy School.

they try to make us believe that they do. Cheese-makers and dairymen generally, of course, know that the amount of cheese varies about in proportion to the fat content of the milk. But there has been a lack of definite information on this important point. In order to arrive as near as possible at the real relationship that exists be-

tween the fat content of milk and the amount of cheese made from a given amount of it, Mr. Publow and myself conducted some careful investigations during the past summer and verified our results in such a manner that their comparative accuracy is beyond question.

The factory first chosen for the investigation was the one at Lockport, where good average conditions for the province are found. For a week we stayed there, making up two lots of cheese a day from milk of different percentages of fat, carefully weighing the cheese made from each and comparing them one with another. A month later we repeated the investigations at the Dairy School at Kingston. The results were a striking verification of those obtained at Lockport. It should be remembered that the milk used in conducting these investigations was ordinary milk just as it comes from the cows. To get the high testing product we had to hunt around quite a lot, but finally we got it. We wished the investigation to cover all practical conditions, though of course there were not many patrons supplying 5.5 per cent. milk to factories.

As will be seen from the table, which is prepared from the results obtained at the Kingston Dairy School, 100 lbs. of 5.5 per cent. milk produced 13 1/4 lbs. cheese. Several tests confirmed the accuracy of these figures: the results from milk slightly lower in fat also confirming them. For instance, 100 lbs. of 5.4 per cent. milk gave 13 1/4 lbs. cheese. The value of the cheese then from 100 lbs. of 5.5 per cent. milk at 20 cents a pound (the price of cheese, less cost of making at the time the investigations were conducted) was \$2.65. If this milk had been paid for according to the fat plus casein test, the patron would have received \$2.79; if



Cheese Values of 100-lb. Lots of Milk of Varying Tests.

5.5%	Fat made 13 1/4 lbs. cheese worth \$2.65
4.2%	" " 11 1/2 " " " 2.30
4.0%	" " 10% " " " 2.15
3.2%	" " 8% " " " 1.75

Values of 100 Lbs. of Milk Containing Various Amounts of Fat, as Determined by the Weight of Cheese Made From Them.							
Per Cent. of Fat.	Per Cent. of Casein.	Weight of cheese.	Value at 20c a lb.	Values as Determined by			Pooling.
				Fat Plus Casein.	Fat.	Fat Two.	
5.5	2.4	13 1/4	\$2.65	\$2.79	\$2.78	\$2.60	\$2.20
3.2	1.8	8 3/4	1.75	1.61	1.62	1.80	2.20
4.2	2.0	11 1/2	2.30	2.25	2.28	2.21	2.09
3.5	1.8	9 3/4	1.87	1.93	1.90	1.96	2.09
4.0	2.1	10 1/2	2.12	2.09	2.11	2.05	1.95 1/2
3.4	1.9	8 7/8	1.79	1.81	1.79	1.85	1.95 1/2
5.4	2.3	13 1/4	2.62	2.62	2.71	2.56	2.21
3.4	1.9	9	1.80	1.80	1.71	1.86	2.21
4.2	2.0	11 1/2	2.30	2.25	2.25	2.14	
4.0	2.0	10 1/2	2.12	2.12	2.14	2.07	
3.5	1.8	9 3/4	1.87	1.87	1.87	1.89	
3.4	1.9	9	1.79	1.79	1.82	1.86	1.94
3.4	1.9	8 7/8	1.79	1.79	1.82	1.86	
3.2	1.8	8 1/4	1.75	1.75	1.71	1.79	
			58 1/4	11.62			
Average difference per 100 lbs. of milk					11.61	11.61	
					3c	7c	18c

\*Report of an address delivered before the local dairymen's & D.B. convention now being held in Hamilton, Ontario.

## FARM AND DAIRY

## Heaves of Horses

## They May Be Prevented, But Not Cured

by fat alone, \$2.78; if by the fat plus two, \$2.90, and if by the pooling system, \$2.20. The pooling system would have given the patron 45 cents less for the milk than the market value of the cheese made from it. Compared with these figures are the results obtained from 2.2 per cent. milk, which is the lowest testing milk in the test. One hundred pounds of this milk made 3½ lbs. of cheese, or 4¼ lbs. less than was made from the same weight of 5.5 per cent. milk. Its value was \$1.75, or 90 cents less than the value of the cheese made from the other lot. Again the difference in the values according to the fat plus casein and the straight fat, was only one cent, being \$1.61 and \$1.62 respectively. The fat plus two basis would give \$1.80, and the pooling system \$1.20. This shows the way in which the man with low testing milk profits at the expense of the men supplying the better article. In this case he would receive 45 cents more for his milk than the value of the cheese received from it, as against the other man's receiving 45 cents less than he should have done.

## Results With Average Milk.

The second comparison represents the average milk as received at factories. The average difference between the highest and lowest testing milk is sometimes one and one-half per cent., sometimes three-quarters of one per cent., and on the average about one per cent. This year Mr. Publow received reports of tests from his instructors of the milk received at most of the factories in Eastern Ontario. In only four individual cases, represented by the reports of all his instructors, did the difference exceed two per cent. Here it will be seen that the amount of cheese again varied: the 5.5 per cent. making \$1.87 cents worth of cheese, as against \$2.30 from the 4.2 per cent. milk. The straight fat method, it will be seen, comes nearer in both of these samples to giving the patron the true value of his milk than either the fat plus casein or the fat plus two method. The pooling method, as usual, is the most unjust of all, giving the man with 4.2 milk 14 cents less, and the one with 3.5 milk 23 cents more than they should have received.

In the third comparison the fat method was only one cent out with the 4.0 milk, and with the 3.4 milk gives the patron the correct amount of money: the pooling system being 16½ cents out with both lots, again discriminating against the man with the best milk. With the fourth comparison approximately similar results are obtained.

## How It Works in Practice.

The second large division of the table may be taken as showing the way money would be distributed to the patrons who were sending milk

that varied in the test within ordinary limits. The milk used in these tests varied from 3.2 to 4.2 per cent. If these patrons were pooled according to the pooling system, each would receive \$1.34 cents a cw. for his milk. For the 4.2 milk, 36 cents too little would be realized, while for the 3.2 milk 19 cents too much would be realized. Paid for on the fat basis, the high test milk brings within five cents and the low test within four cents of the true value of the cheese made from them. On the fat plus two basis, the high testing milk brings within 16 cents and the low testing within four cents of their true value. This is significant as showing that in the cases under investigation, the straight fat basis came

(Continued on page 8.)

Heaves is a very common and annoying disease of horses, interfering seriously with the usefulness of the animal, and consequently detracting from its value. Mainly a disease of old horses, it is essentially the result of faulty feeding and working, especially hard pulling or fast driving when the stomach is overloaded. Gross feeders are frequently subjects of heaves.

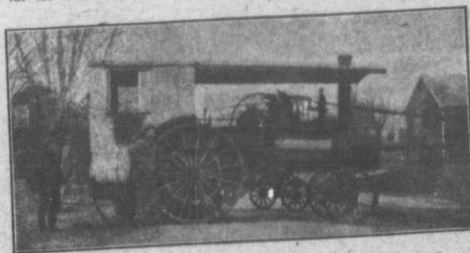
While in old, established cases there may be alterations in structure of the heart and stomach, the principal changes are observed in the lungs. These consist first in an enlargement of the capacity of the air cells through dilation of their walls, followed by a passage of the air into the lung tissue between the air cells. Owing to such structural changes, it is impossible to prevent progressive development of the disease, which, however, under proper care, may go on slowly, the animal remaining serviceable for certain kinds of work for years.

## Symptoms of Heaves.

Except in the very early stages the disease is readily detected. The symptoms are those which would naturally be manifested in a condition where the lungs are involved. A peculiar short, grunt-like cough is usually present, and when the animal is exerted a wheezing noise accompanies the breathing. The principal and characteristic symptom, however, is the jerky or double movement of the abdomen in an effort to force air from the lungs. The air passes into them freely, but the power to expel it is lost to a great extent; therefore the abdominal muscles are brought into play.

Indigestion is frequently observed in these cases, and the horse may have a depraved appetite, as shown by a desire to eat dirt and soiled feed, and there is a tendency to the condition bedding; and there is a tendency to the condition commonly termed "pot-bellied." The animal, though a heavy feeder, becomes unthrifty and emaciated.

A poorly ventilated stable, humid weather,



The Locomotive Has a Cab. Why Not the Threshing Engine? This illustration, from a snapshot taken by an editor of Farm and Dairy in Prince Edward Co., Ont., shows how one thresherman has provided for his comfort in cold, raw fall weather. The cab is made of corrugated iron.

severe work, and overfeeding with coarse, dry feeds tend to aggravate the trouble.

As in this condition structural changes have taken place in the lungs, treatment, as a rule, can only be directed to the relief of the symptoms, and it is not possible to effect a complete cure after the disease is established.

## Feeding the Heavey Horse.

In the case of an affected horse it will be an advantage to dampen the food, with a mixture of one part of molasses to three parts of water, so that no dust may arise while the animal is eating. It is also desirable to restrict the amount of hay or forage, as large quantities of bulky feed which distend the abdomen increase the difficulty, and



Red Clover Flourishes in New Ontario. This fine crop of clover grew on the farm of Mr. Alex. Swan, in the Rainy River District, Mr. Swan is one of the early pioneers of the district and was formerly a neighbor of the live stock editor of Farm and Dairy.

an animal with heaves should never be driven or worked when full of such material.

In these cases Fowler's solution of arsenic may be given in doses of one ounce in the drinking water three times daily. Ordinary lime dissolved in drinking water (limewater) will be found beneficial. Lime may be added to a barrel or cask of water, and after the resulting mixture has become clear through precipitation of undissolved portions of the lime the lime-water may be used freely in watering the animal.

## Milking by Machinery

## It Helps To Keep the Men on the Farm

A FEW years ago one who ventured the opinion that the milking machine would soon be in common use on dairy farms was apt to be looked upon as being too optimistic. Now, no matter where one travels in dairy sections, he is constantly meeting farmers who have milking machines installed. To the majority of those who are using them they are proving satisfactory. Some, of course, are to be found who are not strongly impressed with their merits, but others are enthusiastic about them, some exuberantly so. From an impartial standpoint it would appear that where one of the standard makes of machines has proved unsatisfactory there is a probability that the trouble is due to bad installation, or to unskilled operation, rather than to the machine itself. The best proof that they are successfully filling a great need on dairy farms is that they are steadily and rapidly gaining in favor. The indications are that they will soon be found on every progressive dairy farm.

During a recent visit to Durham Co., Ont., I called on Mr. A. T. Stainton, who had been referred to me as the local milking machine expert. Mr. Stainton I found to be thoroughly well informed on the operation of the milking machine, and in the half-hour's chat that we had concerning them he brought out many valuable points regarding their care and operation. "The milking machine is a success when properly installed and operated," he said. "Whenever they have been found to be unsatisfactory it has generally turned out to be the fault of the man and not of the machine. Our experience in this locality confirms that of the city milk inspector of Toronto, who stated that he had found lots of machines working satisfactorily, and if they were giving trouble it was because they were not properly handled. I have had the machine in my stable for a year and a half, and in that time have

only milked once during the winter. We were hand milking. The change is in the way we install and clean the machines. The result is directly at the time we save one of the horses. And for itself, a farm when of them he hours which done after has done more to drive me

Though the milking that they sanitary and strongly add machine oil. His machine there is a valves with valves are the and soaked oil twice necessary, he them thoroughly. That makes the valves a last longer tubes and before and emerged when chloride of lime of the substance in this way a penny about twice a week course to the milking. Two by running and Fridays gone. "The Mr. Stainton, right he will. Asked regarding take to the milk better with no change



This illustration



only milked half my herd once. That one experience demonstrated the value of the machine, for we were rightly glad to get away again from hand milking.

"The chief advantage of the milking machine is in the saving of labor," he continued. "Before we installed our machine we never had the horses cleaned before breakfast. Now one man does the milking and the other gets the teams ready, with the result that everything is ready for work directly after the morning meal. The same saving of time is effected in the evening, so that we save one and one-half hours a day at least, not of the men's time only, but also that of the horses. At this rate the machine will soon pay for itself. Then it is easier to keep men on the farm when the machine is installed. The most of them hate milking and object to the long hours which milking makes necessary when it is done after a full day's work in the field. Milking has done more than any other job on the farm to drive men to the city."

#### Good Care Essential.

Though enthusiastic regarding the merits of the milking machine, Mr. Stainton recognizes that they require special care to keep them sanitary and in good working condition. He strongly advocates keeping the machine clean and well oiled. His machine is one in which there is a pump with leather valves with each unit. The valves are thoroughly cleaned and soaked with neatfoot oil twice a week. It is necessary, he states, to wash them thoroughly first in order that the oil will soak in. This makes the leather of the valves soft so that they last longer and give better satisfaction. The tubes and metal parts are thoroughly rinsed before and after milking. They are kept submerged when not in use in a strong solution of chloride of lime, made by adding one-half ounce of the substance to 10 quarts of water. Used in this way a pound lasts a long time. As it costs only about 15 cents the expense is inconsiderable. The brine is changed every week, and twice a week in hot weather. It is necessary of course to thoroughly rinse the brine out before milking. Twice a week the tubes are cleaned by running the brush through them, Tuesdays and Fridays being the days on which this is done. "The right way is the easiest way," said Mr. Stainton. "If a man starts right and keeps right he will have no trouble."

Asked regarding the manner in which the cows take to the machine, Mr. Stainton said that they did better with it than with hand milking. There was no changing of milkers, and once they got accustomed to the new way there was no further trouble. He knew of one herd in which there were two cows that had to be strapped before any one could milk them. A machine was installed and they

liked it so well that it was possible to discontinue the practice. There was no more danger of cows drying up with the milking machine than with hand milking. This fall, owing to the scarcity of feed, cows were drying earlier than usual, and some who were using the machine for the first time were afraid that it had something to do with this. He did not think, however, that it was due in any sense to the use of the machine. The

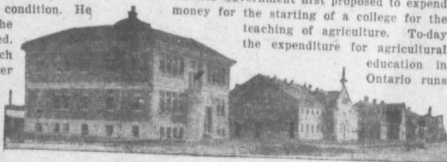
principal thing to avoid was running the machine too fast, as this had a tendency to cause the blood to come. "Install them properly; keep them well oiled, cleaned and disinfected; run them at the right speed and use ordinary mechanical common sense," concluded Mr. Stainton, "and the milking machine will give as good satisfaction as any machine on the farm."—R. D. C.

## Manitoba Encourages Agricultural Education

Her Agricultural College One of the Finest in Canada

H. BRONSON COWAN, EDITOR-IN-CHIEF, FARM AND DAIRY.

ONE of the finest evidences of the change that has taken place in the viewpoint of many in regard to agricultural education is furnished by the fine agricultural colleges now located across Canada. Many farmers in Ontario can remember the fight that raged in the Ontario Legislature and the jeering remarks that were made along practically every side-line when the Ontario Government first proposed to expend money for the starting of a college for the teaching of agriculture. To-day the expenditure for agricultural education in Ontario runs



The Dairy Building, Stock Judging Pavilion, Barns and Poultry House of the Manitoba Agricultural College.

into hundreds of thousands of dollars each year, and the government is criticized by the opposition for not expending more. The same is largely true in the other provinces as well. The Nova Scotia Agricultural College at Truro, under the direction of Principal M. Cumming; the Macdonald College, near Montreal in Quebec; the Ontario Agricultural College at Guelph; the Manitoba Agricultural College at Winnipeg; and the Saskatchewan Agricultural College located at Saskatoon, all bear tangible evidence that there is a tremendous demand to-day for agricultural education and for practical agriculturists with a scientific training. Alberta has several schools of agriculture, and British Columbia is launching a college of its own. Soon every province in Canada will have its own agricultural college.

#### Manitoba College.

Among the colleges mentioned, the Manitoba Agricultural College is in many ways the finest of all. I have had the privilege of visiting it twice within the past year, and on each occasion have been impressed by its fine equipment and many natural advantages. The buildings are new throughout, having been erected within the past few years. Being the latest buildings erected, it was possible to embody in them ideas not included in the other colleges.

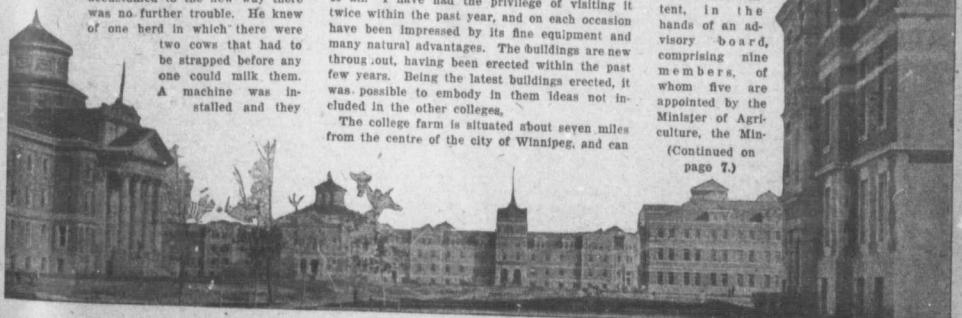
The college farm is situated about seven miles from the centre of the city of Winnipeg, and can

be reached by electric cars. Its area is about 600 acres. The investment in buildings and land represents an expenditure of about four million dollars. The buildings are located 7' a point where the Red River makes a graceful loop, this condition making an ideal situation.

The college buildings represent the latest work in point of construction. They are made of brick and stone throughout and therefore are fireproof. The press has had much to say of recent years concerning the large sums expended in the erection of the buildings. From what has been said we had the impression before visiting the college that much of the money had probably been grafted away so that the buildings would not represent in value what they had cost the province. In this we were agreeably disappointed, as the buildings throughout gave the most favorable impression, appearing to be both well constructed and arranged. From an artistic standpoint they were most attractive. There were, it is true, some evidences of foolish expenditure. The most prominent of these was some ornamental gates erected at the entrance to the grounds at an expenditure of about \$8,000. These have no value except for appearance sake, and while attractive, have been the subject of much unfavorable comment. They are like the gates sometimes seen at the entrance to cemeteries, and one wag is said to have said in regard to them, "Why did they bury the government so deep?" Last year the expenditure for the maintenance of the college amounted to about \$70,000.

#### An Advisory Board.

The management of the college is in some respects unique. It is vested, to a considerable extent, in the hands of an advisory board, comprising nine members, of whom five are appointed by the Minister of Agriculture, the Minister of Education, and the Minister of Lands (Continued on page 7.)



Manitoba Has One of the Largest and Best Equipped Agricultural College Plants on the Continent.

This illustration, from a photo of the buildings just after construction, shows, in the order named, the Administration Building, Auditorium and Dining Hall, Students' Residence, Agricultural Engineering and Physics and Chemistry Buildings.

# Announcing Farm and Dairy's Big Annual Christmas Renewal Offers

This is the particular season of the year when most everybody plans to contribute to the happiness of others. Consequently FARM and DAIRY chooses this time of the year to make all its readers a Special Reduction on renewals. Now is the time to secure your future copies of FARM and DAIRY at a big reduction. As a valued reader of FARM and DAIRY you will be interested in the opinions of other readers. Here is what some of them say about Canada's great dairy magazine:

"Farm and Dairy deals so completely with farm interests."—W. H. Seavoy, Jr., Matheson Stn., Ont.  
 "I think Farm and Dairy is one of the finest little papers printed."—Oswald Walton, Cayuga, Ont.  
 "We would not be without Farm and Dairy under any consideration."—D. B. Carruthers, Whitley, Ont.  
 Farm and Dairy is the only publication in Canada specializing in dairying and its allied industries. Next year it will be better than ever. In addition to the regular it has improved in editorial value and in dairy information. Next year it will be better than ever. In addition to the regular issues every subscriber will get

"We consider Farm and Dairy a bright, educative acquisition to any household."—Horace Sherman, MacLennan, Ont.  
 "I have obtained much valuable information from Farm and Dairy."—G. W. L. Whitley, Trenton, Ont.  
 "The photos of dairy cattle published in Farm and Dairy are worth five times the subscription price."—John Warner, Cayuga, Ont.

## THE FOLLOWING 12 SPECIAL NUMBERS

Good Roads Annual—Jan. 4.  
 Poultry Magazine Number—Feb. 1.  
 Orchard and Garden—Mar. 1.  
 Special Dairy Issue—April 5.

Farm Machinery—May 3.  
 Farm Buildings—June 7.  
 Automobile Number—July 5.  
 Western Canada Number—Aug. 9.

Exhibition Special—Sept. 1.  
 Household Number for Women—Oct. 4.  
 Farm Power and Cooperation—Nov. 1.  
 Christmas & Breeders' Annual—Dec. 5.

These numbers alone are worth the regular annual subscription price.

## HERE ARE THE BIG DISCOUNT OFFERS—GOOD FOR DECEMBER ONLY—Take advantage of them at once

**No. 1** To all readers of Farm and Dairy whose subscriptions have expired since November 1st, 1916, we offer renewal of two full years for only **\$1.50**  
 Or three full years for only **\$2.00**

**No. 2** To all readers of Farm and Dairy whose subscriptions have not yet expired we offer extension renewal of two full years from the date of expiry for **\$1.50**  
 Or three full years from date of expiry for only **\$2.00**

Look at the label on your paper. It gives the month and year your subscription expires.

## SOLVING THE CHRISTMAS GIFT PROBLEM

You have a friend or relative—or several of them—to whom you wish to send an acceptable yet inexpensive Christmas gift? Better still, a gift that commencing at Christmas time, will repeat regularly every week throughout the year—a continual reminder to him of your goodwill.

**FARM AND DAIRY IS THE ANSWER**  
 Join those who arrange with us to send each week a copy of Farm and Dairy to their friends. Just think of it—52 copies, including the twelve double size special issues, as a weekly evidence of your Christmas sentiment. You cannot send a better gift at twice or thrice the price.

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1. We will renew your own subscription for one year from its present date of expiration and send a copy each week for one year to one friend for **\$1.50**
  2. We will renew your own subscription for one year from its present date of expiration and send a copy each week for one year to two friends for **\$2.15**
  3. We will renew your own subscription for one year from its present date of expiration and send a copy each week for one year to three friends for **\$2.75**
  4. We will renew your own subscription for one year from its present date of expiration and send a copy each week for one year to five friends for **\$4.00**
- We will send a card to each name you send us expressing your good wishes and telling him you have paid his subscription to Farm and Dairy for one year as a Christmas remembrance.

### FARM AND DAIRY, PETERBORO, ONT.

Gentlemen:—  
 Accepting your December renewal offer, I enclose herewith the sum of **( \$1.50 )** to cover my subscription for **( two )** years **( \$2.00 )** from present date of expiration.

Name .....

Address .....

Correct .....

Important.—Notice if the label on your paper is properly addressed. If not, send us the label along with this letter.

### FARM AND DAIRY, PETERBORO, ONT.

Accepting your Christmas gift offer I enclose herewith the sum of ..... dollars to pay for renewal of my own subscription to Farm and Dairy for one year from present date of expiration; also to pay for the subscription of ..... friends (How many) whose names and correct mail address I attach hereto.

My Name .....

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## Manitoba Encourages Agricultural Education

(Continued from page 6.)

later himself being an ex-officio member, and four members appointed by the Live Stock and Grain Growers' Associations. The recommendations of the president of the college, as to policy, are passed upon by this advisory board. While the Minister of Agriculture has the final decision when it comes to the adopting of these recommendations, it is believed that they are more likely to receive favorable consideration when presented to the government in this manner than they would be were they to be made direct by the president only. The Board met four times last year. The Minister himself cannot appoint or dismiss members of the staff.

### The College Staff.

The college staff is a credit to the province. At the head of it is President J. B. Reynolds, M.A., who is well known to the farmers of Ontario through the fact that for 22 years he was a member of the staff of the Ontario Agricultural College, where his good work has long been recognized. In association with President Reynolds is a staff of some forty members, many of whom are graduates of the Ontario Agricultural College. Among them are F. W. Broderick, B.S.A., professor of horticulture; J. W. Mitchell, B.A., who recently resigned was professor of dairy husbandry, and for many years superintendent of the Kingston Dairy School; A. J. Galbraith, B.S.A., professor of Chemistry; F. S. Jacobs, B.S.A., professor of animal husbandry, and formerly editor of the Farm and Ranch Review; V. W. Jackson, B.A., professor of botany; M. C. Hermer, B.S.A., professor of poultry husbandry; E. H. Farrell, instructor in butter making, and a number of others. The members of the staff have been carefully picked and are known as experts in their different departments.

Under Prof. Reynolds' direction we were privileged to inspect practically all the buildings. The administration building occupies the central position, with the other main buildings grouped around it. One of the finest of these is a four-story building, comprising the auditorium and dining hall in the centre, with the women's residence in one end, and the men's residence in the other. This building is 550 feet in length and has long wings running toward the rear. It has accommodation for about 300 men and 200 women. The auditorium has a seating capacity for 1,200. It costs the student only one dollar a week for his room and \$3.50 a week for board; \$14.50 pays his fees and necessary expenses for the college term. Last year there were 370 students in the regular courses, including 250 boys and 120 girls. This was the case in spite of the fact that many students had enlisted. In addition to the regular courses, numerous short courses are held, including one on poultry which had an attendance of about 20, another on engineering, held in June, and attended by about 40. Normal student courses, conducted in May and June, with an attendance of 175, and a course for ministers, lasting two weeks in the summer, which a year ago was attended by 150. The rapid growth of the college is shown by the fact that where the attendance ten years ago was about 40, Mr. Colquhoun, the editor of Farm and Dairy, being one of the first students, it last year amounted to 370.

### The Live Stock Department.

Considerable live stock is kept, although not proportionately as much as is kept at the Guelph or Macdonald Colleges, Manitoba yet being devoted largely to grain growing. A

description of the dairy animals kept appeared in the Western Canada Edition of Farm and Dairy, published in August. Clydesdale horses, beef and dairy cattle and sheep are kept. Very few hogs are maintained as yet. At the time of your first visit an experiment was being conducted in the feeding of range steers. An experiment was also made out with range lambs in which the Oxford top cross was used. These experiments indicated that the first cross was the most satisfactory. The live stock buildings were well constructed throughout and comfortable. The poultry building was in harmony with the rest. Open front houses have been used with success in spite of the cold climate of Manitoba.

### Practical Subjects.

Many thoroughly practical subjects are taught in addition to what is commonly looked upon as the general college course. For instance, we noticed a well equipped slaughtering room and cold storage room. The students are taught how to slaughter and cut carcasses. In this respect Manitoba is ahead of the Guelph College.

In the mechanical building one of the most interesting sights was in the department devoted to the teaching of blacksmithing. Here 48 forges are used. The students are taught how to make such practical things as horseshoes, hooks, chains, door handles and other useful farm articles. Much of the work we saw was even better constructed than that done by many practical blacksmiths. In the same way, the making of cement is taught, including the making of fence posts, sidewalks, tiles and similar work. This training is an invaluable one to many of the students. A course is given in carpentry, some excellent samples of work being shown. Handling different kinds of engines is also taught. In Manitoba, where tractors are used to a considerable extent, this training is particularly valuable. Steam and gas engineering are both taught and demonstrated.

### Home Economics.

The women's department is equally strong with the other divisions. Here the girls who attend are taught the "profession" of housekeeping. There are lady professors of household art and household science and an ample staff both in the college and in the extension part of the work. The curriculum appears to include about everything that a young woman ought to know to equip her for housekeeping. It includes among other subjects, a course in millinery. This is said to be unique in work of this class.

Although Manitoba is still a young province, it has in its agricultural college an institution of which the people of Manitoba have every reason to be proud. Under the management of President Reynolds and his able staff, with the splendid equipment at their disposal, this college already is ranking high with the best educational institutions of the kind on the continent.

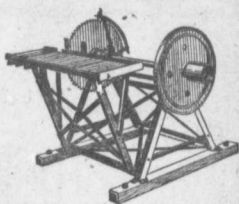
An Irishman was seated in a rail way carriage next to a very pompous-looking man, with whom he commenced a conversation in a rather free and easy manner. At length the pompous one said, "My good man, reserve your conversation for one of your own equals. I would have you know that I am a K. C." The Irishman jumped up and held out his hand. "Beorry, shake!" he exclaimed. "O'm a Casey mess!"

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**FLEMING'S SPAIN CURE (Liquid)** is a special remedy for cuts and animal bites. It is equally effective for burns, scalds, sunburn, chaps, chapped hands, etc. It is neither a stimulant nor a sedative, and is not injurious to the system. Write for sample and see how easy it is to use only a few drops, and your boy will be well again.

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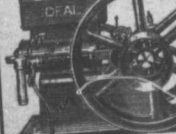
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# FARM AND DAIRY

## Makers Will Not Be Required to Do Testing

### Department to do Free of Charge—No Question As to Accuracy

ONE of the last official acts of Mr. Duff, late Minister of Agriculture for Ontario, was to send a letter to Chief Instructors of Dairy and Hens, concerning the new Dairy Standards Act. This letter which appeared in last week's issue of Farm and Dairy, stated that the tests to be made by the inspectors and that to be made by the makers were required to testing. At the local conventions of the Dairywomen's Association of Eastern Ontario, Mr. Duff and Mr. Zurek are explaining the circumstances leading up to the adoption of the new regulation. At the Peterborough convention Mr. Zurek spoke as follows on this subject: Dairy Standards Act

"When the Dairy Standards Act was passed, the question arose as to who would do the testing. Objections were raised to having the tests done by the inspectors, others that the test might be juggled, and still others that the maker had not time to come to the testing. There would also be cases in which pressure would be brought to bear on the maker to alter the test. For instance, if a patron received a test which he thought too low, and he could do the maker otherwise to make his milk to another factory using a better test to give, there is a strong temptation to show it up a point or two. As a test case, Mr. Duff took the test sheets of a factory in Eastern Ontario which had been paying by test. He found that with 40 patrons the test only varied by two-tenths of one per cent. It was previously obvious to anyone that in this case the test had been merely guessed at. Most of the patrons were credited with 3.8 per cent. milk, with an occasional variety. Now farmers are to introduce variety, and they can see through the books, as well as the test sheets themselves. They have had some objection to having the test reason for by the makers.

"These objections, then, were raised. The next question was how to overcome them. The answer was to go a step further and appoint qualified men of known integrity to do the testing, men who were outside the sphere of local influence and could not have pressure brought to bear on them. The next question was how to do it. It is not done right in the field, for if it is not done right it never better that, the legislation of the day has been passed. This is strongly confirmed by the results of a survey of the opinions of dairymen of the province, in which an endeavor was made to find out their attitude toward the matter. Sheets containing three questions were sent out to the patrons. These questions were to find out (1) how many makers are competent to do the testing; (2) are the makers willing to do the test; and (3) were the factory patrons willing to have the testing done by the makers. The replies indicated that the makers do not want to do it and that the patrons do not want to have them do it.

### Mr. Duff's Last Official Act.

One of the last things that the late Minister of Agriculture did in his official capacity, in fact a thing that is done only on the day previous to a lamented death was to send out a letter to the chief instructors, stating that the work would be done by the factory instructors as far as possible, and that where they were unable to do the work, qualified testers would be appointed. This was the message that the Dairy Standards Act may get to a good start and operate smoothly and efficiently. The Department will, therefore, furnish men for one or two years, at least to conduct

a monthly test of milk, collected at the factory. This work will be done free of charge; the factory will be asked to supply a Barber's test and the required range of bottles for the samples. Under this arrangement there will be no question as to the accuracy. "Some have said that the new dairy legislation was only another means of bleeding the farmer, that it would cost from \$10 to \$25 each a year to have the testing done. If the patron, of course, is totally absurd. If the patrons pay for the test, it could not cost more than 15 cents a test per month for the six or seven months of the factory season would amount from 19 cents to \$1.00. Now that the government has decided to do the testing, there will be no direct charge made whatever. The details of this new regulation are in the details of the Minister, but are not yet worked out, owing to the death of the Minister, but are being prepared for next spring, full provision will have been made for carrying out its provisions."

## Why Gasoline is Higher

THE rise in the price of gasoline as compared with kerosene is a matter that is interesting owners of farm and gasoline engines. The following explanation given by Tractor Farming makes the disparity clear: Gasoline and kerosene both come from the same source, namely, crude oil. The same source, namely, crude oil. The same source, namely, crude oil. The same source, namely, crude oil.



estimated supply and demand of kerosene and gasoline for the current year. The figures show that the supply of kerosene is in excess of demand, while the supply of gasoline is in deficit. This is due to the fact that gasoline is a more refined product and therefore has a higher demand.

A single pair of Colorado potato beetles would, without check, increase in one season to 60,000,000. The Department of multiplication and disappearance of the potato plant would not be delayed.

## The Injustice of Pooling—The Fairness of the Straight Fat Basis

### (Continued from page 4.)

the nearest to distributing the money property, and much money under the pooling system by taking the average of the sales and taking the money distributed by which the money distributed varies from the amount that should have been distributed according to the value of the cheese made from the different samples, it is found that on the average the fat basis is only three cents out, while the pooling system is 18 cents out, arriving at the value of each 100 lbs. of milk.

Taking into account the small but unavoidable errors that will crop in owing to the varying conditions of the milk, the fat basis gives on the average within three cents a cwt. of average within three cents a cwt. of average with me. I am sure, that when you agree with it, it is not worth much this basis used it cannot work, the injustice to the patron in Eastern Ontario of the straight fat basis, by which you choose what tests you will be paid by, you cannot make a fair basis. It is the simplest and the easiest to understand. There is less cause for misunderstanding. The fat in the milk other method. The fat in the milk represents as near as any method can the value of milk for cheese making purposes. Let us make an example of paying for milk at cheese factories in uniform throughout Eastern Ontario. We can do this by all agreeing to adopt as our uniform standard the payment for the milk at our factories on a straight fat basis.

## Dairymen Demand Continuance of Existing Restrictions

Mr. Manning, "yet pastures do not receive a fraction of the amount that other feeds do." Mr. Manning is referred to a trip to the lands, and of the exercise exercised there in looking over many of them that had been seen 400 or 500 years, and that still gave four or five times as much feed as land available for permanent pastures that could not be devoted to any other crop. We should do something to help them, for present they are blighted and moss were eradicated in the weeds should be eradicated by pulling and get getting rid of the moss. Mr. Manning strongly advised putting the barrows on the field late in the fall. This rolled the most and successfully removed of it, while at the same time the harrowing broke up the root bound condition of the grass.

## Permanent Pasture Mixture.

For a permanent pasture mixture Mr. Glenn advises the use of the following: clover, (which does well on low land); timothy, two pounds; orchard grass, four pounds; alfalfa, five pounds; clover, two pounds; Kentucky blue clover, two pounds; meadow fescue, four pounds. A full report of Mr. Glenn's address will appear in a later issue.

## Instructors' Reports.

Although the meetings were held earlier than usual, the instructors submitted their reports for the season complete because of the fact that the reports were not all in. The reports were being attended by dairymen. Much progress is being made in putting before the people in its proper light the consolidating the opinions of the dairymen regarding the margarine question.

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**CITY MILK SUPPLY**

**Toronto Prices Soaring**

THE large amount of milk required to supply the city of Toronto, estimated at 15,000,000 to 16,000,000 quarts daily, together with the abnormal scarcity of milk and the high prices that can be realized for it by turning into butter, cheese, or having the effect of sending prices up. It is now predicted that it may reach 15 cents a quart. The contracts, which call for the payment of \$2 for an eight-cent can, do not, it is found, bind the producer to supply a given amount. In order to counterbalance the excessive prices, which now have to be paid for feed, and large quantities of which have to be purchased, the producers have found that the \$2 rate is an inadequate price and are asking that it be raised to \$2.50 for the eight-cent can.

The producers claim that this rise in prices should not affect the consumer to any great extent. President Stonehouse of the Milk Producers Association, is reported to have stated that although the farmers were now receiving about 12 cents a quart under the \$2 rate, the milk was sold in the city for almost twice that amount. This gave the dealer a wide margin to work on. On the other hand, it was claimed that condensed and large dairies had been caving at a loss.

The suggestion has been made that the government should step in and regulate prices. Why this should be taken with regard to what the farmer has to sell, while manufacturers and other interests are allowed to charge all the traffic will bear for their products, is not stated. The city milk business has to compete for its supply with the cheese and butter-making branches of the dairy industry, and in these lines the price of the product is largely controlled by the export demand. Keeping down the prices below what can be realized by exporting would be a difficult undertaking.

**The Case of the Small City**

THE uncertainty that surrounds the milk business of the small city, in which the dairymen are not well organized, is well illustrated in Peterboro recently. On Nov. 13, local vendors agreed that milk would be advanced from eight to nine cents a quart. Consumers were given notice of the advance. When the day arrived, however, it was found that although the majority of the dealers stayed by the agreement, some of them still sold at the old price, with the result that there was considerable dissatisfaction. Later, however, the higher price was charged by those who had not advanced the price with the others, and uniformity again attained.

The position of the vendors is well explained in the following extract from one of the city papers:

"Most of the milk vendors by considerable of their supply from farmers, and when they have to pay a wholesale price of 5c and 6c a quart, the profit remaining at 8c and 9c is only 3c. If they could buy at 7c and sell at 9c, the business would be fairly profitable. But the present wholesale price is generally 6c.

The vendor with 100 customers thus would have a gross daily profit of \$2. From this he has to pay for his horse feed, which is an appreciable item in these times; pay for the wear and tear of his delivery outfit, not excluding possible runaways, and secure a living wage for himself. And, says the vendor, it can't be done. Even to receive the gross profit of \$2 for 100 customers, the net return to the vendor is not commensurate with present wages or the present cost of living.

In most small cities the sym-

tem or lack of system in distribution is extremely wasteful, owing to the duplication of routes. To supply 100 customers a vendor has to drive long distances daily, whereas if some delivery were devised by which the vendor could supply every customer on his route, the labor of distribution would be materially lessened and producers, consumers and vendors alike would be proportionately benefited.

**The Situation in Montreal**

TEN years ago there was a very flourishing Milk Producers' Association surrounding Montreal, and the situation was very well in hand. The membership of the association is smaller now than it was then, but nevertheless there is a live organization, with the result that the prices of milk compare favorably with those received in other countries. Outside of Ottawa and Montreal, Montreal shippers have received the highest prices of any city in Canada, and equal, if not higher, than New York or Boston for the past 10 years.

The price is now 24 to 25 cents a gallon for milk delivered to the city. This is about equivalent to the price received by the Ottawa producers, who are receiving 22 cents at the farm.

With the object of stimulating the interest of the milk producers and of increasing the membership of the association, a canvasser has recently been engaged, who will spend a couple of months amongst these suppliers of milk for the Montreal trade. Since there are about 5,500 farmers shipping milk and cream to Montreal, including those that use the condensaries, there is ample opportunity for building up the membership.

**Raising Milk Prices in Ontario**

EDITOR, Farm and Dairy:—An ancient writer said, "So many in his own mind; every man comes home to any one who says in the papers the references to the "meat" in the price of milk. For dealers," and though they all seem of one mind as to their decision to raise the price, they certainly vary in their method of announcing it.

In the small country towns, one reads in the "Classified Ads," which by the way, are always quite unclassified, a curt announcement like this: "On and after October 1st, the price of milk will be raised to nine cents a quart. Sunday delivery will also be discontinued on and after the above date."

But city milk dealers would scorn such a brusque notice. One company takes a quarter page to make its announcement, and says: "We can no longer keep down the price of milk. October brings increase in price." They then give a long list, and blame the increase in the price on the unusual weather of the past summer. Crops have been poor and prices are high. The resultant increased cost of milk production makes an increase in price essential."

Then they come out with the main fact, which is: "Commencing to-day you will get 12 tickets for one dollar." They conclude by saying that customers will still receive the richness and purity in milk as heretofore. That firm is certainly a master in the art of putting things out.

On the other side of the page, another firm has a long advertisement. Evidently this firm has at the back of its mind the recent outcry against the rise in the price of milk and the cost and the encroachment of municipal cow yards and civic bakeries, for it asks, "Do we think that the markets of the world can be upset by a war involving

nearly the whole Caucasian race without it having its effect on the food costs of Canada?" If the law is being broken, condemn the offender and apply the penalty, it states.

It has been necessary to pay a steadily increasing price for milk, having now to pay for a certain quantity 116.17, which in 1905 would have been obtained for \$11.50. There has also been an increase in cost of labor.

In Ottawa the consumers at first were greatly incensed against the farmers, on account of the proposed increase in the price of milk, and suggested that as every class of people were losing money by selling their conditions, the farmers should do the same. Then there was a mass meeting of "Anti-combustionists," to protest against the rise. But before this took place, something more dramatic had happened. I suppose there must have been some pretty strong talk about what the city could or would do in the way of starting a milk can on its own account, so the largest retailer of milk in the city made an offer to the city to sell their plant and business, and to employ a manager for six months, and to supply the city with three agitators, one appointed by themselves, one by the city, and the third by the other two. Then, and not till then, the city discovered that it could not at present enter the milk business but would have to wait for special legislation next spring. Other discoveries followed. It was found that selling milk is not such a gold mine as has been believed. The chief profits are in the by-products. The profits on the company's milk sales were stated to be less than one-tenth of one cent per quart for the year, and the dividends paid were taken from the reserve fund. After this was made known, the citizens were not so anxious to take on the job of supplying themselves with milk.

An Ontario Correspondent.

**The Potato Situation in P.E.I.**

EDITOR Farm and Dairy: The few lines I have been contributing to Farm and Dairy under the heading of Postal Card Reports has brought me so much correspondence, principally inquiries for potatoes that I wish to give a general answer to all. I have had several inquiries from New York, showing that your paper circulates well in that State.

The potato crop on the Island was a good one, the best in several years; free of all disease and of excellent quality. The acreage was not as large as usual, owing to the high cost of seed last spring, but the excellent crop made up for the reduced acreage. It is the high prices make the potato crop in Prince Edward Island the most valuable on record. The present price of 65c a bushel has never been paid before in the Island for potatoes. The price is going up all the time. Potatoes started in September at 40c for early varieties; then a little later, 45c. The late crop started at 50c a bushel, then went up to 55c; then to 60c, and latterly to 65c. It is thought that they will go to 75c by Christmas. They were never so high on potatoes this year than they were made on this farm before, even with three times the acreage under the crop.

There must be a great scarcity of potatoes in Ontario, for nearly all the potatoes shipped from here go to points in that province. They are put up in one-and-a-half bushel bags, something new to me here. Readers wanting potatoes can write to any of the branches of the Bank of Commerce, in Summerside, Charlottetown or St. John's, and they will be a reliable dealer. One dealer at Summerside has shipped 150,000 bushels this fall.—J. A. Macdonald, Kings Co., P.E.I.

**Take Good Care Of The Colts**

It's cheaper to raise colts than to buy horses. But it's costly if you lose the colts. Keep a bottle of Kendall's Spavin Cure handy. For thirty-five years has proved the most reliable remedy for spavin, splint, curb, ringbone, bony growths and lameness from many causes.

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FOR SALE—Cheeseery in good condition, in Oxford County, at Princeton. Doing good business; must be sold to bring up cash. Apply to: C. Allan, 1424 Queen St. West, Toronto, Ont.

WANTED—Cheese and Butter Makers and Dairy-men, to represent us as salesmen for Ontario, and for a few months. Write Mr. Murray Stock in any of our offices. We are now in the other time of the year. We can give you a profitable business for you. Write to: W. F. Young, P.O. Box 125, Kansas City, Mo. Wholesale and Retail, J. C. Ross, St. Louis, Mo.



## In Union There is Strength

### The Canadian Council Meets

THIS week is being held in Winnipeg the annual meeting of Canadian Council of Agriculture. The meeting of the Council will be attended by representatives from the various provincial farmers' organizations and companies in Ontario and the three prairie provinces. The farming population of British Columbia is so small and is composed so largely of fruit growers that it has not yet been found possible to organize a farmers' association in that province. These associations represent some 600 farmers. The delegates from Ontario are likely to be R. H. Halbert, of Melancthon, president of the United Farmers of Ontario; J. Z. Fraser, of Burford, a director of The United Farmers' Cooperative Co., Ltd., and H. B. Cowan, of Farm and Dairy, an honorary member of the Council of Agriculture. In next week's issue we hope to publish a brief outline of some of the important decisions reached, and in the following week we will give a full report of the proceedings. It is understood that at this meeting of the Council of Agriculture, which is the only national organization the farmers of Canada have, an agricultural platform for the farmers of the Dominion will be discussed. On Wednesday and Thursday of this week there will be held in Winnipeg the annual meeting of the Grain Growers' Grain Company, the largest and most successful farmers' company in Canada and possibly in the world. The Ontario delegate, it is expected, will attend some of these meetings. President Halbert is planning to drop in on his way home at Sturby, and in company with Secretary J. J. Morrison to address a series of farmers' meetings in the Algoma district.

### Shipping Arrangements

THE United Farmers' Cooperative Co., Ltd., is having difficulty over the shipping of its goods over the various railroad lines. The transportation system is badly disorganized all over the continent. In the United States different railroads are accusing each other of retaining cars to which they are not entitled, and investigations are being conducted to find what can be done to improve the situation.

In Ontario the railroads are refusing to accept shipments of some important lines of feed. This may result in a serious feed shortage among many farmers. Farmers who placed orders for feed some time ago have been unable to get them filled, simply because the railroads have not got cars with which to carry feed. This makes it difficult for the United Farmers' Company to fill orders promptly, but its officers are doing everything possible to cope with the situation.

### Meetings Being Held

Secretary J. J. Morrison has been attending a series of meetings in different parts of Ontario with his usual success. New clubs are being organized and fresh inspiration is being given to older clubs that have been visited. It is realized by the central organization that not enough has been done to carry on educational work among the locals. The possibility of printing a small paper has been under consideration for some time but pressure of other work has prevented that. It is hoped that this can be launched early this winter.

The possibility of securing local organizers and speakers who can visit farmers' clubs in their vicinity is

under consideration. Men who are free for this work and who have had some experience in public speaking are asked to advise Secretary J. J. Morrison that their services are available. Many locals feel that it would help them if speakers representing the provincial organizations could attend some of their meetings. The importance of arranging for this is fully realized by the central office. A large number of meetings will be held during the winter months.

### Buying From Farmers

THE demand for rye, wheat and buckwheat has become such that The United Farmers' Cooperative Company, Limited, now finds that it can handle these grains to advantage. Farmers who have car loads of this grain for sale are being invited to advise the company to that effect, when an offer will be made them.

Arrangements are already being made for the purchase of next year's supply of binder twine. For two years binder twine has been handled by The United Farmers' Company to the satisfaction of the clubs that have purchased it. The clubs are now being asked, to advise the central how their members still have on hand, and what their estimate for next year's requirements is. It is reported that there is an almost world wide manufacture of the products used in such supply next year at reasonable prices and the orders are placed with the least possible delay.

### Fifteen New Members at One Meeting

BREXSVILLE Farmers' Club held their second meeting on Nov. 24 at the home of E. D. Hilliker, a successful Yorkshire breeder. About sixty men and women were there to enjoy a good musical programme by local talent and to hear the address of the evening, which was given by J. J. Morrison, Secretary of the United Farmers of Ontario. Mr. Morrison's subject was: "Why is Rural Ontario being 'despoiled'?" He asserted that the reason was purely an economic one, and proceeded to prove this in such a forceful, clear and simple manner that his audience followed the train of his arguments with great interest.

After describing the peculiarities of rural districts, with their isolation and individual industry, the people jealous of those to prosper backward and diffident, he contrasted urban districts, where everything is organized. The people co-operate from start to finish, and stand out the ablest men to lead. Everything stands for wealth and power in the cities. They control the business of the country. Farmers produce, but they have nothing to say about the purchase price. We farmers let them control our business, and they will do it as long as we will let them. "Our industry is on the rocks." A farm will not rent for as much as interest on the purchase price. We are producing at a loss. The remedies suggested were: To let the farmer have his raw material as cheap as possible by removing duties on implements, etc., and to eliminate the wasteful extravagance of present methods of distribution by bringing producer and consumer closer together. This, said the speaker, was co-operation. Our hope lies in co-operation and in representation in

Parliament, when we get out of the rut where half of us vote Grit and the other half Tory.

At the close of the meeting, some fifteen joined the club. Two members were particularly pleased to have as the ministers of the two churches in the village, who are interested in the work of the club. Already the membership is nearly thirty.—J. H. C.

### A New Club in Perth County

AN enthusiastic meeting of farmers was held at Wallaceville, on Monday evening, Nov. 12, and was attended by a large number of farmers. Mr. J. J. Morrison, Secretary of United Farmers' Cooperative Co., was present and delivered a masterly address on the different phases of agriculture, dwelling particularly on the deplorable condition it is in, and comparing the urban and rural situations. He cited some striking facts, showing why these conditions exist, stating that they were due largely to the lack of organization amongst the farmers, a large majority of whom are not conversant with the causes, and apparently have been content to plod along, reaping little or nothing for their strenuous labor. Mr. Morrison, indeed, enthused his hearers, and the result was that upwards of 40 formed a club. All the officers and directors were appointed. Many more members will be added at the next meeting. The club is composed of men with plenty of snap and vigor, who will do business at their first meeting. The contagion of organization is spreading, and the prospects are that many more clubs will spring up in this county. Farmers who desire to see the profession that is second to none to be lifted to a higher level should take this matter over with their fellow-farmers and induce them to join in this great movement that is bound to make itself felt in the business world.—S. A.



## GET YOUR DE LAVAL NOW

If you are selling cream or making butter, and have no separator, or are using an inferior or half worn-out machine, you are wasting cream every day you delay the purchase of a De Laval. You can't afford to wait until next spring. It means too much loss. Let the De Laval start saving cream for you right now, and it will soon pay for itself. See the nearest De Laval agent right away and let him show you what the De Laval will do for you. If you do not know the De Laval agent, write direct for any desired information.

### De Laval Dairy Supply Co., Ltd.

Largest Manufacturers of Dairy Supplies in Canada. Sole distributors in Canada of the famous De Laval Cream Separators and Alpha Gas Engines, Manufacturers of Ideal Green Feed Slices. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER  
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER.



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Lies in Mutual Respect, Mutual Confidence AND CO-OPERATION

Our new Grocery Price List is now ready. Get a copy of it. You will find an exceptional opportunity offered for a distinct saving on your Xmas buying.

We are negotiating for next year's supply of Binder Twine, you want to profit by our ability to buy at closest prices, advise us early how much you require. Remember we stand between you and high prices.

Notwithstanding the high price of Feeds, they are moving freely. We have a few cars of screenings which we consider exceptional value.

Write us for quotations. Coal Oil has advanced 1-2c. We can supply steel drums Tor oil.

## The United Farmers' Co-Operative Co. LIMITED

"THE ONTARIO FARMERS' OWN ORGANIZATION"

110 Church Street Toronto, Ont.



There is a natural melody, an obscure fount in every human heart.  
—From "Light on the Path."

## A Canned Courtship

By A. W. Sawyer.  
(Western Farmer.)

ROSA Denny and Martha Short lived on adjoining farms in a thickly settled community. Their homes were so near that even when they were little tots they had played together almost constantly.

As they grew up their friendship had increased with the passing years and so frequently were they seen together that the neighborhood folks often referred to them as "the twins."

When children, there was rivalry in their play and as they grew older there was rivalry in their school studies, but it was the friendly rivalry that only served to strengthen their affection for each other.

While yet in their high-school years it became a common sight to see them walking home from the city school with Frank Wade between them. It was a mile and a half and although it was convenient for them to catch the autobus, they preferred to walk.

Occasionally Frank was seen alone with one or the other of the girls, but more often with both of them. If he favored one more than the other, none had been keen enough to detect it.

His friends would often try to tease him with such remarks as: "Can't you marry twins in this state, Frank?" Some would say, "Which one is your sweetheart?" Others offered the suggestion that he let the girls fight it out between themselves.

Frank was always ready with a witty, evasive answer and the curiosity of his friends remained unsatisfied.

About the time that I looked for news to get really serious, I heard that Martha was to go to the State Agricultural College. My hopes brightened because I saw a chance for things to right themselves, and I prayed that it would be without pain to either of my friends.

After Martha left, Frank naturally gave his whole attention to Rosa, and I fancied that she looked happier. Both Frank and Rosa received frequent letters from Martha and they read them together.

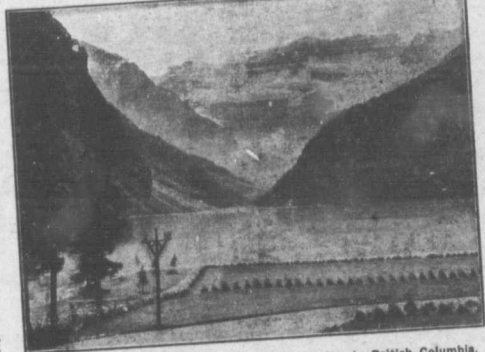
When Martha came home for a vacation things would proceed as before and again I would worry as to the outcome.

The third spring that Martha attended college, a cooperative canning club was formed in the neighborhood. Mothers and daughters were looking forward to an exhibition of their skill in the new "cold-pack" method of canning. The mothers, many of whom were "dyed-in-the-wool" canners of the old school, at first looked with suspicion upon the new method, but daughters, who were mostly novices at canning, took to it with a will and had to fade far more slowly than the older women.

However, the amiable canning club organizer who had visited their city, succeeded in interesting 80 mothers and daughters in the club and all were

eager for the work to begin. That it should figure in the neighborhood romance was farthest from the thoughts of any of them, but it happened that it played quite an important part.

If you know anything about canning, or have had the good fortune to be a member of one, it will be needless for me to tell you that they had both a delightful and profitable time. To a delightful and profitable time. To a delightful, and I believe to the delight of Frank Wade as well, Rosa took



Nestled Among the Eternal Hills—Lake Louise, in British Columbia.

highest honors among the canners. She wrote Martha all about it. Martha wrote back congratulations, but also wrote that she was "some canner" herself, "Wait until I get home," she wrote, "and I will show you how we do it in the home economics department."

When Martha came home Rosa gave a little afternoon party for her and all the neighborhood girls were invited. The common topic of conversation seemed to be the canning club and they were even extravagant in their praise for Rosa and her success.

The old spirit of rivalry arose in Martha and she began to tell them what she had learned about canning. "I think I shall get in away from Rosa," she win the laurels award from Rosa," she laughed.

"No, you can't do that," objected one, "because the age limit for daughters is 19 and you are 20. Next year you will be barred and she is forced to retire with honors."

"Oh, I've got an idea!" cried Louise Plummer, jumping up. "We will hold a canning contest between Rosa and the Martha. Frank Wade will be the prize. The one that loses in the con-

test must drop out of the race and leave the other a clear field for the heart of Frank Wade."

Amid the laughter and cheers of the girls Louise noticed Rosa's face flush and her eyes grow sad and she was and her eyes grow sad and she was sorry that she had spoken so thoughtlessly.

Martha, however, seemed to fall into the spirit of the jest and said, "Louise, you're a genius. That will be great fun." Rosa objected, "I haven't given my consent yet."

She was not short, however, by the insistent cries of the girls, bent upon fun and she tacitly agreed.

Afterwards she went home and cried. It did not seem right to her. She was not a matter for jest. She could not figure out what action she would take if she lost, and if she won, she would not wish to take an unfair advantage of Martha.

The contest was not long delayed, but the three days intervening were trying ones for Rosa and the burden that was not lightened any by the fact that the plan had leaked out and the neighbors were laughing about it.

Martha took it as a matter of fact and seemed confident that she would win.

Rosa planned, studied and practised with feverish energy in preparation for the day.

The girls argued that it would not be fair to have the contest at Rosa's home nor at Martha's, so they decided to hold it at Louise's home.

we will call and get it." "Why, I—well, I'll call you up later," she stammered and then hung up the receiver. "Now, I wonder how they found it out," she thought.

"It's just a matter of time," she said. "It's just a matter of time," she said. "It's just a matter of time," she said. "It's just a matter of time," she said. "It's just a matter of time," she said.

Rosa sat down and big tears rolled down her cheeks and said, "I will just stay away to-day," she decided. "This has gone far enough and it is a good place to drop the whole matter."

However, when three of the girls stopped in for her and would not listen to her objections, she finally went with them.

When they had all gathered, Louise Plummer, as usual, led the discussion. "Well, now we are no better off than we were before. It is a tie and what shall we do to decide who wins?"

There was a moment's hesitation. Rosa was the first to speak. "I think we had better let it stand as it is. It all seems like a lot of fooling to me."

"Oh, be game, Rosa. You can't back out now," cried several of the girls.

"Well, decide something quick," said Rosa, nervously. "I'll just do this morning and at my own price."

Martha had been watching Rosa and for the first time it dawned upon her that the contest had been very

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stated Rosa, with tears in her eyes. "Yes, but you sold your fruit first," argued Frank.

Rosa looked 'up at him with eyes filled with wonder.

"How did you find out so quickly? How do you know that I have sold my fruit?"

Frank smiled and taking her arm pulled her farther beneath the large tree under which they were standing.

"I know because I was at Goldberg's when they called you up. You see, I just had to have you win, somehow."

### The Upward Look

#### Our Influence

THEM that were entering in, ye hindered.—Luke XI:52.

What a terrible arraignment that was, with which Christ accused the lawyers of his day. This also is the key-note of one of Fogazzaro's latest books, what Elena kept repeating over and over, that she must never do anything that would impede or hinder in any way, the best welfare of the one she loved most.

May it also be a powerful incentive in our lives. This thought of what Christ may do through us for others, represents a grand opportunity, and at the same time a most solemn obligation.

Just as Christ was so searching in His rebuke of those lawyers, so may He be of us, if we are not abiding in Him. Indeed we will be held accountable for far more, because, we of to-day understand more clearly the meaning of Christ's mission on earth, and by what He now offers to do for us. By His grace for He has said "My grace is sufficient for thee, for my strength is made perfect in weakness."

There are many different ways in which our influence is exerted. These include our reputation, actions, words, expression and thoughts, the last being the motive factor of all. Every time that we fall through slighting Christ, it makes it easier for some one else to be the same. Each cross word of ours may mean that some one else will exercise less self-control. A gloomy look may cast a shade over the joy of someone else.

Many a time when we sin, we may know who may have been influenced by our transgression, but again, there are just as many times when we have no knowledge of how many others have been affected. But the most solemn self-question of all is, what does Christ think of our failures when He offers to give us continual victory? Our example, also, may hinder others from confessing their allegiance to our Master, and from becoming His loyal and faithful followers. When we yield our lives to Him and permit Him to work out His miracles in us, then we will have no fear of results as He is perfect in all His works and offers to give us continual victory if we will but let Him do it all.—J. H. N.

#### Solina Institute Aids Fire Sufferers

WORTHLESS of a carload of goods for the fire sufferers of New Ontario shipped from one small country station; that was the achievement of the Women's Institute workers in and around Solina, in Durham Co., Ont., this fall. To the Institute of Solina belongs the credit of organizing the work, through contributions received from many of the surrounding districts, including Ontario.

The car, which was supplied free of charge by the Canadian Northern Railway, was destined for Matheson, contained amongst other things, 12 bedsprings, 12 mattresses and 12 springs, 30 quilts, a churn, a washing machine, a cradle, four stoves, several boxes of pillows and other bedding,

several men's overcoats, three women's astrachan coats, 60 quarts of fruit and many other articles in which the need of the fire sufferers was anticipated by the thoughtfulness of the women who had the matter in charge. The car was shipped on Nov. 2nd, and would reach its destination just about the time the severe weather set in. It is easy to imagine how much the articles provided through the efforts of these instinctive workers would be appreciated by those who had lost their all in the terrible conflagration that swept through part of New Ontario last summer.

#### Let Your Lights Shine With the Household Editor.

EVERYWHERE one goes nowadays and the question of the high cost of living comes up, some one taking part in the conversation is almost sure to remark, "Yes, it's the farmers who are doing the money to-day." We are not saying that a statement is or is not true, but times are considerably better for the farmers now than is sometimes the case. Are we bettering our conditions in any way on the farm as a result of these better times? There are few farm homes not in need of improvements of some nature.

How about our lighting system? The long evenings are now with us, and very early in the evening it is necessary to have the home lighted. After chores are done, finished up for the day, the menfolk come in. Father gets his newspaper and probably seats himself at the right angle so that the light from the lamp on the table falls clearly on his paper. But what about the boy who is interested in reading a good book, the children with their home work to do and mother with her sewing or mending? All have their eyes on the one table and strain their eyes trying to see from the rays of one lamp. If neighboring young folks come over to enjoy a musical evening, they crowd around the piano and vainly endeavor to see off the book on the piano, while one of the party holds the lamp in different positions until his arms ache.

The comfort of the farm family demands good lighting in the home. Who knows how much of family unity is won by the clear, steady light in the living room, where the family gathers on winter evenings? On the other hand, who knows how much of this unity and family contentment may be lost because the home is so poorly lighted? An article on the subject of better lighting which appeared in one of our United States contemporaries throws out some practical suggestions, and we quote from this article as follows:

"Perhaps if more farmers studied the question of why their boys, and girls too, for that matter, prefer city life to rural life, they would find that all youth love light and the city gives it to them. Light spells gaiety and cheer, and while the candle does throw its beam as does the good old oil lamp, nowadays, it takes the best light there is to hold the youth under its beams. Good lights there are a plenty now-a-days, no matter how far one may be from electric poles or power lines, and the care of them is small in proportion to the benefit and pleasure derived from their use. Let your lights shine and may each farm home soon see at least one sitting room with light enough shining through its windows to tempt the wayfarer in, and to give the needed help in making an evening find at home a pleasure to our girls and boys."

It has been computed that a pair of gypsy moths would, if unchecked, produce enough silkworms to be able to destroy all the foliage in the United States.

#### The Ideal Girl

SHE is still among us though we rarely see her picture in the paper. She does not care for that kind of thing, and possibly, she does not earn a place in the columns of the daily press. For her ambition is not to be known as a star swimmer, jumper or baseball player. She shines in the home. Her gentle word soothes father; her ready service saves mother a weary step; and her wise, kind advice to the younger children prevents many a squabble. The big brother thinks she is second only to mother, and often her quiet "I wouldn't do it if I were you" induces him to give up a project or prank that might make trouble; or perhaps she sets him thinking so earnestly that he sees the right way open before him and follows it resolutely.

Being gentle doesn't mean being weak or uncertain. It is surprising how firm the quiet, gentle girl can be when a question of right and wrong is raised. Her tranquil eyes see clearly, and her words make plain that there can be but one course—the one that conscience whispers "follow."

We need the gentle girl to-day more than ever. May she be found in more homes, to give them joy and content, and to bring a blessing on all lives that touch hers. The bolsterois girl, the athletic girl, the social success, after their day, but if they have no other recommendations of favor, it is only a day. The clamorous, beautiful girl soon loses a vogue; a better swimmer or jumper, may retire the athletic girl even in one brief contest; and the social success may after all be only the most bluffed kind of failure. But the gentle, home-girl endures. She is the type of true womanhood whose exemplar is Mary, the Maid in Nazareth.—Selected.



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rosic matters, housekeeping, and so forth. She also told of the success which has been attained by their short course work throughout the country. Dr. Chas. J. C. O. Hastings, Medical Officer of Health, Toronto, gave an instructive address on individual responsibility in public health in rural communities. Several patriotic addresses were also delivered. Mrs. Murphy, of Toronto, who was in Berlin when war was declared, gave a short account of her experiences, and of some of the excuses of the Germans for the atrocities perpetrated at the beginning of the war.

One of the interesting features of the convention was the reception at Government House by Lady Hendrie for the delegates to the convention, and funny crowded cars left the Technical School en route for the Government House after one of the afternoon sessions.

All of the resolutions read by Dr. Margaret Patterson at the close of the convention were adopted. Among these were the following: A resolution approving such action as has been taken so far with reference to the care of the feeble-minded in the Province and expressing the belief that if necessary a tax should be put upon the province to carry out plans for this work; a request that the Government have medical-dental inspection introduced into rural schools; that the Department of Education cease from their final examinations girls who are going in for bee-keeping, poultry or domestic science and that the Government be petitioned to prohibit the manufacture of ice cream as a luxury.—R. M. M.

**Caring for Linen Intelligently**

**L**INENS nowadays are an expensive part of the household equipment. But what woman chafes and takes a great deal of pleasure in adding to her supply from time to time. It is well to be intelligently informed on the best methods of handling linen. Good linen in the first place means much and it is worth our while to endeavor to care for it as best advantage. Herewith are a few hints which may prove valuable in this connection:

Strong bleaches must never be used on fine table linen. Of course table linen is often badly spotted and needs to be cleaned in some way. But boiling water removes coffee spots, cold water removes cocoa spots, and sunshine removes many stains. When stronger acids must be used they should be applied and removed by intelligent hands.

They should be allowed to remain on the spots just long enough to eradicate them, and then rinsed out thoroughly in clear water. For if they remain on too long they remove not only the stain but the pieces of linen.

Some old fashioned housewives occasionally have their table linen dipped in buttermilk to whiten it. The linen is allowed to remain in the buttermilk a day or two if necessary, and then thoroughly rinsed in cool, clear water, later in warmer water.

For fruit stains, pour boiling water through them while the stains are damp, if possible. If they dry on, rub them with lard and put through the usual washing process.

Always dry table linen out of doors in the sunshine. If possible have a little bleaching green of grass, protected from the inroads of rats, and do it.

Perhaps every woman at one time or another finds that some wet pieces in her soiled laundry have caused mischief among the clothes.

To remove this the spots with soap and cover them with chalk. Then put them in the grass in the sun. Keep it slightly damp for an hour or two, and then let it dry thoroughly.

**The Season for One-Piece Dresses**

**IMPORTANT NOTICE**

Farm and Dairy patterns shown in these columns are especially prepared for Our Women Folk. They can be relied upon to be the latest and sending your order please note the most modern features of the paper pattern. When adults care for children, and the number of the pattern described. Orders are filled within one week to 10 days after receipt. Prices of all patterns to Our Women Folk, 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



**T**HE wintry weather we have been enjoying lately makes us think of wining-neglecting to replenish the wardrobe, the again in this season usually brings out a goodly number of one-piece dresses, fashioned from material which is both warm and serviceable.

The chin collar and adjustable collar are still shown on the fall and winter coats, but the coat buttoning straight up the front and the wide, round collar is meeting with most favor. The silk plait coat is the stylish one of the season, and makes a very dressy and becoming addition to the costume for almost any figure.

**1903—Child's Dress.**—Not so many years ago, fashion decreed that the pockets in dresses be practically out of sight. Now, again, they form an important part of the trimming in frocks for both old and young. This model illustrates the idea quite plainly. The belt is also quite an addition to the frock. Both pockets and belt may be omitted if preferred. Four sizes: 4, 6 and 8 years.

**1636—Lady's Dress.**—When cold weather sets in, some of us like to come back to the high necked dresses and herewith is a style which should meet our needs. One commendable feature about this costume also is that if desired the pattern may be used for making a low necked blouse as well. The only active part in this dress is buttons. Note the neat sleeve which is also touched up with buttons. Six sizes: 34 to 44 inches bust measure.

**1909—Dress for Misses and Small Women.**—Coat dresses are being given a very prominent place in the fashion world at present and the one here shown should prove popular with many of Our

Women Folk. The coat dresses hang very loosely, being fitted in at the waist line, but slightly. The pockets on this dress add a pleasing touch to the outfit. This frock would be very neat and attractive for a market, well trimmed with braid on collar, cuffs, belt and pockets. Four sizes: 14, 16, 18 and 20 years.

**1889—Girl's One-piece Dress.**—Here is a dress that should make up nicely for general wear. If desired the collar and belt might be made from contrasting material, which, along with buttons, would be all the trimming necessary. Five sizes: 4, 6, 8, 10 and 12 years.

**1882—Lady's Kimono.**—It is time to be thinking of Christmas gifts again and something that is both practical and attractive is a nice kimono. The style shown herewith is somewhat different to the usual design, having a yoke across the back and fitting in fairly closely at the waistline. Six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure.

**1910—Ladies' Waist-Cutters** of all sizes and descriptions are in vogue and over. While it is high at the back and sides, the low, "V"-shaped effect in front does away with any uncomfortableness which might be felt if one does not care for the high collar under the chin. Six sizes: 34, 36, 38, 40, 42 and 44 inches.

**1883—Lady's Apron.**—One of the neatest and most attractive styles we have noticed for sometime is the design shown herewith. So many of the cover-all aprons hang very loosely and have a tendency to make one feel untidy. This one, however, fits neatly and the waistline and the belt makes an attractive finish. These sizes: small, medium and large. It requires 2-1/2 yards of 36 inch material for the medium size.

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 Lady Cassel, formerly "Puck"

**THE CANADIAN FAMILY COOK BOOK**  
 Editor: **THE CANADIAN FAMILY COOK BOOK**  
 PETERBORO

After carefully considering the merits of many cook books, we have come to the conclusion that this one is the best suited to the needs of Our Women Folk in Canada. It is practical, containing only recipes that do not require rare and expensive ingredients and is just the book required in the farm kitchen. For this reason, it is Recommended By Our Household Editor.

It contains 550 pages with recipes for preparing soups, fish and meat, vegetables, puddings, preserves and jellies, candies, beverages, dishes for the sick, festive parties, etc., with blank pages for writing recipes, a chapter on dinner giving and a complete set of tables.

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**CIRCULATION DEPARTMENT, FARM AND DAIRY - Peterboro, Ont**





LIVE STOCK NOTES AND COMMENTS.

THESE from inspection, and comments. The Ontario will compete for the Western-County Jugling Trophy at the Guelph Winter Fair on Thursday and Tuesday, December 4 and 5. Prof. J. A. McLean, of the Ontario College of Agriculture, Prof. McLean was awarded an one of the highest honors and authorities on live stock and breeding in the United States and his appointment as one of the best judges and dominant in live stock circles in the Pacific Province and his appointment here, do much to aid development in this position where natural conditions are so favorable for the dairy industry.

Regina Sheep and Swine Breeders' Association. Prices were very satisfactory, giving a source of great satisfaction to the consignors. Mr. F. Shepherd, Weyburn, Sask., captured the highest honors, his Berkshire boars under six months old averaged exactly \$40 each. This in the third time Mr. Shepherd has sold his hogs for the highest price at these sales.

\$25,000 REFUSED FOR JERSEY COW.

THE unappreciated sum of \$25,000, which had been refused for Sophie 11th of Hood Farm—world's record long distance butter cow and was rejected by Miss Mas Irwin, Sophie's owner, Mr. C. I. Hood, of Lowell, Mass. Miss Irwin owns a good herd in New York State, and while visiting at the National Dairy Show at Springfield, Mass., where Sophie is on exhibition in a special enclosure, she became captivated by the cow, and sent a check for \$25,000 to Mr. Hood, but the offer was refused. Never before has such a sum been offered for a cow, but Mr. Hood was disappointed in rejecting the offer, for Sophie is in calf to Champion Toronto's son, and if the calf is a bull a new great sire will have been born.

DAIRY STOCK KEEN IN THE WEST.

Dairy stock are still in good demand over the Prairie Provinces, with every prospect of the demand remaining steady. Dairy produce in Western Canada are much below the demand, and large quantities are continually going into Winnipeg from overseas lines. Mr. E. B. Thomas & Son, of Lloydminster, Sask., shipped a car-load of dairy heifers from Toronto to his farm at Friday last. They comprised grade Ayrshires and milking Shorthorns, finding these stand the Western climatic conditions to advantage. The Thomas herd consists of 25 females, the best of them registered Ayrshires, twenty-five being at present in milk. Cream is shipped from the Thomas herd to the cities of the West, 35c per lb. butter fat being the present price. The Ontario dairymen faces a little better than this, the present Toronto price being 40c to 42c per lb. butter fat.

Sales Dates Claimed

At Willowdale, on Tuesday, Dec. 5. Mr. J. C. Boscack will dispose of by public auction his splendid private herd of 18 head of registered utility Holsteins. Willowdale is at Stop 16 on the Metropolitan trolley, eight miles north of Toronto. Oxford District Holsteins Breeders' Club, 117 Main St., Toronto, Dec. 15 at Woodstock, Ont. The Southern Counties Ayrshire Breeders' Club's third annual consignment sale at Imperial Hotel, Tillamook, on Thursday, Dec. 25, 1916. At Haverhill, Ont., Shipping Station, O.T.H., Thursday, Dec. 12, 1916, at 12.30 p.m. Mr. Thom. W. Solmes will dispose of 14 head of pure bred cattle, also Yorkshire pigs, swine, and farm implements, auction.

HOG SALES.

There comes from the West a report of a very successful auction sale of the

Ayrshire News

SOUTHERN COUNTIES SALE.

As will be noted in our advertising columns the West-County Ayrshire Breeders' Club are putting on a sale of their best Ayrshires at Tillamook on Dec. 28th. The sale will comprise about 40 females, many of them fresh, or due to freshen shortly after the sale, and about 10 young bulls, most of them old enough for breeding. Many of the greatest producing families of Ayrshire in the world are strongly represented in the district and you can secure some of them by attending this sale. Send to the Secretary, John McKee, Newrich, for a catalogue.

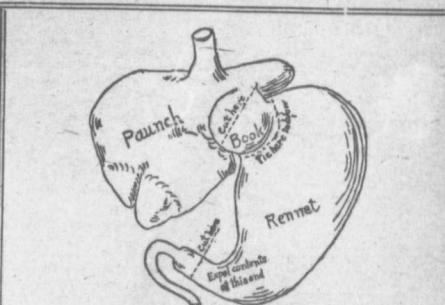
EAST AND WEST BATTLE IN FRIENDLY RIVALRY.

THESE two extremes of the United States are demonstrating the efficiency of the Ayrshire cow as a producer of milk and butter fat. The State of Washington is the latest to boost the efficiency of "The Perfect Cow" in the announcement of the official yearly record accomplished by Rosemary Hattie, a mature cow, which produced 17,214 lbs. of milk, containing 436.31 lbs. of butter-fat, 541 lbs. of butter. This animal was bred by John T. Adams, Bowick, Quebec, and imported by P. Ryan, Bowick, N. Y., and is at present owned by J. W. Cline, Doonstown, Wash.

Two months ago New York State, on the opposite side of the continent, gave the Ayrshire an impetus by giving to the world a new Ayrshire under three-year-old record, Joan Armore 3rd, owned by W. P. Schenck, Avon, N. Y., producing under official test 21,335 lbs. of milk, containing 89.65 lbs. of butter-fat, her record being exceeded by only one cow of another breed when reduced by points; illustrating both milk and fat.

These records but prove that the Ayrshire in selecting herds to all conditions of climate and environment is gradually but surely coming to her own.

"Farmers who have choice stock to market shortly would do well to enter in Toronto Fat Stock Show, Union Stock Yards, Toronto, Dec. 29th, 30th and 31st, 1916, and secure some of the big premium offered in addition to market price of their animals. This show has been coming to the front very rapidly and carries the best and largest exhibition of fat butcher stock in Canada, and this year promises to be better than ever."



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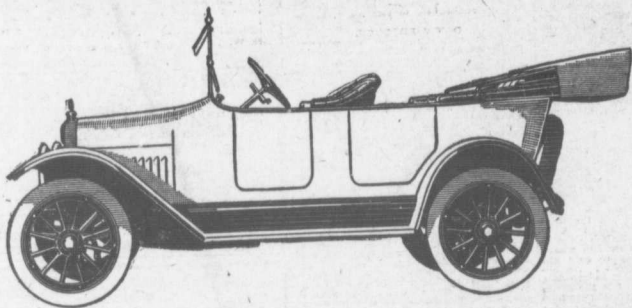
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