

Issued Each Week - Only One Dollar a Year

VOL. XXX.

NUMBER 2

FARM AND DAIRY

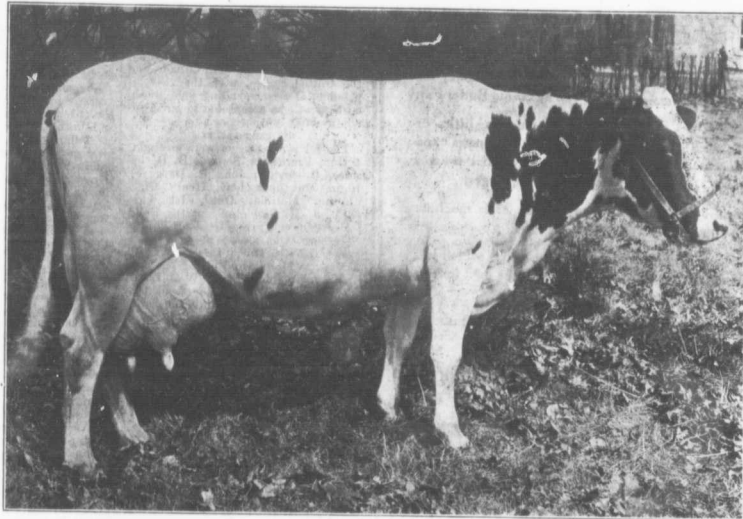
RURAL HOME

of the Dairy Commissioner

PETERBORO, ONT.

JANUARY 12,

1911.



A COW THAT HAS SMASHED ALL RECORDS FOR MILK PRODUCTION

The splendid possibilities of milk production are abundantly demonstrated in the record of this cow, Missouri Chief Josephine, a Holstein cow that, in six months ending July 18th last, produced 17,009 pounds of milk, being an average of 93.4 pounds of milk daily for 182 days. In eight months she produced 21,698 pounds of milk. Her record is not yet complete for one year. In his address at Perth last week, which is published on page 5, Chas. F. Whitley sets forth some astounding facts, which show that greatly increased production is possible for every man who keeps dairy cows.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

A SAFE AND PROFITABLE INVESTMENT



When investing your money you desire to put it where it will bring the largest returns and at the same time be safe.

A Cream Separator is sometimes an item of expense, but it should be an investment.

A Simplex Link-Blade Separator is a wise, safe and profitable investment.

As we said last week, it will make money for you by saving Butter Fat.

It requires little or nothing in repairs and therefore the net returns are all the larger.

The bowl runs at a low rate of speed, but each machine will separate 50 to 100 lbs. more than its rated capacity.

A Simplex Link-Blade Separator which has the Self Balancing Bowl is one of the best investments you can make this year, 1911.

Let us tell you more about it. Write for our free illustrated booklet.

We also handle all lines of Dairy Supplies

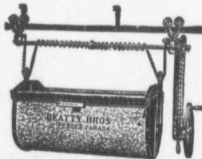
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Head Office and Works: BROCKVILLE, ONT.

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WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

Keep Your Stable Clean "BT" Litter Carrier



What work is harder or more disagreeable than cleaning out the stable. A "BT" Litter Carrier will make this work easy, for with one fit narrow load of manure can be removed from the stable at one time, no heavy wheeling, no climbing through snow or mud. If desired the manure can be dumped directly into a wagon or sleigh and save reloading.

The "BT" Line also includes Stanchions and Steel Stalls and Hay Tools.

Write for our free catalogue, showing best methods of erecting litter carriers and telling why you should put in a "BT" Litter Carrier.

Write to-day to
BEATTY BROS., Fergus, Ont.

THE DAIRYMEN'S CONVENTION AT PERTH

Important Matters Debated—Free Trade in Dairy Products Favored—Why Butter Should be Branded.

Incidents of more than usual interest that occurred last week at the thirty-fourth annual convention of the Eastern Ontario Dairywomen's Association, held in the town of Perth, included the following: First, the passing of a resolution urging that the Dominion government be asked to provide for complete reciprocal trade in dairy products with the United States; Second, an intimation by Hon. James Duff, Minister of Agriculture for Ontario that farmers should not seek such trade and that they would be making a mistake to look for such objects through the farmers' clubs; Third, the passing of a resolution seeking legislation by the Dominion government that will necessitate why butter being branded as such; Fourth, the passing of a resolution urging the Dominion Government to require the exporters of dairy products to furnish bonds to guarantee payment of the goods they purchased as done by the grain dealers in western Canada; and, Fifth, the passing of a resolution urging the Dominion Dairy Commissioner to investigate the different methods of paying for milk delivered at cheese factories in both Canada and the United States, with the view, if possible, of recommending some method that will be acceptable to our Canadian dairy authorities.

OFFICERS ELECTED

The following officers were elected: Hon. Presidents, Senator D. Derbyshire, Brockville; John R. Dargavel, Elgin, Ont.; president, Henry Glendonning, Manila, Ont.; 1st vice-pres., J. H. Singleton, Smiths Falls, Ont.; 2nd vice-pres., G. A. Gillespie, Peterboro, Ont.; sec'y, T. A. Thompson, Almonte, Ont.; treas., Jas. R. Anderson, Mountain View.

Auditors, John Hyatt, West Lake; J. Kerr, Belleville, Representative in the next year's convention, Edward Kidd, M.P., North Gower. Executive Committee, Edward Kidd, M.P., North Gower.; J. H. Singleton, Smiths Falls, Ont.; G. A. Gillespie, Peterboro, Ont.; James Sanderson, Kemptville, Ont.; James McGrath, Mount Chesney, Ont.; J. T. Payne, Brinston; Nelson Stone, Northam.

THE RECIPROcity QUESTION

Possibly the most interest centered around the resolution seeking for free trade in dairy products with the United States. The wide discussion that has taken place on the tariff question since the great deputation of Canadian farmers waited on the Dominion government in Ottawa recently as well as the apparently concerted effort that has been made since in different quarters to create the impression that Ontario farmers are not as anxious for better trade relations with the United States as are the farmers of the West had prepared the way for the consideration of this subject. Considerable interest was felt concerning the stand the convention was likely to take on it.

The motion favoring better trade relations was carried unanimously. Not a voice was raised against it. This goes to prove what has been claimed by the representatives of the farmers that those farmers who have given the matter any consideration at all are practically unanimously in favor of the establishment of better

trade relations with the States. A report of the discussion that took place is published elsewhere in this issue as well as of the remarks made later by Hon. Mr. Matheson and Hon. Mr. Duff, both of whom are opposed to Canada's entering into a discussion of the tariff question with the United States.

THE WHY BUTTER QUESTION

One of the best discussions took place over the question of the branding of why butter. Chief Dairy Instructor G. G. Publow reported that last year 133 cheese factories engaged in the manufacture of why butter. These factories, from May 1st to November 1st, made 422,022 lbs. of why butter. A considerable proportion of the butter was inferior in quality and dealers complained about it. Creamery men were beginning to fear that it would injure the reputation as well as the sale of good creamery butter. A considerable number took part in the discussion which finally resulted in the convention declaring itself practically unanimously, only two voted against the proposition in favor of all why butter being branded and sold as such.

GUARANTEE OF PAYMENT

For many years there has been an average of one failure a year among the produce firms handling cheese and butter. Hundreds of thousands of dollars have been lost by dairy farmers whose products have been handled by these firms. A deputation was present from the Ottawa Cheese Board who asked that the Association should join in presenting a memorial to the Dominion government asking that the produce firms shall be required to furnish satisfactory bonds to the government to guarantee the payment to the farmers of all goods they purchase from them. In the past, grain dealers handling the farmers' grain are required by the Dominion government to furnish bonds to guarantee payment. The grain dealers are required, also, to furnish the government with statements showing the volume of the business they transact so that the government may be able to require them to increase their bonds should necessity for such action seem desirable. The matter was referred first to the resolutions' committee which later reported favorably on the proposal. The convention later endorsed it and subsequently the directors appointed Mr. Edward Kidd, M.P., of North Gower to represent the Association on any deputation that may wait on the government in connection with this matter. A meeting of dairymen will be held in Ottawa the latter part of this month to discuss this matter. Cheese factories are being invited to send delegates.

PAYING BY THE TEST

Evidence of the increased interest that is being taken in the matter of determining the most equitable method of paying for milk by cheese factories was furnished by the animated and protracted debate that took place on this subject. All the leading dairy authorities present were agreed that the pooling system of paying for milk was most unfair to the patron supplying milk testing high in butter fat. Chief Instructor Publow stated that both tests—that of paying for milk by the straight test as well as by the test plus two, were more fair than the pooling system.

George H. Barr, Chief of the Dairy Division, Ottawa, pointed out that there was a division among the leading Canadian dairy authorities as to the system of test which should be

(Continued on page 6)

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FOR WEEK ENDING JANUARY 12, 1911.

No. 2

OUR DAY OF SPECIALTIES AND ITS RELATION TO PURE BRED CATTLE*

G. A. Brethen, Peterboro Co., Ont.

Receipts from the Farm Need Boosting in These Days if There would be a Satisfying Margin of Profit
Some Note of Changing Conditions—Pure Bred Cattle as a Means of Increasing One's Income.



G. A. Brethen

IN these later days, the running expenses of our farms have risen by leaps and bounds and this in spite of the efforts of the most economical. In order to show profit there must be a margin over the cost of production. Since the running expenses, due to various things beyond our immediate control, have taken such an advance, it is up to us, in order to obtain a proper margin, to boost our receipts. How can this be accomplished? There are two ways

enticing. Potato growing as a specialty has apparently proved a boon to the farmers of New Brunswick, while wheat is the magic word that has lured people to the West. For the man, however, with a love for good cattle—big his heart—pure bred cattle breeding affords a sphere well worth the consideration of any man.

The breeding of pure bred cattle has its drawbacks, we will not deny. And what line of endeavor has not? We must not overlook the fact, however, that when the fruit crop fails and the orchard returns are light, when the rot attacks the potatoes, and frost the wheat, and in days to come when all these industries will cry out loud and long for mulch and fertilizer in the shape of old-fashioned farmyard manure, the old dairy cow—of the right sort—goes right on pro-

large present returns may be, like the cent near the eye hiding the dollar a short distance away. The time has arrived when we must decide whether or no we are, by our present methods, farming at a profit. In the searching investigation, which must follow, the questions can be intelligently answered only by the judicious of such methods not only by present returns but also upon present and future results upon the vital resources of the soil.

It is here that stock raising will stand the closest scrutiny. Farms that a few years ago could only feed 30 head of cattle to-day are feeding better than ever and feeding double that number. It is explained by the increased production and growth of suitable crops. These results are very encouraging to such a farmer when he looks around and compares them with the ever decreasing returns of his neighbor who still persists in beating the air in a vain endeavor to show a profit from straight grain farming practised in the more thickly settled portions of the older provinces.

before us. First, by increased production on our farms; secondly, by a more intelligent marketing of our products.

The prosperous pioneers of this country earned their wealth by dint of hard physical effort and by the exercise of strictest economy. While the returns per acre which they secured look very meagre as compared to those of a well-managed fruit, dairy or stock farm of to-day, yet, as the running expenses of a farm in those almost recent days were also very moderate in comparison, they were enabled to keep a fairly wide margin between expenses and receipts and they laid by a moderate competence.

Ours is the age of specialties. It is the age when the man, who directs all his energies to the production and development of his chosen product, is able to place before the consumer something a little better than his fellows, and which will in return command him a special price for his offering.

SOME SPECIALTIES

To the man with an inherent taste for fruit farming, the wonderful returns from orcharding and the culture of small fruits should prove very

*An essay prepared by Mr. Brethen in compliance with the rules of the Dairy Farms Competition conducted by Farm and Dairy, and in which he was comparatively successful competitor. Mr. Brethen has had but a short career in breeding pure bred Holsteins, but he has made a marked success of them.



A Canadian Record Breaking Holstein of Remarkable similarity to Missouri Chief, Josephine.

This illustration of Netherland Arggie De Kol appeared in Farm and Dairy May 29th, 1909. We reproduce it again to show her similarity of conformation to that of the world's milk record cow as shown on our front cover this week. This cow, "Netherland Arggie" it will be remembered, was owned by J. M. Van Patter & Sons, and gave 2,566 lbs. of milk in one year, which up to that time stood as the Canadian record. She was cared for by George Van Patter—a 17 year old boy. Had she been given the same experienced and scientific care as was bestowed on the Missouri cow, she would in all probability have made a much larger record. Note particularly the veining on the udders of these two cows.

senting her owner with the joy of his heart, a pure bred calf, milk, butter, cream (whipped cream, ice cream), and about all the other delicacies one would find at "Cosy's Ball," barring Peterboro circle eggs (Duff Brand), and Irish potatoes.

DAIRYING A CERTAINTY

The certainty of dairying is what appeals to me. Any farm practice that, in order to show a profit, is dependent upon the robbery of the fertility of the farm looks to me, no matter how

of registered stock. A case has recently come under my observation that has caused me to modify the foregoing to some extent because right here in my own neighborhood there is a farmer who, although having indifferent results with grade cattle, is more than making good with his first experience with registered stock. His Holstein heifer is now producing around 70 pounds a day of 3.8 per cent. milk, and his awakened enthusiasm is bound to keep him

(Continued on page 5)

Common Sense in the Cattle Stable*

Prof. G. E. Day, O.A.C., Guelph

The farmer is noted for being conservative, but in regard to breeds of live stock, that which is new is apt to prove more attractive than the old. We find men who have failed with Ayrshires turning to Holsteins or Jerseys or some other breed to help them out, and men who have failed with Holsteins or Jerseys or some other breed, flying to Ayrshires for relief, and the cry is heard throughout the land: "Which is the best breed of dairy cattle?"

Let us stop and ask ourselves why all these breeds continue to exist and to prosper in this country? If any one breed outshone all others in every respect, would it not have replaced all other breeds by this time? All breeds have their misfits. There are good, bad, and indifferent animals in all breeds, and, so far as any person knows, it requires just as much brains, just as much skill, just as much intelligent and persistent effort to make a success of one breed as of any other. The man who fails with one breed is not likely to succeed with any other, and the man who studies and knows the breed he is handling will meet with his reward.

FEEDING

A full discussion of feeding cows will not be attempted, but there are several general facts of which no farmer should lose sight.

1. The cow is no latter day worker of miracles. Her product must come either directly or indirectly from the food she consumes, hence, to be a large producer, she must be a large consumer. It does not follow, however, that all large consumers are large producers, and it rests with the farmer to discover the profitable and unprofitable members of his herd.

2. The milk of the individual cow is a product fairly constant in composition. There will be variations, but they are of short duration, and the character of the food has no marked or continued influence upon the composition of the milk. The bulky, home-grown foods are rich in carbohydrates but are apt to be deficient in protein, from which is derived the casein, or curd, of the milk. If, therefore, a cow is given food which does not supply enough protein for the largest flow of milk she is capable of producing, she will go on giving milk containing the same per cent. of casein as she would if her food were rich in protein, and the only way she can do this is to cut down the number of pounds of milk. The farmer who appreciates the fact just stated, is in a much better position to buy foods to advantage than the man who trusts to luck in making his purchases.

BE AWAKE WHEN PURCHASING FEEDS

3. There never was a time when the farmer needed to be so wide awake in the purchase of foods as he should be to-day. So many new foodstuffs are being placed upon the market that it becomes absolutely necessary for the purchaser to know something of the use of the different constituents of foods, and to know the composition of the food he is buying, if he would invest his money to advantage. The following quotation is taken from an advertising circular issued by the vendors of a new foodstuff, the name of which I have omitted.

"As we have shown, the composition of _____, rich in carbohydrates, is peculiarly contributive not only to the more plentiful yield of milk, but also to a higher percentage of butter fat."

When philanthropic gentlemen, imbued with a laudable desire to benefit the farmer, make a statement such as the one quoted above, it is not time for farmers to sit up and take notice? and is it not time that they realized the importance of knowing something of the functions of the

*An address given before the Eastern Ontario Dairy-men's Convention at Perth last week.

principal constituents of foods, if they would protect their pocketbooks? With all the means of obtaining information that we find in existence to-day, there is no excuse for the farmer who remains ignorant upon matters which so vitally affect his business.

STABLES

We often find facts to obscure facts. There are men who are cruelly neglectful of the health and welfare of their animals, and there are others who are cruelly sollicitous regarding the same.

1. There are some who believe that the continuous manger is the only kind fit to use, but overlook the fact that it is recommended almost solely on account of cleanliness, and fail to keep its surface clean. Many of these continuous mangers

is not constructed upon sanitary principles. The old-fashioned manger, constructed to avoid sharp corners, is much to be preferred to one which permits either of the evils just described.

WATERING

2. Watering presents serious problems. Outdoor watering, where the cows drink or try to drink ice water, and where the strong oppress the weak, is barbarous. Whatever system of inside watering is adopted, it should be arranged so that the pipes and water troughs can be flushed and cleaned. There is little to say in favor of providing each cow with a separate drinking basin which is so constructed that it cannot be cleaned. A continuous water trough, open and easily cleaned, would be preferable in spite of its objectionable features.

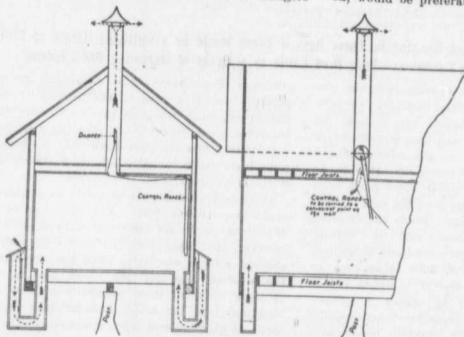
3. Everybody understands something of the benign influence of light upon all forms of animal life, yet how many there are who seem afraid to put a few extra panes of glass in the stable walls. The dreary dungeons in which some cattle are kept, would seem to be purposely designated to shorten the cow's span of life, and a really well lighted stable is an exception instead of the rule.

OUTDOOR EXERCISE

4. Outdoor exercise in winter is a matter at which many dairymen balk, but during the lungs a few times with pure outdoor air is a wonderful tonic, and a bulwark against disease. Outdoor exercise does not mean turning cows out in the morning and leaving them to shiver about the yard until evening, but with a well sheltered yard there are few days when cows would not be benefited by a brief turn outdoors. It might be only a few minutes, or it might be an hour or two, depending upon weather conditions, but it would give a chance to thoroughly air the stable. It might mean a few pounds less milk, as many claim, but it would give us more vigorous breeding animals.

5. Ventilation has been talked so much that it has become a hackneyed subject, but it seems the talking has not been particularly effective. Dairymen seem convinced that high stable temperatures are necessary to the highest milk records. Perhaps they are, but it is possible to pay too much for a good thing. It is worth while to poison a good cow for the sake of a few pounds, or even a few hundred pounds of milk? Would it not be wiser to spread her usefulness over a few more years even though she may not break any records? Personally, I do not think anything is gained by this poisoning process, and I believe a cow will do better work in the long run in a well ventilated stable, even though the temperature may be as low as freezing point at times, than she will in

(Continued on page 5.)



The Rutherford System of Ventilation—The Approved System for Farm Stables

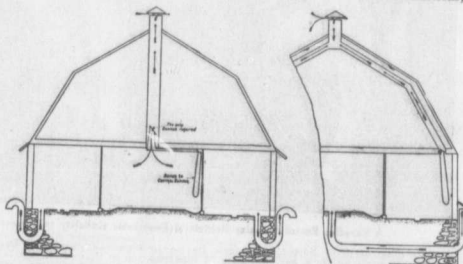
Cross sections, end and side views showing the principle of the system of ventilation designed and placed in practical operation by Dr. J. G. Rutherford, Live Stock Commissioner and Veterinary Director-General for the Dominion, are here given. Ventilation of farm stables by means of windows is by no means satisfactory. The cut below shows how this system may be installed in barns already constructed.

are so constructed, that they are open to grave objections.

Greek mythology tells us of Tantalus, son of Jupiter, who, as a punishment, was made to stand in water up to his chin, with choice fruits suspended just above his head. When he attempted to drink the water receded, and when he attempted to grasp the fruit, it moved away just out of his reach. A poor cow with her neck through

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How the Rutherford System May be Installed in a Building Already Constructed

Every farmer who considers the welfare of his stock and his own ultimate success should provide some effective system of ventilation in his stables. What some call stables, Professor Day, in the adjoining article, characterizes as stinking, dripping poison boxes. Read what he has to say about ventilation and other matters in the adjoining article, "Common Sense in the Dairy Stable."

a stanchion, struggling and straining to get the food which has escaped just beyond her reach is a modern representation of the ancient Tantalus. The danger of injury, especially to a pregnant cow, is too obvious to require explanation. I believe that many abortions may be traced to this cause. Further, the manger which allows food to escape upon the floor of the passage, from which it is swept back into the manger along with any filth which may have dropped from the attendant's

A Means of Increasing the Profit per Cow*

Chas. F. Whitley, Ottawa, Ont.

In this advanced twentieth century, in this old cradle district of good dairymen, we should seriously enquire, are there any cows in this county to-day that do not earn a profit?

Chart No. 1 gives the age and the production of each cow in an Ontario herd of 14 grades and is typical of scores of herds in that particular district, as well as, probably, many other districts. One thing is certain, it would be easy, from our records, to tabulate the results of plenty of herds far poorer than this. There is every indication of a dead loss with at least three poor cows, one of them a 7-year-old.

CHART NO. 1.—PRODUCTION OF AN ONTARIO HERD

SEVEN BEST COWS					SEVEN POOREST COWS					
Cow	Lb. Milk	Lb. Fat	Age		Cow	Lb. Milk	Lb. Fat	Age		
1	5490	184.4	8	9	4350	144.4	6	9	4200	129.7
2	5099	178.9	8	10	4200	129.7	6	10	3790	132.6
3	5000	170.3	8	11	3640	128.2	6	11	3480	124.0
4	4670	161.6	10	12	3390	115.6	7	12	3290	93.8
5	4290	145.7	7	13	3200	112.6	7	13	3090	93.8
6	4270	143.8	6	14	3090	93.8	3	14		
7	4463	160.3	9							
34,143 1,190.9					25,520 877.3					

From these figures there rings out the challenge of the poor cow, a challenge to a modern farmer's intelligence and forethought. How long is she to be allowed to misappropriate good feed and act as a common poacher? Should she not be arrested as a vagrant and waster?

The figures also emphasize the heavy burden of the good cow. They not only have to "make good" themselves besides helping to pay off the mortgages, but they have the herculean task of dragging a few hundred thousand poor cows up a heavy grade before all, good, bad and indifferent alike, can be represented as showing anything like a fair average yield.

The following details of this herd are worth careful consideration:

ONE COW EQUAL TO 14

Chart No. 2—Analysis of Production of an Ontario Herd.—1. Average yield of herd, 14 grade cows, 4,269 lb. milk, 3.4 test, 148 lb. fat. Average yield of 7 best cows, 4,878 lb. milk, 3.5 test, 170 lb. fat. Average yield of 7 poorest cows, 3,660 lb. milk, 3.3 test, 125 lb. fat. The best cows average 1,218 lb. milk and 45 lb. fat more than the poorest.

2. The total earnings of the best cows are \$85.23 more than the poorest. The total earnings of cow No. 1 are \$20.70 more than cow No. 13.

3. With cost of feed at \$35, the 7 poorest cows average \$1.60 profit: making a total profit of \$11.20.

4. Cow No. 1 makes \$19.60 net profit. Cow No. 11 makes \$1.40 net profit.

5. Thus cow No. 1 makes as much profit as 14 cows like No. 11.

ONE COW EQUAL TO 42

Fancy keeping seven cows for a whole 12 months to make the magnificent profit of \$11.20! This means eight hours' labor for one cent. How many of such cows would a man need to make a profit of \$1,000.00? Further than this, in comparing the yields of 524 Ontario cows, I found that one quarter of them gave an average yield of 282 pounds of fat and one quarter of them gave only 145 pounds of fat. With a value of 24 cents per pound placed on the fat, and \$34.00 on the cost of feed, the profit in the one case is \$33.68, but in the other only 80 cents. Stated in another way it means that one of the good cows made as much profit as 42 of the poor ones.

LOSS OF HALF A MILLION A MONTH

As far as the ordinary factory patron is concerned he wants only good cows, cows that are profitable. Unless a cow is just on the dead

line where income and expenditure just balance, she is kept either at a profit or a loss. If kept at a loss, in what does that loss consist? At least both cash and time. Let us make a very simple calculation to ascertain the loss in cash.

In the month of September there were 3,500 cows recorded in Ontario testing associations with an average yield of 722 pounds of milk.

On dividing these cows into two groups, those giving above that average and those giving below it, we find that the better cows produced more milk than the poorer cows to the value of \$2,859.00. On the average the better cows produced 163 pounds of milk more than the poorer cows. Let us be liberal and cut off all the odd 63 pounds; then assuming that half the cows in Ontario could have produced only 100 pounds more milk per cow, we arrive at this astounding result, that through keeping poor cows instead of fairly good cows there was lost in just one month the huge sum of half a million dollars. Every month the poor cows are behind the good cows in that proportion of cash earnings. The poor cow must go! Cow testing helps to detect her.

ENERGY GOING TO WASTE

There is also a most serious loss of time and energy. The chart indicates less with three out of 14 cows. Some patrons are keeping twice as many, and in other cases actually three times as many, cows as their neighbors to obtain even less milk. It has frequently been stated that one half of the cows in the Province do not pay, but so as to make no wrong deduction let us take only 3 out of 14; this would mean 214,000 worthless cows in Ontario. Estimating that the time spent in going after the cows, milking and feeding them, and cleaning stables amounts to only 15 minutes per day per cow, this amounts to 90 hours lost during a year, which with 214,000 cows amounts to over 19 million hours' time lost in Ontario every year on poor cows. This is a terrific waste of energy.

Time is money. We pay low-grade, casual, unskilled labor 15 cents an hour, sometimes 20. Is the farmer, the head of a going concern, the President of the Company, to be rated as low, or lower? What return per hour does he expect for his labor, for his thought and skill as manager? From the humanitarian and philanthropic standpoint especially, it is impossible to estimate the harm now being done to the country from this waste of time and human energy; or, on the contrary, the vast amount of good that would ensue not only to the men themselves, but to their immediate dependents, the women and children, if this Niagara of wasted power were turned into profitable channels. Two and a half million horse-power wasted as irretrievably as that of a squirrel in a cage—endless revolution, nothing accomplished!

APPALLING WASTE OF ENERGY

An important national problem receiving attention to-day is the conservation of our natural resources. What we need, and I submit this is a problem of far greater importance, is an awakening to this appalling waste of dairymen's energy, this sacrifice of human life in Ontario.

Chart No. 3—Production of Two Ontario Herds.—1. Average, 15 grades, 6,210 lb. milk, 3.6 test, 228 lb. fat. Lowest yield, age 4, 5,210 lb. milk, 3.6 test, 191 lb. fat. Profit varies from \$16.00 to \$37.00 a cow. (Feed \$40.00.)

2. Average 9 grades, 5,567 lb. milk, 3.6 test, 241 lb. fat. Lowest yield, age 2, 4,690 lb. milk, 4.0 test, 187 lb. fat. Herd includes two 2-year-olds, three 3-year-olds. Average profit, \$25.00 per cow. (Feed, \$40.00.)

Each cow makes a fair profit.

Note the remarkable extra increase in profit as the milk yield increases. A yield of 4,500 lbs. milk may give \$6.00 profit above cost of feed, but

a yield of 9,000 lbs. milk may give \$40.00 profit; that is, twice as much milk, but eight times as much profit.

Chart No. 3 is intended to emphasize one or two points. First and foremost is the fact that each cow in both herds earns a profit above the cost of feed. There are no exceptionally heavy yields, but there are no poor cows being carried at a loss. That is what makes these two herds so satisfactory. Both of the two lowest yields of fat (one from a 2-year-old) are actually higher than the best yield in the first chart. It is the man not the cow that is responsible. His brains should discriminate.

These represent two fairly good average herds, due to selection of records; herds of fairly uniform production, herds in good working order on a profit-bearing basis, and herds that will probably be considerably improved. Such herds are needed on every dairy farm and are easily within the grasp of any man who will adopt cow testing.

SUBSTANTIAL INCREASE IN MILK YIELDS

The brighter side of the picture is the steady growth of cow testing associations, in the number of individual farmers taking up the system privately, and in the substantial increase in milk yields they have obtained. Several instances of such definite gains were published in our last annual report. We still have much to accomplish; we should be able to show a similar or even a better increase than the dairymen in Sweden, who in six years have made a gain on 36,000 cows of 31 per cent. in the yields of milk. This will come when our farmers are known by the sign of the "triple S"—silo, scales, and samples.

The Dairy Division has endeavored to give just as much encouragement to cow testing in the East; a representative of the Department is always available to help any locality that shows any interest in taking up the matter. The Department still offers to pay any maker at the local factory for testing the samples, so that farmers are at a minimum of expense, having just to provide scales, dipper and sample bottle.

More than three times as many cows were under test in 1909 as in 1906, the figures running close to a total of 54,000 during the year. These are cows in connection with associations. In addition to this several thousand blank record forms have been distributed to individual farmers, not belonging to associations, who are also keeping records as a result of frequent announcements made by the Department.

Our Day of Specialties

(Continued from page 3)

Of course, the value of the calves, in addition to the milk production, is a very strong argument in favor of breeding registered cattle. While it is sometimes a question in the minds of some as to whether or not it pays to raise the grade calf there is no such question bothering the mind of the breeder of pure bred cattle.

And then with pure bred cattle there is the influence of the business upon the man himself. I have met many men in all branches of live stock breeding that were enthusiastic. I have met very few men who are working along haphazard methods of breeding of grade cows that showed the slightest interest in their undertaking. Work without being lightened by enthusiasm generally proves to be a drudgery; and while work is honorable, drudgery will drive the noblest from the farm. The man that takes the initiative is the man that gets to the top. I know of no better education which will develop a man along all the lines necessary to success than that which may be obtained from the breeding, developing, and marketing of pure bred cattle. Come on, boys; step up!

*Part of Mr. Whitley's address before the Dairymen in convention assembled at Perth Ont., last week.

ABSORBINE

Will reduce Inflammation, strained, swollen Tendons, Ligaments, Muscles or Hooves, Cure the Splints, Side Issues or Bone Spavin, Ho Blister, no hair grow. Horses can be used. Horse Book 2 1/2 free. \$2.00 a bottle at dealers or direct.

Mr. S. Nixon, Kirtledge, Ont., writes, January 12, 1910. "I have used ABSORBINE with success on a turp."

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\$500 a day easy. No experience needed. Sell on sight. Absolute necessity to farmers. Done work of 30 men. Pays for itself in one hour. Write to-day. MODERN MACHINERY CO., Box 97, Sarnia, Ont.

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Our Front Cover Illustration

Missouri Chief Josephine, the champion dairy cow of the world, a photo of which is reproduced on the front cover of Farm and Dairy this week, and which cow is now completing a yearly record which smashes all previous records for milk production is a most remarkable animal. Her record is the most remarkable in that it is said no special preparation had been given this cow for this test and she has done her full duty in the regular dairy herd in the University of Missouri, where she is owned, having had five calves in five one-half years. She is now eight years old.

An article, in "The World To-Day," by Horace R. Davis, states that it costs about 77 cents a day to keep Josephine, and her yearly production is worth \$4. According to Mr. Van Note, her attendant that is the cost of her feed alone.

Included in her production we must include \$3,000 per year. Her calf was worth \$3,000 at the end of the six months' record and will be worth more when its mother completes her year's test. Josephine's value, on the strength of her six months' record, is \$3,000. When she has completed her year's test with a world's championship record for the full year, as well as for the six months, she will be worth two or three times as much as now.

The entire article by Mr. Davis about this record making cow, will be published in Farm and Dairy next week if space permits. Watch for it.

Dairymen's Convention at Perth

(Continued from page 2)

followed. He claimed that as long as this division existed it was useless to expect the farmers to be agreed upon the subject. This ultimately led to the resolution previously mentioned being carried unanimously. A more complete report of this discussion is given elsewhere in this issue.

THE ADDRESSES

Aside from the general discussion, the addresses delivered were unusually interesting and instructive. Those on the "Benefits of Cow Testing," by C. F. Whitley, of the Dairy Division, Department of Agriculture, Ottawa; on "Common Sense in the Cattle Stable," by Prof. Geo. E. Day, of the Agricultural College, Guelph; on "Butter Making," by L. A. Zufelt, of the Kingston Dairy School; on Scientific Reasons for Taking Care of and for Cooling Milk," by Dr. M. T. Connell, of Queens College, Kingston; and on "Suitable Crops for the Dairy Farmer," by Mr. J. H. Gridale, of the Experimental Farm, Ottawa, are either published in whole or in part in this issue of Farm and Dairy, or

will be in early issues. An outline of the address of the president, Mr. Henry Glendinning, of Manilla, is published elsewhere in this issue. The annual report of the Dairy Instructor, G. G. Publow will be published in full.

IMPROVED QUALITY

A sign of progress was the fact that whereas three years ago, complaints of the poor quality of much of the cheese manufactured in Eastern Ontario, as well as of the condition in general to the consumers, it was reported last week that 90 per cent of the cheese manufactured last year had been high grade. Chief Instructor Publow as well as the well known cheese exporters, A. A. Ayer, and A. H. Hodgson, of Montreal, all bore testimony to this effect. The improvement was attributed largely to the work of the dairy instructors and sanitary inspectors.

Mr. C. C. James, Deputy Minister of Agriculture, Toronto, gave a scholarly address which will be mentioned more fully later. An interesting address but one which dealt largely with generalities was given by Mr. N. P. Hull of Michigan, president of the American Dairy Farmers' Association.

Neither Dairy Commissioner J. A. Ruddick or Live Stock Commissioner J. G. Rutherford were able to be present owing to sickness. In the absence of Dairy Commissioner Ruddick, Mr. W. W. Moore, of the Cold Storage Commission, gave a full explanation of the work that is being done by the Dominion Government in the matter of furnishing cold storage facilities for dairy products from the railway stations in Canada to the docks in Great Britain. The opinion was expressed that the Government should endeavor to extend the icing privileges on the cars in Ontario so that dairymen will be able to take advantage of them for smaller shipments.

Senator D. Derbyshire of Brockville presided in his own inimitable way at the evening meeting on Wednesday. Mr. J. R. Dargavel, M.L.A., presided at the evening meeting on Thursday. At this meeting, Col. Matheson, Provincial Treasurer, presented a special prize to Mr. Victor Begg of Moose Creek who won sixth place in the Dairy Farms Competition conducted throughout Ontario during the past two years by Farm and Dairy. Mr. Begg made a reply which proved very interesting as did the description that was given of how Mr. Begg had transformed his farm from a wood lot and swamp into one of the finest farms in the province.

WHERE MONEY IS LOST

Dr. Charles A. Publow, gave an instructive address entitled "Where we are Losing Money in Cheese Making." This address was illustrated by means of charts which drew attention to the little leaks that occur all along the line from the breeding and feeding of the cattle on the farm to the sale of the finished product by the factories. Special attention was devoted to losses that occur through the neglect to pasteurize whey. Figures were given which indicated that were factories to exercise more care in preventing an over run of fat into the whey, they could save more than they do now by being somewhat careless in this respect and endeavoring to regain their loss by manufacturing whey butter.

Mr. Geo. H. Barr, of Ottawa, gave his illustrated address on "The Care of Milk on the farm." The addresses were also given by Mr. H. Hodgson, and A. Ayer of Montreal, G. Putnam, Director of Dairy Instruction, Toronto, and by Dr. G. C. Croelman of the Guelph Agricultural College. Hon. Sydney Fisher, as he has on several previous occasions, failed to attend although he had been advertised to attend although he had been advertised as one of the speakers.

The attendance at the session was

good. On Thursday evening the Opera House was not large enough to accommodate the crowd. The hospitality that was extended to the leading dairymen by prominent residents of Perth, including Capt. Matheson, who kept open house for three evenings in succession, was an outstanding feature of the convention.

Common Sense in Cattle Stables

(Continued from page 4)

one of these stinking, dripping poison boxes, which some people call warm stables.

To be effective, ventilation must work unceasingly, night and day. It won't do to be constantly opening and closing the vents and inlets. Vents are necessary, but inlets are equally so. What would you think of a man who kept the damper of his stove tightly closed, and tried to improve the draft by increasing the number of stove pipes? This is the plan some of us are following in our attempts at ventilation. Experience leads me to prefer a system where the vents run from the ceiling straight up through the roof, and the fresh air inlets are at or near the floor, properly guarded both outside and inside to prevent direct drafts. This system lowers the temperature more than one where the vent opens near the floor and the inlets are near the ceiling, but it will give much better results and is much easier to prevent drafts when the inlets are at the floor. The system recommended is simple and inexpensive, and animals of all ages will thrive in the dry, cool air of such a stable in a manner pleasing to us.

TUBERCULOSIS

Only one disease will be dealt with here, and that is tuberculosis. There are those who would make us believe that the whole bovine race is rapidly going to destruction through this disease, and that we must do something to prevent the light of the whole matter. Tuberculosis as a very unimportant thing. As a rule, truth lies about midway between extremes, and while there is no need for panic and reckless slaughter, there is urgent need of being on one's guard.

In dealing with tuberculosis, one thing must never be lost sight of: the disease is contagious, and must be treated as such if we would fight it successfully. Whether it can be communicated from animals to human beings, is a matter of dispute, but there is no gaining say the fact that one animal will take it quite readily from another.

BAND SYSTEM AT COLLEGE

To illustrate what can be done in the way of fighting tuberculosis, I shall give the results obtained in an important herd which is under my supervision and that of my associate, Professor Wade, to whom I refer the credit of the satisfactory results obtained up to the present.

The herd was first tested with tuberculosis in the spring of 1909. After the test, the stables were disinfected with crude carbolic, and afterwards

(Continued on page 9)

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30 James St., South

July 19th, 1909

"We are never without a bottle of Peppermint Cure in our stable, as we believe it is the best on the market and have cured several operations with it."

J. Lewis Van Fleet,
Kendall's Peppermint Cure is the certain, quick cure for the following troubles: Croup, Bronchitis, Whooping Cough, Spasms and other Lameness. Keep it handy for emergencies. It has been used for 25 years. A bottle - 4 for \$1.00 - all dealers. Ask for "A Peppermint Cure" in your next order.
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The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions of interest. All questions will receive prompt attention.

Corn at 56 Cents a Bushel

By combining with our neighbors and getting a carload at a time, corn can now be gotten at 56 a bushel. What portion of a horse's oat ration could to advantage be substituted by corn? Would it be profitable to purchase corn for fattening hogs at this price? We are feeding middlings and barley chop to our pigs at present.—L. C. Wentworth Co. Ont.

Corn at 56 cents is as cheap a horse feed as can be gotten; a proportion varying up to one-half of the ration for the working horse can be profitably substituted by corn. The production of energy and heat are the two main functions of the food of the horse; both energy and heat can be produced much more cheaply by carbohydrates and fat than by proteins. A comparatively small amount of protein is necessary in the ration of the slow working horse. But horses fed on corn alone become fat and sluggish and are incapable of great exertion. Horses fed a ration of equal parts of corn and oats by weight will not be so vigorous as those fed on oats alone, but they will do just as much work as those on a whole ration and will keep in better condition; and such a ration is cheaper.

At 56 cents corn would be a cheaper feed for fattening hogs than either middlings or barley chop. It would pay to get the corn ground; if not possible to do so, soak it before feeding, a mixture of equal parts corn and middlings will give larger and cheaper gains than either one when fed separately. Corn fed alone produces soft sides, which are very undesirable for the Canadian bacon trade.—E.

Experiments in Pig Feeding

For seven years the Vermont Experiment Station has conducted experiments with the feeding of pigs on both sweet and sour skim milk, and in varying combination with other foods. The sour milk has proved practically as good as the sweet for fattening purposes, and where there has seemed to be any difference it was in favor of the sour milk. The value of the skim milk during this period varied between 15 cents and 34 cents, and averaged 25 cents per 100 lbs. In one experiment buttermilk was found to have a feeding value of 34 cents a cwt. and whey of 11 cents a cwt.

The best proportions of skim milk and corn meal to feed together have been studied in a number of experiments. The use of two ounces of corn meal to each quart of milk yielded pork at the least cost of food, but a more rapid gain was made when a greater proportion of corn meal was fed. In finishing off pigs, more rapid and cheaper gains were made when 12 quarts of skim milk were fed in addition to all the corn meal the pigs would eat when but six quarts were thus fed. The feeding of bulky or watery foods were found to conduce to a larger growth of stomach and intestines, and hence greater shrinkage in dressing.

Corn meal in one experiment produced 11 per cent. better gains than wheat middlings with young growing pigs, and 23 per cent. better than rice meal with pigs weighing about 140 lbs. The result of two experiments show more rapid gains on ground than on whole corn; the difference being about 10 per cent. The extra cost of hauling and grinding the grain, it is thought, would probably counterbalance this gain. Wet-

ting corn meal resulted in more profitable gains than feeding it dry. The fertilizing value of the food fed in the various experiments has averaged 50 per cent. of its market value. In nearly all the experiments profitable gains ceased to be made after the pigs had attained a weight of 180 lbs.

Pointers about Swine

"Pigs is pigs," and prices will still run high.

The acquaintance with other breeders is a great advantage.

Keep an account with your pigs this year and see just how you come out with them.

It is simply throwing away feed, and so good money, to feed on the ground. Pigs root, tire, feeding floors, enough for all the porkers.

Do you know that your pigs need salt as well as your sheep and cattle? They do, and if you do not want them to root give them some lime mixed with their salt. Air slacked lime is the best. Make a flat plank box three feet square and six inches deep for the line and salt.

Did you ever notice that your pigs would eat all the coal ashes they can get? Why not let them have all your ashes? They are worth nothing to you and the pigs need them. The ashes will also help to keep them from rooting. Pigs root after something that their systems crave. A pig needs gritty stuff. Why not let them have such things?

Our Veterinary Adviser

STRANGLES.—(1) Is there a danger of a horse contracting strangles when tied in a shed where infected horses had been tied?

(2) How should a case be treated?—A. G. E., Peterboro Co. Ont

(1) Yes.

(2) Make a liniment of three parts each of oil of turpentine and raw linseed oil and one part liquor ammonia fortior. Rub throat with this twice daily for three days. Keep throat wrapped with flannel bandages. Give three drams hypophosphite of soda and 80 grains quinine three times daily and feed on easily digested food, open abscesses as they form and syringe out the cavities three times daily until healed with a five per cent. solution of carbolic acid. If complications arise send for your veterinarian.

STERILE COW.—(1) I attempted to treat a sterile cow as advised in Farm and Dairy of Sept. 29th last, but was not able to dilate the os. I then employed my veterinarian, and he says the os is surrounded by fibrous rings or gristle rings, and he was unable to dilate it.

(2) I have known cows to fall to conceive although bred regularly all summer, and then conceive the next summer.

(3) Is it possible for cows of this kind to be successfully treated this fall?—C. W. N., Simcoe, Ont.

(1) When fibrous growths are present a cutting instrument is necessary to make an opening and in such cases it is not considered wise to operate. Better let the animal for a year. Even though the uterus might follow an operation, it will probably be a retrograde case. Fibrous tissue and the cow will probably be lost at parturition.

(2) This might occur by an abortion of the growths which sometimes occurs without treatment.

(3) It is quite possible that conception would occur if an entrance to the womb were effected either by dilatation of the os with a special instrument called an os dilator or by cutting, but as stated we do not advise cutting.

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Talk No. 2

Durability

By

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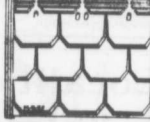
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125 Horses, 150 Beef Cattle, 50 Dairy Cattle, 200 Sheep, 200 Hogs, 4000 Fowls, 1000 Bushel Seeds.

Live Stock entries close JAN. 7.

Auction Sale of Pure Bred Stock on Friday afternoon, Jan. 20th

PRACTICAL ADDRESSES

Will be given each day in the Lecture Hall. There will be sessions with subjects devoted to Dairying, Poultry, Horses, Beef Cattle and Swine. Special sessions will be devoted to the discussion of the Growing of Feeds and to the Feeding of Farm Stock.

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HORTICULTURE

Lime-Sulphur the Best Spray*

L. Casner, B.S.A., O.A.C., Guelph

The second orchard sprayed in our work last season was the experimental orchard at Jordan Harbour. This test was not so thorough in some ways as the test in the McCrae orchard at Guelph [reported in Farm and Dairy, Dec. 8], because the varieties were less subject to scab, being chiefly Baldwin and R. L. Greening, with a few Spy, Ben Davis and King trees, whereas there were several Snow trees in the McCrae orchard.

The dates of spraying this orchard were somewhat different. The first application was with lime-sulphur before the buds burst, the second was just after the blossoms fell. In this application I used in one-half of the orchard, lime-sulphur at 40 and two lbs. arsenate of lead; on one row of 15 trees the same strength of lime-sulphur with arsenite of lime instead of arsenate of lead; on half of the remaining rows Bordeaux mixture 3, 3, 40 and two lbs. arsenite of lead; on the rest Bordeaux mixture about 2, 2, 40 and a little more than one lb. of arsenate of lead. This last part was the first to be sprayed. The weaker wash was due to mistaken information as to the capacity of the spray tank. About three weeks later the whole orchard, except three trees at one end of each row, received another application with lime-sulphur, one to 40 and two lbs. arsenite of lead. This third spraying seemed to make very little difference in the results, which are as follows:

RESULTS

1. Scab—Unsprayed fruit, 5 to 50

*Part of an address before the Ontario Fruit Growers' Association meeting in Toronto last fall.

ELM GROVE POULTRY FARM

A choice lot of MAMMOTH BRONZE TURKEYS for sale. Improve your flock by buying a pure bred Tom Turkey. Also good Cockerels for sale. Single Comb, Black Minorca, S. O. White Leghorns, Rose Comb Brown Leghorns and Rouen Ducks.

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Send for both of these books. They're free. And remember that we send telephones for free comparison test with others, and that all our telephones are guaranteed for ten years against defects in material or design.

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per cent. scabby; unsprayed foliage, 20 to 90 per cent. scabby; sprayed fruit, 0 to 2 per cent. scabby; and sprayed foliage, 1 to 3 per cent. scabby. No difference in amount of scab could be seen in the different parts of the orchard, each mixture, even the weak Bordeaux, having given practically scab-free fruit and foliage.

2. Wormy fruit.—I have not yet received the results of the count of clean and wormy apples, but judging from my own observations on September 15th, I think the fruit will average about 87 per cent. free from worms of any kind.

3. Russetting of Fruit.—None of the fruit was badly russeted, but there was decidedly more russetting on both the Bordeaux plots than on the lime-sulphur, the latter apparently being very little, if any, more russeted than unsprayed trees.

4. Injury to the Foliage.—In the row on which arsenite of lime and lime-sulphur was used five per cent. or more of the leaves were rather severely burned, though no permanent injury was done. In the rest of the orchard there was some burning to be seen on most of the trees, but not nearly so much as where the arsenite of lime was used, and not enough to cause any of the leaves to drop. The burning was somewhat worse on the Bordeaux plot than on the lime-sulphur and was just as severe on the trees sprayed with the weak Bordeaux as with the stronger.

In addition to the spraying of these two orchards I sprayed part of the College orchard at Guelph chiefly as an additional test to determine whether or not arsenite of lime with lime-sulphur would burn. This mixture was used on the trees just before the blossoms opened and again after they fell and was heavily applied to make a thorough test. From the spraying before the blossoms opened there was no burning of

foliage or so little that it was scarcely perceptible. From the spraying after the blossoms dropped (Coddling Moth spray) there was severe injury to both the foliage and young fruit of Montreal Beauty and Hyslop crabs, and to Salome and one or two other varieties of apples. Several other varieties of apples were less seriously injured, but more so than one would care to risk season after season.

National Apple Show

Editor, Farm and Dairy.—I feel strongly the advisability of holding a National Apple Show in Ontario next fall. I think there is no question at all about Toronto being the most suitable place to hold the show.

To make such a show the success we all would wish to see it will require a great deal more effort than the board of directors of the Ontario Fruit Growers' Association can put forth. Some of the most important apple sections have no representation on the Ontario Fruit Growers' Association board. The directors will have to be backed up by the rank and file of the leading growers all over the province. The Dominion and provincial governments, together with county, city and township councils should contribute liberally, and put up a prize list of at least \$50,000.

The press all over the province should take hold of the matter and boost it. Committees should be formed in all the leading districts to encourage the growers long after the collecting and proper packing of exhibits, or anything pertaining to the advantage of the show.

Now, Mr. Editor if we can all be busy right now, (not next summer, that will be too late) we can show the great possibilities of this province and have the honor of holding the greatest apple show ever put up in the world. The best time to commence preparing for the next show is the day after the last show is closed.—G. H. Mitchell, Secretary Georgian Bay Fruit Growers, Ltd., Clarksburg, Ont.

Have you forgotten to renew your subscription to Farm and Dairy?

POULTRY YARD

Sour Milk for Laying Hens

"Did I tell you about feeding buttermilk to my hens," said Mr. J. W. Clark, of Brant Co., Ont., a well known poultry man and Institute speaker, to an editor of Farm and Dairy, while in our office recently. "Professor Graham at the Guelph College and I have both had splendid results from feeding buttermilk. It takes the place of animal food in the ration and the germs in the buttermilk seems to have a beneficial effect on the digestive tracts of the hens. The germs that are always present in buttermilk seem to counteract other germs. We know for instance that buttermilk will keep rump."

"And then buttermilk unlike water will not freeze. If it does freeze somewhat the hens can eat it." "How about sweet milk for hens?" Mr. Clark added. He replied: "I would not prefer sweet milk at all. I would much prefer to have it sour and I would have it sour before I fed it to my hens. Sour milk is probably as good as buttermilk for inducing hens to lay eggs in winter."

Digestibility of Poultry Foods

The digestibility of the nutritive elements in our common foods is well known for all classes of farm animals except poultry. Extensive experiments to determine the digestibility of foods for poultry have been carried on at the Maine Experiment Station. It was found that the percentages of digestible protein, carbohydrates and fats in most feeds were the same as in the case of other animals except that poultry cannot make as good use of crude fibre as can ruminants, or even horses. The conclusions arrived at from these experiments follow:

1. Corn shows a higher digestibility than any other grain tested.
2. Wheat bran shows a low digestibility and at present prices is not an economical feed.
3. A mixture of equal parts early, fine cut clover and corn meal is more digestible and a more economical feed than bran.
4. India wheat compares favorably with oats as a grain for fowls.
5. The other extract of wheat has a low digestible coefficient.
6. Crude fibre was but very slightly digested and evidently is of but little use in a ration for poultry except to give bulkiness.
7. The mixing of about seven per cent. of bone ash with a ration consisting wholly of vegetable matter gave slightly higher average digestion coefficient than when the mixture was fed without it.

Beware of the Hen Lice

Among insects, lice are the greatest enemies of poultry, and their presence is one of the leading causes of poverty in their flesh. Complaint is constantly made that the fowls are fed sufficiently to keep them in good flesh, but that they are still poor. Such birds are frequently examined for insects without the discovery of any; but if the roosts and walls of the hen house are closely examined uncountable numbers of insects will be found, awaiting the return of night for another attack upon the roosting fowls.

The remedy lies in cleanliness. Poultry insects breed rapidly in unventilated, seldom-cleaned poultry houses and in places where the birds perch at night. Spray the roosts, the nests, the walls, the cracks and the crevices with kerosene oil.



Common Sense in Cattle Stables

(Continued from page 6)

sprayed with hot lime whitewash to which had been added some crude carbolic.

All of the more valuable cows which reacted, that is, gave the characteristic rise in temperature after injection which denotes the presence of tuberculosis, were placed in a stable by themselves, and there were enough of them to justify putting separate men in charge.

A few of the less valuable animals which reacted were slaughtered, and

the carcasses subjected to expert inspection. Some carcasses were condemned and some were passed as fit for human food.

The animals which showed no reactions were placed in stables by themselves, and kept entirely separate from the other herd.

Calves born in the diseased herd are removed immediately and fed upon milk from healthy cows.

The milk from the diseased herd is sterilized before using.

Unless for some special purpose, calves are not tested with tuberculin until after they are six months old.

The following table shows results:

Date of Test	No. of animals tested	No. of animals not ill	No. of animals ill	Per cent of animals ill
Spring of 1909.....	74	34	40	54%
Fall of 1909.....	47	42	5	10.6%
Spring of 1910.....	49	46	3	6.1%
Fall of 1910.....	65	65	0	0

In explanation of the table it should be stated that in the first test, the whole herd was tested except calves under six months. The figures given

for subsequent tests represent only animals which had previously passed the test, together with such calves as had become old enough during the interval to have the test applied.

It is worthy of special note that in the last test there were 12 heifers which are out of diseased mothers, and all of these heifers passed the test.

It would be too much to expect that no further reactions will occur in this herd, but the results, to say the least, are extremely encouraging, and go to show what can be done when tuberculosis is regarded as a contagious disease and is treated as such.



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AND RURAL HOME

Published by The Rural Publishing Company, Limited.



1. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia Agricultural, Dairy and Western Ontario, and Bedford District, Quebec Dairymen's Associations, and of the Canadian Holstein, Ayrshires, and Jersey Cattle Breeders' Associations.

2. SUBSCRIPTION PRICE, \$1.00 a year, strictly in advance. Single copies, \$1.25 a year. For all countries, except Canada and Great Britain, add 50¢ for postage. A year's subscription for a club of two new subscribers.

3. REMITTANCES should be made by Post Office or Money Order, or Registered Letter. On all checks add 50 cents for exchange fee required at the banks.

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6. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive their articles.

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed \$500. The actual circulation of each issue is 1000 copies. Our paper sent subscribers who pay but slightly in arrears, and sample copies, varies from 5000 to 10000 copies. All subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any "dead" names. We publish detailed statements of the circulation of the publication for a number of years by countries and provinces, will be mailed free on request.

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We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances. If we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but will protect our advertisers as well. In order to be entitled to the benefits of our Protective Policy, you must not include in all letters to advertisers the words, "I saw your advertisement in Farm and Dairy." Compliments must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction, with proofs thereof, and within one month from the date that the advertisement appears. In order to take advantage of the guarantee, we do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

WIDER MARKETS FOR OUR FRUIT

Through the instrumentality of co-operative societies for the packing and marketing of fruit, improved methods of orchard cultivation, and through spraying, the fruit industry in Eastern Canada each year is becoming more and more profitable to careful growers. The area of land in Eastern Canada suitable for orchard setting is very extensive and the fruit growers located thereon can compete with any country in the world in the production of first-class fruit. Wider markets would greatly promote a rapid extension of the fruit industry in Eastern Canada.

Of all possible markets, from the standpoint of our Eastern fruitmen, that of the United States is the most desirable. The cities of the Eastern States consume immense quantities of fruit and the cost of transportation to United States markets is much less than to the markets of Western Canada or to Europe where we are now

forced by tariff regulations to ship our fruit.

Speaking before the Government at Ottawa, Jas. E. Johnson, president of the Norfolk Fruit Growers' Association, claimed that free trade in fruit would mean 50 cents more a barrel for Ontario apples. Mr. Johnson speaks with authority gained from experience since last year the association of which he is manager shipped 6,000 barrels of apples to the United States. The duty on Canadian apples going into the United States at the present time is 75 cents per barrel. On United States apples coming into Canada, the duty is 40 cents. We ought to have equal duties or better still, complete reciprocity in fruit. Tariff sentiment on both sides of the line is ripe for such a move.

THE OTTAWA WINTER FAIR

Next week the farmers of Eastern Ontario and Quebec will have in Ottawa, on the occasion of the Eastern Ontario Live Stock and Poultry Show, educational opportunities of great value and which should be grasped. The Ottawa Winter Fair has now become an institution well worthy of support and attendance and the people who in recent years have attended this show have come away well satisfied.

The Show last year was a great improvement over all previous events of the kind ever held in Ottawa. In spite of unfavorable weather, the paid admissions last year were almost 100 per cent. greater than they were the year before. There was, considering the show as a whole, a distinct improvement in the number of entries, in the quality of the stock shown, and in the general interest manifested. The event this year bids fair to make a new record. The poultry show is, with the exception of the one at Guelph, the largest held in Canada. The exhibit of horses adds much to the life and interest of the show, while prominent speakers, who will give addresses in the lecture room, will give instruction of great practical value.

Those readers of Farm and Dairy who are in a position to attend will serve their best interests by taking advantage of the educational opportunities offered by the exhibits and addresses in connection with this Eastern Ontario Winter Live Stock Show.

CONSERVATION ON THE FARM

The amount of wealth that is wasted each year on farms from the loss of fertility in the proper care, of manure, improper methods of cultivation, neglect of weeds, and failure to take advantage of modern ways of doing things, is enormous. Fifteen per cent. of the feeding value of corn is lost on all farms where the silo is not used. Think of the labor which is lost in milking 3,000 pound cows to say nothing of the labor of feeding and caring for them! The same amount of labor might just as well be expended in milking a 7,000 or 8,000 pound cow with much greater profit.

Conservation of national resources is occupying the attention of states-

men, and of late has come in for a great deal of discussion in the public press. The importance of the subject merits all the attention it receives. And it applies right on the farm. There are greater chances for conservation on the farm than in any other line of industrial enterprise. Conservation is a very important problem, and conservation on the farm is a most important part of that problem. We farmers need to practice more conservation.

ASTOUNDING REVELATIONS

Fancy keeping seven cows for 12 months to make the magnificent profit of \$11.20! Fancy a man working eight hours of labor for one cent! Fancy one good cow in an ordinary farmer's herd that makes as much profit as 42 of the poor ones! But those are facts, not fancy. They are statements of actual facts and comprise some of the astounding revelations which were given to the public by Chas. F. Whitley, who has charge of Dairy Records for the Department of Agriculture at Ottawa, and whose address in part as given at Perth is published on page 5 of Farm and Dairy this week.

The facts that have been discovered and brought to light by Mr. Whitley, through the work of the Cow Testing Associations, should be the last argument required to convince every man who keeps a cow that he should know whether or not that cow returns a profit and how much profit.

Mr. Whitley states that some patrons are keeping twice as many and in some cases three times as many cows as their neighbors to obtain even less milk. The loss of time and energy in connection with keeping these poor cows is figured out by Mr. Whitley and is given on page five. Read his address. Then start with this new season of 1911 resolved that the poor cow must go. And set about making her go for your herd.

With modesty characteristic of himself, Prof. Geo. E. Day in addressing the Eastern Ontario Dairymen at

Common Sense

Perth last week, announced the fact that he had no desire to be eccentric in choosing a title for his paper, "Common Sense in the Dairy Stable." He talked common sense all right and we reproduce his address in full on page four of this week for the benefit of the thousands of Farm and Dairy readers not at the convention, as well as for those who were at Perth and heard the Professor speak. It will profit every dairyman in Canada to read and reread Professor Day's address and to set upon the common sense statements therein set forth.

The Farmers' Institutes this year are producing their usual crop of smart fellows. These "Smart smart fellows as a general rule are not noted as being the best farmers in the section nor have they ever proved themselves to be any wiser than other mortals. They do delight,

however, in tormenting the speakers with uncalled-for questions and provoking laughter at their expense when in all probability the speaker has forgotten more than they ever knew. Questions asked in the proper spirit are always to be encouraged. Smart Aleck men, however, will spoil the best of meetings with their ill-timed interjections.

The building of Dreadnoughts, which in the space of 10 or 12 years are the most are antiquated Dreadnoughts and out of date, is today the greatest economic waste in the world. Demonstration farms, showing the agriculturist how to make two blades of grass grow where one formerly grew, are among the greatest educational factors of the age. The price of one Dreadnought would establish 1,000 demonstration farms worth \$10,000 each. Which is the more important?

The extra start, which the fall calves receive is a strong argument for having cows freshen in the fall rather than in spring.

Fall Calves Calves can be made to **are best** thrive much better in a comfortable stable in the winter than in hot summer weather, when they are tormented with flies or are suffering from excessive heat. Furthermore, in winter time one has more time to look after the calves, and when spring comes they are strong and vigorous and in a condition to make the best use of the pasture grasses. The thrift of the calf has much to do with the worth of the cow. This point should not be overlooked when comparing the relative merits of winter versus summer dairying.

To form an association and ship produce, whether it be eggs or apples, on the cooperative plan, **Don't Expect** does not mean that we **too Much** are to immediately receive increased prices.

Before we can get the most satisfactory returns, we must build up a reputation and prove that we have the goods of a quality to demand an increased price. Once a cooperative society is well started, it is no trouble to hold old members and get new ones. The hard days for the cooperative society and the days in which most of them fail, are right at the start before a reputation has been established and before the association is showing its advantages in dollars and cents. Do not expect too much at first.

Col. Cody, better known as "Buffalo Bill," said: "Advertising is a mighty good thing, but you

We Protect must have what you **ad-Subscribers** vertise." There are some unscrupulous advertisers who advertise goods for sale that they have no intention of providing or who do not provide the quality that they represent in their advertisements. Such advertisers cannot buy space in Farm and Dairy for we believe in protecting our subscribers. Read again our Protective Policy on the editorial page.

FREE TRADE IN DAIRY PRODUCTS ADVOCATED

At the thirty-fourth annual convention held in Perth last week, the following resolution was carried unanimously: "Moved by J. W. Hyatt, West Lake, Ont., seconded by Jas. R. Anderson of Mountain View, that the Dominion Government be respectfully but most strongly urged in the negotiations now pending between Canada and the States, to provide for complete reciprocal trade in dairy products."

It has been announced through the press before the convention that this subject would be brought up for consideration. The fact that not a voice was raised against the motion by any members of the association was considered a good indication that the dairymen of Eastern Ontario are practically unanimous on this subject.

The only objection to the securing of free trade in dairy products that was raised came out after the resolution had been carried and was voiced by Lieut. Col. Matheson, Provincial Treasurer, and by Hon. James Duff, Minister of Agriculture, for Ontario.

Mr. A. A. Ayer, a Montreal Exporter, also said a little against it. Col. Matheson showed himself to be utterly unacquainted with the subject when he expressed a fear, while speaking at the evening session on Wednesday, that were free trade secured it would lead to the Canadian markets being flooded with cheap United States cheese. In view of the fact that cheese all last season was worth four and five cents a pound wholesale more in the United States than it was in Canada this expression of opinion caused a general smile. There were a number of dairymen present who would have liked to have set Col. Matheson on the nature of the meeting made this impracticable.

An amusing incident occurred the following afternoon. Dr. C. A. Publow, of Picton, pointed out to the members of the association that as long as they had only one market for their cheese they were more or less at a disadvantage when dealing with the buyers. For that reason he advocated free trade in dairy products with the United States because how much better prices could be obtained for Canadian cheese by its free admission to the United States market. Dr. Publow had not heard what Col. Matheson had said the night before. Col. Matheson was sitting in the audience. Some one innocently informed Dr. Publow that it had been intimated that free trade would result in the admission of cheap United States cheese to the Canadian markets. "Whoever said that," Dr. Publow replied, "did not know what he was talking about," and thus the Provincial Treasurer was set right.

THE DISCUSSION

The subject was introduced by John W. Hyatt, who speaks of the large issue which is vital to the interests of every dairyman, that is the market and of agriculture. Farmers market their products as units instead of as organized bodies and against them are opposed some of the greatest combines that the world has ever seen. In 1907 milk and cream were shipped to the United States to the value of \$24,000. In 1910, as a result of freer trade the shipments amounted to \$1,250,000. The weakest link in dairying was 85 cent milk.

Canadian dairymen received a little less than 11 cents for cheese last year, while in the States cheese sold for 15 cents. In Montreal butter was worth 24 cents wholesale, in New York 35 cents and 40 cents. It was therefore in the interests of Canadian dairymen that they should have freer trade with the States. In the States there are only 30 people in the dairy, 100 engaged in raising food products.

In Ontario there are 40. The States, therefore, offers better markets for dairy products than can be found in Canada.

MORE FROM HIS COWS

"In the past," said Mr. James R. Anderson, of Mountain View, "we farmers have been like Col. Sam Hughes to do the talking for us. Henceforth we are going to do our own talking. We are going to be united. I have 35 cows and if I had been able last year to sell my cheese in the United States to the same advantage that some of our Canadian dairymen have been selling their cream, my income for six months would have been \$3 a day greater than it was."

"I know of three lots of cheese from the Bay of Quinte District that were sold in the United States after paying six cents a pound duty," said Mr. S. Blakely, of Cherry Valley, "which noted the farmers better returns than cheese sent to Great Britain. Had there been free trade the producer might have had most of that six cents."

"We need more markets for our cheese," said Mr. J. B. Wilson, of Gananoque. "These markets can be found in the United States. Once we can improve our marketing the price of milk will advance and cheese-making will prove more profitable. We dairymen should follow the example of the grain growers in the West and unite in demanding tariff and other changes that will promote our interests."

OPPOSITION FROM THE MINISTER

At the public meeting Thursday evening Hon. James Duff, expressed what was taken by many to represent the attitude of the Ontario Government on this question, when he spoke against free trade.

"We are all Canadians," said Mr. Duff, "and our interests are more or less intertwined, and we cannot hurt ourselves by the commonweal without injuring the other. For this reason people should be careful at this juncture lest we commit ourselves to sever trade relationships that we would feel sorry for afterwards. Did it ever occur to you that the home market means more to Ontario, to the people of Canada in fact, than any other market? Seventy-five or 80 per cent of our products are used by our own people. Surely this is important. What has made the home market? Towns like Perth and cities like Toronto. Practically half the population are consumers of products grown on the farms of Ontario. The home market has made much money for the farmers, and it is worthy of note that we can only export 25 per cent of our farm products."

OWE THE UNITED STATES NOTHING

"I only speak of this, in order that the people before committing themselves should figure out how it will affect them. We are under no compliments to the Republic to the south of us, for the enviable position we occupy to-day has not come about by the gift of their help. I believe this great country of ours was built by the National Policy of Sir John Macdonald, and continued by Sir Wilfrid Laurier. Now, the States have a tariff fence 42 rails high while ours is only 27. Our seven millions of people have brought from the States \$1,000,000,000, while their ninety millions have purchased from us just half of what we bought from them. These things should be thought over before we commit ourselves to anything to-day, in view of the treatment accorded us by the States. Why is our cheese not going to the States? It is no fault of ours. If the States want our cheese it is their part to lower the duty, but we should not put forth an effort. We can each go on in splendid rivalry,"

(Continued on page 12)



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CIRCULATION MANAGER

PETERBORO, ONT.

Creamery Department

Butter makers are invited to send contributions to this department. Suggestions on matters relating to butter making and to suggest subjects for discussion. Address letters to Creamery Department.

Plain Truths About Production

J. Stonehouse, Ontario Co., Ont.

A great deal more cream could be produced in almost every locality than is at present produced without increasing the number of cows, but by keeping better cows and feeding them better—even better feeding of the present stock would increase production. This fact has been fully demonstrated since the beginning of September this fall. In most localities feed has been abundant and the supply of cream has been from 30 to

50 per cent greater than usual. As a consequence cows have been more profitable during the past two or three months than for many years during the same period, simply because they could satisfy their appetites and then lie down and rest. They did not have to roam the fields all day for an existence.

Too little attention is paid to providing a plentiful supply of fall feed. Until this is done farmers will never make the maximum profit that is possible from their cows. Dairymen who cater to a city trade are realizing the importance and necessity of providing sufficient feed to keep up the flow of milk through the fall. They find that there is nothing which fills the bill like the silo together with a supply of alfalfa, which an ever-increasing number of farmers are now growing.

Instruction in Eastern Creameries

G. G. Pablow, Kingston, Ont.

The number of creameries in Eastern Ontario under our charge this season was 25. Mr. Singleton, my assistant, acted as instructor and inspector of 12 of these, the others being looked after by the cheese instructors in whose groups they happened to be located. They received during the season 25 full day visits and 84 call visits, making a total of 150 visits in all. The creameries are reported as being in a clean sanitary condition and well equipped for the manufacture of good butter, their weakest point being their refrigerators.

PATRONS VISITED

The number of creamery patrons visited by the instructors was 190, the instructors going out on the cream routes of the different cream-

eries. While the cream hauler was getting his cream weighed and sampled, the instructor had an opportunity of talking with the patron regarding the care of the cream and separator. This results in a considerable amount of good, particularly where the cream is being delivered too thin, and of poor flavor, which are the most common defects. In practically every case the instructors were well received and the patrons expressed their appreciation of the instructor given.

LOW AVERAGE PER COW

While we have been unable to obtain full statistics, it would appear, from the reports that we have received, that the number of cows from which cream was supplied to the creameries, was about 16,000, and the total amount of butter for the six months from May 1st to November 1st was about 1,12,000 lbs., showing an average of slightly over 100 lbs. per cow. The average per cent of fat in the cream delivered was 28 per cent, as compared with 27 per cent last season.

The number of tests made for moisture in the butter was 173. They showed the average percentage of moisture contained to be 14.06 per cent, the lowest being 10 per cent, and the highest 15 1/2 per cent.

The quality of the butter is reported as being superior to that of last season, but there is still room for greater improvement, particularly in the flavor.

Practically none of the butter was exported, as it was required for home consumption. The home trade is being catered to by the factory more and more, owing to the high prices realized.

Protection for Dairymen

Arrangements have been made to hold a Dairy Convention in the City Hall, Ottawa, on Wednesday, January 18, commencing at 1:30 p.m. for the purpose of discussing the advisability of waiting on the Dominion Government and asking that the same protection given the Western wheat grower be extended to the Canadian farmer engaged in marketing cheese and that the system of weighing cheese in Montreal be changed so that allowances for over-weight will be taken into consideration in striking the average. The Government will also be asked to appoint an official weigher. At present the farmers have to accept the weights of an appointee of the Produce Merchants Association. This convention is going to be one of the big events in the history of the Canadian dairymen and every farmer interested in eliminating the losses suffered through failures and short weights is urged to attend and help make it a success.

Free Trade in Dairy Produce

(Continued from page 11) but let us Canadians maintain our allegiance to the British flag."

Mr. A. A. Ayer claimed that there is not as great a difference between United States and Canadian prices for cheese as quotations might seem to indicate as frequently all that would be necessary to cause a slump in prices on the leading United States markets would be a consignment of Canadian cheese.

THE GOVERNMENT GRANT

As a result of the attitude of the Minister of Agriculture and of the Provincial Treasurer, the question was asked privately during the convention what the association would do were the Government to take exception to the members discussing such a question as free trade in dairy products as the Government might claim the right to do because of its grant of \$2,500 a year to the association. An editor of Farm and Dairy consulted



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a couple of the leading officers of the association, one of whom is a prominent Conservative on this point. He was informed emphatically that were the Government to adopt such an attitude the dairymen would soon tell the Government that they would keep their grant as it was more important that the dairymen should have the privilege of discussing freely matters of this kind than it was that they should receive the grant and at the same time be muzzled by the Government.

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Our 1911 Steel Vat is going to be just a little better than ever before. Can't improve much over last year - it was a dandy. The tin lining in this year's vat will be 20 gauge - the heaviest ever used - 4 gauges heavier than your local tinmith uses. The outside frame will be all galvanized and entire outside painted with aluminum.

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There's no comparison between the ordinary wooden churn and the "EUREKA". Barrel is stoneware - top is clear glass. Besides being absolutely sanitary, the glass top enables you to see how the churning is coming along without opening the churn. Also made with Aluminum top. The "EUREKA" is the easiest churn on the market to operate. By tilting back the many until the weight rests on the wheels, the churn can be quickly and easily moved - while the barrel remains upright. If you dealer does not handle the "EUREKA," do not take a substitute but write us for catalogue. **EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.**

10 A

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Address letters to The Cheese Maker's Department.

Instruction in Eastern Ontario, 1910

G. G. Publow, Kingston, Ont.

The weakest point in the equipment of the cheese factories in Eastern Ontario is still the lack of proper facilities for controlling the temperature of the curing rooms. There are only 53 factories out of the total 933 that are properly equipped in this respect. This is a matter that is deserving of much greater attention on the part of factorymen than it receives, but the severity of these conditions makes it possible to turn out cheese of more uniform quality from month to month, and besides it gives the factoryman an independence in many ways which he does not otherwise enjoy.

With the large majority of the factories in a satisfactory condition, and realizing the great need for better sanitary conditions under which the milk is produced, we made a special appeal this past season to a large number of the patrons to see what could be accomplished in this respect. There were 3,071 patrons personally visited by the instructors with this object in view, and of this number the instructors succeeded in having 657 whitewash their stables.

QUALITY OF THE CHEESE

Regarding the quality of the cheese, notwithstanding the critical nature of which they were received, the May and June make were reported as the best in the history of the trade, but as soon as the warm weather set in, complaints began to be received regarding flavor, texture, and closeness.

While there is a marked improvement in the condition in which the milk is being delivered at the factories, nevertheless, during the warm weather there is quite a large percentage of the milk that shows a lack of proper care, as from 4,153 curd tests made by the instructors 2,136 samples proved to be over-ripe or tainted.

There is an increase in the number of factories that practice the pasteurizing of the whey, there being 125 doing so this past season as compared with 63 the season before. The average acidity of the pasteurized whey was .34 per cent, while that of the unpasteurized was 1.08 per cent.

WHEY BUTTER

Regarding the manufacture of whey butter, I have to report that there were 132 factories engaged in it this season as compared with 119 last season, and the total amount of whey butter manufactured from May 1st to November 1st was 422,022 lbs.

A new feature introduced into some of our factories this season, and one which has created a good deal of discussion among factorymen, and which, from present indications, is likely to increase, was the shipping of cream and casing to United States. In all, 41 factories were engaged in this work at the close of the season.

MILK TAMPERED WITH

The testing of milk for deterioration was also conducted by the instructors, and they reported 137 samples as showing evidence of having been tampered with. After a careful investigation 90 of these cases were placed in the hands of the official prosecutors to be dealt with. Convictions were secured in all cases, and fines ranging from \$5.00 to

\$50.00 were imposed, amounting in all to \$2,350.

Notwithstanding the lower prices obtained for cheese this year, the loss was almost compensated by the increased yield per cow over that of last year. Many of the farmers have awakened to the fact that it is by improving the quality of their herds, better feeding, and better care of the milk and cream, that they are going to place their business on a more profitable basis, and I believe that in the future there is going to be a more definite connection between the cost of production and the selling price of the dairy products.

SANITARY CONDITIONS

There has been a very great improvement in the sanitary condition of the cheese factories. Of the total number of 933 regularly visited, only 86 were reported as being at times in a rather unsanitary condition, and we have been assured that the majority of these will make the necessary improvements before beginning operations another year.

There were 16 new factories built during the past year and 581 made improvements in buildings or plant, the estimated expenditure, including new buildings, being \$125,250.00.

Our Declining Cheese Exports*

Hy. Glendinning, Ontario Co., Ont.

We frequently hear of the decline of the dairy industry in Canada and our lessened exports are cited as proof of the fact that dairying is on the decline. Such statements should not be accepted without investigation. The exports of cheese from Montreal for the present year during the season of navigation are 17,000 boxes of cheese ahead of last year. The export of cream to the United States to the end of November last was equivalent to 150,000 boxes of cheese. This latter should properly be added to our exports for the year. The home consumption of milk, butter, cheese and ice cream is increasing at the rate of over \$2,000,000 a year.

There is unfortunately a tendency to measure the progress of the dairy industry by the export trade. The export trade represents only about 25 per cent. of our total production of milk. There is now a very large quantity of both butter and cheese going to the western provinces. Only a few years ago the western dairymen were shipping both butter and cheese to foreign markets. They have troubled and quadrupled their output in the meantime, but home consumption has increased even more rapidly. The home consumption in the east is growing very rapidly. Such cities as Montreal and Toronto alone require an enormously increased supply of dairy products every year to satisfy their needs.

ECONOMICAL GOODS

The high price of meats have caused our people to turn their attention more to butter and cheese, which they have found to be cheaper and of more value as a food than meat. Butter and cheese also possess the advantage of being always ready for the table as they require no cooking.

Reference to the decline in the Canadian cheese trade by Old Country merchants are often being given a wrong interpretation. The impression is given that Canadian trade is declining because of the increase in the New Zealand imports. The reverse is true. The decline in the exports of Canadian cheese is the thing that encouraged the shipments from New Zealand, and the shipments from that country to Great Britain are just about equal to the decline in the exports of Canadian cheese.

*An extract from Mr. Glendinning's presidential address at the E. O. D. convention at Perth last week.

Promote Cow Testing Work

Having been confined to his house for nearly two weeks with a bad attack of bronchitis, which threatens to develop into pneumonia, Mr. J. A. Riddick, the Dairy Commissioner, was unable to attend the convention at Perth last week. His assistant, better feeding, and better care of the Markets Division in the Dairy Branch of the Department, took his place on the programme. In a letter to Mr. Glendinning, the President, Mr. Riddick said:

"I hope that the cow testing work will receive its share of attention from the convention. There is surely no more important matter for the consideration of the farmers of Eastern Ontario, and yet I regret to say that less progress has been made in the section represented by your association than in any other part of Eastern Canada. It seems strange that this should be so, because no other district in Canada depends so largely on dairying.

FURTHER PROMOTION OF TESTING

"In this connection I am pleased to announce that the Minister has approved of a plan for further promotion of this work, which will enable us to place a man in charge of a district covered by a group of four or five cheese factories. The man will keep a horse and spend his whole time among the patrons of these factories, so as to get into touch with every one of them. We shall continue our present propaganda, and hope to extend the work all along the line."

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will last a lifetime if properly used. It uses very little oil. It requires few repairs. It lasts so long and takes so little to keep it in perfect running order that, including purchase price and everything else, it costs almost nothing for each of the many years of service it gives. The reason is that it is perfectly simple and correctly built. Contains no dials or other contraptions. Later than, entirely different from, and vastly superior to all others.

You can buy a (so-called) cheap separator, but the average life of such machines is about one year. Then you can buy another the next year, and so on, until you have spent several times the price of a Tubular in ten years. Which do you want? You can own and use a Sharple's Tubular Cream Separator for less than any other separator built. We guarantee it.



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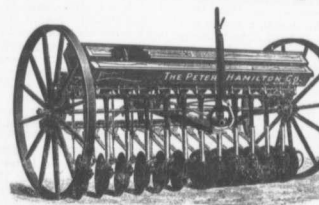
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WHEN we climb to Heaven, 'tis on the rounds
of love to men.

—Walter.

The Road to Providence

(Copyrighted)

MARIA THOMPSON DAVISS

(Continued from last week.)

SYNOPSIS OF THE ROAD TO PROVIDENCE

Mrs. Mayberry, a country physician's widow, living near the town of Providence, has taken into her home Eliza Wingate, a beautiful young woman and a famous singer who has mysteriously lost her voice. Mrs. Mayberry is much loved and respected throughout the countryside both for her goodness of heart and for the skill with which she treats minor ills. Her son Tom is a rising doctor in the city, but among the home neighbors there is a humorous preference for "Mother" Mayberry's remedies. In learning to mix and bake "light biscuits" and accomplishing other domestic tasks Miss Wingate becomes happier than she has been at any time since the loss of his voice compelled her to cancel her contracts.

"PLEASEM Miss Elison, make it a little bit longer, 'cause I want her to have a bean," besought the small mother, as she anxiously watched the measuring of the skirt.

"Want her to have a bean?" asked Miss Wingate with the seasons suspended over the bit of pink muslin which matched exactly her own ruffled skirts.

"Yes'm! Pattie Hovee wored shoes all winter and now she's got foot-dresses and Buck Peavy for a bean,"

"Oh, I see," said the singer lady as she smiled down into the eager little face. "Do you think—er, beaux are—er, desirable?"

"Yes'm, I do," answered the bud of a woman, as she drew nearer and said with an expression of one bestowing a confidence. "When I'm let down to my feet I'm going to have Doctor Tom for my bean, if you don't get him first."

"I'm sure you needn't worry about that, Eliza," Miss Wingate hastened to exclaim with a rising color. "I wouldn't interfere with your plans for the world—if I could."

"Well, you take him if you can get him," answered Eliza generously; "somebody'll grow up by that time for me. But he couldn't make you take oil, could he?" she asked doubtfully, the memory of yesterday's escape lurking in her mind and explaining her most unfeminine generosity.

Miss Wingate eyed her for a moment with mirth fairly dancing over her face, "Yes," she said with a laugh, "I believe he could!"

"Elison, child," said Mother as she came out from the front hall, "here we are a half hour late with this cream, and both of us under promise solemn to Tom to have it done by four o'clock. 'Liza, honey, how's the baby?"

"He has got a new teething and threw up once this morning," answered Eliza in a practical tone of voice.

"Dearie me," said Mother anxiously, for the Pike teether had up to this time been the Doctor's prize pant. "I wonder if your Maw remembered the lime water faithful?"

"I expect she forgot it, for she was whipping Susie for sucking Aunt Prissy, and Bud for saying 'fool,'" answered Eliza, not at all hesitating to lay bare the iniquities of her family circle.

"I'm sorry they did like that," said Mother, real concern at the news of such delinquencies.

"Yes'm, Susie told Aunt Prissy Mit'

Peavy said she was a-setting her cap for Mr. Hoover and it made Bud mad 'cause he fights 'Lias Hoover and he called her a fool. He hadn't oughter done it, but he's touchy 'bout Aunt Prissy and so's Pav. There comes Deacon and a little boy with him."

As she spoke, Mother rose to greet Deacon Bostick who had turned in the front gate and got as far up the front walk as the second snowball bush. The Deacon was tall, lean, bent and snow-crowned, with bright old eyes that rested in a benediction on the group on the porch that his fine old smile confirmed. By the hand he held a tiny he fights 'Lias Hoover and he called her a fool. He hadn't oughter done it, but he's touchy 'bout Aunt Prissy and so's Pav. There comes Deacon and a little boy with him."

"Sister Mayberry," said the deacon as he paused at the foot of the steps, "this is Martin Luther Hathaway who was layed at my house this morning by the Great Rider, as he came through from Springfield on an way to Flat Rock, to be delivered to you, along with his letter. I trust his arrival is not unexpected to you."

"No, indeed, Deacon, I was hoping for him though not exactly expecting him. A month ago while you was sick, our missionary society had news of a missionary and his wife down at Springfield who wanted to go up to Chicago to study some more about some heathen matter, and couldn't quite make it with two children. My cousin Silly Lue down to the Bluff here is the little girl and we went five dollars and a letter saying to send the boy to me for the summer. Come to Mother Mayberry, scenny," and Mother sat down on the lowest step and stretched out her arms to the little ward of the church militant.

Martin Luther's big, blue eyes, which were set in his head like those of a Raphael cherub, looked out from under a huge yellow curl that fell over his forehead, straight into Mother's gray ones for a moment, and sticking his pink thumb into his mouth, he sidled into her embrace with a little sigh of relief.

"Ret some, thank ma'am, please," he whispered into her ear by way of a return of the introduction. His little mother tongue had evidently suffered a slight twist by his birth and sojourn in a foreign country, but it was otherwise the normal condition of all inhabitants of his land.

"Of course he's hungry, bless his

little heart," answered Mother as she removed the fox and ruffled up the damp curls. "Run fetch the tea-cake bucket from the kitchen safe, 'Liza, and won't you come sit down, Deacon?"

"No, thank you, Sister," answered the Deacon with a glance of real regret at the comfortable rocker Miss Wingate had hastened to draw forward into a sunny but sheltered corner of the porch. "I'm on my way to take tea with Sister Pratt. I'm to meet Mrs. Bostick there. How's the throat, child?" And his smile up at the singer lady was one of the most sympathetic in the world.

"Better, thank you, I think," said Miss Wingate answering both question and smile. "How well you are looking to-day, Deacon?"

"Well, I'm a good deal over new by that stop," said the Deacon, fairly beaming with enthusiasm. "Your cure will be only a matter of time, a matter of time, my dear—Squire Pratt is the contrary," he added with a chuckle.

"There, bless my heart, if my ears ain't heard two testimonials to Tom Mayberry all in one minute!" exclaimed Mother with a delightful laugh. "Have a cake, won't you, Deacon?" she asked, offering the bucket.

She then established Eliza and the small stranger on the edge of the steps, with an admonition as to the disposal of the crumbs, and to the grass, and filled both pairs of hands with the crisp discs. Eliza spread the end of her short blue calico skirt over Martin Luther's shabby knees, and they both proceeded to eat into the improvised napkin with the utmost comradeship. Miss Wingate had strolled down to the gate with the Deacon and had paused on the way to decorate the button of his shiny old coat with a bit of the white lilac nodding over the wall.

"Liza, child," said Mother as she glanced at Martin Luther with a contemptuous interest, "you're done eating run over and ask your Maw to send me a pair of Billy's britches and a shirt. No, maybe young Ez's be letter, and bring 'em and Martin Luther on back to the kitchen to me." With which she disappeared into the house, leaving the numbers to finish their feast alone.

And in an incredibly short time the last crumb, even those rescued from the skirt had disappeared and Eliza had laid Martin Luther down the walk across the Road and around the corner of the Pike cottage, while the Deacon still lingered talking to Miss Wingate at the gate. Eliza had laid upon her, with her usual generalship, the development of Mother Mayberry's plan for the arraying of the young stranger in what Providence would consider garb.

And for some minutes Miss Wingate stood leaning over the top rail of the low gate idly watching a group of Pratts, Turners, Mosbys, Hoovers and Pike's playing a mercenary game, which necessitated idly dashing the line drawn down the middle of the Road in the white dust, shrill cries of capture and frequent change of base.

The day had been a long sunny one, full of interest and as she stood drinking in the perfume from a spray of lilac she had broken to choose the bit for the Deacon, she suddenly realized that not one minute had she foregone what to let the horrible dread creep cold and clutch at her throat. Helping along in the construction of a bucket of tea-cakes, the printing of four cakes of butter, the simmering of a large pan of horchona syrup and the excitement of pouring it into the family bottles that Mother was filling against a sudden night call from some creper down or across the Road, to say nothing of a most exciting pie, that had

been concocted entirely by herself from a jar of peaches and trifled with the young Deacon's regard for his artistic appearance, to which could be added the triumph of the long-tailed pink gown for the daughter of young Deacon, Eliza had had busy and—with a quick smile—had to admit to herself, happy. Indeed the remembrance of the rapid disappearance of the pie and Doctor Mayberry's bludgeoning had been as of two-thirds of it, his own name in informed him of the authorship, brought a positive glow of pleasure to her cheeks. Such a serious, gentle, skillful young Doctor, she went as far as admitting to herself, this time with a low laugh.

And as if her pondering on his virtues had had power to bring a materialization, Eliza and Deacon stood in front of her on the other side of the gate. He had come from up the Road while she had been looking down in the other direction, and he had not been a yard from the purple lilacs which he had broken from a large bush that hung over the fence from the Pratt yard into the Road and also spread itself a yard into Deacon's territory.

"Aren't they lovely and plummy?" she asked, as she took the bunch he offered and laid the purple flowers against the white ones she held in her hand. "These are so much darker than Mrs. Mayberry's purple ones. I wonder why?"

"Some days they bloom lighter than Mother's and other years still darker—just another one of the mysteries," he answered as he leaned against the gate-post and looked down at her with a smile. He was tall, and strong, and forceful, with a clean-cut young face which was lit by the sun. Mrs. Mayberry's very own black-lashed, serene gray eyes, which his very evident air of a man of affairs had much of the charm of Mother Mayberry's rustic dignity. He wore a dark coat, a white shirt and soft gray tie, but he had decided out of sophistication and were worn with a most worldly grace that was yet strangely harmonious with his surroundings. For with all of his distinctions in appearance and his attainments as a man he struck no discord when contrasted with Mr. Pike's shirt-sleeved, butternut-trousers personality, and he seemed but the flowering of Buck Peavy's strolchlike ambitions. The accord of it all struck Miss Wingate so forcibly that unconsciously she gave voice to the feeling.

"How at home you are in all this—his," she paused and raised her eyes to his, but he was so helplessness to express herself within them.

"Simple life," he supplied with a smile that held a bit of banter.

"You must be a simple one, I would think to balance a pie plate on one hand and cut around it with a knife so the edges aren't jagged—to be all consumed within the hour," she said with a slight challenge in her voice and smile. "And there are other most complicated things I have discovered."

But just here she was interrupted by a rattle from around the corner of the Pike house which streamed out across the Road, headed precisely in their direction. Eliza was in the lead and held little reether swung perilously across one slender hip, while she clasped Martin Luther's chubby fingers in her own hand. And behold, the transformation of the young stranger was complete beyond belief! His yellow tatch was a brown hat, his eyes were circled by a brand new shoestring, though it gaped across the crown to let out a peeping curl.

(Continued next week.)

The Upward Look

The Courage of Christ

Then in the audience of all the people He said unto His disciples, Behold, I die of the scribes.—St. Luke 20, 45, 46.

Then asked He them, again, Whom seek ye? And they said, Jesus of Nazareth. Jesus answered, I have said you that I am He.—St. John 18, 7.

Men admire bravery. History is replete with records of events in which men have readily gone to their death because of the inspiration afforded by the examples of their leaders. Christ was the bravest man that ever lived. And yet there are men who seem to think that it would be effeminate on their part to confess Christ as their leader and were they to acknowledge Him in all things as their guide.

We hear so much of the meekness of Christ, of His love, of His long suffering, that we are apt to overlook His bravery. And yet His bravery was one of His foremost characteristics. The incidents recorded in our text give some indication of His courage.

In the time of Christ the scribes and Pharisees were the leaders of the Jews. They had more influence over them than their real rulers the Romans. The scribes were corrupt. For hundreds of years they had taken advantage of the office to laden down the common people with burdens that had become almost unendurable. They had created hundreds of meaningless rules about the observance of the Sabbath in various forms of worship. These rules dealt with trifling matters such as the lighting of fires, the washing of dishes, the wearing of embroidery on clothes. Jews who broke any of these man-made rules were held to have sinned and were severely punished. The scribes frequently had offenders against their laws put to death.

Christ saw these things. He realized that among the common people there was a great hunger and thirst after righteousness. He discerned the hypocrisy of the scribes. In spite of their power He did not fear them. Instead, as we read in our text, He stood up in the audience of the people and denounced them. He showed that the scribes, instead of desiring to honor God, really longed to walk in long robes and to be given the chief honor at feasts; that they made long prayers for effect and that they devoured the houses of widows.

Thousands of other men in those days must have realized these same things. It was Christ who displayed the courage that was required to denounce the scribes publicly, in their own temples, before their own followers. And we are told, that the common people heard him gladly.

Christ realized perfectly what He was doing. He knew that the scribes would hate Him and that they would strive to kill Him. And even when they took up stones again to stone Him (St. John 10, 31) He was not afraid. Instead, He calmly faced them and asked them to explain the reasons for their actions.

But the greatest evidence of Christ's courage and strength is afforded by the fact that although He knew, long in advance, the fearful death He was to die and frequently told His disciples about it, He never flinched but proceeded calmly to meet it. There is a story about a man who received a blow from a fairy to forget all the future. No sooner did he receive this power, however, than his life became a perfect nightmare. He saw that he was to die in great suffering. He knew just how and when his friends

were to die. In consequence, he lost the power to enjoy the present because of his anticipation of the future. Christ said all these things, even the doom that was hanging over Jerusalem; and yet He had the strength and courage to face it all for our sakes. At the end, when the crowd with swords and staves, came out against Him in the garden of Gethsemane, He went to meet them and, as our text shows, told them calmly that He was the man for whom they sought. Even before Pilate and while on the cross His courage and love continued unto the end.

Should we not all be proud of such a leader? Should we not all delight to own Him as Lord? Let us do so; in our homes, in our churches, among our friends, everywhere. Without thrusting our views on any one let us let every one know that we are "Out and Out" on Christ's side in battle against sin.—I. N.



Hints about House Plants

Wm. Hunt, O.A.C., Guelph, Ont. Water pot plants only when they need it, then water them thoroughly. When the soil begins to get dry and the surface, or when the soil is powdery on the surface, or when the pot is tapped with the fingers it emits a ringing sound—the plant requires water. Then give sufficient water so that it runs through the bottom of the pot, then withhold water until needed again. Giving a little water every day or at any stated interval is not the way to water plants. Use tepid rain water or water that has been exposed to air and sun if possible for a day or two. The water should be just lukewarm about 50 to 60 degrees. Use ice cold spring water for pot plants in winter.

VENTILATION

Give air from the top of the window from an adjoining room. Avoid cold draughts of air on plants. Ventilate only on mild, still days. In late fall, early winter, or in spring plants may sometimes be stood out for an hour or two, but the temperature should be at least 65 degrees outside.

MOIST ATMOSPHERE

A moist atmosphere is one of the main essentials to achieve success with plants. Place pans or saucers of water on the heaters or registers. As this evaporates it causes a moisture very beneficial to plants. Saucers of water placed near plants are beneficial or a steaming kettle or pot on the stove is a great help.

SPRAYING PLANTS

Glaucous or glossy-leaved plants, such as palms, rubber plants, Boston ferns, calla lilies, etc., should have the leaves sponged with clean water once every week, with an occasional spraying at intervals. This should be done on fine warm days if possible. Hirsute or rough-leaved plants, such as the rex begonia, gloxinias, etc., should not be sprinkled over the foliage.

When the pots become full of roots and the soil worn out or exhausted, a little fertilizer can be given. The soil should be moist, not dry or very wet, when fertilizer is applied. There are several good plant foods sold at large seed stores. Sterlingworth Plant Tablets or Bonora are both good. The first cost 10 cents for a small box sufficient for a good collection of plants for the whole winter. Bonora is 25 cents a small tin. This is the best fertilizer for plants that I have tried for many years.

Half an ounce of bicarbonate of soda dissolved in one gallon of water makes a good fertilizer for pot plants. About half a teaspoonful every two weeks for a plant in a six inch pot will be sufficient. Begonia is especially not to be given too much fertilizer. Geraniums and chrysanthemums will bear a larger quantity.

INSECT PESTS

The spraying with water will help keep down insect pests, especially if

the water is applied to the under side of the leaves. Insect pests increase and thrive best in a dry, warm atmosphere. They do not like moisture. For aphid or green lice, red spider and thrip sulpho-Tobacco Soap is a good remedy. This costs 10 cents a packet at seed stores. Soapy water or a solution of white oil soap and tobacco water is beneficial.

Smoking the plants is also beneficial. Care must be taken not to burn the plants. Smoking or fumigating with tobacco is risky and unpleasant in a dwelling house. Much can be done to help keep down aphid with the smoke from a pipe or cigar if care is taken not to burn the plant. For scale insects wash well with soapy water, using a small brush to remove the scale if necessary. Wash with clear water shortly after using soap solution. Apply the solution to the under side of the leaves.

A Modern Cellar

A cellar that meets modern requirements must be dug on ground that is well drained either naturally or by artificial means. It must be remembered that a cellar is not, first of all, a storeroom; it is an essential part of a well-planned house, especially necessary in helping to keep an equable temperature; and if its walls and floor are what they should be it pre-

vents dampness and ground air from rising into the house.

If the house is set close to the ground the cellar windows must be wide enough to compensate for their lack in height, and must be set opposite each other in order to insure good draft. A method that is sometimes used is to dig out a space in front of a window, making a little area which, laid in either brick or stone, may be whitewashed and reflect light into the cellar. It also allows of sinking the cellar window deeper and obtaining better ventilation.

The walls and floor of the cellar should be laid in Portland cement to keep out the moisture and the walls and ceiling should be whitewashed twice a year. Even if a cellar is kept very clean, the earthy smell of vegetables that arises from it when it is well stocked is not agreeable—another reason for good ventilation and frequent airing. A separate room may be apportioned off from the cellar in one corner for storage purposes. This can then be kept darker than one would wish to keep the rest of the cellar. Such a room must, of course, be aired now and then. In this storage room should be placed a movable safe with wire-netting sides and a swinging shelf; and broad shelves should be built high enough so that Larrea may be shored under them.



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PERSCOTT, Dec. 25.—Some of our leading farmers have been growing clover seed. It was threshed by common mills with good success. It has been the general impression that we could not do so well in the East, but we have proved that to be a mistake. The success of these few farmers has been the means of inducing a good many farmers to decide to try it themselves. Threshing has been completed with an average yield—S. W. C.

NORTHUMBERLAND CO., ONT.

EDVILLE, Jan. 4.—Our winter has set in quite early here, with continued cold weather, sometimes below zero. We have had good sleighing for some time. Our mail carries on the route from Colborne to Edville has been troubled of late by the snow drifts—S. H.

WELLINGTON CO., ONT.

FERGUS, Dec. 28.—We had an early winter and are having cold stormy weather for the time of year. The snow is at least 14 inches on the level. Grain is cheap at present, oats selling at 32 cents, wheat 45 cents, and barley 45 cents. Hay is \$10 to \$11 a ton. Hops are still low in price, being \$6.50 a cwt. Butter is 23 cents, and fresh laid eggs 20 cents—W. A. M.

MOUNT FOREST, Jan. 5.—Markets are becoming stronger. There has been a large amount of grain sold this year owing to the good crops and the shortage of live stock. Stock looks well. Feed is plentiful. Auction sales are not as plentiful this winter as they have been. Our Institute meetings will commence next week with Hy. Gleedman, Manilla, as speaker—C. N.

GREY CO., ONT.

BAVENNA, Jan. 5.—The snow is from two to four feet deep. All kinds of stock look well. Farmers seem to have an abundance of straw and hay. Eggs are bringing from 20 cents to 40 cents. Butter is 23 cents. Beef and hogs are higher. Farmers have been busy hauling their winter supply of wood. The month of December has been the coldest that has been known for some years—C. P.

OXFORD CO., ONT.

GOISPIE, Dec. 28.—We had a very heavy snowfall today. Stock is doing well this winter. A number of the farmers are in to winter dairying, some separating their milk at home and drawing the cream to the creamery at Beachville. Others are making butter at home and selling it on the market, realizing more for it than they would at the creamery. Feed is plentiful. We expect a Rural Mail Delivery here. It will be a great convenience, as sometimes in busy weather we are a few days without any mail. County graft and municipal matters are the chief topics just now—A. M. McD.

HOLSTEIN NEWS

In connection with Illustration No. 5 on page 14 of the Illustrated Supplement to Farm and Dairy, which went to our subscribers with our issue of December 29th, an error occurred. This cow was owned by Mr. T. H. Dent, of Woodstock, Ont., and in connection with her it was said that she was a grade whereas it should have read that this cow was a pure-bred Holstein, Annie Wedo Mink Mercedes, 4231, 2nd top second in the mature class. In the three days' test she gave 21.5 pounds of milk testing 3.6 per cent of butter fat, for which she received a number of points amounting 207.7, this being over 11 points above her nearest competitor and less than one-half point below Idaline Pauline De Kol, which cow was awarded first place.

SALE OF LYNDALE HOLSTEINS

In spite of inclement weather the Holstein sale of Brown Bros. at Leno, Ont., was marked by large crowds and spirited bidding. This was probably the greatest sale of Holstein bred dairy cattle in the county in the Brockville district. It is gratifying to learn that Brown Bros. reserved some 30 head and will continue to breed black and whites. The great success of their first large auction sale will be a great encouragement to good work in the future in breeding lines.

That good dairy stock is becoming more and more appreciated by Eastern Ontario dairymen, and that dairy breeders are


willing to pay good money for stock of the producing kind, is proven by a summary of the prices received at this sale. As reported in Farm and Dairy last week the 48 head sold brought \$11,555 or an average price of \$236.50. As usual at such sales the 35 females offered brought the highest average price, \$262, a total of \$9,170, as compared with \$166 on the average for the 13 males offered.

The highest prices female realized \$1,000, the highest priced male, \$800. The highest price for a two-year-old heifer was \$700; for a yearling heifer, \$220; for a three-

year-old heifer, \$460; for a 1910 heifer calf, \$135; for a 1910 bull calf, \$270. The uniform high excellence of the offering is proven by the fact that no very low figures were paid. A 1910 bull calf, selling at \$40, was the cheapest animal sold. The lowest price realized for a heifer was \$95 for a 1910 calf. The herd bull sold for \$280. The following summary of the sale tells the tale of success: Fifteen calves, born in 1910, realized \$1,575, an average price of \$105; 11 bulls, calved in 1910, brought \$1,105, an average price of \$100.50; 4 heifers, calved in 1910, brought \$470, an

average price of \$117.50; 3 yearling heifers brought \$595, an average price of \$198.33; 9 two-year-old heifers brought \$2,645, an average price of \$294; 9 three-year-old heifers brought \$2,330, an average price of \$259; 33 head calved previous to 1910 brought \$9,760, an average price of \$296; 31 females calved previous to 1910 brought \$8,700, an average price of \$280.60.

The greater part of the offering stays in Eastern Ontario, Leeds County getting 34 of the 48 head offered. Three head go to the United States and two to Western Ontario.



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NUMBER 97
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TORONTO - CANADA

MARKET REVIEW AND FORECAST

TORONTO, MONDAY, Jan. 9th, 1911.—There is a healthy tone prevailing in the leading industries in Canada and the United States. There is naturally a considerable amount of conjecture about regarding the outcome of the negotiation at present in progress between the two countries in regard to the revision of the tariff. Our farmers, Westerners especially, would like to see something done in regard to the lowering of rates on agricultural implements. In local circles, however, all branches is steady in character. Call money in Toronto rules at 5% to 6 per cent.

WHEAT

The present condition of affairs in wheat seems to bode ill to the bears. There has been a marked cessation in the shipments of wheat, not only from the Argentine, but also from the Western States and our own northwest. The Continental centres, however, do not seem to be much affected

by the latest turn of affairs, for with one or two exceptions, prices have declined on all European exchanges. Next week will probably tell a different tale, with prices ruling more favorably to the benefit of local dealers who have raised their quotations in sympathy with Chicago and Winnipeg, and the following prices are given: No. 1 Northern, \$1.02; No. 2, 99¢; a bushel; No. 2 Ontario winter wheat, 85¢ to 86¢ outside; on the farmers' market fall wheat is selling at 85¢ a bushel, and goose-wheat at 80¢ to 82¢ a bushel.

COARSE GRAINS

Coarse grains have ruled steady in price throughout the week, with nothing noteworthy to chronicle. Local deals give the following quotations: Canada Western oats, No. 2, 38½¢; No. 3, 36½¢; a bushel; at lake ports for immediate shipments: No. 2 Ontario white oats, 35½¢ outside; No. 3, 32¢ to 33½¢ outside; and No. 4, 30¢ a bushel on track, Toronto; ryegrass

to 61¢; feed barley, 48¢ to 49¢; malted barley, 56¢ to 57¢; a bushel; American yellow corn, No. 3, 51¢ to 51½¢; a bushel on track, Toronto; buckwheat, 47¢ a bushel.

On the farmers' market oats are selling at 38¢; peas, 75¢; barley, 60¢ to 61¢; rye, 58¢ to 60¢; buckwheat, 46¢ to 58¢ a bushel.

Montreal dealers quote the following quotations for grain: Canada Western oats, No. 2, 39½¢; No. 3, 38½¢; Quebec white oats, No. 1, 47½¢; No. 3, 36½¢; barley, 48¢ to 49¢; American yellow corn, No. 3, 57½¢ to 58¢ a bushel.

POTATOES AND BEANS

Traders brisk in potatoes, and local quotations are as follows: 55¢ to 90¢ a cwt. in a jobbing way, and 70¢ to 75¢ a bag in car lots. Local dealers quote three-pound pickers at \$1.90 to \$2.00 a bushel.

On the farmers' market, potatoes are selling at 90¢ to \$1.00 a bag. Montreal advices state that there is a steady demand for potatoes, and prices are firm. Green Mountains are selling at 82½¢ a bag in car lots and at \$1 a bag in a jobbing way. Three-pound pickers are quoted at \$1.68. Montreal quotations for beans are \$1.65 to \$1.85 a bushel for three-pound pickers.

EGGS AND POULTRY

Eggs still continue high in price. Strictly new laid eggs are quoted by the wholesale dealers at 45¢ to 50¢ a dozen; cold storage eggs, at 27¢ to 35¢; and selected stock at 30¢ a dozen. On the farmers' market new laid eggs are selling at 55¢ a dozen. Local poultry dealers give the following quotations: Chickens, 12¢ to 13¢; fowl, 10¢ to 11¢; geese, 15¢ to 14¢; turkeys, 19¢ to 20¢; ducks, 14¢ to 15¢; a lb. Live weight, 10¢ to 20¢ cents a pound cheaper. On the farmers' market dressed chickens are selling at 16¢ to 17¢; fowl, 14¢ to 15¢; ducks, 15¢ to 17¢; geese, 17¢ to 18¢; turkeys, 24¢ to 25¢ a lb.

In Montreal there is a very active demand for eggs. Wholesale quotations for new laid are 55¢ to 57¢; cold storage, 32¢, and cold storage duck, 27¢ a dozen.

In poultry prices are a trifle easier, and chickens are quoted at 12¢ to 15¢; fowl, 10¢ to 13¢; turkeys, 19¢ to 20¢; geese, 13¢ to 14¢; and ducks, 14¢ to 17¢ a lb.

DAIRY PRODUCE

The butter market is quiet, but prices rule steady at the following quotations: Choice Creamery prints, 29¢ to 30¢; dairy prints, 25¢ to 28¢; separator prints, 24¢ to 25¢; and ordinary quality, 18¢ to 19¢ a lb. Large cheese are quoted at 12½¢ a lb. and veins at 12½¢ a lb.

The market is steady. On the farmers' market choice butter is selling at 29¢ to 30¢ a lb. In Montreal dealers state that there is a steady demand and they quote as follows: Choice creamery, 23½¢; second grades, 23¢; and third grades, 21¢ a firm. There is a quiet market in cheese, but prices are firm, westerns being quoted at 11½¢ to 12¢, and Easterns at 11¢ to 11½¢ a lb.

MILL FEEDS

There is no change in the price of mill feeds on the market; Manitoba bran is quoted at \$19; shorts \$21 a ton in bags; Ontario bran \$20; and shorts \$22 a ton in bags on track, Toronto. Montreal prices are as follows: Manitoba bran \$18 to \$20 a ton; shorts \$21 to \$22 a ton in bags on track, Montreal. Ontario bran \$19 to \$20 a ton in bags; middlings, \$22 to \$22.50 a ton in bags on track, Montreal.

SEEDS

Local dealers quote prices for seeds as follows: No. 1 Alsike, \$7.25 to \$7.50; No. 2, \$6.50 to \$7; No. 3, \$5.50 to \$6.25; No. 1, red clover, \$6.75 to \$7; No. 2, \$6 to \$6.50 a bushel.

Montreal prices for seeds are quoted as follows: Alsike, \$6.50 to \$6, and red clover, \$7 to \$9, according to grades.

HAY AND STRAW

There is an active demand for choice quality hay in the city, and dealers quote the first class Timothy at \$18 to \$19 a ton; No. 2, \$9 to \$10.50 a ton in car lots. Straw, in car lots, \$7 to \$7.50 a ton.

On the farmers' market, hay and Timothy is selling at \$17 to \$18 a ton; clover and

clover mixed, \$12 to \$14 a ton; straw in bundles, \$13 a ton; loose straw, \$8 a ton. In Montreal there is a large supply of hay on hand, and although there is a demand for hay for best quality prices on the most grades have advanced 12¢ a ton. The export business is quiet owing to the downward tendency of the market; dealers quote the following quotations: Choice Timothy, \$11 to \$11.50; No. 2, \$10 to \$10.50; clover and clover mixed, \$6.50 to \$7 a ton.

WOOL

The wool market is quiet. Local quotations are: Washed fleeces, 21¢ to 22¢; unwashed fleeces, 13¢ to 14¢; rejects, 16¢ to 17¢; unwashed fleeces, 16¢ to 18¢ a lb.

HIDES

Trade in hides is steady, and local quotations are: No. 1, inspected steers and cows, 95¢; No. 2, 85¢; No. 3, 71¢ to 1 lb., at country points; Calfekins, 12¢ to 13¢; sheep, 85¢ to 75¢ each; horse hides, \$2.75 to \$3; horse hair, 30¢; tallow, 55¢ to 65¢ a lb.

HORSE MARKET

There has been a fairly steady demand for horses and prices have ruled high, but the same quotations as given last week. The following prices have been offered during the past week: Heavy draught horses, \$200 to \$250; medium, \$200 to \$250; drivers, \$170 to \$180; saddle horses, \$150 to \$200; serviceable sound horses, \$50 to \$100.

In Montreal prices have ruled high, and prices are 25¢ to 30¢, been extraordinarily large in consequence. Sales have been made at the following sums: Heavy ordinary horses, \$200 to \$250; medium, \$200 to \$250; saddle horses, \$200 to \$250; serviceable sound horses, \$75 to \$100 each.

LIVE STOCK

The return from after-Xmas stagnation in normal activity is apparent in the stock yards. The quality of the cattle offered has not been extra choice but as the best had been offered for the Xmas trade a number of good animals were offered, and a few choice heifers for sale. Stockers and feeders were scarce and milk cows and springers were in great demand and sold quickly at excellent prices. Hogs are going slowly downwards in price.

Dealers give the following quotations: Choice Export, \$6.75 to \$6.75; medium, \$5.25; ordinary quality, \$4.50 to \$5 a cwt.

Butcher cattle, choice—\$5.75 to \$6; medium, \$5 to \$5.50; ordinary quality, \$3.50 to \$4.25.

Feeder—\$5 to \$5.50.

Stockers—\$4.25 to \$5.

Milk cows—Choice, \$75 to \$85; springers and medium quality cows, \$40 to \$70; ordinary quality, \$30 to \$35.

Canners—\$4 to \$5.

Calves—\$4 to \$5.

Sheep—Ewes, \$4.25 to \$4.50; bucks, \$3 to \$3.50; lambs, \$5 to \$5.50.

Hogs—f.o.b., \$6.50; fed and watered, \$6.85 a cwt.

MONTEAL HOG MARKET
Montreal, Saturday, January 7, 1911.—The market for live hogs scores well as the advance here owing to the keen demand for the best offerings, which are rather light stock. Selected lots of hogs are selling at \$7.75 a cwt., with all buyers active, and further advance is looked for next week. Montreal market is increasing materially. Dressed hogs are also firm. Fresh killed abattoir stock is quoted at \$10.50 to \$10.75 a cwt., with country dressed at \$9.25 to \$9.75 a cwt.

EXPORT BUTTER AND CHEESE
Montreal, Saturday, January 7, 1911.—There is more doing in the cheese trade this week. Dealers generally speak of an increasing supply of 'real' British, which has in many cases resulted in business. The best week's business since the close of navigation is to be recorded. As a result, holders are very firm in their views and in some cases prices have been marked up. A few choice of finest quality, September and October make, could be bought at about 11½¢ but the general asking price is 11½¢ and 12¢ a lb. the latter price being generally asked for colored

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Six years old next May. A horse of substance and quality. Three of his get:

STADACONA PRINCE—18422

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Foaled June 16th, 1909

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About 70 Young Yorkshire Pigs

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ORMSBY GRANGE STOCK FARM, ORMSBY TOWN, P. QUEBEC.—Importation and breeding of high class Clydesdales a specialty. Special importations will be made.—Duncan MacEachran.

SPRINGBROOK HOLSTEINS AND TANTWORTH.—High class stock, choice breed. Present offerings, two year old heifer cow, fresh and in calf. Young bulls, five Tamworth hogs from the stock, ready to wean.—A. O. Hallman, Breslau, Ont.

RIGDEDALE HOLSTEINS.—For full particulars in regard to stock and prices, address H. W. Walker, Utica, Ont.

CLYDE HORSES, SHORTHORN CATTLE.—Young stock for sale at all times.—F. F. Redmond, Peterboro, Ont.

YORKSHIRE AND TANTWORTH HOGS.—Plymouth Buck and Orpington fowl.—A. Dvies, 434 Parkdale Ave., Toronto.

HAMPSHIRE PIGS.—Canada's champion herd. Boar bred headers. Sows three hills. Ont.—Hastings Bros., Cross.

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Year	RECEIPTS OF LIVE STOCK AT UNION		STOCK YARDS FOR PAST SIX YEARS			
	Cows	Cattle	Sheep	Hogs	Calves	Horses
1907	4,418	77,828	5,902	59,442	1,072	666
1908	4,065	68,800	12,021	30,088	854	666
1909	4,611	91,156	10,776	20,716	2,214	693
1910	4,464	70,730	25,237	59,531	2,083	5,827
1909	4,464	114,800	53,972	59,531	5,571	6,982
1908	4,464	166,586	56,342	67,463	6,531	6,140
Increase 1910 over 1909	2,363	50,778	3,719	25,132	960	942
Decrease						

WINDMILLS



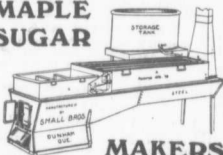
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My guarantee, remember, is a written one, in proper legal form, and is backed by 20 years of capital, the biggest business in its kind in the twenty-five years. It is your fire-insurance for the whole building, and is guaranteed as well as your roof. The applicant must appear in person at the Dominion Agency, or their agency, for the District Entry by proxy may be made by any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homestead.

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