

Eighth Annual Poultry Magazine Number

FARM AND DAIRY & RURAL HOME

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COUNTRY LIFE



Peterboro, Ont., Feb. 3, 1916



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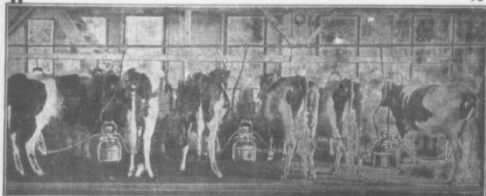
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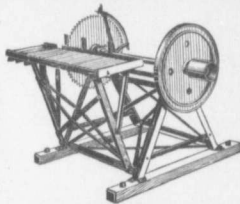
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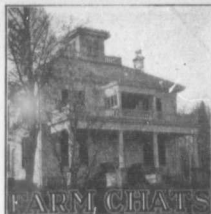
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When You Write—Mention Farm and Dairy



A Happy New Year

H. Percy Blanchard, *Hants Co., Ont.*
By the time the wish expressed in this title reaches Our Folks, a month will have been torn off the calendar of 1916. What have the remaining eleven months in store for you?

The Greeks used to picture to themselves the gods assembled on high Olympus, making merry at their feasts, and watching with much interest and often participating in the strifes and struggles of puny mortals down below—The heroes, the poets the Kings were to the gods like actors on a stage, and the greatest and noblest received Olympian praise. Alas that man is mortal; 'e'en the best the noblest, the wisest to their rest Must all be laid.

Day after day the world begins again. Goes onward only to return to when First man was made.

One bright morn, e'er the sun had left the east,

The merry gods in rivals sat, when ceased

"Musie's sweet strain. "Why now this sudden silence?"

A whisp'er answered, "William Shakespeare's dead."

Now all in vain.

The strings are touched, Appolo's lyre

Will sing no more; The morning reed is mute.

Is there no one.

Or cannot all the Gods another make,

Great as the Master who his harp will take?

No; there is none.

At last in council the great gods decide,

To recreate each part, and thus divide

The Muse's King.

So, all agreed, high Jove forms the head

A demigod so glorious all said,

"This man shall sing.

Of deities; yet, sing celestial praise,

And hew upon his throne Olympus sways

All mundane things.

In triumph Jove extols his creative art.

From off their seats the exultant gods upstart

With waving wings,

Then bloody Mars, with strong yet caution hands,

The arm and shoulders takes; and now there stands

The bard of war.

Behold; and listen to his song, and bow

He sings of men and arms, the sword

Of wounds and gore.

Now laughing Venus takes the breast and heart,

And shows the fruit of sweetly detestous art.

Soft notes above—

Enchanting melodies—throughout the skies resound;

The lute, the pipe, and gods' sweet voices sound

In strains of love.

When silence, swift winged Mercury's skill

Fashions the feet and legs. "This man I will love."

He says at length,

"Shall sing of chariots, the athlete's speed or grace,

The hero's strength."

Now all the merry chord the stomach sieges,

And make a man the multitude to please—

A humorous man.

"Sing loud," with comic dignity they shout,

"Of wine and women, of the midnight rout;

Sing if you can."

Thus bid, the creature midst their laughter sings;

With shout and merriment the great dome rings.

Load the gods cry,

We cannot let these men go down to earth;

Here must they stay, our ministers of glad refrain,

Here in the sky."

Singing, amidst the gods they yet remain—

The gates wide open thrown, the glad refrain

For man to hear—

"Take thou the Season's Blessings as they fly,

Each joy and pleasure as it passes by, A Bright New Year."

Breeding Time Notes

A new line theory said that hens without the attention of a male would lay as well, but not be so apt to become broody, as those mated. Our records show they will lay as well as unmated flocks are not broody-proof by any means. The past season our unmated birds with a few exceptions, became broody first, while two-year old hens were the last to show any signs.

During incubation, eggs should be tested on the seventh and fourteenth days. At the first test the air cell should measure about a quarter of an inch; on the tenth day a half inch; fifteenth day, five-eighths inch; nineteenth day three-quarters inch. The measurement should be taken from the middle of the large end.

In charging an incubator with eggs they should all be of uniform size and color. The brown shells are thicker than the white shells and therefore demand different treatment. Moisture or ventilation sufficient for the one class would not do for the other. This is the cause of many failures.

Newman says duck eggs for hatching should be washed, or the oily, greasy covering on the outside shell will be removed, and they will not hatch so well. Hallowack says he would rather wash the eggs before putting them into the incubator, than to use very dirty ones. Yet he believes that washing does injure them. He tried the experiment of putting eggs in one tray of his machine, that were gathered from the bottom of the creek where the breeding ducks bathe in. He noticed that but 30 to 25 per cent. of these eggs were fertile, owing to the length of time they were deposited in the water. At the same time eggs that were laid in the houses, or on land, gave 85 per cent. fertility.

A Successful Egg Circle

THE egg circle at Ormond, Ont., has now had its two successful years. This circle deals in both eggs and dressed poultry. The egg trade of the past two years is summed up by the secretary, J. A. Campbell as follows:

EGGS	1914	1915
Total Eggs dozen	10281	16926
Cash to Members	\$3748.53	\$3620.64
Average price per doz.	23	21.85
Lowest price per doz.	18	18
Highest price per doz.	50	45
Number of Members	40	48

The dressed poultry trade was also successful, 11,850 lbs. of poultry valued at \$650.82 being marketed through the circle.



We Welcome Trade Increases

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Ouelph, Dec. 7th,
Poultry Division,

FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas.

The Recognition Expressed by Dairymen in Canada

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

VOL. XXXV.

PETERBORO, ONT., FEBRUARY 3, 1916

No. 5

Old Country Markets are Opening to Our Poultry Products*

Canada's Opportunity—Are we in a Position to take Advantage of it?—By W. A. Brown.

ONE result of the great war has been to cause an unprecedented demand for Canadian eggs on the British market. Great Britain is the greatest egg importing country in the world, the imports in the year 1913 amounting to 215,799,500 dozen. As would be expected, the war has seriously interrupted this trade. The supplies from Germany, Belgium, France, and Austria-Hungary have been absolutely cut off, while those from Russia, Denmark, Sweden, the Netherlands, and other nearby countries have been greatly interfered with. Fortunately, Canada had a surplus this year, and this has assisted to some extent at least in offsetting the shortage on the British market.

Some twelve or fifteen years ago Canada shipped eggs in quantities to Great Britain, but with the increasing consumption at home, this trade gradually fell off. So rapidly, in fact, did consumption increase over production that during the six years previous to 1914 Canada imported eggs extensively, the maximum being reached in the fiscal year 1912-1913, when a total of 13,000,000 dozen were imported.

Reduction Feared

High prices and a brisk demand, however, have had the usual effect. Production in Canada has increased so rapidly, particularly in the western provinces, that last year the supply was almost equal to the demand, while this year Canada, as intimated above, has had a surplus available for export. Had it not been for the unusual demand on the part of the British market, brought about by the great war, egg prices in Canada this year would have been somewhat lower than last. As it was early in March when prices dropped lower than usual and feed was high, many farmers threatened to sell off their stock. Fortunately, prices improved with the advent of the storage season, and while not many laying stock were

sold, it is said that for this reason many producers did not set as many eggs as they had intended.

Such developments as these in the east, combined with unusually low prices in the central west, do not make for stability in the poultry business of this country. If the industry is to develop as it should, Canadian poultrymen must take such action as is necessary to safeguard the situation.

Previously when Canada was shipping to the British market, Canadian eggs compared favor-

ably with eggs of only very ordinary quality. It is evident that if the poultry industry in Canada is to be a profitable undertaking, steps must be taken to place the Canadian product on the British market in such quantities and in such condition as will demand the highest possible prices.

There are tremendous possibilities for the development of the poultry industry in Canada. Canada has all the facilities for the production of high quality eggs. The poultry industry in this country at present is a mere fraction of

what it might be if advantages were taken of our present opportunities. According to the last United States census, there were more poultry in the single state of Missouri than in the whole of the Dominion of Canada. There is no reason why this record should not be equalled and excelled by any or all of the three great middle western provinces, Manitoba, Alberta and Saskatchewan, to say nothing of the greatly increased production possible in Eastern Canada.

The poultry industry of the western provinces is yet in its infancy. It has been amply demonstrated, however, that not only is high summer egg production possible, but if properly housed, tended, and cared for, even the more tender varieties of poultry give profitable returns in the winter time. The western provinces, too, have an asset in the remarkable effect which the long summer days and the wealth of vegetable and animal life has upon the early maturity of the stock, that is denied the eastern provinces and our more southern neighbors.

All the facilities for a quantity far in excess of Canada's own requirements are here. Canada's greatness as an agricultural country must not be limited to her own immediate requirements. Her agricultural products are her greatest asset, and she must export, must so produce, prepare, grade, market and advertise her products in such a manner as will cause them to be in brisk demand.

(Concluded on page 15.)



Women Always Have Been, and Probably Always Will Be, the Great Poultry Raisers of Canada.

ably in the matter of quality with current receipts from other countries. In the interval, however, on account of the strenuous competition which they had to meet, marked improvement has taken place in the quality of the Danish, Irish, Dutch, and other nearby fresh receipts, while in Canada, with such prosperous conditions at hand, it is only recently that any decided improvement has occurred.

Enter the Quality Competition

It is not in the interests of Canadian producers to compete on the British or any other of the world's markets with Russia, Austria-Hungary, Roumania, Egypt, and other foreign countries

*An address delivered at the Provincial Winter Fair, Ouelph, Dec. 7th, by W. A. Brown, B.S.A., Chief of the Poultry Division, Live Stock Branch, Ottawa.

The Principles of Artificial Incubation

A. P. MARSHALL, WELLAND CO., ONT.

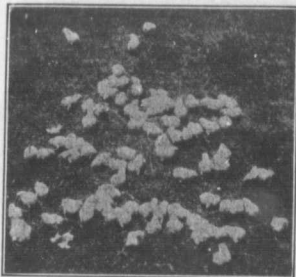
ARTIFICIAL incubation is such a big subject to put into an article of this kind that one hesitates to try to cover the ground in such a short space. It is possible, however, to cover most of the essential points so that many will be helped in getting better results, for that is what most wish to accomplish regardless of the minute reasons. Artificial incubation is extremely handicapped by being practised, as a rule, under more difficult or unnatural conditions than are usually to be found where natural means are practised. With good reason many do not do so well with the former, but those of experience see and raise so many valuable birds by it that it is an absolute necessity where large numbers are to be raised and especially if at unusual seasons.

Before one considers the actual hatching at all, it is most important to see that the incubator is given real live hatchable eggs. Some hens seem to be exceptionally successful in their hatching, but no hen could ever hatch a great many of the eggs that are put in incubators. As a usual thing, it will require eggs from more vigorous stock to get results with the incubator, because these eggs will probably be set much sooner than where biddy uses her own judgment, electing to cluck and set when instinct tells her that the time has arrived when she can safely depend on the eggs.

Best Eggs For Incubation

There is no doubt whatever that the very best chickens will be hatched and are produced when the hens laying the eggs and the males fertilizing them are in the very best condition. At the time when we notice them wanting to sing and scratch while there is a gleam of daylight left, as though life itself depended on their getting in a few more kernels to produce those vigorous eggs from which to get the strong, live chicks, is the best time to get eggs incubating. We then get the best product from them. As a matter of fact, we have sometimes seen birds producing more satisfactory eggs during December and January than a few months later, until coming again into full lay and conditions in the late spring. The time, then, to get the good product from them is when they are at their very best, whenever that may be, and if we cannot get them into first-class condition real early, no matter if the eggs are beginning to come, good sturdy chicks cannot be expected.

One of the greatest troubles seems to be that so many let the flock get along as well as it may until such time as they are needing chickens or eggs get high and it looks like a big inducement to force the birds a little. The consequence is that even if they do begin to lay a bit, they do not have the hardy, robust constitution and vitality is not there to get eggs with strong germs in them. A year ahead is not too soon to seriously consider the matter of properly handling the flock; the whole season's growth will have had a remarkable bearing on the possibilities for early incubation. If the stock is of the greatest vigor and proper feeding is followed, so as not to allow the flock to become too fat or force them unduly, but keep them coming along in a



Healthy Chicks Are the First Essential to Success.

normal, vigorous way, there should be no great trouble with artificial incubation. Good commonsense must always guide, having ever in mind the conditions that exist when birds are normally breeding best and furnishing them with all that will help to duplicate as near as possible those conditions.

Fresh air, sunshine, light, good sound food, a proper balance, sufficient room and good clean water are the very first aids to good results with artificial incubation.

Having the flock so that it is ready to supply the eggs required for hatching, proper care must be given the handling of the eggs so they will not lose any of the vitality on account of causes that might very seriously hurt their possibilities. In cold weather the eggs must be gathered at least every hour, and the sooner they can be set the better. While being saved they should be kept in a dry place, not over-warm and preferably

about 45 degrees. A week old is as long as early eggs should be kept, although fair results may be had a little older.

Having eggs from vigorous stock, by following closely the directions given with the incubator good results should be had. Certain rules hold good with all machines, but the best results are most likely to be had where the maker's instructions are followed carefully. We have machines where moisture is required after the first week continuously and others where moisture is practically not considered except under exceptional conditions. In a room where a fairly even temperature can be kept up is a good place for the incubator. We like good air in the room, and always plan to have good ventilation. The embryo in the egg needs almost as much as the hatched chicken air that will strengthen its growth from day to day.

Remove Infertile Eggs Early

The infertile eggs should be taken out as soon as they can be recognized. Every day that these remain just makes the results that much less. Even under a hen a majority of infertile eggs will seriously affect the hatch, although she seems to have the instinct to keep them to the outside of the nest. When the machine is nicely regulated it usually does not pay to keep continually making readjustments, for although a considerable variation, particularly towards the end of the hatch, may not prove serious, a steady even temperature, without much fluctuation, if at the right temperature will give by far the best results.

(Concluded on page 15.)

Turkey Rearing at Menie Stock Farm

JAS. STEWART, JR., NORTHUMBERLAND CO., ONT.

MY father was the first in our section to go in for pure-bred turkeys. When he showed a pair of spring-hatched birds at the local fair the neighbors began to believe that they were not at least two years old. He chose the bronze variety, and that is the kind we have raised ever since.

Turkeys are the most profitable kind of poultry. One year (from 12 hens) we raised 130 turkeys and sold eight settings of eggs. From the time they were a month old until the beginning of the cold weather the cost was practically nothing.

When the young turkeys arrive the pen is

couped up and the little fellows allowed to run in and out of the coop. They are fed bread and milk for a few days and then rolled oats and skim-milk furnishes the main part of the ration until they are four or five weeks old. The feed is given moist, never sloppy. I give a little wheat as soon as they will eat it.

They get no water, unless, perhaps, the dew on the grass. Water is all right if given cold, but nothing is worse than warm water for causing stomach and liver trouble. If the water is not removed immediately after the birds have had a drink, it becomes warm and soon some of the birds have diarrhoea. It is less bother to with-



Turkeys May Be Cheaply Reared Because of Their Foraging Proclivities.

—Photo on farm of Mr. Keys, Varna, Ont.

hold the water even for three years as it seems to miss it.

When the young are given their first season have the necks of the old. They receive practical freezes. We sow and allow the turk-

THE question of

duction reading self into two branches though in a way distinct from each very very closely I find the poultry tried on in this country production of eggs undoubtedly, the price the vast majority gaged in poultry keeping without doubt the able branch of business. The meat is and ever a secondary branch With practically all products coming from farms, where poultry largely as a side meat placed on the surplus cockerels lets sorted from the grown to renew layers.

In discussing eggs it will be necessary it under the head of different factors i.e., breeding, feed housing and environment these are important the maximum production is given to a

The Breeding new as a science, scientific knowledge work. While it is to breed for the particular line, the numbers of eggs, the complicated process of generations. It is a decided satisfactory flock of birds with phenomenal egg production all. Some of the mind in carrying are: What percentage strong, vigorous chicks hatched and to grow to full maturity to set and rear 75 per results are causing it is a duty of each conditions are important. In the recently dian eggs we have mind in our breed-

*An address at the Guelph, Dec. 29, 1915.

hold the water entirely. I have used this plan for three years and find that the birds never seem to miss it.

When the youngsters are a month old the hens are given their liberty, and for the rest of the season have the run of the farm. I keep bells on the necks of the old birds to guard against foxes. They receive practically no care until the ground freezes. We sow a few patches of buckwheat and allow the turkeys to do the harvesting. Buck-

wheat is excellent turkey feed, but we never give it after the first of January. It is too fattening a food for breeding stock.

Control of the Sex

We keep one turkey cock for our 12 hens, and we always keep a young one. I have noticed that when a young cock is mated with old hens, at least 80 per cent of the offspring will be males. Recently the demand for turkey hens has been greater than for cocks, and in future we intend

to use an old male or young females, and raise more pens.

It is sometimes ticklish work to get turkeys over the first few weeks of their existence, but we have seldom had much trouble. This year we did not lose more than 14 or 15. One hen adopted the progeny of two other hens, and these, with her own, were more than she could care for and a number perished. Rationing methods keep losses at a minimum.

Factors that Affect the Production of Eggs

The Breeding of the Laying Fowl, as well as Housing and Feeding, Must be Considered.

F. N. MARCELLUS, B.S.A., POULTRY DEPT., O.A.C. GUELPH, ONT.

THE question of poultry production readily divides itself into two branches which, though in a way separate and distinct from each other, are yet very closely linked as we find the poultry business carried on in this country. The production of eggs is, undoubtedly, the prime object of the vast majority of those engaged in poultry keeping and is without doubt the most profitable branch of the poultry business. The production of meat is and ever shall remain a secondary branch of the work. With practically all our poultry products coming from the farms, where poultry is kept largely as a side line, the only meat placed on the market is surplus cockerels and cull pullets sorted from the young stock grown to renew the flock of layers.

In discussing egg production it will be necessary to consider it under the headings of the different factors affecting it, i.e., breeding, feeding, exercise, housing and environment. Each and all of these are important and it is not possible to get the maximum production unless due consideration is given to all these.

The Breeding of Poultry

The breeding of poultry is old as an art but new as a science, and it is only recently that scientific knowledge has entered into this line of work. While it is a comparatively simple matter to breed for the development of birds along one particular line, say the production of large numbers of eggs, it becomes a very much more complicated process where one is breeding for future generations. It is certainly advantageous and a decided satisfaction to breed up and own a flock of birds which are capable of making phenomenal egg records; but high records are not all. Some of the other points to keep in mind in carrying out the breeding operations are: What percentage of the eggs set hatch good, strong, vigorous chicks and what percentage of chicks hatched are strong and vigorous enough to grow to full maturity? It would not be sufficient to be able to hatch 50 per cent of the eggs set and rear 75 per cent of chicks hatched. Such results are causing excessive national waste, and it is a duty of each and all of us to see that such conditions are improved.

In the recently adopted standards for Canadian eggs we have another factor to keep in mind in our breeding operations which is of very

*An address at the Ontario Provincial Winter Fair, Guelph, Dec., 1915.



All Young Things Are Healthiest Out on the Open Range.

great importance. The size of eggs must be cared for and, while of less importance, is the uniformity of color in the colored varieties, which is now beginning also to call for attention. It might be mentioned here that the close confinement of birds tends to produce eggs with lighter colored shells. The standards for Canadian eggs, as recently adopted, call for an egg weighing 24 ounces or more per dozen if it is to grade in the best grades on the market. It is necessary, therefore, in order to meet these new requirements that more attention be given to the selection of the eggs which are used for hatching purposes and use only those eggs which are up to or above standard weight and which in color are good representatives for the breed laying them.

The Male Prepotent for Production

Breeding for egg production is now more fully understood than it was a few years ago, yet much remains for biologists and practical breeders to determine. This much, however, is now proven, that the male bird is largely responsible for the transmission of heavy laying qualities from parent to offspring and the influence of the female parent is secondary.

It is true that the question of meat production is of lesser importance than that of eggs, yet it must not be lost sight of. Selecting those birds for breeders which are heavily muscled along the breast or keel bone, and which carry a soft, fine textured skin on the shanks is desirable. Constitutional vigor, however, should ever receive

first consideration in the selection of breeding stock; selecting only those birds which show short, broad, stout development of the head and beak, and have a clear, bright, alert eye and a well-filled face in front of the eye.

The feeding of poultry, both in relation to kinds of foods and methods of feeding, has ever proven a topic for animated discussion. We have passed through all stages of evolution in the compounding of rations from that containing a large number of different ingredients down to the more simple forms containing only a few common foods, and it is safe to say that the more simple rations are in greatest favor. The common grains which are grown on most every farm in Ontario, coupled with some form of animal or meat food, green food or succulence, shell and grit, will make an excellent ration for laying hens. It is very essential, however, that the birds, while confined to the pens during the winter, receive animal or meat foods, preferably sour skim-milk or buttermilk and green food, such as cabbage, mangels or sprouted oats, if the maximum production is to be expected. Much might be said for and against the feeding of different kinds of mash, but results would go to prove that under average conditions and with the average feeder, the dry mash is to be preferred to the moist from the standpoints of labor and safety of feeding and in the results secured. The dry mash should be fed from a hopper and be accessible to the birds at all times.

Exercising the Flock

It is just as important to maintain good health, that birds be exercised freely as it is for other classes of stock. It has, however, in this case another value than that mentioned above. It has been found that where birds are compelled to exercise freely production is brought to a higher point, and, further, in the case of breeding stock, the value of exercise cannot be too strongly emphasised. There are various ways of inducing birds to exercise, but the simplest and most effective is produced by feeding all whole grain, except the last feed in the evening, in a deep litter of straw, shavings or leaves on the floor of the pen. This forces the birds to work for a good portion of their feed. It might also be stated that the close confinement of the birds to pens with small runs from early fall to late

(Concluded on page 9.)

Poultry Pointers: Mostly from Our Folks

Facts About Chick Feeding

THE yolk of the egg which is absorbed by the young chicks just before emerging from the shell supplies the necessary food during the first 48 hours of the life of the chick. The first requirement of the young chick is grit to aid in digestion and pure water. Small grains of sharp sand or pieces of egg shell are splendid for this purpose. Hard boiled eggs, thoroughly mixed with breadcrumbs moistened in milk, can be used the third and fourth days. Fine oatmeal can be gradually added to this mixture and fed sparingly at periods two or three hours apart.

A simple ration for chicks a week or more old may be made of two parts by weight of finely cracked corn, one part of broken wheat, one part of oatmeal, and one part of meat scraps. Whole wheat can be substituted when the chicks arrive at six weeks of age. Grit should be supplied at all times as well as green food. This ration ought to be fed about five times a day in a fine litter of straw or hay, thus encouraging the chicks to scratch for the feed.

The water should be changed frequently and the food ought never to be allowed in any quantity greater than the chicks can eat up clean. Infertile eggs from the nests or incubator can be utilized. Finely cut grass, alfalfa, clover, or oats may be used as green food. Successful chick feeding is based on paying strict attention to details, a well balanced ration, and proper sanitation.

Starting a Poultry Farm

A POULTRY farm built upon a secure foundation is sure to be successful if afterwards properly managed. It is not only necessary to make the right kind of start, but the work must be regularly and faithfully performed, day in and day out.

As a rule, beginners start with great enthusiasm, and not a few build air castles—but by very many of them the sameness of the work, the close application, the constant watching, soon becomes monotonous, and then there is a shirking of duty, neglect, carelessness—and the enterprise becomes a failure. The point is to begin small—measure the side of the initial step with the amount of capital and experience at hand.

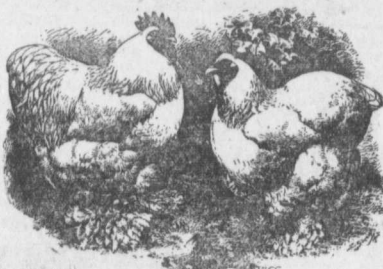
It is often the case that men with more or less available capital practically put all their money in houses and stock. This is a mistake, and more so in the case of those who have had no

personal experience in the work.

In the parlance of to-day, "a man must be on to his job." He must know what to do and how best to do it. He must be aware that inexperience may cause leaks, and leaks will soon sink the enterprise.

It is a noteworthy fact that the most successful poultry farms of to-day are those that have started from a small beginning and gradually expanded as business and experience warranted. Men who would not go into the dry goods business for the reason that "they knew nothing about it," will build houses and stock them, and expect the hens to do the rest.

Hens, like cows, yield a profit according to the treatment given. They will not stand neglect. They are hard workers when properly rewarded, but can be the most idle and indifferent producers when made to shift for themselves.



A Splendid Pair of White Cochins.

keepers of the neighborhood. But then, we were in the henhouse, not her kitchen, which was immaculate. Moreover, I felt that I could take liberties, as I was there on her invitation to give some suggestions on chicken culture. That lady would not think of eating from the same dishes or drinking from the same cups for a week at a time without washing, but a glance was sufficient to show me that the dishes from which her chickens drank were not cleaned even as often as once a week.

That was her cardinal mistake as a poultry woman. An egg is composed of almost 85 per cent. water, and if poultry are to lay well, they must have an abundant supply of fresh, clean water. Poultry just take about as much pleasure in drinking from foul, dirty vessels as do people. These same dirty vessels are also liable to be disease carriers. Poultry women are wise to be as cleanly in the henhouse as in their kitchens. Please wash that pan.

Marketing of Dressed Poultry

F. C. Elford, Central Experimental Farm, Ottawa

IN the marketing of dressed poultry, the aim should be to distribute the produce over as many of the 12 months as possible. Our system in Canada of throwing everything, both old and young, on to the market within a few months in the fall, has done more to bring down prices of poultry meat than anything else. If this year we would endeavor to market as many of the early cockerels as possible in the spring when they can be sold as broilers, it would lessen the glut which invariably takes place in the fall. Sell the old hens after breeding season rather than along with the chickens in the fall. The relative prices for spring marketed produce, compared with fall, is very marked, and as an illustration take the prices for the young ducks which we marketed last year, an account of which was given in 1913-14 report, page 966.

These green ducks were marketed when 10 weeks of age, and brought at two cents a pound within a few cents of a dollar each. Similar ducks, however, when marketed in the fall or the usual time for selling them, brought the same price per head, and the difference in the cost of production meant the difference between a good margin of profit and a loss. The green ducks cost for the amount of feed seven cents per pound of grain, which meant that the selling price gave practically 200 per cent. profit over the cost of food, whereas the selling price for the older ducks in the fall barely covered the cost of feed. The Toronto quotations for ducklings last spring were from 30 to 50 cents per pound live weight, while the quotations last fall for the matured ducks were nine to 11 cents.

(Concluded on page 2.)

4th International Egg-Laying Contest, Victoria, B. C.

SUMMARY OF RESULTS.

Duration of Contest (months).....	12
Number of Pens	240
Number of Birds	240
Number of Eggs Laid	39,757
Value of Eggs Laid	\$1,076.75
Cost of Feeding	\$52.38
Profit over Cost of Feeding	\$549.37
Average price of eggs per doz.....	\$2.5
Average cost to produce dozen eggs	\$1.9
Average No. of eggs laid per pen.....	93.9
Average No. of eggs laid per bird.....	165.6
Average cost of food per pen (six birds)	\$13.84
Average cost of food per bird.....	\$2.19
Profit over cost of feed per pen.....	\$13.73
Profit over cost of feed per bird.....	\$2.28
Eggs laid by winning pen (Class One) 1341	
Average per bird winning pen (Class One)	223.5
Eggs laid by winning pen (Class Two) 1342	
Average per bird winning pen (Class Two)	223.6
J. R. Terry, Director Dept. Agriculture, Victoria, B.C.	

Our agricultural colleges have done much to teach the new aspirants how to tread in poultry paths, and men and women who endeavor to improve by these excellently arranged courses of instruction, will have won half the battle—the other half naturally belongs to practical experience.

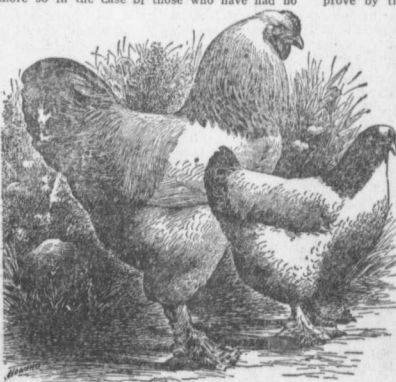
A man with \$1,000 had better invest one-half of it in buildings, stock and fixtures, and reserve the other half for feed and running expenses, rather than invest the whole amount in the equipment, and have to go in debt for the feed.

Eggs and poultry are staple crops, and the demand is far greater than the supply. This country needs more poultry farms, and they will be successful when properly built and managed. But the beginning must be small, and the growth gradual, so that every part of the work is promptly noted and correctly performed.—M. K. B.

PLEASE Wash the Pens

By C Hayes

"PLEASE wash the pens." It was a brutally direct way of seeking to one of the best house-



Another Meat Breed: Light Brahmas.

Cold Storage Necessary

Jas. Armstrong, Welland Co., Ont.

"WELL these fellows may know a lot about eggs, but they've left out the most important factor in the whole situation." Then followed such a tirade against the cold storage merchants and warehouse men as I have not heard in a long time. We were standing before an egg exhibit of the Dominion Department of Agriculture at one of our live stock shows. The exhibit, of which I saw a description in Farm and Dairy some time ago, shows the various stages of the egg on its way to market. The Toronto householder with whom I was talking considered that the only factor worth considering was the cold storage factor.

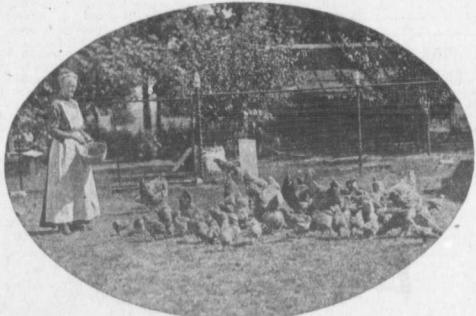
He said it was a sin and a shame that the cold storage men should be allowed to hold eggs for months and months, and then charge immense profits on bad eggs. He was firmly convinced that if we could do away with the cold storage nuisance, the consumers would get along very much better. His wife, who was along, agreed with him. I do not suppose she dared do anything else.

If hens laid as freely in December and January as they do in May and June, if eggs were marketed in the winter to the same extent as they are in the summer, we might be able to get along without cold storage. Under present conditions, however, cold storage warehouses are absolutely essential.

The greater portion of the eggs of Canada are produced during the summer months. If it were not for the activity of the cold storage men in buying up the egg surplus, prices would drop down to next to nothing and farmers would be getting out of the poultry business as quickly as they could cut off the heads of their hens. As it is, however, the cold storage man steps in when the surplus is being produced, buys up that surplus at a reasonable price and then holds it.

In the winter hens lay but scantily, and Canada does not produce anything like enough eggs in winter to feed a small proportion of the total population. The cold storage eggs are then placed on the market at a price that is within the reach of the average consumer. Were it

not for the presence of these eggs on the market, the price of the few fresh eggs offered, would make them a luxury for the very rich and even out of the reach of the well-to-do middle classes. At the same time, the high prices realized for fresh eggs would not be of much benefit to the farmer as so few of them are purchased in the winter months. The additional advantage of the high winter market would not begin to counterbalance the low price that would rule in seasons of great production, without cold storage facilities. Cold storage warehouses should perhaps be more carefully regulated than they are, but we should not forget that they are a necessary link in the egg trade of the country.



Feathered Friends.

Management of a Farm Flock

Andrew Geddes, Chateauguay Dist., Que.

LAST year I kept about 50 Rhode Island Red hens and found them very satisfactory. I have tried raising different breeds of hens, but find I like the R. I. Reds the best. They are profitable laying hens, and are also suitable for table use.

In the spring we set our hens in a house separate from the henhouse, where they have plenty of food and fresh water, also lime and dust to roll in. These hens do not get outside until the chicks are out. When the chickens come out they are removed to a long coop which has slats on the front. This coop is divided up and will

hold several hens. The chicks are able to run about outside, but the mothers cannot get out. When they are about a week old the hens are also let out. To my very young chickens I feed a mash made of bran and moulie, but as they get older I give them wheat. I always soak the wheat in water so it will not kill the chickens by swelling in their crops. The chickens are allowed to run about all summer. I feed them only twice a day after they get a good size.

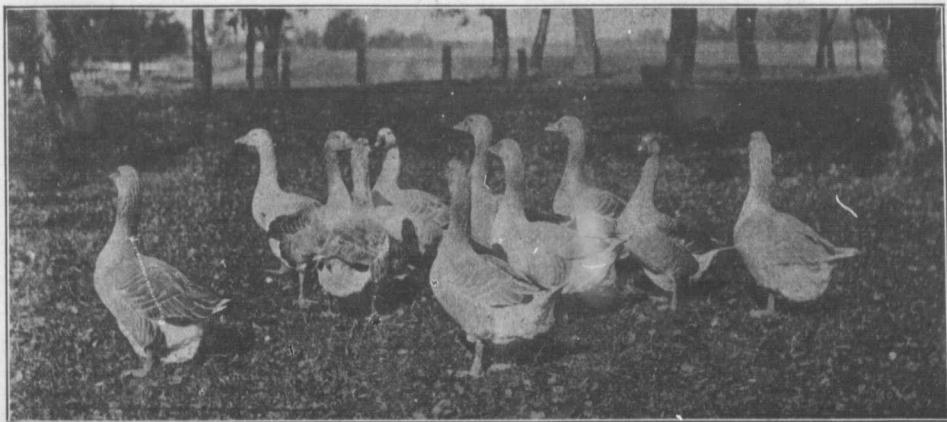
I sell and kill off my male chickens. In September I select the best pullets,—the ones I intend keeping, and then have these shut up in a box stall by themselves. I feed these pullets very heavily, giving them all they can eat. Their food consists of boiled potatoes mashed and mixed with moulie. I also give them mixed grain at times. The reason why I do this is because I find when pullets are treated this way in the fall they lay steadily all winter. If the pullets were allowed to run with the old hens during this heavy feeding the old hens would become too fat.

In the winter I feed my hens corn on the cob,—this corn is warmed in a pan in the oven, which they get in the morning. At noon they get a mash of boiled potato skins, crumbs and bran, and at night they get mixed grain.

The can of water in the house hangs from the ceiling by a chain. I also hang a cabbage or some other vegetable from the ceiling for the hens to peck at. A piece of meat boiled and hung on a cord in this way is excellent food for the hens. My hens get a piece of meat every other day during the winter. I find that a piece of cow's liver or lights boiled and hung up makes excellent food. I always feed my hens and chickens sulphur once a week. I find that the sulphur is a preventative of lice.

It is not good to have too many hens in the one house. I have a scratch-house in connection with my hen house, in which the hens are allowed to scratch. In this scratch-house the hens have dust and gravel to roll in, also a self-feeder grit box on the wall.

I always keep my hen house whitewashed inside and out, and I think this is also a preventative of lice.



The Stately Goose Has Helped to Pay Many a Grocery Bill and Occasionally the Interest on the Mortgage.

130-Egg Incubator and Brooder Both for \$13.90

If ordered together we send both machines for only \$13.90 and we pay all freight and duty charges to any R. R. station in Canada. A C-VEIGHT AND PAID

We have branch warehouses in Winnipeg, Man., and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station.

Hot water, double walls, dead-air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under slatted complete with zinc-coated wire—ready to use with eggs and chicks.

(1) door-copper tanks and boilers, self-regulating. Nursery under slatted complete with zinc-coated wire—ready to use with eggs and chicks.

Incubator finished in natural colors showing the high grade California. Brooder finished in natural colors showing the high grade California. Both machines are built to last. If you wish to see our machines in operation, we feature you of course. Don't lose out on this—write me now for a copy of our literature before you lose it. Remember our price of \$13.90 for both incubator and brooder is not an over-sight and duty charge. Send for FREE catalog today, or send in your order and save that.

We are on today.

WISCONSIN INCUBATOR CO., Box 234, Racine, Wis., U. S. A.

IT WILL PAY YOU TO BUY

Glenn Allen Poultry Farm Pure Bred Stock

Our strains will lay and win for you. S. C. WHITE LEGHORNS, S. C. WHITE ORPINGTONS, BIAN RUNNER DUCKS, Bred for egg production. Vigor, size, type and color. We have hundreds of selected breeders.

Stock, eggs and day-old chicks for sale. Get our catalog.

GLENN ALLEN POULTRY & BEE FARM, Box 234, ST. THOMAS, ONT.

PARENHAM'S SILVER CAMPINES RED SUSSE.

Are not only the best of layers but have proven themselves to any by their winnings at Canada's largest shows at Guelph, Ottawa, Peterboro and Belleville. A choice lot of pens made up of this season's trade. EGGS AT REASONABLE PRICES.

W. E. PARENHAM, Drawer C, NORWOOD, ONT.

There's Money in Poultry

Zenoleum Lice Powder makes Poultry Profitable by ridding them of pestering lice, so they can LAY EGGS or GET FAT. Zenoleum CURES and PREVENTS Disease. Sealy Leg, Roup, Cholera, etc., never come where Zenoleum is. Write for complete information regarding the new, practical, Vapor Treatment for Roup. Clean Poultry House early, and disinfect thoroughly with Zenoleum—the powerful coal tar germicide. Powder, in either 20 cent, 1 pound, or Kilnful for disinfecting, enough for 5 gallons solution. 25c at dealers or 35c post paid by mail.

ZENNER DISINFECTANT CO., 318 Sandwich St., WINDSOR, Ontario

Our Poultry Column

Duck and Geese Pointers

THE duck laying season opens in February, although a number of early hatched ducklings begin laying in January. The first eggs of the season are rarely ever fertile. The duck house should have an earth floor, and this ought to be heavily bedded with leaves, straw, or some other light litter. It is claimed by those who have tried it that a cross of Muscovy drake on Pekin ducks will produce sterile progeny.

While breeding ducks can be successfully kept on land, it has been proved that those having the advantage of bathing with leaves, straw, or more healthful condition, and there is greater fertility in their eggs. Bathing is the only real exercise a duck can take for, unlike the hen, she can-

EGGS FOR HATCHING

from Mammoth Bronze Turkeys, 3 for 40c each; Mammoth or Toulouse Golden eggs, \$1.25 doz.; White Rock and Black Langshan eggs, \$1.50 doz.; B. I. Red eggs, \$3.00 doz. Some fine cockerels to spare. All breeding stock. Write your wants and place your orders early. No orders filled parcel post.

MISS L. DIXON
R. R. No. 2, Niagara Falls South, Ont.

BRED-TO-LAY BARRED ROCK COCKERELS COCKERELS AND HENS

Cockerels \$1.25 and \$1.50; Hens \$1.00. A Choice Lot to Select from.

Box 18, FARM AND DAIRY, Peterboro

Thoroughbred ENGLISH LEGHORNS

Are trap-treated every day at Inward-Right Leghorn Farm—that is the reason you are positively guaranteed heavy winners—layers if you order eggs for hatching from us. Choice Cockerels at \$3.00 each. Our mating list is yours for the asking.

GEORGE W. PEAL, Box 64, ROCKWELL, Ont.

SHOEMAKER'S STOCK POULTRY

and Apples for 1916 has 200 pages with most colored plates of birds from all school children. Their price, their own, is most reasonable. It is a book for the parents and their opinion. All about poultry houses and how to build them. An encyclopedia of information. You need it. Only 15c. Write for it. Box 118, Peterboro.

FOR SALE

Choice Pure-Bred Cockerels, Buff Orpington, \$3.00 each.

S. C. White Leghorns, \$2.00 each.

Write for Particulars

F. N. REESOR, R. R. 1, MARKHAM, ONT.

R. C. Rhode Island Reds

Hatching Eggs from select stock, per 15 \$1.50.

W. R. LITTLE - LAKEFIELD, ONT.

FOR SALE AND WANT ADVERTISING

THREE CENTS A WORD, CASH WITH ORDER

WANTED to hear from owner of good Farm for sale. State cash price and description.—D. W. Bush, Minneapolis, Minn.

FOR SALE—Light fawn and pencilled fawn Indian ducks. Eggs in season. Write.—E. Pennar, R. R. 1, Carleton Place, Ont.

BARRED ROCKS—Anyone needing good Barred Rock breeders or cockerels or eggs write to H. A. Hovey, Clinton, Ont.

FOR SALE—S. C. White Leghorn Runners from Prize Winning Stock.—Fred Batters, R. R. 6, Bowmanville, Ont.

FREE to stockmen and poultrymen. Our 60-page illustrated booklet on feeding, housing, and caring for a house which will accommodate 100 chickens gives full instructions on all the various points of stock and poultry. It is a very nice piece of lumber required. Deals with the common diseases of stock and poultry, and the various diseases of stock and poultry. Tells how to cure run in four days. Stock and Poultry foods and remedies. Write to W. A. Jenkins Mfg. Co., Ltd., 100 St. Catharines, Ont., Can.

BUTTER MAKER WANTED—With two to three years' practical experience and efficient to operate, the dairy. One who has taken a Dairy School course preferred. Write to Lewis Box 450, Farm and Dairy, Peterboro.

WANTED—An experienced dairyman and general farm hand. Apply with references only. Married man preferred. Best wages for the man.—F. C. Beaupre, R. R. 2, Simcoe, Ont.

WHY not sell your Surplus Stock and Dairy to-night. Tell your Farm and Dairy to-night. Tell your \$1.00 readers what you have and do.

CANDEE COLONY BROODER

CASH IRON BROODER

COAL BURNING—SELF REGULATING

Broods up to 500 Chicks in One Flock

Larger fire-pot, coal magazine, and larger 7-inch grate insure constant fire and correct heat. Automatically regulated; easy to adjust; quick reaction; keeps correct temperature all the time in spite of sudden weather changes. All wood curtains—high roosty hives.

"No Need to Look Farther" Says Victoria Man

March 16, 1915: "Have had my Candee Colony Brooder working the last two weeks with 630 chicks and have no losses so far." June 1, 1915: "I have been very well pleased with results from the Candee Colony Brooder this season. Have used many different brooders the last ten years and am glad to say that I will not need to experiment any further after using the Candee."—G. D. Adams, Victoria, B. C., P. O. Box 846.

Letters from other operators tell how they brood large flocks of chickens with the Candee, with less than 6% loss. The constant, correct and healthy heat with the Candee makes big, strong chicks, saves loss and makes poultry-raising more profitable.

Big Illustrated 1916 Catalogue FREE

Contains many pictures of poultry plants in all parts of the country with letters from Candee users telling about their success. Valuable to any poultry raiser. Write for your copy to-day.

CANDEE INCUBATOR & BROODER CO.

Dept. X Eastwood, N.Y.

Licensed by W. A. Sohlet Mfg. Co., Inc.

Coal Magazine—12 inch grate

Easy to Attend.



Pekin Ducks at Macdonald College.

not scratch. A less number of drakes are needed in a flock where bathing water is supplied.

The age of vigor and productiveness in a duck is about double that of the hen. Ducks have been successfully bred up until seven years old. Geese enjoy low, wet pastures. They do not thrive in confined quarters. Grass and water is their principal diet. According to an experiment tried some years ago in Rhode Island, fall-sown rye, spring-sown oats and peas, and sweet corn furnishes the best kind of pasture.

Mathieu, the cook of Cardinal de Rohan, was the first who suggested the use of liver of the goose for pies. In Europe the liver of the goose is most esteemed, which is sold to pie makers who make of it the well-known pies.

Tegetmeir, the famous English authority, says in England ducklings are bred for the London markets as early in the year as possible. At Christmas time, in the neighborhood of Aylesbury, as much as 125 a dozen are not occasionally given for eggs of good Aylesbury ducks, in order that the ducklings may be reared and fattened early, for in the spring months from 125 to 150 a couple is no uncommon price for good Aylesbury ducklings. Formerly the struggle was to get the ducklings ready for the peas; now the position of things is reversed, and the difficulty is to produce the peas to accompany the early ducklings. The birds realizing the high prices named are reared and fattened in many cases in the laborers' cottages, are never allowed to go into water, are forced upon mixed vegetable and animal food, and killed at from 8 to 10 weeks old, before they have moulted a single nesting feather.

The meat is tender, the flavor delicate, not at all stimulating to that of the wild duck.

Coal Magazine—12 inch grate

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Rearing Chicks the Natural Way.

And there is no better place for Biddy and her brood than on the freshly cultivated soil of a well kept orchard where green food and animal matter are both supplied by nature.

Factors that Affect the Production of Eggs

(Continued from page 5)

spring very materially lowers the hatching power of the eggs produced by such birds. This is true even where the birds are compelled to exercise freely in the pen.

The question of the housing of the birds is of equal importance to the other factors effecting production. It is, however, better understood than is the breeding or feeding work. While it is true that there are a great variety of types of houses in use throughout the country, the fact remains that in all these divergent types there are certain factors which have received consideration in the construction of each and all of them. A house, to be highly efficient, must be well ventilated, free from dampness and free from draughts. In experimental work that has been conducted along this line it has been found that from the standpoint of health of stock and cost of construction the cheaper and more open type of house is to be preferred. The warm, closed types of houses are difficult to ventilate satisfactorily, and as a result of this we find the air in the house in a damp humid condition. This furnishes

quarters. The frequent removal of the droppings from the pen and the renewal of the litter when it becomes damp and soiled are of special importance. The attendant, and his or her attitude towards the birds, means much. Cases are known where there was a difference of approximately five per cent. in the production from the same flock under different attendants. Anything that will tend to excite or disturb the birds should be abstained from, as this may cause a decrease of as much as 30 per cent. for almost a week.

The question of production, is, therefore, one requiring close attention to detail. While it is true that the world war now raging tends to make conditions more or less unstable, yet the fact remains that the market conditions are such as to give the greatest encouragement to those producing food products, and especially such staples as eggs and poultry.

Marketing Dressed Poultry

(Continued from page 6)

The same is true of the chickens; broilers were bringing 30 to 80 cents a pound live weight in the spring when roasters, or the same birds if sold in the fall, were bringing 10 to 13 cents, and as for hens, the fall prices quoted in Toronto were from six to eight cents, whereas in the spring they were only at 14 to 20 cents.

System Must Be Remedied

This system of holding practically all poultry meat until fall is disastrous, and must be remedied if the producer wants to get the most out of what he has to sell, and incidentally the early marketing materially cuts down the cost of production.

All producers are unable to avail themselves of these higher prices because of distance from market, cost of transportation, and comparatively small quantities of produce to sell; so can it be expected that they will be able to do so under present conditions, but there are others who might do so, and if they would, it would help the general market a little at least, while those not so favorably situated might cooperate, and through cooperation have sufficient to make it worth while to ship.

In this connection, however, if should be considered almost criminal to sell poultry for eating purposes unless it is finished. Thin poultry is given by the dealers as one of the reasons why prices were so low last fall, and the conditions were even worse than usual because of the high price of feed. It costs less to put on the last few ounces or pounds or what might be called the finishing touches, than it does to put on a similar weight at any other time in the growth of the bird.

Worth More When Broke

"In many ways," observed Mrs. Cityfit, who was visiting a friend in the country, "I find that a horse is much like a man."
"Wai, I dunno," answered Farmer Squash, as he applied a match to his corn-cob pipe. "I have found them quite different in some respects. For instance, a horse is worth more after he's broke."—"Judge."



One Corner of a Laying Pen.

Notice the nest boxes and the dry mash feed hopper in the corner.

ideal conditions for roup and tuberculosis to develop and spread. It is quite a common occurrence to see a flock of birds roosting in trees and living in the open in preference to staying in pens that are dark, damp and draughty, and where the droppings are allowed to accumulate. Some poultry keepers object to the cool, open type of houses on the ground that the birds will freeze their combs, but it has been proven that where the air in the house is dry and the house not draughty there is less freezing of combs than in the warmer house, where the air is damp and the temperature goes below freezing at any time. The size of pens will, of course, control the amount of floor space per bird as the smaller the pen the more floor space per bird required.

The Influence of Environment

The environmental factor is very often lost sight of by many poultry keepers. It is, however, of very great importance and the non-consideration of it has in many cases proved the cause of failure. It is not necessary to emphasize the importance of keeping the birds comfortable in their

EXCELLENT LAYING STRAINS

of BARRED ROCKS, WHITE WYANDOTTES and BUFF LEGHORNS. Individual records over 200 eggs per year. For several years we have been selling eggs and stock that have produced early and persistent layers for our customers. This season our breeding pens are better than ever. If you intend buying eggs for hatching, we can give your order prompt attention and guarantee safe delivery and satisfactory results.

Eggs, \$1.25 per fifteen, \$6.50 per hundred. Free catalog gives full particulars and testimonials from former customers. 100 good Buff Leghorn hens for immediate sale—\$1.25 each.

CHARLES WATSON - Arch Grove Poultry Farm - LONDESORO, Ont.



This Book Helped Me Improve My Farm

It is the most valuable book I own and it cost me nothing.

It has saved me time, labor and money and I've got better looking, more durable and more serviceable buildings than I ever had before.

The first cost of concrete farm improvements is also the last cost. There's no after expense for paint or repairs—no danger from fire, rot or rust—no trouble of any kind. Besides concrete lowers the insurance rate.

If you haven't a copy of "What the Farmer can do with Concrete", send for one to-day. There's more than 150 pages of valuable building information, 52 practical plans, illustrated by diagrams and photographs, and dozens of other interesting farm facts.

A copy will be sent to you free of charge, immediately upon receipt of coupon below.

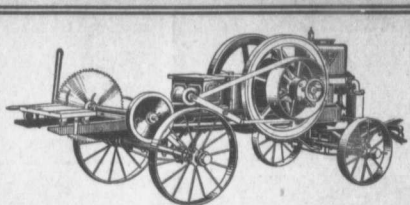
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CUT OUT AND MAIL

CANADA CEMENT COMPANY LIMITED, Herald Building, MONTREAL.
100 Gentlemen—Please send me a free copy of "What the Farmer can do with Concrete". 10

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ALPHA Rigs Saw More Wood At Less Expense

Freedom from weak complicated parts—low fuel consumption—ability to run steadily in the coldest weather—plenty of power to pull the saw through wood of any size that can be brought to it—these are advantages that are making friends for Alpha Saws Rigs wherever they are used.

Whether you want an outfit to saw wood for your own use only, or to do work for your neighbors, or both, you cannot find a more efficient, economical, or more satisfactory all-around rig than an Alpha. The cost for fuel is the lowest. Its construction is such that time and money wasting delays are eliminated. You can depend upon it to run steadily all day long on either gasoline or kerosene, even in the coldest weather.

The above illustration shows one of our special steel frame mounted sawing outfits. Let us know what your needs are and we will be glad to quote you prices and send complete description of a rig such as you wish.

DE LAVAL DAIRY SUPPLY CO., LTD.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
Sole distributors in Canada of the famous De Laval Cream Separator and Alpha Gas Engines. Manufacturers of Ideal Green Feed Silos. Catalogues of any of our lines mailed upon request.
MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

ANNIES

SEEDS

PUREST-CLEANEST MOST RELIABLE GET CATALOGUE

AT BEST DEALERS
OR DIRECT
TORONTO - MONTREAL
WINNIPEG - VANCOUVER.

**95 UPWARD
ON TRIAL**

Fully Guaranteed

American CREAM SEPARATOR

A SOLID PROPORION
A new, well made, easy running, perfect separating separator for all sizes of farms or cold milk; making heavy or light cream.

ABSOLUTELY ON APPROVAL
Send a monetary amount, readily returned. Different from picture which illustrates our latest superior machine. Shipments made promptly from **Winning, Minn., Toronto, Ont., and St. John, N.S.** Whether in large or small lots, American Separator Co., 180-190 Broadway, N. Y.

See them at
American Separator Co.,
Room 2237
Waterloo, Ont.

Mention Farm and Dairy when writing.

EGGS, BUTTER

Live Poultry

Bill your shipments to us. Advise us by mail and we will attend to the rest promptly.
Egg Cases and Poultry Coops supplied upon request.

The Wm. DAVIES Co. Ltd.
Established 1863
TORONTO, ONT.

CREAM

WE WANT YOURS
We pay express and furnish cans.
Profitable Prices Promptly Paid

Write us
BELLEVILLE CREAMERY LTD.
BELLEVILLE, Ont.

POULTRY

Hints for February
KEEP the biddies out of the snow and off the frozen ground. Have plenty of straw to scratch in. If a satisfactory egg yield is desired. Chicks of the large breeds hatched this month will make splendid early roasters.

Feed well. The reward will be more profits.
Add a little corn to the feed at night. It helps to warm the birds.
When setting a good egg yield tell some one else how to do it.
Give the chickens plenty of milk. They can make good use of it.
Every one does not keep poultry, but many who do not would like to.
The eggs from hens that have laid heavily during the winter are less apt to be fertile than those from the hens that made only a fair showing.
No matter how much one reads about incubators, experience will be the best teacher. Watch the incubator.

It pays just as much to lay awake nights to watch a hundred chicks hatch out as it does to keep awake to save a five dollar calf, and the chicks are worth more.

The Coal Burning Brooder

By F. E. Elitt

A FEW months ago a well-known poultry lecturer made this statement to an audience of farmers—that everyone of them should have at least 200 laying hens on his farm. The statement may seem extreme to the man who has been accustomed to keep an ordinary farm flock of anywhere from 20 to 40 laying hens of all ages and breeds. Rightly handled, however, a flock of 200 pullets and yearling hens would be a nice source of income. The greatest difficulty would be the renewing of the flock, as if the 200 layers were to be replaced every year, several hundred chickens would need to be raised each season. With natural incubation and brooding the feat would be almost impossible. The incubator, however, has solved the hatching problem. The coal oil brooders and hovers have gone a long way towards solving the brooding problem, but even these involve a large expense for coal oil and more trouble to care for several broods than the busy farmer will care to give in the spring of the year. The last word is the best word and it is now found in the large-sized coal burning brooders that are on the market.

I first became interested in these big brooders through seeing them advertised. The idea of one breeder caring for 500 or more chickens was indeed attractive. Recently on a visit to the Central Experimental Farm, I was informed that Prof. Elford had one of these big brooders and had used it the previous season. I went right over to see it. I discussed its merits with Prof. Elford who was warm in his praise of the large-sized coal burning brooder and he recommended it heartily to anyone who was in poultry on an at all extensive scale.

From what I have learned of this brooder, I believe it will be the brooding method of the future in all cases where 100 or more winter layers are kept. Its merit lies not only in the labor-saving factor, but also in its efficiency.

FATHER (with a coin concealed behind him)—Is it that has a head on one side and a tail on the other?
Willie—Why, a chicken on a fence?



Better Butter and better prices come with Windsor Dairy Salt

Make Your Maple Trees Produce a Profit

Never before has there been such a fine opportunity to earn big profits from your maple trees.
The supply of pure maple products is far behind the demand. This means higher prices and a market ready to take all that you can produce.
Get ready now for spring tapping. Select the necessary equipment as soon as possible. In the meantime write for free circulars which illustrate and describes how you can make the finest grade of sugar and syrup—quicker, easier and at a lower cost.

The Champion Evaporator



MAKE YOUR BIKE A MOTORCYCLE

At a small cost by adding a few accessories to your bicycle. No special tools required. Write today for our **FREE BOOK** giving full and complete information for attachment. Motorcycles, all makes, new used, all equipped, in stock.

SHAW MANUFACTURING CO.
Dept 128 GALENSTRO, KANS., U.S.A.

Winter Tours to Florida, Louisiana, Mississippi, California, Etc.

The Canadian Pacific Railway offers particularly good service to Detroit where direct connection is made for Florida, via Cincinnati and Atlanta, Ga. Jacksonville, Florida is reached second morning after leaving Detroit. Excellent connection for Florida is also made via Buffalo.

The Canadian Pacific-Michigan Central route will be found the ideal line to Chicago, where direct connection is made for the Southern States. New Orleans is reached second morning after leaving Toronto. Excellent connection is also made at Chicago for points in California, Utah, Nevada, Texas, Arizona, etc.

The Dining, Parlor and Sleeping car service between Toronto, Detroit and Chicago is up-to-date in every particular. Connecting lines also operate through sleeping and dining cars.
Those contemplating a trip of any nature will receive full information from any C.P.R. agent; or write W. B. Howard, District Passenger Agent, Toronto.

Better

HAVE you

considered the importance of late seasonal communication or manufacturer's sales buyer. There is about them almost as a cordial note. Years ago, a certain very fortunate was supposed to. They were their style and in the head they were the head of the B with a heavy D in the foreground, advertising in all city and if one dressed concerning a specimen of a to the public:

"Mr. Myers resubmitted a bill of \$150 for the bill of \$150 for the Winter Stock of silos at very that he may Fashion, and a month he will in Ladies such a va Dresses, Fallas, hours will excel honor him with his Haberdashery, B etc."

How different it ing, personal ad familiar with to us for instance advertisement of side cover, and t just beneath. on that New Id page 8. Note ho were meant for turn up the Pe friends, and De Babon Phrogas in the same way Grain and Fur-Si men with the Pe the Hot 100 one.

YES, the style greatly changed modern ad and to be answer goods that are of his mind. For endeavoring to in firms such as W square deal. W "our friends," Y mistaking those yo Look through our us about anything. If possible we w it can be secured.

Important Pro

By Ontario
The Thursday devoted to m J. R. Hasting ed the point th when the fruit g strict should unit system of cooper sented by Mr. V Catharines, wa advertising cam fall in the Niaga tinct success, as

For Most of many of scores of pur But when we often are our readers in clovers—pot advertisement

Note this Feb. 17. If choice seed change" of th

Better Acquainted

HAVE you ever perceived that advertisements are becoming an intimate part of your life? They seem to be personal communications from the merchant or manufacturer to you, the reader and buyer. There is a warmth and frankness about them heretofore lacking. They possess a cordial note.

Years ago, advertisements were very cold, very formal and impersonal. Dignity was supposed to be their characteristic. They were oftentimes pompous in their style and wording. This was because they were usually written by the head of the firm—a portly gentleman, with a heavy gold chain, conspicuous in the foreground, clad in sober black. To advertise at all was of questionable dignity and if one did publish any statement concerning his business, it was a sort of high-and-mighty "silver" addressed to nobody in particular. Here is a specimen of an old-time announcement to the public:

"Mr. Tyers respectfully informs the Nobility and Ladies that he has begun to sell his extensive and fashionable Winter Stock of Millinery, Dresses and Pelisses at very reduced prices in order that he may make room for the Spring Fashions, as he fatters himself that next month he will have for the inspection of Ladies such a variety of elegant Millinery, Dresses, Pelisses, etc., that no dress house will excel. Ladies who please to honor him with a call will not be disappointed in meeting with very fashionable article they can wish for in dress."

"N.B.—Great variety of Linen, Drapery, Hosiery, Handkerchiefs, Gloves, Ribbons, etc."

How different is its tenor from the tingling, personal advertisements we are all so familiar with to-day! Take in this issue for instance of Farm and Dairy, the advertisement of D. Derbyshire on the inside cover, and the Page Wire Fence Co., just beneath. Then turn over to the one on that New Idea Mangle Sander on page 8. Note how each ad. seems as if it were meant for YOU. In the same way turn up the Fedlar ad., and our old friends, the De Laval, Beside this, and Babson Phonograph, and the other ads. in the same way—not omitting the Seed-Grain and Pure-Bred Poultry ads. and the men with the Pure-Bred Stock, including the Het Loo one.

YES, the style of advertisements has greatly changed—for the better. The modern ad. is expected to be read and to be answered, too, if you need the goods that are offered. And please keep this in mind: Farm and Dairy is always endeavoring to introduce to you just those firms which have the "belle" in the square deal." We regard our readers as "our friends." You can help us by patting down those you find in our columns. Look through our pages and note any articles or catalogues you may want. Write us about anything you may not find, and if possible we will gladly tell you where it can be secured.

Important Problems Dealt With By Ontario Fruit Growers

The Thursday morning session was devoted to marketing problems. Mr. J. R. Hastings, of Wilton, emphasized the point that the time has come when the fruit growers of Niagara district should unite in a comprehensive system of cooperation. A report presented by Mr. W. A. Bunting, of St. Catharines, was to the effect that the advertising campaign conducted last fall in the Niagara district was a distinct success, as it had aided mate-

rially in marketing the crop of fruit at reasonable prices. The results of pioneering experiments at Grimsby were given by Edwin Smith and J. J. Creelman, of the Dominion Cold Storage Division.

Much interest was taken in an address by H. A. Emerson, general manager of State Auctions, conducted by the New York State Department of Foods and Markets, which showed that the Department he represented in marketing their apples as well as other food products. Mr. Emerson described how a few years ago there was found that a monopoly existed in New York City dealers of live poultry. It was composed of many prominent men. Action was taken against the monopoly in the courts, with the re-

sult that 13 of its officers were sent to jail, and two died largely as a result of the trouble they went through. The fruit growers took advantage of this situation, and succeeded in opening up auction rooms in New York City, under the control of the Department of Agriculture. As a result the prices paid the growers went increased about 25 per cent and the price paid by the consumers reduced by about 20 per cent. A desire was expressed later that the Fruit Growers' Association should send one of its officers to New York City to investigate this market.

Other speakers included Dr. A. J. Grant, of Thorold; C. F. Howard, Hagersville, and Prof. L. Caesar, Guelph.

United Farmers Organization Meetings

M. R. J. Morrison reports three very successful meetings in Huron county, under the auspices of the United Farmers of Ontario. The first meeting of the series was held at Auburn on Jan. 19th. Fifty members of the Auburn Farmers' Club were present. The speakers were Mr. Morrison and M. J. N. Kerneghan. The movement was explained in detail, both as to the purchase of requirements and the sale of products.

The second meeting was held under the auspices of the Goderich Township Farmers' Club. There were 36 present, and was passed favoring affiliation with the central organization. One member was strongly against such action, but another, Mr. Sourby, gave the motion strong support. Mr. Geo. Andrews is president and W. C. C. Nafel secretary of this club.

There were 75 present in the meeting the following day at Ben Miller. Mr. Morrison spoke and there was a spirited debate on the subject of "Enlistment vs. Production." This organization is one of the branches of the United Farmers of Ontario.

Financing the Live Club

A MATTER of live interest to many local Farmers' Clubs is the financing of their club operations. Different methods are being tried by different clubs with varying degrees of success. At a recent meeting of the directors of the United Farmers' Company, held in Toronto, a discussion took place on this subject.

The farmers of Lambton county have been very successful in some of their cooperative movements during the past couple of years. One of the leaders in the work has been Mr. Peter Gardiner, Corunna, Ont. Describing the success of his club he followed. Mr. Gardiner said: "We borrowed the money we needed from a member of our club and gave him a note signed by the executive of the club. The funds were deposited in the bank to the credit of the club. When we give an order for goods the cheque immediately follows. This has established confidence among the

business firms we deal with. Our deposit draws three per cent and we pay five per cent for our loan. When members are a little slow in settling for their goods we charge one per cent a month (12 per cent a year) until they settle. This encourages promptness in club settlements and gives us a little margin to come and go on. The club is responsible for any small deficits that may occur.

Col. Fraser, of Brantford; E. C. Gurney, of Paris and Peter Gardner, of Corunna, were appointed a committee to work out and recommend a system of financing for use by clubs.

Good Ensilage in Canned Sunshine
It puts your cows on June pastures in January. When you have a—
HYO LO
You are always assured of sweet material. The HYO LO is a straight feed for cattle and horses. Write to us for the full catalogue and special features of material and construction.
Globe Mfg. Co. Ltd.
41 York St.
Canada

BOOK ON DOG DISEASES
and how to feed.
H. CLAY GLOVER, V.S.
116 West 31st St., N.Y.

This Knapsack
The illustration gives you a pretty clear idea of the Knapsack SPRAMOTOR in action. It is made entirely of brass, except the shoulder straps, which are of wide heavy grained leather, and the handle which is of spring steel. It is light, strong and durable. The tank or Knapsack—made of cold-rolled, lacquered polished brass—has a capacity of 6 gallons. The discharge and air-chamber tubes are pivoted on the top of the tank on a single bolt, thus permitting the SPRAMOTOR to be swung from right to left at will, allowing you to change hands instantly while at work. All the labor is done on the down stroke. Operates so simply that anyone can master it in a few minutes. Everything is so clearly and plainly told in our book of instructions that you can go ahead and work it the same day you receive it. Drop a card for booklet.

MADE IN CANADA—NO DUTY TO PAY
HEARD SPRAMOTOR CO., 2742 King St., LONDON, Can.

CLOVER SEEDS

Government Standard

No. 1 Red Clover	Per Bus.	\$7.00
" 2 Red Clover	.....	16.00
" 1 Alsike	.....	13.00
" 2 Alsike	.....	12.00
" 1 Alfalfa (Northern Grown)	.....	16.00
" 2 Timothy	.....	5.50

(This seed grades No. 1 for Purity)

" 1 Timothy	.....	5.00
White Blossom Clover	.....	12.50

Terms—Cash with order

Bags extra at 25c. each. On all orders East of Manitoba of \$25.00 or freight or over we pay the expense.

We Guarantee Seeds to Satisfy or ship back at our expense.

Ask for Samples if necessary.

TODD & COOK

Seed Merchants
STOUFFVILLE - ONT.

You can go deep with-
Give the roots a chance out bring-
ing up trash,
stones or manure. You
can the same time pul-
verize and level. For
thirty crops rely upon the
famous sharp, penetrating disks of
Cutaway
CLARK
Disk Harrow—Single or Double Action—light
to draft and built for a lifetime of service. If
your dealer has not the Cutaway Harrow,
write to us direct. Be sure to write us for our
new free book, "The Soil and Its Tillage."
Get your copy now.
The Cutaway Harrow Company
Makers of the original CLARK disk
harrow and rollers
266 Main St., Huggan, Ont.

WHITE AND COLUMBIA WYANDOTTES,
LIGHT BRAHMAS, S.C. WHITE LEGHORNS
Over 26 years a breeder.
Stock and Eggs for Sale
Michael K. Boyer, Box 72, Hamonton, N.J.

For More Bushels Per Acre Next Harvest

Most of us believe in the use of a pure-bred sire in our herds; many of us keep pure breeds in cattle or swine, or sheep, and there are scores of pure bred poultry flocks.

But when it comes to seed grain (the very foundation of the crop) we often are quite careless. Farm and Dairy is endeavoring to get our readers in touch with the best in seed grain—in oats—in corn—in clovers—potatoes, etc. So for the coming few weeks, in addition to advertisements of our big seed-houses, we are publishing

"THE FARMERS' GRAIN EXCHANGE."

Note this week's on page 25. Our next one will be published Feb. 17. If you need good seed write these men. Farm and Dairy with choice seed for sale, please arrange early to get into next "Exchange" of the 17th.

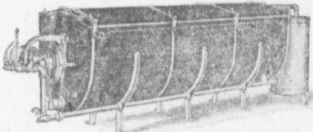
The Canadian Point of View

There has never been a more opportune time for Canada to make large sales of butter in the United States than now.

But this butter **must** be made from pasteurized cream!

The New York City daily papers have been conducting a very vigorous campaign for better butter that has been **pasteurized**.

This campaign has resulted in an enormous demand for the pasteurized product.



The BEAVER-JENSEN Ripener-Pasteurizer which we are selling meets every requirement of pasteurization and "makes good" wherever it has been installed.

We will be glad to furnish full particulars upon request.

W. A. DRUMMOND & CO.
TORONTO, ONT.

Canadian Representatives for the

J. G. CHERRY COMPANY, Cedar Rapids, IOWA, U. S. A.

Farmers' Letter File

Saves Time and Money

Ninety-nine farmers out of every hundred lose money at some time because they have not kept copies of their business letters or have lost the receipts for bills they have paid. When you ship grain, produce or livestock or order supplies of any kind by letter, it is important that you keep an EXACT copy of the letter you write. Without these EXACT copies you will often be put to inconvenience and frequently lose money. Every secretary of a Farmers' Association, School Board or business organization should have a FARMERS' LETTER FILE and keep his correspondence in proper shape. It will save several times its cost to every farmer yearly.

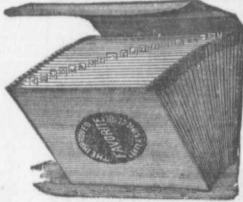
The FARMERS' LETTER FILE shown in the accompanying illustration contains pockets for all the letters of the alphabet. Letters you receive and copies of letters you send, as well as your receipts, can thus be filed alphabetically and be found in an instant whenever you want them. This file is 12 inches by 9 1/2 inches, and will accommodate letters of any size up to 8 1/2 inches by 11 inches. When closed the file is 1 1/2 inches thick and opens like an accordion so that it will hold 1,000 letters. It is made of tough, heavy manilla paper and pasteboard, reinforced with linen. With ordinary care it will last twenty years.

Ordinary letter paper such as can be purchased anywhere may be used, the most convenient size and style being each 8 by 10 inches.

The FARMERS' LETTER FILE, together with Six Sheets of Carbon Paper for taking copies of letters, will be mailed to any address for ONE NEW SUBSCRIPTION to Farm and Dairy at the regular rate of \$1.00 a year.

Circulation Department

Farm and Dairy - Peterboro, Ont.



ORCHARD & GARDEN

Orchard and Garden

TEST all vegetable and grain seed

Are the apple trees protected by paper or boards on the south side? If not, they are likely to be injured by sunscald.

Send for seed and plant catalogues, study them, and get the planting list ready. It will soon be time to start many varieties.

Don't keep the seed bed too moist. Usually one thorough watering, when the seed is sown, is sufficient until the plants break ground.

Many varieties of seeds are going to be scarce this year. It will be well to have the seed order in early.

For the home garden choose vegetables of the best quality. Quantity is not the important thing.

Most vegetables need rich, well-worked soil. Having this, and adding thorough cultivation and care, any one can have a number-one garden. Turn up the manure in the hotbed until it is solid, then put the glass on and leave it a few hours before putting the soil in. This will make heating sure.

Swiss chard should be included in the seed order. It makes good "greens" and is a rapid grower. It may be sown at the same time as early cabbage and transplanted to frames or field.

Large onion bulbs of the varieties like Denia and Giant Gibraltar are obtained by growing the seed in the greenhouse or hotbed in February and transplanting to good rich garden soil. Thorough cultivation must be given throughout the season.

Growing Potatoes Without Potash

POTATO growers in past years, at least those who have made use of commercial fertilizers, have always favored a fertilizer with a large proportion of available potash. The closing off of the German supply of potash has rendered this fertilizing constituent extremely expensive and potato growers are now faced to face with the proposition of growing potatoes with nitrogen and phosphorus only. In this connection, an experiment conducted at the Maine Experimental station will be of interest. Chas. D. Woods sums up the results of the experiments as follows:

"Throughout the growing season the vines on both the no potash plots were a distinctly brighter green and had a thriffter look than on the adjoining plots. The difference was so marked that it attracted much attention from visitors at the farm. Although some slight irregularities occurred in the yield from the different plots, the average figures show a fairly consistent increase with the increase in potash. The plots without potash yielded 110 barrels, or 302 bushels of merchantable potatoes. The plots with two and five per cent potash gave practically the same yields of 116 barrels, or 320 bushels per acre. The eight per cent potash plots averaged to yield 120 barrels, or 331 bushels per acre. This is an increase of 10 barrels from the eight per cent plots over the no potash plots. This amount is undoubtedly large enough to be significant, and to indicate that the potash increases the yield of potatoes in Aroostook county. On the other hand, 110 barrels (302 bushels) per acre is a good yield—considerably above the aver-

age, and nearly double the average in the county in 1915. So far as the results of this one year are concerned, they indicate that a profitable yield of potatoes can be obtained on Aroostook soil without the addition of potash for at least one year."

What is true of these soils applies in no less degree to our soils in Canada. There are few soils indeed in which there are not thousands of pounds of potash in the first few inches. This potash can be rendered available by incorporating humus into the soil and through cultivation, conserving the moisture.

The "Economy" Crate

GREAT interest centred around the discussion of the economy crate for carrying apples at the recent Ontario Fruit Growers' Convention. The discussion was led off by Mr. Clark, of Cainsville. This style of crating was used in Ontario last year for the first time. It is a crate almost the same size as the standard box for apples slightly larger in capacity and sufficiently open to prevent its being classified as a closed package.

Thus it does not come under the provisions of the Fruits Marks Act and does not have to be branded as it otherwise would. This past season there were large quantities of low grade fruit in Ontario for which it appeared likely there would be difficulty in finding a market although the chief defect was scab. The fruit, otherwise, was of large and good quality but as it would have to be marketed as No. 3 grade the prices received for it were likely to be small. The use of this crate was adopted to avoid this difficulty. As buyers could see through the slats the quality of fruit in the package it was expected that they would be willing to pay a better price for the fruit than they would if it was graded No. 3 and sold in barrels. The crate was used during the season with considerable success by the Ontario co-operative Apple Growers' Association, which shipped fruit to the prairies selling as high as \$2 a crate.

During the season some of the fruit inspectors as well as prominent growers objected to the use of the crate on the ground that as there was no legislation governing its use it would not be long before all manner of crates of different sizes would be in use and that its use might encourage the production of low grade fruit by making it easier to market. The discussion was at time heated. Mr. Clark showed that the crate is cheaper than the ordinary box, that scabby fruit carriers better in it than in the box because of the free circulation of air in the box, that it is more easily handled than the box and that its use had given satisfaction during the season. He showed also that it was being extensively used by the fruit growers of British Columbia who, it is understood, marketed upwards of half their crop this year in this style of package.

Mr. R. M. Wish of British Columbia justified the fears of the fruit growers by stating that many different styles of this package were now in use in the West, that considerable confusion had resulted therefrom. No formal action was taken by the convention, although the general conclusion seemed to be that this style of package had come to stay and that before long legislation will have to be enacted standardizing the package and governing its use.

T the a United Co., Lt. Feb. 3 and 3, as to whether should continue per cent of their purchases that are affil arrears for fed ers of Ontario the company.

The points are as follows: 1st: As this for the secr agents of the these officials' central compa

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In Union There is Strength

A Department Devoted to Cooperative Agriculture

Rebates to Local Farmers' Clubs

At the annual meeting of the United Farmers' Cooperative Co., Ltd., to be held in Toronto Feb. 2 and 3, the point will be raised as to whether or not the company should continue to pay a rebate of 25 per cent of commissions earned on their purchases, to the local clubs that are affiliated with and not in arrears for fees to the United Farmers of Ontario and that hold stock in the company.

The points in favor of this policy are as follows:

1st: As this commission is intended for the secretaries or purchasing agents of the clubs, it encourages these officials to deal through the central company.

2nd: The secretary or agent of every local club should receive remuneration for his work. Some clubs do not pay their secretaries anything and others do not pay their's enough. Others still, of course, are more generous. The payment of this commission by the central to the local helps to encourage some secretaries to continue in office when otherwise they might grow discouraged.

3rd: The payment back to the local of this commission is a practical evidence of the identity of interests that exist between the central and the local.

4th: Some business concerns offer commissions to the secretaries or purchasing agents of some of the locals to buy from them. The payment of this rebate by the Central to the locals, is supposed to help the Central to hold the trade of such locals, even if it often does not amount to much.

Objections

The policy of paying this rebate has been in force for over a year. It has been found to be attended by many difficulties and even dangers. Among them are the following:

1st: It adds very materially to the accountant's work at the central office, necessitating the keeping of separate accounts, some of them quite intricate, with each of the local clubs.

2nd: Great difficulty is sometimes experienced in obtaining prompt de-

tailed settlements from the firms from whom goods are purchased. Differences sometimes have to be adjusted. This takes time. It makes it difficult, almost impossible, for the central to make prompt settlement with the locals. This is apt to create dissatisfaction on the part of the locals and necessitates considerable correspondence to maintain harmonious relations.

3rd: Sometimes locals wire or write for rush shipments of goods. When the central orders these goods, it is advised that the price of these goods have advanced. To avoid delay the Central occasionally throws off all or a part of its commission in order that it may furnish the goods promptly at the price it quoted to the local. Later the local expects to receive a quarter of the original commission as a rebate and is apt to think the Central is trying to avoid paying the commission when the situation is explained. Of course, they actually obtained, in some cases much more than their commission, when the Central threw off its commission.

4th: The Central has been crediting this 25 per cent rebate to the locals whether or not its share of the commission was sufficient to meet its overhead expenses, such as office rent, postage, wages, telegrams, etc. Some months the Central has been operated at a loss while crediting these rebates to the locals. The amount of these rebates, while a comparatively small matter to most of the locals, makes the difference to the Central at times, between doing business at an actual loss and doing it at a profit.

5th: Sometimes the Central loses opportunities to purchase goods at a considerable discount or on a rising market by not being able to pay cash for them. Were its commission larger, it would accumulate enough funds to enable it to buy goods to the best possible advantage. These goods could then be furnished to the locals at a better price than is now possible.

6th: The by-laws of the Central Company provide that it cannot pay a dividend of over seven per cent on (Concluded on page 15.)

The Dominion Bank The Dominion's Silo

Both safe, handsome, and permanent — one guarding the savings of its depositors, the other, feeding profits of Canadian dairymen—for that's what the Natco Imperishable Silo does. Built of enduring Natco hollow vitrified clay tile, it will last till the Great War is ancient history — a yearly source of profit. First cost is the only cost of this most economical of all silos. This year erect a

Natco Imperishable Silo

"The Silo That Lasts For Generations"

A perfect preserver of sweet, succulent silage in all weathers—a guarantee of contented, well-fed cows and full pails of milk. Its salt-glazed hollow tile are impervious to air and moisture. Weatherproof, decayproof, vermin-proof and fireproof. Reinforced by bands of steel, laid in the mortar, within the tile. Stands permanent under severest wind or silage pressure. A handsome silo. Economical. Convenient. No adjusting, repairs or painting. Just the silo for the Canadian dairy farm.

Our new silo catalog fully describes the Natco Imperishable silo. Send for it. Write, also, for our helpful new book, "Narco On The Farm." Describes in detail the use of Natco Hollow Tile in all types of farm buildings. Accurately illustrated. First get these books then build.



National Fire Proofing Company of Canada, Limited

1203 Dominion Bank Building
Toronto Ontario

Sydney Basic Slag

Fifteen thousand tons Sydney Basic Slag were used in the Maritime Provinces last season. What makes money for the fruit grower of the Annapolis Valley and the dairy farmer of Nova Scotia will be found equally profitable when used by Ontario farmers. Don't let another season go past without buying SYDNEY BASIC SLAG.

Write us for particulars

— THE —

Cross Fertilizer Co., Ltd.

SYDNEY, NOVA SCOTIA



He was First in an Unusually Strong Class of Bull Calves

This year sections were included in the prize list of the Ontario Winter Fair for bull calves, senior and junior, of the dairy breeds. The result was a strong line-up in all classes. The senior Holstein calf here illustrated, Pine Ink's Artie, won first place in the senior Holstein section for S. Lennox & Son, London, Ont. A dam of this bull has been recently tested, giving a production of 2471 lbs. butter in 7 days and 102.18 in 30 days. His sire has 17 B. O. M. daughters, two over 20 lbs.

—Photo by an editor of Farm and Dairy.

FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY

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CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy number 2,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 2,000 to 25,000 copies. No subscriptions are accepted at less than the full subscription rate.

Sworn detailed statements of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE.

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid or advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that an advertiser in advertising you state "I saw your advertisement in Farm and Dairy."

Agents shall not ply their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Limited
PETERBORO, ONT.

"Read not to contradict and to confute, nor to believe and take for granted, but to weigh and consider."—Bacon.

Hatch Early

THE size of the next winter's egg crop depends largely on the date the chickens are hatched this coming spring. The eggs that pay are the eggs that are laid from November to February. The pullets that lay them are the ones hatched first in the spring. Chicks of the American breeds should all be out of the shell by the end of April. Leghorns, which mature more quickly, should be hatched not later than the middle of May.

It was once the practice of expert poultrymen to start their incubators the first of February. Many still continue this practice, but many more have discontinued it. It means too much work with the chicks, and now even professional poultrymen are hatching the most of their chicks at a season when they can be got right cut on to the ground. All endeavor, however, to have the chicks intended for layers next winter out before the middle of May. A chick hatched in April will lay fully two months later than one hatched in May. June hatched pullets are not apt to lay until the big prices of the following winter are over for the season. There is an advantage in hatching chickens early, too, in that we then have more mature breeding stock the next spring if yearling pullets must be used for the purpose. The first step toward early chickens is the selection and mating of the breeding pen, which should already be completed.

Why He Succeeded

"IT isn't the big things that make profits for the farmer," a well-known Institute speaker recently remarked to an editor of Farm and Dairy. "It's the little things that too many of us overlook altogether."

Many farm failures are explained by this shrewd remark. Most of us will attend fairly

regularly to the getting in of the seed, the harvesting of the crop, threshing the grain, and the other major operations of the farm. How many of us, however, fail to test that seed before we sow it, tighten the bolts on the machinery before they come off altogether and cause a serious breakage, weigh the milk from the cows to which we feed our crops, and so on through the long list of details, each one of which in itself seems so simple, but which in the aggregate constitute the difference between a good farmer and a failure? Call it what you will, eternal vigilance or infernal diligence, it is attention to the details that makes a bank account, buys the farm auto, and supplies the gasoline.

Live Stock After the War

THE Dominion Live Stock Commissioner has issued a statement to Canadian farmers, the first paragraph of which reads as follows:

"Owing to the heavy drain upon the live stock of the various warring countries of Europe, they have been forced to go abroad for supplies. The longer the war lasts the greater will be this demand. Moreover, when peace is restored, these countries will require large numbers of the various classes of animals to replenish their studs, herds and flocks. It should be borne in mind, however, that the buyers who come to this country after the war will require better animals than have been bought during war time, as they will be used largely for breeding purposes."

It is the latter part of this statement which is significant. At the present time, the demand from the warring countries is largely for horses and, to a great extent, this demand will relieve us of a class of horse that we can very well afford to be without. But the demand for this class of horse will last only so long as the European countries are at war. The second demand, and the one which, if taken advantage of, will bring the greatest and most permanent prosperity to the Canadian live stock industry, will call for the very best that we have in the country. If we are not prepared to cater to the demand for good breeding stock, European buyers will look elsewhere. The demand will be not only for breeding horses, but for cattle as well, both dairy and beef. Now is the time to get ready for that demand. We can do it by breeding only the best mares, saving the heifer calves from the best cows, and, above all, using only pure-bred and well-bred sires.

A Pleasing Function, But—

EACH year the owner of the sweepstakes cow in the Dairy Tests at Guelph or Ottawa, gives a banquet to all other dairy exhibitors and their friends. The editors of Farm and Dairy have shared the hospitality of our dairymen at many of these functions. We have enjoyed ourselves. There is no place where good fellowship comes so easily as around the banqueting board. Fanciers of rival breeds forget their differences and all join in lauding the good dairy cow, no matter what her color or the source of her origin.

Having enjoyed this hospitality so often, it seems out of place for us to criticize, but we would like to ask frankly if the dairymen's banquet has not become a little too expensive of late for one man to bear. Is it fair to ask the winner of the sweepstakes award to spend all of his prize money on a banquet that, starting as a simple, inexpensive function, has become a several course dinner, in many cases with paid entertainers? We would dislike to see this banquet discontinued, but cannot see other way be found of financing it than at present? There is lots of time to think the matter over before another year.

The European War is a war of absolute monarchies. It cannot be considered a successful war unless it ends them.

Pure Bred Possibilities

MR. James Knapp, of Merrickville, Ont., who recently captured the sweepstakes in the Dairy Test at Ottawa with his pure bred Holstein cow, Desta, is one of the many who has climbed the ladder of dairy success, but with no intention of telling his own story. An old neighbor of his told it for him, however, at a banquet which Mr. Knapp gave to the other dairy exhibitors at the last Ottawa Winter Fair. It seems that when Mr. Knapp was getting well on to his feet as a farmer, he made a rash move, so rash that most of his friends, the narrator included, informed him that he would soon be on the road,—he paid \$6,200 for a neighbor's herd of pure bred Holstein cattle. And here is the sequel. He paid for them out of their own profits in just three years and a few months.

Mr. Knapp's success with pure bred stock has been duplicated many times in all parts of Canada. More can do likewise. All men, we know, are not fitted to make a success with registered cattle, but to the naturally good cattle man, there are far greater possibilities in breeding pedigreed animals than in handling the best of grades.

Systematic Farming

POOR health drove Morris H. Crockett from the city to a little five-acre fruit and poultry farm in California. Previous to his removal to the country, Mr. Crockett had been a successful business man. He tells of his rural experience in Farm and Fireside.

For the first three years he lost money. He had fancy and utility poultry, early and late apples, Logan berries, strawberries and rhubarb. Just why he was losing money, he did not know. The fourth year he decided to apply to his business of farming the same principles that he had applied to the city business of which he had been manager. This involved a bookkeeping system, and during all of that year he kept accurate accounts for every department of his little farm. At the end of the year he did away with fancy poultry, plowed up his rhubarb and strawberries, and specialized on early apples and utility poultry. These, his books revealed, were the money makers. Since then, Mr. Crockett has done well. His accounts showed him how. Without them, he would long ere now have lost his farm.

There is room for similar systematic business accounting on every farm. The average farm of Canada is a mixed farm, with many sources of income. On almost every farm, we believe, one or more branches are being run at an actual loss and the income would be increased by its elimination. Other branches are particularly profitable, and these should be enlarged. The only way to know which branches to eliminate and which to enlarge, however, is to keep books. There is no better time to start than the present.

The Measure of Good Farming

YIELD per acre is usually taken as the measure of profitable production in farming. A low yield means a small profit or a loss and a high yield means a large profit. But this is not necessarily true, according to a bulletin of the Agricultural Experiment Station on "Rotations and Tillage Methods in Western Nebraska." Europe produces high yields per acre, but small profits per man. The measure of good farming in America is profit per man rather than yield per acre. As the yield per acre is increased beyond a certain normal, the cost per bushel, on the average, will be increased, though in individual cases or during short periods of time the reverse may be true.

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The World

What is the egg record? S authentic reco honor must g lantine, a Wh owned by th ricultural Co eggs in 365 consider that is under 90 egg field for pract prement oppo

Old Country Markets are Opening to Our Poultry Produce

(Continued from page 8)

mand on the markets of the world.

Here Lies Our Opportunity

As pointed out above, the great war and the emergency of the hour has given Canada access to the British market in a way and to an extent which under normal conditions, would have been difficult to obtain. So great, in fact, has been the demand for Canadian eggs, on account of the cutting off of supplies elsewhere, that the Canadian surplus has been entirely inadequate to meet the demand. A large part of the Canadian storage stocks intended for home consumption have also been exported, and not only have United States eggs been imported to take their place, but large quantities have entered Canada in bond for reshipment to the Old Country.

The British market, however, has not taken favorably to United States eggs. Canadian eggs are preferred owing to the fact that they are larger as a rule, do not show the shrinkage, and can be laid down in better condition. This preference has also been quite evident in the price quotations, for Canadians have run from two to four cents a dozen higher. This fact, however, has not deterred some Canadian dealers from repacking and shipping quantities of United States eggs in Canadian cases.

Killing the Market

Such practices as these, and the fact that it is known that in some in-

stances Canadian eggs of decidedly inferior quality have also gone forward, do not make for stability in the trade. If the poultry industry in this country is to amount to anything worth while, it will not do to leave a matter of such great national importance as the development of the export trade in the hands of a few men whose anxiety to sell goods sometimes gets the better of their patriotic zeal.

The expansion of the Canadian egg trade along progressive lines is a matter of the greatest economic importance to the whole country. Every effort should be put forth to make this development possible. Let us analyze for a moment what must be done.

- 1.—Production increased.
 - 2.—Quality improved.
 - 3.—National standards provided.
 - 4.—The quality of the export product regulated and supervised.
 - 5.—Adequate transportation facilities provided; and
 - 6.—Canadian eggs widely and appropriately advertised.
- Now is the time to lay a solid foundation for an extensive export trade in the future. The war is affording Canada an excellent opportunity at a most opportune time, to become strongly established in the British market. The hour of opportunity has arrived, the time to act is at hand. Are Canadian poultrymen, Canadian producers, anxious to rise to the occasion and bring about such an increase in production, such an improvement in quality, as will make possible this great achievement?

The Principles of Artificial Incubation

(Continued from page 4.)

If the machine has ever been used before, it should have been thoroughly disinfected with some coal tar product before any eggs were put into it, and the same done between every hatch. Lamps should be filled and trimmed regularly every day, but never before handling the eggs. Kerosene on the hands will seal up the pores in the eggs, excluding the air, and killing the embryo chick. Regular turning of the eggs every night and morning, after second day, with proper airing as advised by the incubator maker, are very important.

Don't Interfere at Last

Perhaps one of the most important points of all is patience at the last. If the eggs are right, from hearty, vigorous stock, have been given the proper handling before being placed in the machine, and the machine has been operated correctly, nothing under the sun can help at the last like leaving the machine alone. Any beneficial assistance that may be given any chicks in getting out will usually do ten times as much harm to other eggs that could hatch and make perhaps better chicks than the ones helped. If the operator has not patience enough to leave the machine strictly alone, he should plan to be away as much as possible about hatching time. Probably more good chicks are spoiled in the endeavor to

use some secret to get out the chicks than one can realize. What every one should want to know is, chickens that can produce a profit on the few they consume. Any that have to be helped out of the shell will not be likely to produce a profit, and most of them will die after a few weeks.

Having the brood out, they should be kept for at least 36 hours, when the brooder can be heated to the proper temperature and set ready for the chicks. If the hatch is very large, it may be necessary to take some of them out to make room, but if all the eggs are not off, this should be done quickly and prevent the drying up of eggs and machine, and the greatest care must be taken to prevent the little chicks becoming chilled. In an early issue we will take up the matter of brooding.

Rebates to Local Farmers' Clubs

(Continued from page 15.)

its stock. Profits in excess of seven per cent that are not actually needed in the future by the locals in- have to be refunded to the club in the form of lower prices on the goods they purchase. Thus were the locals to forego their rebates in time be returned to them, either in whole or in part, in the form of dividends and the lower prices of goods purchased.

7th: There is less chance of suspicion and friction between the members of local clubs and their secretaries or purchasing agents as well as with the Central office if the locals themselves pay their officials a stated salary or commission instead of depending upon the Central to pay rebates uncertain in extent to their officials.

8th: The effect on the whole movement would, it is believed, be better if the returns to the locals were paid at the end of the year in a lump sum out of profits in proportion to their total purchases through the Central.



RIGHT NOW
is the time
when you feel
the need of a
silo most and

NOW is the time
to order an
IDEAL GREEN FEED SILO

THESE winter days when high-priced hay seems to disappear so fast there is no use kicking because you didn't put up a silo and fill it last season.

YOU must realize that silage would save you a lot on the cost of your feed just now, and that with a silage ration you would be getting a much larger milk flow.

BUT the chances are if you wait till next summer again before ordering a silo, that with lots of green summer feed and your rush of farm work, you may put it off again.

DON'T make that mistake the second time.

ORDER your silo now.

HAUL it home while the alighting is good.

DECIDE in which plot you will plant corn.

GET the right kind of seed corn ready.

THEN some time next summer when you have a spare day or two you can get your silo up and you'll be all ready for next winter. From the day you order a silo you'll feel a lot more easy in your mind to know your cows will go back to better and cheaper feed next fall.

See our agent in your locality. If you don't know his name write to our nearest office. Let us send you our new silo book; free upon request.

DE LAVAL DAIRY SUPPLY CO., Ltd.
LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
MONTREAL PETERBORO WINNIPEG VANCOUVER

Can your horse use his full strength?

Horses with sore shoulders or galls can not do their best work unless they have a comfortable, non-irritating collar. Bosche's Collar, comfortable, non-irritating collar. Bosche's Collar will cure galls and sore shoulders.

The Lankford HUMANE HORSE COLLAR

\$1.75

It is made with the idea of easing a horse into his shoulders to pass his full strength into his work without hurting him. If done this becomes it can be adjusted to fit any shape neck. It is finished with pure non-itching cotton, which absorbs sweat and keeps the horse cool. It is filled through out by the new and effective remedy season. Ask us for our new leaflet.

Prices \$1.75 and up

Lankford Collars are sold by good dealers everywhere. If unable to purchase locally, write for names of our dealer who can supply you.

Powers Mfg. Co.
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Keep The Toes In Your Harness

Keep it strong and good looking with

EUREKA HARNESS OIL

Makes harness last longer and look better.

Dealers Everywhere

The Imperial Oil Company Limited
Branches in all Cities

The World's Best Layer

What is the world's yearly egg record? So far as we have authentic records of yield the honor must go to Lady Englantine, a White Leghorn hen owned by the Delaware Agricultural College. She laid 365 eggs in 365 days. When we consider that the average yield is under 90 eggs a year, a wide field for practical poultry improvement opens up.

OUR ADVERTISERS ARE GUARANTEED

Every advertiser in our columns is guaranteed to be strictly reliable. Should you be dissatisfied with any dealings with our advertisers we will consider it a favor if you will advise us. Remember that we will stand your loss, provided of course you mention Farm and Dairy at first writing.

The New REO The Fifth

"The Incomparable Four"

WE REO FOLK VERILY BELIEVE that Reo the Fifth is, today, the greatest automobile in the world.

CONSIDERED FROM EVERY STANDPOINT—first cost, cost of upkeep, long life—passenger miles per dollar—where can you find value equal to this?

CONSIDER FOR A MOMENT. Here is an automobile the chassis of which has been standard in practically its present form for now six seasons. That alone is a record. Of only one other car in the world, so far as we can learn, can it be said.

REO THE FIFTH IS THE RESULT of the longest and the product of the ripest experience of which the automobile industry could boast. So it was but natural that it should be, from the very first, a wonderful car.

Canadian buyers now receive their Reos direct from the big parent factory at Lansing, Michigan.

We have tried both ways, and we find that we can give our Canadian customers better workmanship, better finish and altogether better value and better service from the main factory than we could from a Canadian branch plant.

The Reo factory at St. Catharines, Ont., will hereafter continue as a service plant. In addition we have established a service station at Winnipeg—1213-20 King Street—where a complete stock of replacement parts for every Reo model ever made, from the first to the latest, are carried, and where Reo buyers in the Western provinces are assured prompt and courteous attention.

With the best class of distributors handling Reo motor cars in Canada, and each carrying in stock such parts as may be needed for replacements, we feel we can now give the very best service possible to our Canadian friends.

Prices quoted are in all cases, net, duty paid, f. o. b. factory at Lansing, Michigan. New catalogue just out—send for one.

THEN THE REO POLICY of improving, refining, perfecting that which we have, instead of trying always to develop something radically, sensationally new, has resulted in this latest model Reo the Fifth, "the simplest car in the world to drive" and the "cheapest car in the world to maintain."

FROM THE VERY FIRST WE REO FOLK CONTENTED that ultimate leadership would redound to that concern which made, not the most novel, but the most serviceable automobile. And that enduring success would be the reward not, of making the highest or the lowest priced car—but the car of greatest dependability and lowest maintenance cost.

AN INVESTIGATION MADE LAST YEAR proved this remarkable fact: that the cost of repairs and replacements on thousands of cars of this model had been less than six dollars per car per year!

AND HUNDREDS OF OWNERS have written us that they have yet to pay the first dollar for a repair on a Reo—and some of them have owned and driven their cars constantly from one to three years. Just gasoline and oil.

THIS LATEST MODEL has many refinements and improvements over its immediate predecessor. The world moves and Reo moves with it—always in the van.

BODY HAS BEEN REDESIGNED to conform to the latest ideas and to enhance its already graceful appearance. Same width and leg room—several inches wider and longer than most so-called "5-passenger" cars.

ANOTHER GREAT IMPROVEMENT is the location of electric lighting and starting switches on steering post in reach of the driver. Spark and throttle control levers are now on top of steering wheel.

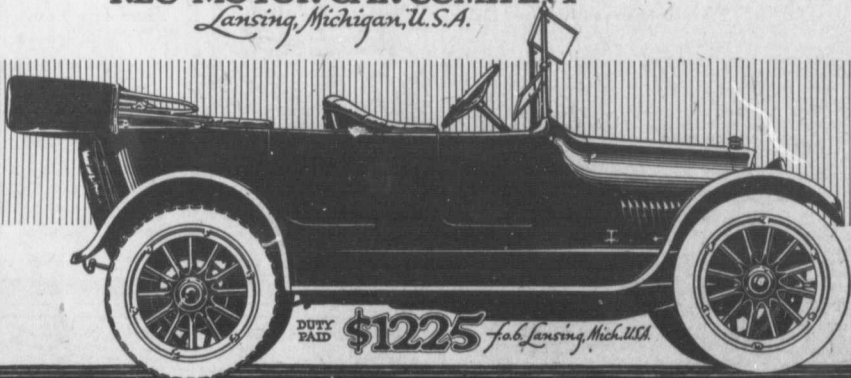
THERE ARE MANY improvements and refinements that the practiced eye will notice and the experienced motorist enthusiastically approve. Each small in itself but all contributing to the excellence of the whole.

YOUR REO DEALER will be pleased to send you a catalog describing the various features more fully.

BUT YOU MUST SEE—must ride in and finally must drive Reo the Fifth yourself to fully appreciate its many points of excellence.

131-E

REO MOTOR CAR COMPANY
Lansing, Michigan, U.S.A.



The New

REO "Six"

"The Fashion Plate of -16"

YOU NEED GO NO FURTHER—you need pay no more—to obtain all the mechanical excellence, all the beauty, style, finish and luxurious riding qualities in a seven-passenger touring car, that your heart can desire.

FOR WE MAINTAIN that, though you search the world over, you will find no car at any price, that is the superior of this new Reo Six in these essentials.

MECHANICALLY IT HAS NO SUPERIOR—it is not possible to put better materials in a chassis, simply because the science of metallurgy knows no better. Reo uses and always has used the best. The fame of Reo rests on that.

IT IS NOT POSSIBLE to machine parts more accurately—for the Reo factories are admittedly the "Models" among automobile factories and Reo standards are admittedly of the highest.

AND IT ISN'T POSSIBLE to obtain an automobile, in the designing and fabrication of which, more experience has been applied—for the Reo organization is the oldest in the Automobile industry. And never since the first Reo was made has there been a single change in the executive organization of Reo.

ALL WE'VE LEARNED, WE'VE KEPT right here in the Reo factories—and this latest product of Reo brains and experience and facilities is the net result.

AS TO BEAUTY OF EXTERIOR we need only say that when this new Reo Six was announced and its graceful lines shown in the engravings it was instantly hailed by everyone in the trade—rival and friend alike—as the "Fashion Plate" for the coming year.

AND IF YOU HAVE WATCHED closely the various new bodies that have since come out—some of them only too palpably redesigned to emulate the lines of this Reo Six—you have observed that it had set the style for the season.

BUT REO BEAUTY ISN'T on the outside alone—it's in the unseen places as well. In fact none so thoroughly appreciates Reo engineering as he who has studied it most intimately.

THE SAME STURDINESS—the same wonderful reliability, dependability and economy of upkeep—that have made the four-cylinder Reo world famous, are in this Reo Six.

"50 PER CENT OVER-SIZE in all vital parts," that Reo factor of safety is the reason at the same time for Reo dependability and low maintenance cost.

EVERY PART THAT IS SUBJECTED—or may ever be subjected—to excessive strains are made fifty per cent heavier—or of better material and therefore fifty per cent stronger—than other makers consider necessary. Motor parts—as crank-shafts, connecting rods, bearings. Transmission gears, driving shafts, axles, differentials—all vital parts are made to the Reo standard "fifty per cent oversize."

SEE THIS NEW REO SIX. Ride in it. Drive it yourself—you can if you have ever driven any automobile. You will say you have never tasted the real joys of motoring before.

JUST A WORD ABOUT DELIVERIES. Those who know are unanimous in stating that there will be a tremendous shortage of automobiles the next few months. Can't be otherwise. Shortage of all kinds of materials and of tools to manufacture them—demand greater than ever before.

SO WE SUGGEST that you decide this matter at once and order your Reo immediately. Then you'll be one of "the lucky ones."

TODAY won't be a minute too soon.

Reo Motor Trucks

Most distributors of Reo Motor cars also handle Reo motor trucks—entirely separate corporation, but managed by the same "Reo Folk."

Space forbids a lengthy description or specifications of Reo trucks here. So we'll only say there are two chassis models. For heavy hauling the 2-Ton Reo, and for lighter, speedier delivery, the 1500-Pound (3/4-Ton) Reo "Speed Wagon."

Both are famous for the same dependability and low up-keep that is an attribute of all Reos.

Prices: The 2-Ton Reo chassis, \$2150; the 1500-pound truck with standard express body, \$1500—both net, duty paid, f. o. b. factory, Lansing, Michigan.

Ask for a catalog—any Reo dealer will gladly send you a copy—or write the factory direct.

REO MOTOR TRUCK COMPANY, LANSING, MICHIGAN

REO MOTOR CAR COMPANY
Lansing, Michigan, U.S.A.



DUTY PAID **\$1700** f.o.b. Lansing, Mich. U.S.A.



To be what we are and to become what we are capable of becoming, is the only end of life.

—Robert Louis Stevenson.

The Messenger Maid

BY HELEN WALLACE

(Continued from last week.)

CHILDREN must obey their elders, and speak when they were spoken to, so she answered Major Walsh's questions quietly till, looking down into the little snowdrop face, he grew half-ashamed, tough soldier and keen upon his quest as he was, of baiting the child further, and trying to draw from her if she had any subtler errand to the lady of Ledington than the showing of the sampler. He had ensured that no note had been sent with it, and after all they could know nothin'—fresh of his plans at Calderside.

Arrived at Ledington, he even carried his complaisance so far as to conduct Isabel up the corkscrew stair to my lady's chamber door.

"Here's little Miss from Calderside with something to show to your mistress," he said brusquely to the startled waiting woman. "She can have ten minutes," and he clattered down the steep stair again.

With her heart drumming and her lips tingling from the kiss Major Walsh had exacted in payment, Isabel tiptoed across the big bedroom, with its Dutch hangings of hunting scenes in stamped and gilded leather. In a great four-post bed an old lady was sitting up very erect for an invalid. "So we've got a respite," she said, with a quick, hard breath.

With tremulous steps, Isabel approached the canopied bed, feeling, perhaps, as at that moment she looked like little Red Riding Hood paying her famous visit, and, indeed, many older than she trembled before the old lady's keen dark eyes, looking out from under the multitudinous lawn frills of her mob-cap. The sampler was examined and admired, but as soon as the heavy footfalls without had fairly died away, her voice and look changed.

"Quick, child, you've some message. We're only ten minutes; 'tis a wonder he let us have them. Since you've been trusted with it, I'll trust you, too. The one it most concerns had better hear it too."

With her long ebony-handled staff, she rapped sharply on the wainscot thrice in succession. There was a moment's pause, then there came a faint scratching, like a mouse, behind the panels. The old lady rapped again, and Isabel's dilated eyes opened still wider, for the great gilded stag bounding across the wall in front of her, suddenly disappeared, leaving a narrow, gaping doorway.

"Oh!" gasped Isabel, and "Oh!" she gasped again, as out of the darkness stepped a tall young man. But Isabel had no longer eyes for the stag, nor any heed for the mystery of the cunningly-hidden door. Her eyes and thoughts were wholly riveted on the

newcomer, and little wonder, for Nigel Maitland was reckoned the "brawest lad" of his time in broad Scotland. It was not the well-tot features though, nor the curling hair and the handsome eyes, which held the child's gaze, and, all unknown to herself, unsealed within her the fountain of romance. Rather it was the high daring of his look, the glad, easy courage which danced in these fine eyes, so that, worn and wan and wounded as he was, his entrance from his dark lurking-place seemed to bring a whiff of new life, bracing as mountain air,



A Good Start Toward Helping Mother With the Milking.

reviving as wine into the big, dull room. Isabel, too young to analyze her own thoughts, gazed open-eyed, the old lady sat more erect among her pillows, her eyes it up.

"Now, bairn, out with your message!" she said sharply. "I'm trusting you far, and every minute's a life."

Thus adjured, Isabel repeated her mother's words.

"She said I was to say that there must be nobody in Ledington to-night—nobody but those who belong to it."

The gay, bright eyes were fixed now on her earnest face framed in the scarlet hood. "And did she say why, little lady?" he asked.

"No, but she said it was life or death. I think she's feared of Major Walsh. He's a dreadful man; he brought me here on his saddle"—with a quick shiver—"and he'll have to take me back," her voice sinking.

"Tell your lady-mother she's had a brave little messenger, and take her my thanks from my heart for her care of my poor life," said Maitland. "And so this is what you were to show to your granny-aunt?" picking up the

sampler, after a question or two had brought out the whole story.

"Nigel, are ye daft?" cried the old lady from the bed. "He gave us ten minutes. When he comes back he may bring his dragons with him, and this time I'm doubting I'll no' be keep my chamber-door fast against him."

The young man turned on her with a smile.

"Never fear, there'll be 'nobody' in Ledington very soon but those who belong to it; but as my next lurking-place must be the family vault in the kirkyard, you can't wonder I'm in no hurry to see it. Who knows but it may be my final refuge, unless Sandy Crerar brings his yawl the sooner round St. Abb's Head. No, no, we'll cheat them yet," hastily as the aged face changed woefully at his light words. "And so you are Isabel Calder, and you've done all this wonderful work," reading the doggerel lines as he turned again to the child. "I shall never forget you, Isabel, nor the great service you have done me; and who knows," with a smile, which to Isabel illuminated the room or the world—it was all one then—"who knows but some day I may be able to deliver you from Major Walsh or some other dragon. And now promise, you won't quite forget me."

"I never forget," said the child gravely, and as he stooped over her he took her hands, and kissed one and then the other. She Isabel suddenly put her fresh lips to his cheek, the darting away, buried her face in the covert of the great bed.

Whack! a heavy riding-switch descended sharply with a resounding

give thanks," he joined the thin trickle of worshippers entering the great south door.

But he was no Catholic, and the service already going on did not hold him long. Presently he wandered down the vast nave till the lights on the altar seemed but a dim twinkle in the distance; then turning into a little memorial chapel, he seated himself behind the great pillar at the entrance. He would faint be alone with his thoughts, and he had cause enough, as he has said, for thought and for thanksgiving, too.

Time, the healer, had for ten long years been doing his work. Coluden was but a bitter memory. King George sat secure upon his throne, and by degrees the proscribed Jacobites were being allowed to return to their own country. Among those whose yearning had been extended was Nigel Maitland, who, thanks to powerful friends, house and lands were to be restored to him. But it would be an empty house to which he would return and a changed countryside. There was no one of his name to welcome him to Ledington. Calderside was the hands of strangers. Then his thoughts wandered back across the gulf of the years to that memorable day, when on a child's warning he had escaped with bare life from Ledington.

Where was she now, that child who would be a child no longer? Her father had known had been excited some after his own escape, then some hours later, when he was far away in Spain fighting the battles of France, since he might not fight for his own king, he had heard of Sir Hugh Calder's death. The war over at last, he had sought to find the widow and the orphan child to whom he owed so much, but he could find no trace of them. The full, crowded years of a soldier's life had rolled on like an effacing tide over these tender memories, yet he had never wholly forgotten a child's pure face, a child's innocent kiss, which had indeed more than once been like a protecting talisman carrying him scathless through many a wild scene of revelry.

Now on the eve of his return to the old surroundings (he was only waiting for the next packet to Leith) how clearly that last memory came back to him out of the mists of the past, even to the quaint sampler spread on the big bed in the great gilded bedroom. But clearest of all was the little trembling figure, and the young steadfast face framed in a scarlet hood, the old must be sweet maid now, wherever she be, he mused, recalling the dark, wistful eyes. "I never forget," she had said. Ah, if such a fair, gracious presence had been awaiting him at Ledington or returning to the old manor by his side, what a different home-coming it would be.

Suddenly voices from behind the pillar struck through his thoughts.

"Can I not be alone, even here?" said a girl's voice.

"Pshaw! we are disturbing no one. We must come to an understanding—as we'll, here as anywhere else," said a man's deep, hoarse voice.

"An understanding? I have never given you the least cause to misunderstand me," came the retort, swift and sharp.

"You know it is your mother's dearest wish," went on the man as though he had not heard. "Does that not weigh with you now?" significantly.

"Ah, my poor mother!" bitterly.

"And she thinks she had good reason to urge it," said the other with the same heavy significance.

(Concluded next week.)

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—Matt.

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The Upward Look

Travel Series No. 18
For Humanity

I WAS sick and ye visited me."
—Matt. 25, 36.

The San Francisco Panama Exhibition means much to me, from an educational, ethical, and religious standpoint. There were many beautiful Courts, so arranged that one could see through from one to another, yet they were at the same time so separate that Billy Sunday might be preaching to thousands in one, a Philippine band playing in another, or an old-time song concert given in another. From the different Courts one could look out through the Colonnades, to the San Francisco Bay, with its deep blue water, warships gleaming black, yacht sails gleaming white, mountains rising commandingly.

A morning was spent with Madame Montesori in her kindergarten, which originally was planned for the defective and neglected little ones of the slums of Rome. Vivid and enlightening illustrated lectures were given on social purity by noted doctors, which made one realize with heart conviction that ignorance of this subject is not innocence. In certain hours one could see babies weighed, measured and examined, and learn preventive measures by which thousands of precious little lives are saved.

There was an intensely interesting section in the Educational Building devoted to demonstrations of the disease Hookworm, which works such ravages in the southern zone belt the world around. There were models, pathetically sad, of affected children, side by side with those of normal ones. There were also exhibits showing how self-sacrificing doctors fasten the worm-infested earth to their own wrists to study the progress of the disease and the curative effects of some drug but lately found effectual.

We learned what was being done for the terribly stricken lepers in their lonely island-haven in a Southern Sea.

Hours were spent in the exhibits in connection with temperance, Mothers' Pensions, and many other philanthropies.

What a tribute to Christianity that the work commenced by the lowly Nazarene centuries ago is still going on on a larger scale than ever before. Those that have time, strength, talent, money, and love are giving them for the sake of humanity to the poor, the oppressed, the suffering. —I. H. N.

Effort that is Worth While

With the Household Editor.

I WAS watching with considerable interest and amazement, my friend Mrs. T., as she set the table and bustled around preparing the noonday meal. While the tableware was simple it was attractive, and everything was arranged with an eye to daintiness. Just as the men were heard coming towards the house, she wheeled in the pink hot meal on her convenient dinner wagon, set each dish in a tempting manner on the table and brought a beautiful bouquet of flowers from the living room to add the finishing touch.

Of course, on account of my being the guest, I supposed that this attractive dining-table was due to my presence. As my hostess took the preparation of the meal in such a matter of fact way, however, I could not refrain from remarking before her husband and the boys gathered around the table: "Surely you don't

go to all this trouble every day just for the family!" "Trouble, and just for the family!" repeated my friend. "Why, I consider that it makes my work ever so much more pleasing to see the results of my efforts in an attractive table, and it seems to me, too, that the family is of as much importance and should receive just about as much consideration as anyone."

What a contrast between the ideas of my friend and the ideas of many busy farm women. Too often we allow ourselves to get into the habit of thinking that anything is good enough for the family, and that any extra effort to make things more attractive would be time wasted. After all, though, isn't it "our ain folk" who deserve our best and not our casual visitor? Of course, we all like to have dainty things when visitors come, but should we not endeavor to change our viewpoint somewhat and keep in mind the thought that the family deserves and appreciates the little attractive touches, which really do not require an immense amount of extra trouble if done systematically.

AMUSEMENTS

Conducted by MARION DALLAS

At the Sign of Cupid

AN old-fashioned Leap Year masquerade would be a good way to celebrate the birthday of Saint Valentine. Send out the invitations written in Ye Olde English. Enclose in the envelope the following verse, written on a heart-shaped card: "Whereas it hath now become the fashion, that as often as Leap Year doth return, the ladies have the privilege of making love, either by word or look, as it seemeth to them proper. Moreover, every man who doth lightly treat a proposal, shall surely send to the broken-hearted lady a silk dress."

After all the guests have arrived and while still in costume and masked, give each lady a heart and to the men a mitten. The lady must pro-

pose to the first man she meets. If he declines her proposal, he must surrender his mitten, but if he accepts he holds fast to the heart and mitten. Accepted couples hold each others hands until a signal from the hostess permits them to drop their mask. The funny situations provide much merriment.

Opinions

A new way of playing this old game might be used at such a party. Give the guests a pencil and card. Ask the men to write on their card the qualities they are looking for in a wife. Then ask the girls to write on their cards the qualities they possess. After the lists are completed, let the men try to find their affinities.

A Valentine Pantomime.

In sending out the invitations ask each guest to bring a valentine, one which could be illustrated. For a screen on which to show the shadows stretch a sheet (twist the sheet before using). Place a lamp on the floor about four feet behind the screen, and in the centre. Provide a card for everyone with as many numbers as

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there are guests. After all are seated, Cupid appears and distributes the valentines to whom they are addressed, the hostess seeing that there is an envelope for every one. The lights are turned out and the man who has No. 2 is called upon to illustrate his valentine. He goes behind the screen of course. The light is put on again and the guests write what ever they think he was trying to portray. This scheme is followed until all the Valentines have been illustrated.

Choosing Partners

A rather amusing way of choosing partners is to auction off the men, who for this purpose are all sent from the room, while each of the ladies is given a bag of beans to represent so many dollars. Two sheets are fastened across the opening of the door, being so arranged, that between them the hands and below them the feet of the men for sale may be placed. The auctioneer stands on a stool and auctions off each man to the highest bidder, the purchaser judging of the goods merely by the hands and feet.

Cupid is Coming

Players set themselves round the room for this game. A leader starts the game by saying "Cupid is coming," whereupon each one in turn says, "Cupid is coming ambling," or amiably, or appropriately. They must all use some word beginning with "A." When "A" is exhausted the game goes on with "B" and so on. Any one failing to think of a word must pay a forfeit.

A Village Post Office

In arranging for a Fair or Social on St. Valentine, plan to have a sale of Valentines. A corner of the hall may be fitted up to represent a post office. The Valentines may be of all varieties, comic or sentimental, but be sure and have one for everyone present. There should be enough talent in the society having the affair, to make a mail sufficiently large to meet a heavy demand. Several of the town people might be asked to contribute Valentines, either original or purchased. A charge of five or ten cents is charged for handling the mail. To make the affair more realistic, have a stated time for delivery of the letters. Have a placard above the booth stating the time for distribution.

An Evening With Longfellow

On the twenty-seventh of this month a much beloved poet was born, Henry Longfellow. For those who wish to celebrate his birthday the following contest will be of interest: In the invitation ask the guest to wear some article indicative of a title of some of his poems. "The Rainy Day," "The Arrow and the Song," "The Black Knight," "The Children's Hour," "Hiawatha," are all easily illustrated.

The name of his poems may be recalled by this contest:

- What poem is it that helps to shoe your horse? Village Blacksmith.
- The poem that needs an umbrella? April Day.
- The poem that carries you across? The Bridge.
- The poem that finds you weary? The Day is Done.
- The poem that keeps you in time? The Old Clock on the Stairs.
- The poem that belongs to the little folks? The Children's Hour.
- The poem that heralds the approach of night? The Day is Done.

Living pictures may be given from the poems, "Miles Standish," "Evangeline" and "Hiawatha." Parts of the poems describing the pictures and the story between the scenes may be read with a musical accompaniment. These make most interesting evenings for a social in the school or for a literary society.



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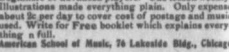
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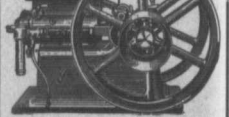
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Reversing this plan

All the HOUSE plans

Issue, Farm House, feels that the money between this house. I would find it of compactness or corate the walling room with beautiful paper, the meal paper, and wash room carrying the cost out.

In the living serve as finish charm might seat built in suggested in round dining the seat betw plete the deli comfort.

Rich Lee

There is a lot of sometimes ly in the st rooms, becau fashion, which attractive in the cathedral finish dish brown color face, which creddiness of costliness of wood. A dining four dining ch remainder of t be used in a family is sm needed for cred willow case most delightful over-curtains a have much old tan, to tie them and the pillow seats a: plain floor, stained have at: old blue mixture rags is not to Furrish

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Reversing this picture, we have exactly the conditions in the house described in the Jan. 20th issue

A One-Color Plan

All the Rooms Designed to Blend in One-Color Scheme

HOUSE plan No. 1, published in Farm and Dairy, Jan. 20th issue, gives such an impression of compactness that one instinctively feels that there must be perfect harmony between the different parts of this house. In order to achieve this we would finish the woodwork in

bull gold or ivory enamel and decorate the walls of the entry and living room with a soft pinkish tan oatmeal paper, the bedrooms in a lighter buff oatmeal paper and the kitchen and wash room in a buff sanitas, carrying the one color note throughout.

In the living room which must serve as dining room also, much charm might be had by having a seat built in around the corner, as suggested in the illustration. The round dining table drawn up beside the seat between meals would complete the delightful picture of solid comfort.

Rich Looking Furniture

There is a kind of furniture which can sometimes be bought very cheaply in the stores and the auction rooms, because it is a departing fashion, which would look very attractive in this room. It is called cathedral finished oak and has a reddish brown color and a polished surface, which gives it something of the dressiness of mahogany without the costliness of that very handsome wood. A dining table and three or four dining chairs of this kind (the remainder of the set of chairs could be used in the bedrooms where the family is small and they are only needed for company) combined with red willow easy chairs would make a most delightful room. The cretonne over-curtains at the windows should have much old blue and a little of the tan, to tie them to the wall, as it were, and the willow chairs should have seats of plain old blue linen. The floor, stained brown and waxed, should have a rug of a deep tan and old blue mixture: a home-made one of rags is not to be despised.

Furnishing the Bedrooms

It will increase the apparent size of the house to have the rugs in the bedrooms repeat the general colors of the living room rug. An iron bed, painted the color of the walls, and a mahogany or cream enamel dresser with a comfortable willow arm chair will be sufficient furniture for each of these rooms. Enough variation

can be introduced by using different colored draperies at the windows. Really this method of introducing color into a room is not as expensive as it may sound, since surprisingly pretty cretonnes can be purchased at from twenty to thirty-five cents a yard.

Once again it cannot be too strongly emphasized that the charm of a room depends upon those little last touches of color—a sofa cushion in just the right shade, a vase, a row of books, a jar of flowers, a beautiful growing plant, a harmonious mat under the lamp. These are the things that lift a room out of the commonplace and give it interest and distinction. Let the housekeeper not grow weary in well-doing when she has the walls tinted or papered, the rugs down, the curtains up and the furniture arranged. She is apt by that time, especially if she has done the decorating herself, to be so thoroughly sick of the whole business that she is glad to quit when she gets it fit to live in again. And that is probably the reason why so many really well furnished rooms just stop short of actual beauty and give one a sense of flatness.

Just what these last touches should be depends, of course, upon the room. One woman who had an olive green room that suffered from this lack of something, discovered the solution of her problem to be in a number of quaint little Japanese tea cups in bright orange which she brought in quite by accident one day, and kept there permanently by intention, they gave the room such a happy expression.

The housewife should try the different sofa cushions and vases and pictures she possesses in the room, one by one. If they don't positively add to the beauty of the room let her expel them. Then begins the matter of finding out just what the room does want, and here the farmer's wife may think herself greatly handicapped in not being able to visit the big city stores, and she is, to a certain extent. But in the summer the country is covered with color for her to experiment with and no salesman is so fussy about giving out samples.

The woman who makes a thorough and careful study of nature's color schemes need take no second place in furnishing her home to her city sister, who merely learns of color from the store windows.

Lunches for the Rural School

THIS is the title of a bulletin that has come to us recently, issued by the Department of Home Economics at the University of Nebraska. The idea of the warm lunch at the noon hour has been tried out in some rural schools, and this bulletin deals with some of the results of their experiments. Here are some of them:

Greater interest in school work has been shown, better health and less need of discipline. Increased interest in home work is found. Cooking at school invariably encourages the girl to do more of this work at home. Wherever the mothers and teacher cooperate, the results have been satisfactory. The partaking of a lunch served in a sanitary, attractive manner should be a real and much needed part of an education, and the tactful teacher could do much to get better standards of sanitation by encouraging clean hands and a clean, orderly room in the preparation and serving of the lunch.

Experience in Nebraska has been that there is a feeling in many quarters that this work will add greatly to the school expense and decrease the value of the regular work. It is strongly recommended, however, that a modest beginning be made, until the interests of the parents on the one hand and the ability of the teacher to organize the work on the other hand, assure the success of its development on a larger scale.

The amount of space and money available, as well as the conditions in a community, must guide the teacher in planning the equipment. A good oil stove with two burners and an oven can be purchased for from \$10 to \$12. A list of inexpensive equipment costing less than \$5, which may be used with a two-bottle coal oil stove, is given in this bulletin, which reads as follows:

- 1 teakettle, granite \$0.65
- 1 kettle, covered, granite25
- 1 saucepan (fit to teakettle)25
- 1 baking dish or bean jar25
- 1 spoon, long-handled25
- 1 can opener15
- 1 coriander10
- 1 baking pot, sheet iron15
- 1 mixing bowl (wood)10
- 1 wire strainer, tin10
- 2 dhalpans, tin40
- 1 measuring cup, tin05
- 1 egg beater, Dover25
- 1 biscuit cutter, tin10
- 1 grater, tin05
- 1 butcher knife, steel50
- 1 paring knife15
- 1 spatula10
- 2 teaspoons, composition metal10
- 2 tablespoons, composition metal10
- 1 case fork05
- 1 wooden spoon05

In the matter of dishes, these may be brought from home, although, if they are the property of the school, they can be uniform, thus obviating any possible distinction between the obtaining supplies must be decided by the school board and parents. Where the school lunch idea has been tried out, it has been found satisfactory for parents to furnish food. Each pupil may bring enough apples, potatoes, eggs, etc., for himself, or a better plan is for one home to furnish all that is needed of one article. A simple record could be kept to ensure fairness. The actual work of preparation of the lunch must be planned with the aim in mind of doing the work as quickly, skillfully, and in as clean a manner as possible, with little use of school time.

Always Getting Lost

AT a certain public school it was the custom for the teachers to write on the blackboard any instruction they desired the caretaker to receive. One evening while cleaning a room the caretaker saw written—“Find the greatest common denominator.” “Hullo,” she exclaimed, “is that thing lost again?”



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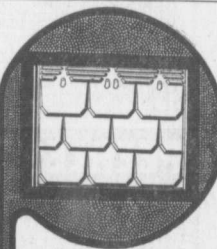
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Refrigerator

"In a report of... Guelph during... 'Farm and Dairy... some experimen... Miller of the Da... relative merits of... ice water for kee... the farm. We give... extensive review... One lot of produ... two equal portio... then placed in... the other submer... At 24-hour interv... temperature in bo... Here are the resu...

Table with columns: Addity, Temp'tures, 15, 25, 37, 50, 62, 65, 84

"On an average... water was five de... perature. It cool... ly, the cream was... and had a better...

Dairy Commi...

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SAVE MONEY AND BUY YOUR SEED NOW

Get 50 seeds... No. 1 Red Clover... 1 Alsike... 1 Timothy (Bright Seed)... (almost Extra No. 1 for purity)... 2 Timothy... (Extra No. 1 for purity, slightly Hulled)... We have a small quantity of Green or Variegated Alfalfa. If interested write for prices. Railway freight paid on all orders in Ontario and Quebec of \$25.00 or more. We are buyers of Red, Alsike and Alfalfa Clover, Timothy, Spring Rye, Hairy Vetch, Eye, Buckwheat and Lombardy Oats. Write and send large samples.

After fifty years of service to the farmers of Canada, we submit our 1916 Catalogue. In order to show our appreciation of our customers and enlist a great many new customers, we are making our prices and services very attractive in our 1916 Golden Jubilee Catalogue. Drop a line for our new GEO. KEITH & SONS 124 King St. E. Toronto

RIDER AGENTS WANTED

Do you desire health to ride and exhibit a 299 Spang... Every Spring... Do not buy a bicycle... HYSLOP BROTHERS, Limited Dept. 5 Toronto, Ontario

FREE catalogue giving descriptive list of rural books for farmers, stock raisers, poultrymen, etc.

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Peerless Perfection is one of the easiest fences to erect, because it stays "put." It can be erected over the most hilly and uneven ground, without buckling, snapping or kinking. Every joint is locked together with the well-known "Peerless Lock." The heavy stay wires we use prevent sagging and require only about half as many posts as other fences.

Peerless Farm Fence

is made of the best Open Hearth steel fence wire. All the impurities of the steel are burned out and all the strength and toughness left in. Makes the fence elastic and springy. It will not snap or break under sudden shocks or quick atmospheric changes. Our method of galvanizing prevents rust and the coating will not flake, peel or chip off.

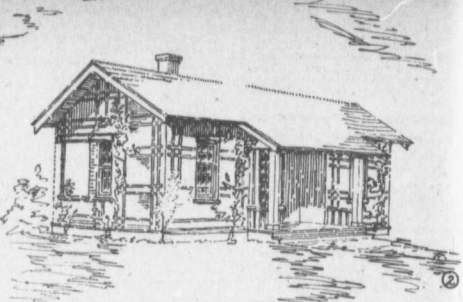
Send for catalog. It also describes our farm gates, poultry fencing and ornamental fencing. Agents nearly everywhere. Agents wanted in unassigned territory. The Banwell-Hoxie Wire Fence Co., Ltd. Wianpeig, Manitoba Hamilton, Ontario

You Share Our Confidence When you mention "Farm and Dairy" in writing to Our Advertisers.

Fleming's Lump Jaw Cure... Fleming's Vest-Pocket Veterinary Adviser... 83 Church Street - Toronto, Ont.

1916 Eggs for Hatching AND STOCK FOR SALE

Huddans, Barred Rocks and B. S. Comb Black Minorcas. Winners at Guelph, Toronto, Port Huron, Sarnia, and many other places. Canada's best bred to lay and bred to win. Toronto and Winnipeg, 2nd and 4th cooek; 1st and 3rd pullet; 1st and 3rd cockerel; 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th.



Showing the Graceful Front Porch and Entrance.

An Attractive Small Home

Farm and Dairy House No. 2 is a Plesing and Compact Little Home

This is Plan No. 2 of a special series that Farm and Dairy has prepared for Our Folks by an experienced architect. Into these houses we have put our own understanding of farm conditions combined with the special knowledge and skill of an able architect. In our opinion the result is a unique collection of moderately priced houses possessing the qualities of practical utility and charm to an unusual degree, and coming as they do at a time when lumber and labor are exceptionally cheap they should prove especially acceptable.

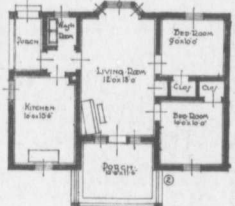
House Plan No. 2 is a very simple but delightful little bungalow consisting of four rooms and a wash room.

The back door, which is generally family door and company door, and

complete fulfilment of all the requirements of the small farm cottage. Planned on the bungalow model, it is all on one floor, and is the first saving necessary in a well planned house, viz., saving in steps.

The main or family living room is the centre of the house and controls all the balance of the rooms. The front entrance enters this room directly from the front porch and a comfortable bow window, that will give all sorts of encouragement for winter powers, looks out onto the activities of the farm yard. To the right as we enter the living room are two bedrooms, one 9 ft. x 10 ft., and the other 10 ft. x 10 ft., each with a commodious closet. There is also a linen closet off the living room. On the opposite side is the kitchen, with entrance off the rear entry and also off this same rear entry.

The two latter will increase the cost but, in addition to wearing longer, it will have the great advantage of being fireproof. The walls may be of single or six-inch siding, without difference in cost. Stain or paint the roof (if wood) a dark blue, green or the walls a soft gold. The trellises and the trimmings should be painted ivory. The cost of this house complete, including heating, according to the locality, will range from \$1,500 to \$1,750. This estimate includes a real heating system, not a stove in the living room, another in the kitchen and no real comfort anywhere.



GROUND FLOOR PLAN

practically the only door in use during the winter months, opens into a small back hall, with a view straight into the living room. It was so arranged in order that it should not be necessary to usher guests through the kitchen before reaching the living room. To the left of the entry is a small wash room where the men, coming in from the field, can wash up and leave their dusty smocks, without interfering with the busy housewife.

The living room is a very pleasant place, with a big bow window at one end a glass door and windows at the other, opening on to a pretty little porch.

This house is almost ideal in its

COST OF WORKING DRAWINGS

Many Farm and Dairy readers will desire to build this house for their own. In order to help them we have arranged to provide the complete working drawings and complete bill of materials (by which any experienced carpenter may erect the house even as it is described) for the small sum of \$1.50. Obviously such plans cost \$10 to \$15. Minor changes may be made in the plans by the carpenters if desired. Address all orders: Farm Buildings Dept., Farm and Dairy, Peterboro, Ont.

The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion.

Use Sufficient Rennet

WAR conditions have raised the price of rennet," remarked Dairy Instructor Gracey at a recent meeting of the Western Ontario factory men, "and that has brought forward a new problem for the consideration of cheese makers. I find that some makers have been decreasing the amount of rennet used because of its increasing price. This policy would be unwise if for no other reason than that manufacturers may be reducing the strength of their rennet because of the increased cost of producing. Some of the evil results of too little rennet in the vats are a slower coagulation, the fat globules rise to the top, and there is a higher percentage of fat lost in the whey. There is not as good a yield of cheese when coagulation is retarded."

Mr. Gracey suggested experiments at the Dairy School at Guelph to determine the effect of varying percentages of rennet in cheese making. He recommended not less than three ounces of rennet to 100 pounds of milk.

Refrigerators or Ice Water

IN a report of the dairy meeting at Guelph during the Winter Fair time, the Farm and Dairy made reference to some experiments conducted by Miss Miller of the Dairy School as to the relative merits of the refrigerator vs. ice water for keeping cream cool on the farm. We give herewith a more extensive review of this experiment.

One lot of cream was divided into two equal portions. One can was then placed in the refrigerator and the other submerged in ice and water. At 24-hour intervals the acidity and temperature in both cans were taken. Here are the results in full:

Acidity	Temp.	Acidity	Temperature
15	41 degrees	14	46 degrees
17	50 "	14	51 "
27	50 "	14	51 "
41	54 "	14	50 "
55	54 "	41	66 "

On an average the cream in the ice water was five degrees lower in temperature. It cooled much more quickly, the cream was of lower acidity, and had a better flavor.

Dairy Commissioner's Report

IT is doubtful if any subject, excepting only that of cheese, at this juncture in the world's history is commanding more attention than the products of the dairy, with which cold storage is intimately allied. Therefore, the Report of the Dairy and Cold Storage Commissioner for the fiscal year ending March 31st, 1915, recently issued, and which can be had on application to the Publications Branch, Department of Agriculture, Ottawa, will doubtless be received with more than ordinary attention. The Commissioner, Mr. J. A. Ruddick, briefly records his experience on a visit to Europe as Canadian Government delegate to the Sixth International Dairy Congress held in June, 1914, at Bern, Switzerland. Returns from his Engaging he found that Canadian cheese stood in the highest possible favor, commanding even a better price than that of New Zealand, where special and unremittent efforts are being made to capture the British trade in dairy products, and where the cheese factories have recently greatly increased in number. Canadian cheese,

Mr. Ruddick testifies, has become the standard for all importations. He paid a visit of inspection to the centers of the Cheddar cheese industry in Shropshire, Flintshire, and Cheshire and was surprised at its extent.

An interesting report is given in the report of the extension of marketing facilities and of the operations of the Finch Bros. Dairy Stations. Other matters dealt with are the dairy herd records, excess of water in butter, inspection of weighing butter and cheese, the activities of the precooling and experimental fruit storage warehouses, at Grimsby, Ont., cold storage progress, publications and meetings. An exceptionally full appendix covering ninety-six pages, and divided into twelve sections, deals historically with the twenty-five years' life work of the Assistant Dairy Commissioner, Mr. J. C. Chapais, with the work of the Chief of the Markets Extension Division, in connection with which a quantity of valuable information is furnished regarding the needs and methods of the British and French markets with tables of prices of every variety of farm and garden produce and stock at each month in the year; and with dairy herd records and tests in different provinces. Reports in full are also furnished as parts of the appendix of the Chief Storage Inspector, of the Chief Inspector of Dairy products, of the fruit, cold storage and transportation investigations division, and of

the inspector in weighing of butter and cheese, the whole concluding with statistics of the total Canadian exports and imports of butter and cheese for the last 35 years, for the last seven years of the Canadian exports of creese, butter, cream, condensed milk, casein and fresh milk, and for the last 11 years of the total exports of cheese and butter by all countries.

N. S. Dairymen's Convention

THE Annual Convention of the Dairymen's Association of Nova Scotia was held in the Agricultural College, Truro, on Jan. 5th and 6th last, and was in point of numbers and interest, by far the best yet held, and many items of interest were dealt with. The Association will apply for special act of Parliament to incorporate the Association, also to have some amendments made in the Nova Scotia Dairymen's Act.

A resolution was passed recommending that whereas the results of the experiments carried on by the Government Creamery at Baddeck and also by other creameries in the Province, tend to show that cream grading is feasible and profitable in Nova Scotia: therefore be it resolved that the Nova Scotia Dairymen's Association recommend the grading of cream by our creameries.

The first creamery butter exhibition and butter scoring competition was held in connection with the convention and proved a great success.

About \$300 was offered in prizes, and nearly all the creameries participated. The main winners were: The Brookfield creamery, Yarmouth creamery, Scotsburn creamery and South River creamery Co.

Officers were elected as follows: Pres., D. W. Murray, Scotsburn; Vice-Pres., R. B. McLennan, Brookfield, N.S.; Directors: A. M. Wheaton, Wolfville, N.S.; C. B. De Long, New Germany, N.S.; A. Cameron, Lower South River; Secy.-Treas., W. A. MacKay, Truro; Auditor, C. R. B. Bryan, Truro.

The report of the Superintendent of Dairying showed an increase of 34 per cent in the amount of creamery butter made during the year. Two new creameries opened, one is under construction and nearly all the old creameries showed a substantial increase. The prospects for the coming year are very encouraging.

In the Better Farming Special which recently went through Western Ontario, there was one exhibit of special interest to cheesemakers. There were two cheese on exhibition, one made from 300 pounds of milk testing 3.7 per cent. fat and 9.7 per cent. casein, weighed 29.7 pounds; the other cheese made from the same amount of milk, but testing 3.5 per cent. fat and 1.9 per cent. casein, weighed only 24.95 pounds. Surely a convincing argument against the pooling system of paying for milk at the cheese factory.

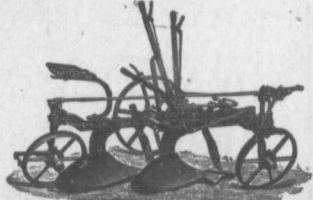
Buy a Cockshutt Plow

Any Cockshutt Plow you buy will cost you less in the long run than any other, because it is built of the very best and strongest materials, tested over and over again; it is designed from long, practical experience, so it does its work RIGHT; it will stand years and years of the hardest kind of usage. That's why more farmers want Cockshutt Plows than all other makes combined.



COCKSHUTT ONTARIO FOOTLIFT SULKY

Here's a plow that a boy can do a man's work with, it's so easy to use. A slight pressure on the foot lever brings the mould board out of the furrow or sets it to work again. Or, you can set it to rise automatically, if working in rough ground. It's a pleasure to use the Ontario Footlift Sulky—it gives uniform plowing in any kind of soil, meaning uniform growth and ripening of crops. Fitted with either wide or narrow bottoms, and either Knife Colter, Rolling Colter or Jointer, as desired.



COCKSHUTT BEAVER GANG PLOW

Three horses and a half-grown boy can do more and better plowing with this light-draft Gan than two good men with four horses and two walking plows. There's your chance to make money! The levers are very easy to operate, and they give absolute control of your plow and it's work on up-and-down or stubborn ground. A perfect giant for various bottoms, also with Knife or Rolling Colter or Jointer, as desired.



COCKSHUTT WALKING PLOW NUMBER 21

Without a doubt the most popular walking plow in Canada. The extra leverage given by the long handles makes the work easy. This plow will please you at a glance, and there's more than a man's lifetime of good hard service in it. Knife Colter, extra sharp and wrought.

Let us send you, to-day, pamphlet and full information about these or any of the Cockshutt Plows. We make 120 kinds, so there is sure to be one to suit you exactly.

THE FROST & WOOD CO., LIMITED

SMITH'S FALLS

MONTREAL

ST. JOHN

Sold in Western Ontario and Western Canada by COCKSHUTT PLOW COMPANY, LIMITED, BRANTFORD

The Feeders' Corner

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

Estimating Feed Values

WE are starting to keep feed records in our dairy herd this winter. A difficulty we are up against is the valuing of home-grown food. We have 30 acres of corn in the silo, five acres of mangels and turnips platted and in the cellar and 35 tons of oat straw. Our home-grown clover and grain has a standard market value, which, minus the cost of marketing, we are charging up against the cows. But how about those other feeds—H. L. Co. Durham Co. Oat.

The difficulty mentioned by H. L. O. is an old one. In some sections turnips have a market value and are shipped in large quantities, but this is for human food and a higher price is paid for them than it would be fair to charge against the cows. Straw, too, sometimes has a high

valuation at local livery stables, but the cost of delivery is great. The fairest system is to compare the feeding analysis of these home grown products with the analysis of the most common roughage marketed—timothy hay. Compare the following:

	Protein	Carbohydrates	Fat
Timothy Hay	2.8	48.4	1.4
Oat Straw	1.2	38.6	.8
Turnips	1	8.1	.3
Mangels	1.1	23.4	.8
Corn Ensilage	.9	11.3	.7

A comparison of these figures showing the number of digestible pounds of protein, carbohydrates, fat in each cwt. shows that timothy hay is three times as valuable for feed pound for pound as corn ensilage. If timothy hay has a value of \$12 in the stack or mow, corn ensilage is therefore worth \$4 in the silo. The ensilage, however, has a higher feeding value in that its succulence aids in the digestion of all the dryers feders given. Its comparative value with timothy would probably be about \$4.60. If clover hay can be had at \$12 a ton, however, the situation

is altogether different and the silage would not be worth more than \$3 or \$3.50 a ton. In Ontario at least silage is generally valued at \$3.

Mangels and turnips are of approximately the same feeding value and only one-half as valuable as corn ensilage. Their feeding value is therefore in the neighborhood of \$2 a ton and like the ensilage they have an added value over dry fodder because of their greater succulence.

1. Oat straw carries widely in price in different sections. In the West for instance, it is often burned to get it out of the way and its value in the stack is nothing. In Ontario it often has more value for bedding than for feed. Viewing it as a feed alone on the basis of its analysis it is worth one-half as much as timothy hay, but the content of crude fibre is so great that its feeding value is less than it appears to be. Its feeding value, however, can be enhanced by cutting in short lengths and mixing with greater quantities of ensilage or roots some hours before feeding, thus making it palatable.

Turnips and Butter

Geo. Campbell, Renfrew Co., Ont.

WE have no silo. There are here in the neighborhood and if we were to erect one the cost of filling it would be prohibitive. But as soon as a few of our neighbors go in for silage we will have one.

In the mean time we are not worrying. We grow a large crop of turnips every year. They require more labor than the corn crops but as a

portionately than the cost price of bran, cottonseed meal, and corn meal quoted in your letter. I would advise the following daily ration per cow: Hay, 9 to 12 pounds; pulped roots, 20 pounds. If good clean straw is available, I would advise feeding about six pounds of cut straw mixed with the pulped roots, which would take the place of some of the hay. A good meal mixer might be composed of, two parts; fine ground oats, two parts; ground wheat, two parts; cottonseed meal, one part. This meal should be fed to the cows at the rate of one pound for every four pounds of the silage produced, and to the dry cows and heifers, should be fed as needed, depending on the growth and condition of the animals.

For the future I would advise that this farmer grow from 150 to 200 bushels of turnips or mangels a year, or unless he intends to supplement some of the roots in the future with corn ensilage. I would also suggest that in the case of shortage of roots this year, that molasses fed at the rate of about two to four pounds a head per day sprinkled over the cut straw or hay would act as a good substitute.—E. S. Archibald, Dominion Animal Husbandman.

Distribution of Live Stock

THE prosperous farmer of the future will be the live stock farmer and the Federal Live Stock Branch would like to see this line of farming extended to all sections of



Scorn the Cheap Product—Secure the Safe

When you send your order in to any Page branch, it's just as if you paid a personal visit to the big Page factory, except that you could then see dryer foders on your own eyes how carefully we make fence.

Enormous out-put, modern methods, direct selling—that is the secret of why we can offer you fence that's properly made at prices little, if any, higher than that "cheap," defective fence that's dear at any price. Surely some of the hundreds of miles of Page Fence that has been stretched across Canada can be seen in your neighborhood. Find it, examine it, we have uniform are the spaces between the uprights, note how free it is from any suggestion of loose wires, how strong and rigid the locks, how staunch and true, and tight it remains after years of exposure.

Orders should be mailed to the nearest Page branch: with cash, cheque, bank draft or money order. We make immediate shipment, and say freight if you order \$10.00 worth.

No. of bars	Height inches apart	PRICE LIST	
		Spacing horizontal	Price in Old Ontario
7	40	3-54-7-7-7-8	40
8	40	3-54-9-10-10	37
8	42	6-6-6-6-6-6	37
8	47	4-5-1-7-8-9-9	39
8	47	6-6-6-6-6-6	40
9	48	6-6-6-6-6-6	40
9	52	4-4-5-1-7-8-9-9	40
9	52	3-3-3-3-3-3-3-3	41
10	48	3-3-3-3-3-3-3-3	41
10	48	3-3-3-3-3-3-3-3	41
10	48	3-3-3-3-3-3-3-3	41
11	55	3-3-3-3-3-3-3-3	49

New Ontario Prices on Request ALL FULL No. 9 GAUGE

We cannot make all the fence—so we "make the best of it."

THE PAGE WIRE FENCE COMPANY

1133 King St. W. TORONTO 519 Notre Dame St. W. MONTREAL 41 Dock St. ST. JOHN

Some of the Stable Mates of Rauwerd Count DeKool Lady Pauline.

"Rauwerd" is Canada's nearest approach to a 35,000 pound cow. In the illustration may be seen a group of Hilsenes Holsteins, another group of Farm and Dairy late one fall before "Rauwerd" was as famous as she now is.

feed for producing milk and keeping the young stock growing they can't be improved upon. I have been told that it is impossible to feed turnips to cows without tainting the butter. We do it right along. We cater to a high-class trade, to people who would faint at the thought of turnipy butter. We never have complaints.

Of course we feed them carefully and in moderate quantities. They are pulped and fed with straw and grain, immediately after milking. Fed this way they make the straw palatable and are absolutely safe, at least we have never detected the slightest flavor in the butter.

The turnip crop was a good one this year and my advice to the man who has plenty of them would be to feed them to his cows.

Feed for Winter

I HAVE only about 200 or 250 bushels of turnips to feed to five or two heifers through the winter. I have plenty of hay, perhaps five or six tons to sell. Would it pay me to buy any money into concentrates for the cows? I have some oats and wheat to grind but not much. What kind of feed would be best to buy? Bran is \$1.25 a cwt.; ox meal, \$1.50 and cottonseed meal, \$2.10 a cwt.; hay from \$13 to \$14 a ton.—G. W. E. Elgona Dist., Ont.

I would advise that if it were really necessary to sell some hay in order to get sufficient capital to purchase some concentrates, that this should be done. I think possibly the price of \$13 to \$14 a ton for hay is a little lower pro-

Canada. At present we have a surplus of stock in some sections and a great dearth of really good breeding animals in other sections. To facilitate the distribution of surplus stock, Mr. John Bright, Dominion Live Stock Commissioner, announces that in the event of a number of farmers in any district of Canada wishing to cooperate for the purchase of breeding stock in carload lots from some distant section of the country, the Department will pay the travelling expenses of their duly appointed representative during the time required to effect the purchase and transport the shipment to its destination.

Should it be desired, the Live Stock Commissioner will nominate a suitable person, who will be directed to accompany this representative and assist him as far as possible in buying and shipping the animals. Persons wishing to take advantage of this offer should make full arrangements with the Live Stock Commissioner as to place and time of purchase, before sending out their representative.

You have certainly kept faith with the farmers and drymen and in fact included all branches of rural industries ever since you started to publish Farm and Dairy. We feel sure that you will continue to make it brighter and better as the weeks and months come and go. The monthly specials are very interesting and instructive.—A. Forster, Markham, Ont.

A Y
King Lyons
King Lyons

THE BRANT

THE BRANT crowd, a number of buyers have been high they were fair a little better very little and this went plain why al were not buyers. The c number at lot sale. Mr. Char being carrying on a 25-acre farm fifty stock. The tire-stock, then of the main offering price of \$45.50, average offering of 63 average of \$120

By consignments: Charles A. head, total peo; Mitchell; Forster, L. Leo, Kol Smith, Scotland land, Wilsonville, R. No. Scott Kelly, Kelvin, 4; Baileys, Hatley; Bilton, Paris, 4; De G. and De G. Shelburn, Hat W. McCormac; one, \$150; W. McC one, \$150; C. Du ing the two h; highest price at of the best crop Charles A. St Maud H., \$145, so grow; Praxilla ham, Vinemount; Summery, Paris; \$20, W. H. Bird, Albecker, \$106; Bolivar, Merona; Brantford; Count \$115, W. H. Miles; one, \$115; C. H. Chester C. Lee; Beauty, \$14, 60; fort, Little Boon; ham; Merona; Pa \$135; Joe, Richa Spotted Paine, 5; one, \$135; C. W. Caldwell, Scotland; Robert Shelling; De Kol, Priddle, \$100; Palmont Brook, Port Credit; Hou of; Holly, Troy, C. P. Smith's Co. King, \$145; Juliet Anne, De on, Middleport; David McVie, \$100; Fazio, \$125; E. C. Chamber; Netherland; Quon; Porosh Belle; River; Morosh; N near; Dolly; Bea land; E. C. Haviland; Absher; Merona; Conville; Mand; George Clark, \$100; W. S. \$140, W. Clark, \$115; Lewis Kelly's Co. \$120; J. S. Dippl; thilde, \$145; Robe; Fontaine, \$140, H. D.

best price of corn meal would advise
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Stock
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 Live Stock
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A Young Sire That Will Add Much Value to His Offspring.

King Lyons Korndyke is at the head of the large herd of C. E. Treblehook of Long-King Lyons Hengerveld and out of Ledia Korndyke 2nd with 24 bus. Sons and daughters and females to freshen from him are the sale.

THE BRANTFORD SALE OF HOLSTEINS

The Brantford sale of Holsteins on Wednesday of last week drew a large crowd, among which were goodly number of buyers. Prices cannot be said to have been high, but all things considered, a little better shape than last year but very little of it was seen, mostly about, and this went a long way towards explaining why some really good individuals were not held in greater esteem by buyers. The consignment sale this year was a 3-acre farm sold 10 head, his entire stock. The following is a summary:

Fifty-five females brought \$7,048, an average price of \$125. Seven males brought \$452.50, average price, \$64.64. The total offering of 62 head brought \$7,500.50, an average of \$121.65.

By consignment, the results were as follows: Charles A. Steedman, Brantford, 10 head, total receipts, \$1,252.50; E. C. Chambers, Hatchley Stn., 3 head, \$362.50; Charles C. Lee, Kelvin, 7 head, \$482.50; C. E. Smith, Scotland, 5 head, \$625; C. H. Lovell, Kelvin, 4 head, \$265; J. H. Taylor, Hatcherly Stn., 3 head, \$450; W. G. Bailey, Paris, 3 head, \$407.50; Thomas W. Craig, Brantford, 3 head, \$322.50; J. H. Shellington, Hatchley Stn., 3 head, \$292.50; W. J. McCormack, Hatchley Stn., 2 head, \$197.50; Wellington Sager & son, St. George's, one, \$150; C. Duff Nelles, Boston, one, \$140.

E. C. Chambers was fortunate in having the highest price at the sale, \$265 each. Some of the best prices realized were as follows: Charles A. Steedman's Consignment - Maud H., \$345, sold to John S. Smith, Millgrove, Friesland E., \$200, George F. Packham, Vinemont; Elsie Mand, \$105, C. H. Summerby, Paris; Lady Abberker Mary, \$100, W. H. Hild, Onondaga; Lady Ormsby Abberker, \$100, James Young, Mohawk; Brantford; Countess Korndyke, \$100, A. Edward, Brantford; Countess Abberker, \$100, E. C. Chambers, \$125, W. H. Miles, Jewelville; Viola Condon, \$115, Charles C. Lee, Harley; Chester C. Lee's Consignment - Woodland Beauty 4th, \$100, J. A. Campbell, Brantford; Little Bonanza, \$75, J. H. Taylor, Packham; Mercena Fafort Queen, \$110, Robert Innis, Brantford; Dee Mashier De Kol 3rd, \$135; Joe, Richardson, \$100; J. H. H. Spotted Payne, \$145, Daniel Brooks, Kelvin; Edna Shellington, Mercena, \$115, John Caldwell, Scotland.

Robert Shellington's Consignment - Jennie De Kol Paris, \$100, Geo. T. Packham; Pions Palmont Brook, \$115, George A. Smith, Port Credit; Houwite De Kol, \$135, R. V. Robb, Troy.

C. E. Smith's Consignment - Arko Albin De Kol \$145, Bruce Mason, Onondaga; Juliet Anne De Kol, \$120, William Harris, son, Middleport; Bossie Posh Paris, \$150, David McGinnis, Onondaga; Smithdale Mac-Donald, \$100, J. H. Taylor, Paris.

E. C. Chambers' Consignment - Laura Mercena, \$100, W. H. Miles, Jewelville; Queen Posh Boole, \$140, Clark Dean, Leam River; Mercena Netherlands, \$110, Mac-Donald; Little Bonanza, \$75, F. H. Davis, Scot-land.

E. C. Hayward's Consignment - Pioness Abberker Mercena, \$80, W. H. Miles, Vinemont; Calveville, Maud Shellington De Kol, \$110, W. H. Miles, Vinemont.

Lewis Kelly's Consignment - Dandy Polly, \$100, S. Dippel, Walkerton; Jude Mechthilde, \$145, Bob, Innis, Jude De Kol Pontias, \$140, H. Dryden, Dundas.

W. G. Bailey's Consignment - Lakewood

Countess Chant, \$125; John S. Smith, Millgrove; La Vata De Kol, \$130, A. Todd, Brantford.

J. H. Taylor's Consignment - Artis Cornucopia Mechthilde, \$125, J. P. Griffin, Frenno; Doris De Kol Korndyke, \$125, J. S. Dippel, Walkerton; Eric Perfection Posh, \$102.50, Bob, Innis; Knightondale Hermes, \$102.50, Robert Paul, Troy.

Edwin Butler's Consignment - Avondale Jewel De Kol, \$140, Rose Poole, Norwich; number 1 at least one greater esteem by buyers.

Thomas W. Craig's Consignment - Alita Stienstra Bess, \$160, J. A. Campbell, Brantford; Lady Claire Pieterie, \$130, Ed. Rob-ert, Brantford.

J. H. Shellington's Consignment - Johan-nis Korndyke Grant, \$135, J. H. McCor-mack, Freeman; Ida Korndyke, \$105, John Caldwell.

C. Duff Nelles' cow, Inka De Kol, Posh, sold for \$140 to Robert Geddie, Paris; Wellington Sager's Butter King's Da' \$155, to E. C. Chambers, Hatchley Stn.; McCormack's Jessie Fafort Narona, \$150, to W. Far-ington, Farrington Hill.

THE RIFE DISPERSION SALE

The Rife of seed stock sold by Wm. A. Rife of Hespeler on Thursday, Jan. 27th, was held in the best condition for a sale, as Mr. Rife decided on dispersing his herd only a short time. This along with a large proportion of his calves and young heifers, explains the rather low average of \$121.55. The total receipts were \$5,057.50. Bad weather also tended to keep the crowd away. Even the combination of poor weather and the consequent small crowd, however, did not keep down the prices on some of the really good things that were offered. The highest price paid, \$300, was given for the four-year-old cow Pussey Bontale Wayne. With a two-year-old record of 17.65 lbs. of butter. This cow was a beautiful individual, as well as a proven producer, and Mr. Rife's next door neighbor, Mr. J. J. Amher-berker, who knew the merits of the cow, gave the final \$3 bid.

The other sensational animal sold was the senior herd sire, Pontias Segis Avon-dale, a grand sire, King of the Dominion, and out of a cow with a four-year-old record of 25.44 lbs. of butter. R. T. Carson cow of Listowel, paid \$250 for this animal, and breeding considered, got him cheap. The junior herd sire, a son of Sir Korndyke Bess, was withdrawn from the sale.

Six mature cows brought \$1,000, an average price of \$166.67. Eight two year and three-year-old heifers brought \$1,567.50, an average of \$195.94. Six heifer calves brought \$410, an average of \$68.33. Some of the best prices realized were as follows:

Abberker Maud, \$185, C. E. Sparks, Millgrove; Pusie Bontale De Kol, \$170, H. Bagg, Downsville; Pieterie Mercedes Mechthilde, \$165, James Stuart, Gunter; Norine Wayne Mercedes, \$205, F. Spencer, Paris; Pioness Mercedes Queen Abberker's Nellie McLeas, Rockwood; Queen Abberker's Mercedes, \$110, M. A. Sparks, Millgrove; Pieterie Mercedes Queen, \$110, J. A. Gardley, Puselich; Bettina Wayne, \$100, J. H. Taylor, Brantford; Lady Queen Bettina Wayne, \$100, J. H. Taylor, Brantford; Bontale Pusie Wayne, \$100, T. Robertson, Hespeler; Pontias Norine Segis, \$15, A. Pannabecker.

In a report of the recent Ayreshire sale at Tillsonburg Farm and Dairy stated that the cow of the Yorks of \$1,500, sold for \$157.50 to J. J. Jamieson. This should have read "Victor of Fairview sold for \$217.50 to E. B. Ross, Madocville."

The Farmers' Grain Exchange

Strong Vigorous Seed is the Start for a Big Yield

O. A. C. No. 72 OATS FOR SALE

Grown from the best of my handpicked stock, carefully weeded while growing. The season of 1915, not only at Guelph where the yield was over 103 bushels per acre, the next highest being 10 bushels less, but all over Ontario, O. A. C. No. 72 was by far the leading variety, for both quality and quantity.

My experience last year was very encouraging for after exercising the greatest care possible care to produce seed of high testing quality, I found both dealers and seed, and did not have to pay 20c to 30c per bushel more than for ordinary clean seed, and did not have any returns from the ordinary.

A. FORSTER, MARKHAM, ONT.

O.A.C. No. 72 OATS

FOR SALE - Good Clean Seed, true to name, selected from prize winning field a year ago. Price 80c per bush. P.O.B. Woodville, Backle free. GEORGE McRAGUE, Woodville, Ont.

GOOD PLUMP, CLEAN SEED

O.A.C. No. 72 OATS
 Carefully weeded while growing, price 90c per bushel. Samples sent on request. 16c. Cotton Bags, 30c extra. EDGAR BRODERICK, R. R. EXETER.

North Gower Registered banner Oat Centre

WE ARE OFFERING
 5,000 Bus. of Improving Banner Oats at \$1.00,
 3,000 Bus. of Registered Banner Oats at 90c per bus. C.o.b. Osogode Station.

For further information apply to
A. J. CRAIG, Secretary - NORTH GOWER, Ont.

MALLORY'S Strawberry Plants
 Best Early and Late Varieties for Home and Market.
 High Grade Plants, at Right Prices.
 Send for Price List and Cultural Instructions
N. E. MALLORY - BLENHEIM, Ont.

CLOVER AND GRASS SEEDS
 We have the quality Red Clover, Timothy, Alsike and Alfalfa. Buy your supply NOW. All our stock Government Graded. Our EXTRA No. 1 and Last as the supply of high-class seed is limited. We can supply Rape, Turn-eps, Green, Blue Grass, etc. Essex Farmers' Association, Box 25, Selkirk, Ont.

"The Farmer's Grain Exchange"
 Column will appear February 17th.

Do you need Seed Grain? Then get in touch with our Growers herewith. If you are a Grower of Seed Grain, Corn, Potatoes, etc., write us to-night about being represented in that number.

Farm and Dairy - Peterboro, Ont.

CORN
 IMPROVED LONGFELLOW, WISCONSIN No. 9, WHITE CAP YELLOW SENT - This corn was selected in the field by competent men, as fast as hand, then placed in cribs to dry, and is now in the condition for seed. Write for prices.
J. S. WAUGH - CHATHAM, ONT.

Reliable Seed Corn
 "The best is not too good."
 All my customers were satisfied last year. I want to satisfy more this year. Order early. Supply limited.
EDWARD WARWICK, BLENHEIM, Ont.

To the Corn Growers of the Dominion

Not since the year 1879 has there been so little good Seed Corn grown on the American continent. A cold, wet summer followed by an early frost found 85 per cent. of the Northern zone corn in the milk and Northern zone corn is the only kind which can be grown to advantage in Canada. In such of the cheap Seed Corn sold in Canada comes from the United States, which country has not had as poor a crop in 35 years as that grown in 1915. The problem is a serious one there, and will be a serious one here, and in view of the fact that the corn which is sold this spring, should secure their seed selection and test it thoroughly before planting.

As there are the largest growers of corn in Canada, and there are several reasons why we consider our seed corn, if not superior, to any produced in this country, which is especially prepared for our own land, which is cultivated by us for the crop. It is cultivated by us.

WALKER BROS., Proprietors, Essex Farm, WALKERVILLE, Ont.

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HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the leading exponent of dairying in Canada. The great majority of the members of the Canadian Holstein-Friesian Association are readers of the paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

RIDEAU STOCK FARM OFFERINGS.

NINE years ago, Mr. John Willoughby of Smith's Falls started in to establish a herd of pure-bred Holsteins. Mr. Willoughby realized that in a financial way he had to build his own foundation under his feet as he went along. But he knew that his eventual success with the "Black and Whites" depended upon the material that he used as foundation stock. His early animals traced direct to dams sired by Sir Admiral Ormsby, with whom practically every Canadian breeder is well acquainted. The 44 animals in the Rideau herd to-day carry the blood of this sire and practically all of them are of his own breeding. The first sire used at Rideau was a brother to "Desta," that won first in the Ottawa dairy test last week. The next sire was a gd. son of old Pontiac

Kordyke and out of the 25.65 dam. His present herd sire is Hillcrest Ormsby Court, a son of the 29.07 16, Canadian Champion cow, Count Raymond De Kol, who has just set for G. A. Brethen, Norwood, the new record for both milk and butter per year in the Canadian R.O.P.

From this sire, Hillcrest Ormsby Court, Mr. Willoughby is offering some particularly fine young sons and daughters at the present time. Not only have they the choicest of breeding but being direct descendants of our Canadian champion yearly producer, they will make the finest of sires of foundation stock for any herd. Breeders who are looking for such line of breeding as this will do well to turn up Mr. Willoughby's ad. in this issue.

SALE DATES CLAIMED.

Fifth annual sale of Southern Ontario Consignment Sale Co., Tillsonburg, Feb. 2 Dispersion Sale of 10 head of Holsteins, C. E. Trebilcock, R. E. No. 6, London, Feb. 10 Norfolk Holstein Breeders' Sale, Simcoe, Feb. 16—W. A. Mason, Secretary.

Sale of entire breeding herd of Holstein-Friesians—W. C. Prouse, Tillsonburg, Feb. 15.

James Rettle, Norwich, dispersion sale of Holsteins by auction, Feb. 22

R. Eagleton, Mongolia, dispersion sale, pure bred and grade Holsteins, registered, Clyde and Berthelme, March 1.

Oxford District Holstein Breeders' Club,

March 15.—W. E. Thompson, Woodstock, Sec.-Treasurer.

Complete Dispersion Sale of 100 head pure bred Holsteins—W. C. Stevens, Phillipsville, May 3.

THE TREBILCOCK SALE AT LONDON, FEB. 10TH.

FIFTY or more head of registered Holsteins ranging from calves to mature cows, will be the offer at the complete dispersion sale of Mr. C. E. Trebilcock at London, on Friday, Feb. 10th. As the Trebilcock farm has been leased for a number of years every animal must go without reserve. In addition to the pure-bred Holsteins, there will be of the other stock on the farm including six horses, several registered Jersey's, a number of brood sows and a large flock of poultry. The horses, other stock and farm implements including mowers, binders, manure spreaders—in fact the complete equipment for a 150-acre farm, will go at 10 a.m.

The sale of the Holsteins begins at 1 p.m. Practically the entire herd are of Mr. Trebilcock's own breeding during the past seven years. The foundation animals for this big herd comes from such Holstein breeders as E. F. Hilde, Newtonbrook, C. B. Gies, A. C. Hallman and G. W. Clements. Victoria Tenke secured from the herd of G. W. Clements, is a son. She was dropped in '99 and is therefore a

pioneer in record work. As a 4-yr-old she made a record of 27 lbs., considered the best of the time. In a private test as a 18-yr-old, Victoria made 10,000 lbs. in five months. She is still in the Trebilcock herd and although she is now about past the age of usefulness, yet she is an indication of the vigor and vitality from which the Trebilcock herd has arisen. A 3-yr-old daughter of Victoria Tenke is included in the sale. Alice Faforit is one of the big cows of the herd and carries the Faforit blood that has been showing up so strongly for W. H. Cherry of Garnet. As a producer of females, there is a 4-yr-old, a 3-yr-old and a yearling heifer in the sale from this cow. Jubilee Queen B 2nd, another mature cow, has an official test of 19.25 lbs. She is big and roomy with the capacity for much better work. Her offspring inherit her type and size, four females of which are included.

In a mature class of thirteen at London, Enique Rose, with a record of 19.84, stood in fourth place. She is one of the finest in the herd with a big udder, strong veining, a sharp chine and a head of a breeder. Four of her daughters are included. Daisy Bell Tenke, a 3-yr-old, is a son of Prince Pieterje C, who is out of old Boutaje, the first Canadian cow to make 20,000 lbs. The yearlings are a growthy, straight and strong bunch. The present herd sire, King Lyons Kordyke, is a son of the Bollert Syndicate Bull, King Lyons

Always on the Job

Buy fence and protection at the same time.

Get away from the idea that wire fence is nothing more than a few wires fastened together; because you'll find in "FROST FENCE" that the wires are put together in such a practical way that "SERVICE" is the outstanding feature. Also that the spacings of laterals and stays are just as they should be for the different styles. You'll find that the "FROST" lock binds more securely, and yet, does not put a weakening kink in the horizontals, as is necessary in other ready woven fences.

FROST FENCE FIRST

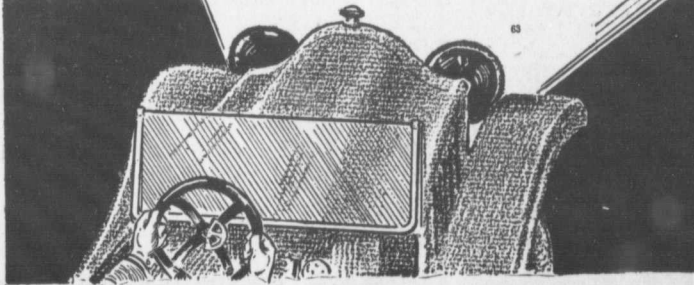
We not only make our ready woven fence; but for four years we've made and galvanized all the wire that goes into it. At that time we installed complete wire mills, believing that we were equipped for ten years at least; but the immense popularity of "FROST MADE" Wire has made it necessary to put up another Mill that will double the capacity. This new Mill is now ready for operation.

That is why we know FROST WIRE is good, and that it has the proper hardness, the full 9 gauge and just the amount of galvanizing that will best withstand the rust and still not be so heavy that it will crack off.

Woven Fences and Gates for farm use. Plain Wire and Staples, also Ornamental Fences, Wire and Iron, and complete fence supplies.

New catalogue just from the printers. Get one.

FROST WIRE FENCE COMPANY, LIMITED
HAMILTON, CANADA



Mengerfeld and

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Receipts at
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Hengerveld and out of Lydia Korndyke De-
sidered, with private breeding. It was
the best in Holland. This sale carries
this breeding that brought particularly
good prices at the recent. Sellers as-
sured breeders who are looking for
herds or to pick up foundation stock,
will do well to be on hand on Feb. 10th.
The farm is located on the west side
of Dundas street car (east) getting off at
the Aylm siding, where rics will be wait-

ing. Bear in mind that the other stock
and farm implements will be sold at 30
c. per cent. off. Merchandise, such as
Moore will credit the hammer. The terms
of sale are \$10 or under cash; eight
months' credit on the balance. Over
this amount a 5 per cent. discount will be
allowed. Cash on hand is over \$10
paid the day of the sale. The catalogue
for this big sale is ready. The address
for one is C. F. Trelochee, R. E. No. 4,
London, Ont.

MARKET REVIEW AND FORECAST

TORONTO, January 31.—The final re-
ports of the yield, quality and value
of the grain crops for 1915 are now
ready to be made from the Census and
Statistics Office, Ottawa. As a result of
the returns of the average yield per
acre, made after threshing, the total
yields of the grain crops in bushels for
the season of 1915 are as follows: wheat
as follows: Wheat 375,303,000, as against
350,000 in 1914; oats 1,163,000, as against
1,000,000; barley 533,200, as against
500,000; rye 1,394,400, as against 1,005,000;
corn 472,650, as against 450,000; beans
72,800 as against 77,500; buckwheat 7,
900,000 as against 8,625,000; and horse
and clover 1,625,000, as against 1,625,000.
The average yield per acre in 1915 are
as follows in bushels, as follows, the figures
placed in brackets represent the yield
of 1914 for comparison: Fall wheat 41
(41.4); spring wheat 29.96 (30.67); rye
22.15 (22.15); oats 13.1 (13.12); peas 37.7
(37.64); beans 16.70 (16.23); buckwheat 23.28
(23.50); flax 13.83 (13.83); mixed grains
37.54 (38.36); and corn for husking 56.72
(56.39). The total value of the field crops
of Canada in 1915 is estimated at nearly \$200,
000,000, comprising grain crops \$56,615,000,
potatoes and vegetables \$36,739,500, and
other crops \$19,645,500.

WHEAT.

Wheat has been advancing steadily for
some months now and the situation is
rather a contradictory one. On this side
of the Atlantic there is a good supply of
wheat, a good demand for it, but, con-
paratively speaking, no shipping facilities.
The small amount of coast steam
available explains why 90 per cent. of the
wheat reaching the Allies comes from
North America. In some circles there is
Admiralty in assuming the control of all
merchant shipping may tend to relieve
the situation. No. 1 Northern is now quoted
at 81.5¢ in store as Ft. William; No. 2,
81.3¢; No. 3, 81.1¢; No. 4, 81.1¢; slightly
sprouted and tough, 81.14 to 81.16; sprout-
ed or musty and tough, 81.03 to 81.05;
feed wheat, 80c to 85c.

COARSE GRAINS.

The situation in the coarse grain market
is similar to that of the wheat problem—
good demand, good supply and little ship-
ping facilities. In some circles there is a
general belief that this is a good time
for the farmers to unload, as there were more
shipping made available, prices would be
almost certain to tumble. Oats, C. W. Fed.
No. 2, 46¢; No. 3, 46¢; extra No. 1, 47¢,
44¢; Ontario No. 2, 46¢ to 46¢; commercial
oats, 44¢ to 45¢; corn American, 85¢; Cana-
dian, 75¢ to 81¢; feed, 75¢ to 81¢; barley,
malting, 85¢ to 90¢; feed, 82¢ to 86¢; rye, No. 1,
75¢ to 90¢; rye, 85¢ to 86¢; buckwheat,
No. 1, 85¢ to 90¢; mixed grains, whole-
sale, as follows: Oats, C. W. No. 2, 66¢; No. 3,
65¢; barley, white, 49¢ to 51¢; corn, feed,
60¢ to 66¢; local, malting, 85¢ to 92¢; feed,
62¢ to 68¢; buckwheat, 80c to 85c.

MILL FEEDS.

There has been a slight reaction on the
market for mill feeds. Bran is now quot-
ed 83¢; shorts, 85¢; middlings, 85¢; feed
four, bag, 81.75¢; corn meal, 87¢; feed
82.25 to 82.45; oil cake meal, 87¢ to 87.25¢;
guten feed, 83¢; middling, quality bran,
83.45¢; shorts, 85¢; middlings, 82¢ to 83¢ and
meal, 81¢ to 83¢.

HAY AND STRAW.

Receipts at Montreal have been rather
more than sufficient to meet requirements

but prices nevertheless have continued
firm. Farmers in the hay districts of that
province claim that after meeting their
own requirements they have a surplus to
sell. No. 1 hay is there quoted 83.50 to
84.00; No. 2, 81.50 to 82.00; No. 3, 81.50
to 82.00; rejected hay, 81.75 to 82.50. On the
Toronto market No. 1 hay is quoted 81.50
to 82.50; No. 2, 81.50 to 82.50; baled hay,
86 to 87.

EGGS AND POULTRY.

The mild weather has had the effect of
increasing the egg production, and conse-
quently decreasing egg consumption at the
other end. There is an easier feeling in
the market and downward pressure has
reached even the storage eggs. At Toron-
to the following quotations are being fol-
lowed: Fresh, do to 32c; No. 1 straight stor-
ed, 26c to 30c; and No. 2, 25c to 28c. Mon-
day's market quotations are as follows:
Fresh, do, selected, 35c; Storage, 25c
to 30c.

LIVE STOCK.

Fur, pound 15c to 15c 15c to 15c
Turkeys, N.Y. do 15c to 15c 15c to 15c
Chickens, N.Y. do 15c to 15c 15c to 15c
Ducks 15c to 15c 15c to 15c
Geese 15c to 15c 15c to 15c

POTATOES AND BEANS.

Potatoes are now at an almost record
level. British Columbia potatoes are be-
ing well received in the market. Ontario
No. 1 and New Brunswick potatoes, 25.10.
Car lot quotations are 15c lower.

DAIRY PRODUCE.

The butter trade continues quiet with
an entire absence of export demand. Whole-
sale men are supplying the local mer-
chants on outside account but that is all.
On the Montreal market, the best quality
butter has been sold at 34¢ to 35¢ and fine
at 33¢ to 34¢. Dairy butter is rather
scarce at Montreal and sales are reported
at 29¢ to 30¢.

LIVE STOCK.

The market has been weak and butch-
ers' cattle have been in demand. On the
Mild weather, which greatly reduced the
demand from retail butchers, is given as
the factor responsible for the arrangement
of packers to buy in any quantity, in all
receipts numbered 5,800 head, slightly less
than the previous week, but 200 more
than the corresponding period a year ago.
The Toronto Globe estimates January re-
ceipts this year as 2000 less than January,
1915. A few stockers were received and
taken at farm prices. Wholesale quo-
tations follow:

Handy choice steers, 87.49 to 87.45;
butchers, good, 85.86 to 87.49; cows to
meat, 85.75 to 86.85; beefers, 85.75 to
87.51; choice cows, 85 to 86.50; corn to
good, 84 to 86; feeders, 86 to 87.19; stock-
ers, 84.75 to 86.50; canners and cutters,
83 to 84.75.

Milch cows are in strong demand:
Choice, 80 to 100; med., 85 to 88;
springers, 75 to 85; Calves run from
\$4.50 to 10.75, according to quality.

Small meats have all met with a stronger
demand on the Toronto market. Spring
lamb, ewe, 81.00 to 82.12; cul lamb, 82
to 85.00; yearling sheep, 85.50 to 89.00;
light ewes, choice, 85 to 86.50; heavy
bucks, 86 to 87; culs, 83 to 84.50.

Packers have been buying ewes more
freely. Fat ewes, choice, are quoted
89.75 to 89.85; light and heavy, 85.25 to
85.40; Fat, 87.25 to 87.40; selected hogs, f.
o. b., country points, 89.40 to 90.

THE GREATEST AYRSHIRE PRODUCERS

THE 42nd annual meeting of the Ameri-
can Ayrshire Breeders' Association
was held at Haverhill, Philadel-
phia, Pa., with over 100 members and
Silver Cup contest at report of the French
friends present. The most satisfactory
with four records that made the contest
the most successful of the breed. The
generosity of Miss C. A. French of North
Andover, Mass., in presenting the Associa-
tion with \$10,000 to add to her former gift
of \$15,000, all seven of the classes re-
ceived a handsome award.

Perival Roberts, Jr., as a mature cow, made
a record of 59.39 pounds of milk and
894.9 pounds of fat, making her the
world's champion of the breed.

Miss Nox 3rd, owned by John R. Valen-
tine, Bryn Mawr, Pa., as a junior four-
year-old, made a record of 25.14 pounds
milk and 683.5 pounds of fat.

Miss Holstead, owned by Barclay Farms,
Rosenmont, Pa., made a record as a
junior three-year-old of 15.78 pounds of milk and
879.56 pounds of fat.

Lesnie-sock Nately 3rd, owned by Per-
val Roberts, Jr., North Bertha, Pa., made a
record as a junior three-year-old of 17.62
pounds of milk and 497.78 pounds of fat.

Henderson's Dairy Gem, owned by Hen-
derson's Dairy Farm, North Bertha, Pa.,
made a record as a senior two-year-old of 17.74
pounds of milk and 720.35 pounds of fat,
making her the world's champion of the
breed in her class.

Miss Armstrong 3rd, owned by W. P.
Shanack, Avon, N. Y., made a record as a
junior two-year-old of 14.97 pounds of
milk and 699.39 pounds of fat, making her
the world's champion of the breed in her
class.

Willowmoor, owned by J. W. Cole,
Redmond, Wash., finished her five
consecutive years' record, making 84.91
pounds of milk and 3,088.38 pounds of fat,
making her the world's long distance
champion of the breed.

There was great enthusiasm in the meet-
ing over the progress the Ayrshire has
made in making and steps were taken to give
her more publicity, and to protect funds
for doing it.

LAKEVIEW AYRSHIRES

A select lot of young bulls, all ages, sired by Auchinbrae Sen Foam (Imp.)
35758 (8865), Grand Champion at both Quebec and Sherbrooke, from Record of
Performance Dams. Write for catalogue.

Proprietor: **GEO. H. MONTGOMERY**
Dominion Express Bldg., MONTREAL

AVONDALE HOLSTEINS

We are running our first batch in of-
ficial tests and daughters of King Pon-
tiac Arta Canada. The first is making
33 lbs as a 2yr-old and five others
over to 30 lbs old, and have twenty
more to freshen 20 lbs. We have a dozen
splendid bred young bulls all ages
and all prices, all with officially tested
dams, some as high as over 30 lbs. We
need the room, and are offering these
at bargain prices. As example: One 10
mos. old bull from a daughter of May
Echo Sylvia, the World's Champion,
and sired by the famous 4th, is making
other from a daughter of Prince Hen-
rivede Pietie, with a Jr. 2yr-old re-
cord of 27.0 lbs. The second best
her class in America.

Address all correspondence to—
H. LYNN, R. 2, No. 5, Brockville, Ont.
A. C. HARRY, Proprietor

MAPLE FRONT FARM

offers for sale a grand
lot of high quality young
bulls to meet any herd, the dam is 23 lbs. 4-year-old
and 100 lbs. Butcher Sir Toms Colanthe
of whom you have all heard.

Price right by applying to
Wm. J. BALD, R. 2, MITCHELL, Ont.

ADVERTISE IN THESE POPULAR COLUMNS WHICH OTHERS WILL NOT AFFORD TO PRINTABLE. IT COSTS YOU ONLY \$1.65 AN INCH.

AYRSHIRES

Neidpath Ayrshires Bulls of all
timings. Oldest by Duke of Ayr, son of ex-
Champion R. of P. cow record 16.16 lbs.
1st and 2nd Ontario Sir Toms by brother
to Champion R. of P. two-year-old heifer
record 133 lbs. milk and 607 lbs. butter,
and from dams by Duke of Ayr.
Write individuals from R. of P. cow and
at reasonable prices.

W. W. Ballantyne & Son, R. R. 3, Stratford, Ont.

LAKEVIEW AYRSHIRES

A select lot of young bulls, all ages, sired by Auchinbrae Sen Foam (Imp.)
35758 (8865), Grand Champion at both Quebec and Sherbrooke, from Record of
Performance Dams. Write for catalogue.

Proprietor: **GEO. H. MONTGOMERY**
Dominion Express Bldg., MONTREAL

Watch Our Ad. for the Next 6 Weeks

Offering No. 2

Sir Pontiac, 15 mos. age, 15 months. His DAM is a daughter of Pontiac
Hermes. Her dam, a sister of Lulu Keyes.
His SIRE, a brother of May Echo Sylvia. A good combination of blood in a
good individual. Price \$10, delivered anywhere in Ontario.

S. B. MALLORY, Bayside Stock Farm, BELLEVILLE, Ont.

HOLSTEINS FOR SALE

Four or five Bull ready for service
and two (2) yearling cows. Holstein-Friesian
Apple Korndyke 8th and several by King Siega Pontiac Duplicate— one of the best
R. M. HOLBY, R. R. No. 4, PORT PERRY, Ont.

Lakeview Stock Farm, Bronte, Ont.

Breeders of high-test-
ing Holstein-Friesian cattle, offer for sale a
backed by officially tested dams. Terms to suit purchaser.
F. O'NEILL, Proprietor. T. A. DAWSON, Manager

VILLA VIEW HIGH-TESTING HOLSTEINS

Now is the time to buy a son sired by King Siega Alcatraz Calanthy, the \$2000
35-1b. show bull, sired by King Siega \$500.00. Only three youngsters, three months
old to offer, at prices that should move them quickly. Do you know the
King? Send for catalogue and two of her sisters are at our farms to be bred to
ARBOGAST BROS., SEBINGVILLE, ONTARIO

45 Head Sure You Will Come. You Cannot Stay Away From The Best Yet! **45 Head**
Holsteins' FIFTH SALE OF THE SOVEREIGN ENT. CONSIGNMENT SALE CO. **Holsteins**

At Meharg's Feed Stable, TILSONBURG, ONT., TUESDAY, FEB. 8th, 1916, at One p.m. sharp

Forty-five head of Choice Holstein Cattle, nearly all females; also a few Choice Bulls and Bull Calves, some of them good enough to head any herd. Cows with rec-
ord up to 26 lbs. and out 154 lbs. in 17 days, and 154 lbs. in 19 days to 25.9. Daughters and grand-daughters of Lewis Prilly
Bouba Hartog, Finkner King May Fox, King Siega Pieterie, Grace Payne 2nd, Sir Colanthe, Korndyke Vena, Pontiac Sir Hercules Abbecker, Pontiac
Prince, Abbecker Marcona, and several others almost equally as good. Remember, this is our fifth sale and we do not intend it to be our last. The quality
of the cattle to be offered in this sale will be on a par with the fortunate sale room with lots of seats will be provided. The cattle will all be sold
between the arrival of the noon and the departure of the four o'clock train for the east.

Time up to eight months will be given responsible parties with interest at 6 per cent. Send for catalogue. Come to the sale, and enjoy yourself.

N. MONTGOMERY Auctioneers **CATALOGUES FROM**
LINDSAY & POUND **R. J. KELLY, Sales Manager** **CULLODEN, ONT.**

Hillcrest Ormsby Count



HIS DAM is Rauverd Court, De Kol, 29,017 lbs. milk in one year; 1132.5 lbs. butter. The Canadian Champion Cow for both milk and butter at the World's Record for 8 months.

HIS SIRE is Sir Admiral Ormsby, Canada's Champion Sir, who produce Jenny Bonages Ormsby, 33,650 lbs. in 71 days, who holds the World's Record in making 30 lbs. in 7 days of 5 successive days and going over 100 lbs. milk per day.

We are offering several Sons and Daughters of this sire—backed by the World's Records on both sides. If you need a sire or foundation females with such breeding, write us for prices, etc.

John Willoughby, Stock Farm Bell Phone. R. R. 4, Smith's Falls, Ont.

AUCTION SALE

OF 22 HEAD OF

Registered Holstein Cattle

To be held on the Grange Stock Farm, one mile from Listowel ON FRIDAY, FEBRUARY 18th, 1916

Nearly all the Cows of milking age are officially tested, some with high records, 2-year-olds nearly freshening, one year-olds and heifer calves.

Catalogues Now Ready

L. H. LIPSIT, Sales Manager C. F. VAUDRICK, Auctioneer
W. S. SHEARER, Prop. - R. R. No. 2, LISTOWEL, Ont.

Head Your Herd With This Breeding

We are offering a male calf, nine months old, well-bred, well-marked, well-grown, of good type and conformation. His dam gave 3960 lbs. milk in one year. She is a half-sister of May Echo Verbeke, 29,27 lbs. butter in seven days. His sire is from the same sire as May Echo Sylvia, the world's greatest milk producer giving an average of 113 milk per day for 120 days. His sire's dam is a half-sister of Victoria Burck, 30,51 lbs. butter in seven days.

If blood counts, here it is, backed up by championship records. Address enquiries to
JOHN DURRAN - R. R. No. 1 - CAMPBELLFORD, ONT.



GLENDALE STOCK FARM offers for sale Six Bulls ready for service, sired by Woodcrest Aggie Lad (Imp.). His first five sons and daughters at an average age of fourteen months, sold in December, 1914, at Syracuse, for \$2400. Dams of bulls carry from 50 to 812½ blood of the great 36 lb. cow "May Echo Sylvia" and "Lulu Kops".

Also entire crop of Winter and Spring Calves.

Full particulars on application to
WM. A. SHAW - R. R. No. 1 - FOXBORO, Ont.

RIVERSIDE HOLSTEINS For Sale, Choice Young Bulls, sired by King Johanna Pontiac Korndyke, a grand-sire of Pontiac Lady Korndyke, 34 lbs butter in 7 days, 166.76 lbs. 30 days—world's record when made. Also females bred to "King"
J. W. RICHARDSON CALEDONIA, ONT.

HOLSTEIN BULL—NINE MONTHS OLD—
 Danm Schulling Linn Sire Elinwood LanPontiac. No better or more productive strain procurable—a fine thirty fellow, nicely marked. More white than black \$50.00 for a quick sale.
A. A. POWERS ORONO, ONT.



50 COMPLETE DISSENSORS ON SALE

OF MY ENTIRE HERD OF

Head REGISTERED

Complete Farm Equipment Goes

At my farm, two miles from LONDON. As the farm has been leased for a number of years, every animal and all my farm machinery, will be sold without reserve. My fifty head of Holsteins are nearly all of my own breeding, with few foundation animals. They comprise the blood of many of the best sires in Ontario, and include 10 splendid mature cows. The young breeder who needs good material for his herd, should not fail to be on hand at 1 p.m., Feb. 10. Three registered Jerseys are also in the sale—two to freshen shortly.

Among the other stock are 6 young horses, a 2-yr.-old Percheron gelding, a team of 5 and 4 Clydes, and a 4-yr.-old filly. There are also a mature Yorkshire and some younger brood sows and a large flock of Poultry.

The Farm Machinery is such as would be required on a large farm, mangle, sprayers, binders, mowers, wagons. Machinery and Farm Equipment will be sold at 10 a.m. The sale of Holsteins begins at 1 p.m. Write for catalogue, and note the breeding of my herd.

TERMS: \$15 and upwards, cash. Eight months' credit on bankable paper over this amount. A 5 per cent. discount will be allowed for cash on all items over \$10.00 paid the day of the sale.

C. E. TREBILCOCK T. MERRIT MOORE R. R. 6, LONDON, Ont. Auctioneer

OUR FARMERS' CLUB

Correspondence Invited.

PRINCE EDWARD ISLAND

PRINCE CO, P.E.I.
 RICHMOND, January 28.—The weather keeps mild, we had some snow but at all gone, and just now there is poor setting around. Stock is wintering well. There is not much change in the market reports. Eggs are declining and are now at 45 cents. Just some meetings, egg circles and ches factories are the order of the day. Both had good seasons. All is in the neighbourhood of success is the hearty cooperation of our farmers. Mr. J. H. M. LeMay is moving at 815—J. D. M. Le.

CARLETON CO, ONT.
 BRITANNIA, Bay, January 24.—The weather is very changeable, a few cold days, then a snowfall, ending up with heavy rain. The ice this year has not been very much broken up. New milk cows remain scarce, raising in price from \$700 to \$900. Most farmers are getting the year's supply of wood, which will be out by sowing matches in the spring.—J. J.
 TRENTON, Jan. 25.—Feeding is all gone, with none too good prospects for fall grain and meadow. Ice has been on all the meadows and has broken up and stock in good shape. Help is fairly plentiful. Farmers are well up with work. Prices are good for everything. Sale bills are fairly plentiful.—J. K.

WELLINGTON CO, ONT.
 ARTHUR, January 25.—Farmers having nice weather, one of the longest January thaws there has been for years; no snow left. Markets are fair. The call of our Empire for men is receiving little support, recruiting is getting on slowly.—J. D. J.

GUELPH, Jan. 24.—Sleighbearing was good, and many took advantage of it to do their teaming. Although saw logs are not plentiful in this district yet many are taking out a few to make necessary lumber for making signs, repairing the fences, etc. Auction sales have been quite numerous with all classes of stock selling high, except horses—\$100 seems to be about the top notch for good draft horses. Good calves have sold as high as \$300. Good breeding ewes frequently bring \$30, and hogs have sold well, according to age.—G. S. N.

NORFOLK CO, ONT.
 SIMCOE, January 25.—Very wet weather—no ice with very little frost in the ground. No ice has as yet been stored. Frost is starting in and snow is falling very well. Feed seems quite plentiful. Prices fairly steady. Hay, \$15; shorts, \$9; bran, \$25; cottontseed meal, \$175; oil cake, \$240. All crops look well up to the present. Woodhouse Farmers Club discuss "Gasoline engines" at last meeting.—J. B. C.

MIDDLESEX CO, ONT.
 AAPPIN, Jan. 24.—Feeding is one of the biggest problems of the farmer these days. The season left a large quantity of inferior fodder for winter consumption. Corn ensilage is the sheet anchor this winter for it is the only crop wet weather did not injure in harvesting. The silo owners have reason to be glad this year. Hay, straw and coarse grains are inferior in quality. Bran is much in demand and increasing in price in spite of a large wheat crop. Hog stock will come through the winter has yet to be proven.—C. M.

MANITOULIN DIST.
 GOREE BAY, January 29.—Our Farmers' Club has been doing some work. They are in cooperative buying and selling. The business done on the island totalled \$12,075.50, and our district representative, Mr.

Metcalfe, estimates that this business shows an average profit of at least 10 per cent. This does not include the stock sold by the Manitoulin Marketing Association, which dealt in wool, lambs, cattle and hogs and had a total business for the year of \$22,354, all of which was in farm produce. All cooperative business done on the island last year totalled about \$36,000.—P.

ALBERTA
HORSE HILLS DIST., ALTA.
HORSE HILLS, Jan. 24.—Well, here we are in the middle of our winter again—no real snow, but the weather is just what we need for another season. We are having very cold weather, the coldest this district has seen in many years. Since the 14th of January has registered from 30 to 50 degrees below zero, and cold. On the 16th and 17th it rained, then it got a little milder, but it sure is winter, but with very little snow. Last week we had 11 inches of snow, and it is coming unless you drive in the ditch. There has been no harm done as yet with the exception of a few trees, and I think nearly every one has had them whittened to some extent. The stock is wintering all right.—A. S. D.

eggs, 50¢; hogs, brick, at 60¢; beef on the ribs, at 10¢; hams, 25¢; butter, 30¢; sheep, 87¢; lambs, 87¢; 20 lbs. milk cows, 87¢; sheep, 87¢; lambs, 87¢. Horses are in good demand selling at \$150 each.—G. F.

BRITISH COLUMBIA
NEW WESTMINSTER DIST., B.C.
 CHILLIWACK, January 29.—The first half of January was cold with a few frosts, but on the 24th the sunset temperature being 23 degrees of frost. The strong wind added greatly to the cold, and has since been blowing the strong "Chinook" wind in blowing and snow is fast disappearing. Prices are fair for everything, and no sickness in live stock. One man has already lost three fine horses through having the "stags".—E. E.

TILLSONBURG SALE OF HOLSTEINS
 ANYONE interested in breeding dairy cattle should note carefully the offering of the Southern Ontario Consignment Sale Company in their 5th annual sale which takes place in Tillsonburg, Ont., on Tuesday, Feb. 8th. For years this has been one of the leading consignment sales in Canada and a glance at the breeding of this year's offering will convince any one who understands Holstein pedigrees that this year's offering is far ahead of other sales of its kind. There are 125 males, including grand-daughters of some of the best 36 lb. bulls in the country than were ever offered in any other sale. Not only is the offering of the highest class, but the men who are consigning will guarantee in every way to stay and will guarantee everything as represented. Coming in this sale a few days before the annual meeting of the Canadian Holstein Association in Toronto, it is a rare opportunity for any buyer to see and meet to profit by a visit to this great dairy section, and any one who does not get the number at the sale that is wanted will be able to find them among some of the breeders who do not care to go to the expense of a sale. Plans to spend a few days or a week in this the Holland of North America. The reward of a good time awaits you.

McQueen's Consignment consists of Terence Sadie Vale, 25,00 lbs. butter 7 days, 194.2 lbs. in 30 days, a daughter of Junior De Kol, brother to Oranella Vale, milk 63, butter 20.48 in 7 days; 3,862.5 lbs. of milk and 115.51 lbs. butter in 30 days, milk 59, days, 25.61 lbs. butter, 1,157.85 lbs. May 25 or 26 months, 30.25 as a junior 1-year-old. She was sired by Prince Abecherer from the same cow, Mary Ann Hartog 2nd and Mary Ann Hartog, 34 lbs., at 3 yrs. of age. This cow had two conditions, was sired by Lewis Prilly, 10 lb. Hartog. Then there is Lady Oxford from the same dam as Queen Butter Harross, 33.7 lbs. butter

A Good Sire

One of our Mr. R. M. Holt writes as follows:

"I have just advertised a pair of Wolves Island, will drop that many by me as breeders are in the sale in question. My dam, without a doubt, is a 25 lb. 3-yr.-old."

Any other good sire bred by me, Drury, both to and to place on a grade basis. I will sell, write us for sales prospectives

in 7 days, and similar quantity same.

L. H. Lipsit

Lipsit's consignment of choice young bull first class individually, King May Payne at 24 lbs. four months, is a good model type. This young bull averages, butter 20.48, practically 29 lbs. His sire's full sister, a 25 lb. cow, 29 days, 3 lbs. Not chance to buy a perfect model and to get him at your own price. My other two grades practically 30 direct descendants of boy, Hengerveld De Lad, and Aggie Ott. They are under one well marked—a good start or to improve daughters of King and Aggie. This year's offering, Prilly and Aggie, direct lines to the value very high. His grand daughter of a cow over 1300 lbs. milk. His grand daughters of Indiana Lipsit has sold 35 over 1500 lbs. milk. Right quality. The bull treated before time. The other as good as any other sold.

R. J. Kelly's consigning yearling heifers from the fine Veeman Pontiac, a double of the best Canada to-day and at by Ivy Lodge are tempting offers of these heifers but not one of them have will be a rare opportunity leading breeders to get blood at their own price. Good ones in this five year old show up in 1916. Also a fine large 19-lb. untested daughter of daughter of Gaudy who has proven her breeder in the herd.

3 Horses

14 COWS in

OUR OFFER

2-yr.-old grand daughter, 1-yr.-old 2nd cow of 30 lbs. 25 months

WILBIE

A Good Sire Goes to Wolfe Island

One of our prominent breeders, Mr. R. M. Holtby, of Port Perry, writes as follows:

"I have just sold the 29th. bull advertised to Mr. H. E. Tarrant, of Wolfe Island, Ont., so that if you will drop that part of my ad. it will save me some writing."

The fame of the Holsteins is gradually extending to every part of the Dominion. Wolfe Island breeders are securing a good market. The sire in question is out of a 29-lb. dam, and whose sire's dam is a 25-lb. 3-yr-old.

Many other good sires are in demand by readers of Farm and Dairy, both to head purebred herds, and to place at the head of high-grade herds. If you are interested in sale, write us to-night about reaching prospective buyers.

in 7 days, and sired by a grandson of Calamity Jane.

L. H. Lipsett's Consignment.

Lipsett's consignment consists of a very choice young bull about a year old, a first class individual sired by Flinders King May Payne and out of Lady Copia model type, with a mammoth square udder. This young bull's dam and sire's dam average, butter 7 days, 29.99 lbs., or practically 29 lbs. His dam, sire's dam and sire's full sister, at an average age of 2 1/2 years, have produced an average of 3 lbs. 3 lbs. Not often do you get a chance to buy a perfect individual nicely marked and with such breeding back of him at your own price. Two daughters of average practically 30 lbs. These heifers are direct descendants of De Kol 2nd Butter Boy, Hengervold De Kol, Johanna Rue 3rd and Aggie Cornucopia, Johanna Lead. They are under one year old, a good type, well marked—a good chance for a good start or to improve your herd. Four granddaughters of King Segis Pieterie trace in direct lineage to King Segis, Beauty Pieterie, Prilly and Axie and De Kol of Riverside. These heifers are going to improve in value very fast. A daughter and a grand daughter of a 20 lb. cow that gave over 4500 lbs. milk in a year. Two daughters of Madeline's Paul Veeman. Mr. Lipsett has sold 15 of this bull's heifers at average price of \$300. They are of right quality. The one will freshen and be treated before the sale if there is time. The other is carrying her first calf. Also a few other good ones.

R. J. Kelly's Offering.

R. J. Kelly's consignment consists of five yearling heifers from the sire bull E. K. dyke Veeman Pontiac. This is without doubt one of the best Holstein sires in Canada to-day and his 29 daughters now at Ivy Lodge are a choice lot. Some tempting offers have been refused for some of these heifers but up to the present time not one of them have been sold and this will be a rare opportunity for some of the leading breeders to get some of this good blood at their own price. They will not be bred which will give the purchaser a chance to mate those promising young things with their own herd sires. Among the good ones in this offering are one 25.50 five year old show cow from the good blood sire Mr. Mercove Abbecker. Also a fine large 19-lb. cow and a 2-yr-old, untested daughter of the same sire. A daughter of G. H. Pefferitt Butter Boy, who has proven herself one of the best breeders in the herd, and she leaves be-

hind her at Ivy Lodge two of the best daughters that can be shown by any cow in the herd. Princess Zeeman Poosh, a fine large show cow, with a record of nearly 20 lbs. will be a good buy for anybody. Also her bull calf, a fine son of K.V.P., nearly white in color, one of the very best type of calves. He will make a show bull and be a credit to whoever gets him no matter what the price may be. The six cows, five heifers and two bulls are of good enough quality to make them a credit to both seller and buyer.

In conclusion we would urge as many of our readers as possible to attend this sale. You will not be asked to stand on a snow bank while the cattle are being sold. A very comfortable sale room will be provided with seats for 700 people, and we know that you will enjoy the outing. Send for one of our catalogues with extended pedigree of every animal; look it over carefully, note the liberal terms of a merchant of your presence.

A GREAT CANADIAN HOLSTEIN HERD

(Continued from page 38.)

Our Canadian herd is by King Pontiac Aris Canada, who is a son of the great King of the Youngs and who has a record of nearly 20 lbs. He has 154 officially tested daughters who weigh 154 officially tested daughters who weigh more than any other cow. The dam of the Avondale Young Echo Echo, who has made during the last season in Holstein records no cow has ever been able to link the world's record milk production in the official test with such great butter production as has May Echo Sylvia, thus putting her in a class by herself. Her records are as follows: 7 days, 26.25 lbs.; 30 days, 149.34; 60 days, 285.19; 90 days, 409.24; 120 days, 497.24; 150 days, 525.99. Her records for both milk and butter in these periods are unequalled by any other cow, having produced 7,500 lbs. milk in 60 days. This is about 5,000 lbs. above what the average cow produces in the year. Moreover, May Echo Sylvia has been a great and persistent producer every year since freshening. She is a daughter of May Echo Verbeulle who last a better record over 100 lbs. as a 19-yr. old, and as an 11-year-old, she in turn is a daughter of the great May Echo, who 21.34 lbs. butter in 7 days, with 1,025.05 lbs. butter and 25,707 lbs. milk in a year. Avondale Pontiac Echo has thus three maternal dams, each with three maternal records of over 100 lbs. They average over 25 lbs. butter in seven days. This combination all through on both sides in the short time records cannot be beaten by any living sire.

With such superior sire heading this herd and with dams of the type and quality that can be seen to expect greater and greater things in the way of records and butter production coming from the "Het Lee" herd. Our readers who appreciate the best, and who desire to buy or see some of the best in Holstein will be well repaid for their visit to Vandruul. There are no sires for sale as yet as the writer witnessed the last one being sold the day he called. But more are expected in the near future with backing worthy for any herd. For full particulars of stock that are for sale write to Gordon H. Manhart or if convenient, arrange for an appointment with him when he will be convenient to visit this big stock farm and see the "Het Lee" Holsteins.

3rd ANNUAL SALE
OF
40 Head  **40 Head**

Holstein-Friesian Cattle

— AT —
SIMCOE, WEDNESDAY, FEB. 16th
At ONE p.m.

The sale will be held just North of the Air Line Station, at barns of J. A. Wallace.

The offering is females only, and is by members of the Norfolk Holstein-Friesian Breeders' Club. Near the back of the catalogue will be found Ads. of Young Sires for sale.

TERMS: Cash, or credit on Bankable paper. Send for catalogue to Secretary of sale.

JAMES DUNLOP Auctioneer
WALLACE H. MASON Secretary
R. R. No. 4 - SIMCOE, Ont.

Holstein Bulls of 20,000 Lbs. Breeding

We are offering the great bred bull, Pontiac Korndyke Plus, 2 year old, Sire, Inka Sylvia Beets Poosh, the only bull in Canada with two daughters over 33 lbs. butter each. Dam Plus Pontiac Aris, champion 3 yr. old for H. O.P. work, with 20,900 lbs. of milk and 985 lbs. butter in 1 year; average test 3.75 per cent. fat. Also Plus Inka Aris, Grand Champion bull at Guelph is dam of Plus Pontiac Aris. Another has four 20,000 lb. cows in his pedigree. Also a few good young Females. Write, or come and see them.

S. LEMON & SONS
LYNDEN - - - - - ONTARIO

KORNGOLD IMPROVED ENGLISH YORKSHIRES
Sows bred to farrow in April; also a choice lot of Young Pigs, just ready to wean.
F. J. McCALPIN, Korngold Stock Farm, GANANOQUE, ONT.

ANNUAL SALE
3 Head 3
Holstein Cattle
14 COWS and HEIFERS due in March or April
OUR OFFERING—Half interest in the Herd Bull Flinders Valdesa, Ormsby Payne, whose dam, dam's full sister, and grand dam's records average over 33 lbs. butter in 7 days, and whose sire is the only bull of the breed having a 35-lb. 3-yr-old daughter: A 20 lb. 3-yr.-old, 19.30 lb. 1-yr.-3-mo. daughter of Lewis Prilly Bourbon Hartog, a daughter of 25 1/2 lb. cow, and the \$10,000 bull, The Milk and Butter King, 15.10 lb. of Beets Poosh, winner at Guelph, 1914. Fourteen cows and heifers due in March or April. Seven bulls fit for service.
Alfalfadale Stock Farm
TILLSONBURG
FEB. 15, 1916
7 BULLS Fit for Service
WILBER C. PROUSE, Alfalfadale Stock Farm, TILLSONBURG, Ont.

Het Loo Farms

The Home of Record-Making Holsteins

"Het Loo" Holland

The Home of the Big Breeding Herd of Holsteins of Queen Wilhelmina of Holland.

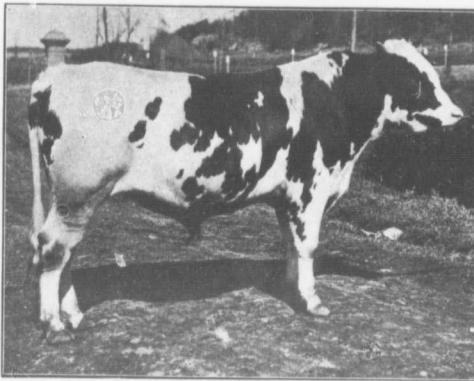
A few of the A. R. O. Cows at Het Loo.

FRANCY 4TH (5026)
Milk 7 days 572.4 lbs.
Butter 32.92 lbs.

BOON HOMESTEAD BURKE (26257)
Milk 7 days 601.5 lbs.
Milk 1 day 94.1 lbs.
Butter 7 days 32.55 lbs.

ROXY CONCORDIA (1988)
Milk in 7 days 664.5 lbs.
Butter 39.34 lbs.

ALBERTA MAID (5428)
Milk 7 days 696.4 lbs.
Milk 30 days 2907 lbs.
Butter 7 days 30.33 lbs.
Butter 30 days 135.7 lbs.



AVONDALE PONTIAC ECHO—The Junior Herd Sire

"Het Loo" Canada

The Home of Our Big Holstein Herd at Vaudreuil, Que.

Our Herd Sires with these females will Produce new Record Blood.

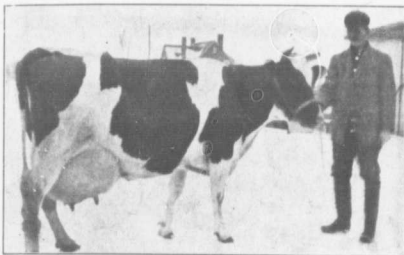
ORVALE INKA JOHANNA (19026)
Milk 7 days 536.5 lbs.
Milk 30 days 2231.5 lbs.
Butter 7 days 27.54 lbs.
Butter 30 days 112.3 lbs.

SIR JOHANNA BURNSIDE (25921)
Milk 1 day 110.5 lbs.
Butter 7 days 27.55 lbs.

RECORDS AT 4 YEARS—
PIETJE KORNDYKE QUEEN (26257)
Butter at 7 days 26.33 lbs.

Note her type on opposite page. Her type and breeding makes her one of the best.

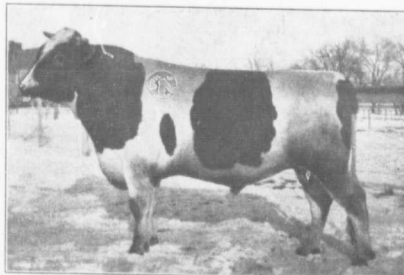
FAIRVIEW KORNDYKE BOON JOHANNA (18028)
Milk 30 days 2314.5 lbs.
Butter 30 days 109.37 lbs.
Butter 7 days 26.30 lbs.



JEWEL PRIZE 4TH—25.01 lbs. at 3 years.

A remarkable cow, big in size and of superior type, and testing over 4 per cent. She is the dam of the Senior Herd Sire.

In the Two Herd Sires at Het Loo are combined the Blood and Type of our Greatest Sires of Holstein History



PONTIAC KORNDYKE HET LOO

The Sr. Herd Sire—acknowledged by Holstein breeders as one of the finest types of sires in America. In breeding it is enough to say that he is a son of that famous sire, old Pontiac Korndyke.

How would you like a Sire from one of these. (Records at 3 years)

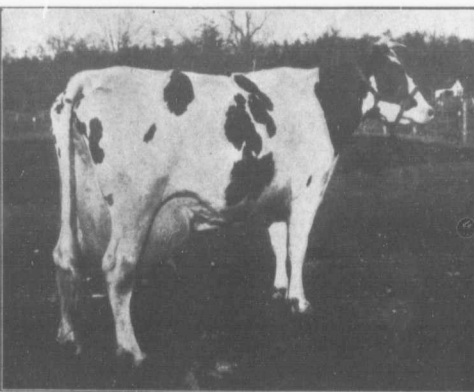
FRANCY BELLE WAYNE (16980)
Milk 30 days 2316.8 lbs.
Butter 30 days 117.96 lbs.
Milk 7 days 527.3 lbs.
Butter 7 days 29.20 lbs.
The Canadian champion cow for 3 yrs. on 7 day record.

MILDRED PIETERJE ABBEKERK (21895)
Milk 1 day 107 lbs.
Butter 7 days 30.21 lbs.

PIETJE KORNDYKE QUEEN (26257)
Butter in 7 days 26.55 lbs.
A heifer of ideal conformation, now in her 4th year with a larger record.

FRANCY SYLVIA
Butter 7 days 20 lbs.
In breeding she traces the Sylvia's on the dam's side.

JEWEL PRIZE 4TH.
Butter 7 days 25.01 lbs.
Milk 519.2 lbs.
Note her outline. This is the type our Sr. Sire has stamped on our herd.



MAY ECHO SYLVIA Butter 35.33. Best day's milk 133 lbs. Best 7 days, 875 lbs. The dam of our Sr. Herd Sire—Avondale Pontiac Echo.

A few Heifers you will hear from when they develop. (Records at 2 years)

FRANCY QUEEN ORMSBY (22299)
Milk 7 days 463.3 lbs.
Butter 28.54 lbs.

HET LOO BOON (25783)
Butter at 7 days 19.30 lbs.
A daughter of Hag Apple Korndyke 8th.

MILDRED PIETERJE ABBEKERK (21509)
Milk 1 day 107 lbs.
Butter 7 days 18.73 lbs.

HET LOO CLOTHILDE (25921)
Milk 30 days 1968.3 lbs.
Butter 30 days 90.89 lbs.
Butter 7 days 23.23 lbs.
Milk 1 year over 18,000 lbs.

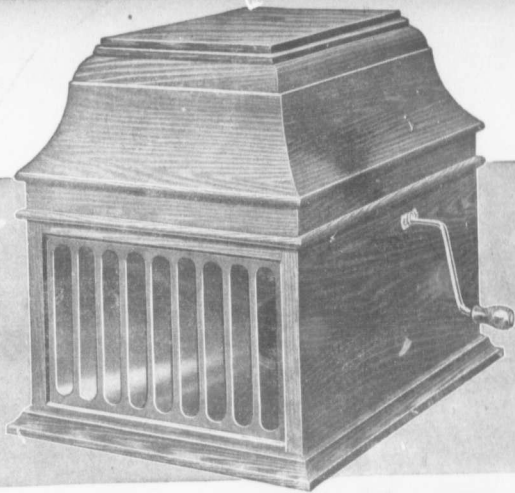
If you want a Sire from Het Loo, speak in advance. We have none now but are expecting some choice ones.

Gordon H. Manhard
Manager

We extend to All Breeders a kind invitation to visit Het Loo and inspect our herd.

Dr. L. de L. Harwood
Proprietor

Vaudreuil, Que.



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