

# FARM AND DAIRY & RURAL HOME



Toronto, Ont., September 13, 1917



ALBERTA PRODUCTS.

—Photo courtesy Alberta Department of Agriculture.

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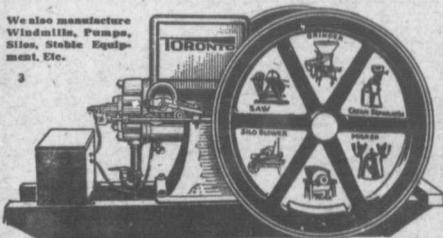
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DEAL WITH Farm & Dairy's Advertisers

## The Sherbrooke Fair

WITH the exception of occasional showers, the time-worn phrase "fine weather, fine crowd, and fine stock," would be quite applicable to the great Eastern Exhibition of Canada for 1917, held at Sherbrooke, Que., Aug. 25—Sept. 1. Even though the weather was far from perfect, especially on Thursday, the attendance was very good, and the stock, both as to quality and numbers, was an eye-opener to any present who were strangers to the locality.

Sherbrooke Fair is pre-eminently a farmers' fair. They were there by the thousand and the afternoon live stock parades before the grandstand, with brass bands in attendance, seemed to attract about as much attention as the horse racing which followed, or that never-failing combination of noise and attraction—the midway. Some idea of the number of stock shown may be formed by the fact that when the cattle alone paraded, the race track would not nearly accommodate them in single file, and the leaders had to crowd together after completing the circuit and wait for the rear guard to be started before they could make an exit through the same gate.

All the well-known breeds were represented, as well as some which are not quite so well known, namely, the French-Canadian and Brown Swiss. The latter breed aroused considerable discussion among the bystanders, as to whether it was a dairy or beef breed, the general verdict tending toward the idea that it was dairy. The following are the names of a few of the exhibitors who were in attendance and their respective breeds:

Ayrshires were exhibited by W. D. Parker & Sons, Compton, Que.; M. St. Marie, Compton; W. F. Kay, M. P., Phillipsburg, Que.; J. B. Taylor, Ayers Cliff, Que.; David Ness, Howick, Que.; Mr. Haver, Ayers Cliff, and others. A few of the Holsteins men present with herds were: Harding Bros., Wellesford, N. B.; P. W. Taber, East Farnham, Que.; J. J. Anderson, St. Louis, Que.; Wm. Aubrey, Sherbrooke, Que.; Jos. Clement, Ste. Henri, Que.; and M. W. Miller, Brown Centre, Que. Three herds of Brown Swiss were on hand, those of C. St. Stanislas, Ayers Cliff; Mr. Libby, Ayers Cliff; and Mr. Jolley, Waterloo, Que. There were also three herds of Jerseys, the largest herd being shown by Edwards and Alexander, Coaticook, Que. French-Canadians were represented by Arsene Desjardis, St. Norbert Station, Que., and Wm. Powers, St. Pateric, Que. Guernseys were not so strong as the other breeds, there being but one herd present and it was rather out of condition.

### Outstanding Animals.

Although the stock as a whole was very uniform, there were a few outstanding winners and probably the most noticeable of these was P. W. Taber's young Holstein cow, Clothilde Joan DeCol, 26829, who won first in her class, and also the grand champion. She is a cow of wonderful type and capacity and will be heard from later. Her dam, Lyons Beauty Clothilde, who is 14 years old, won third place in the same class, which speaks well for the training. "Like begets like." Another centre of attraction was Mr. M. W. Miller's twin heifers, which won first and second place in the yearling class. Harding's senior champion, the year-old bull, Sir Patric Schulling, by Schulling Sir Posch, is also a fine individual, weighing 2,460 lbs., and still full of quality. The junior championship went to Wm. Aubrey's yearling, a wonderful animal weighing 1,650 lbs. in fair condition.

Among the Ayrshires, a greater uniformity of quality was shown and outstanding winners were not so much in evidence. The grand champion bulls, both senior and junior, owned by Ness, were exceptional animals, as was also

the grand champion female. The following are the winners:

### Holstein Awards.

Aged bull—1 and 2, Harding Bros.; 3, P. W. Taber; 4, J. J. Alexander. Two-year-old bull—1, Harding Bros.; 2, A. C. Pacey; 3, J. J. Alexander. Yearling bull—1, W. J. Aubrey; 2, Marshall and Mills; 3, A. C. Wise; 4, Joseph Clement. Bull calf—1 and 2, Harding Bros.; 3, Louis Heifer; 4, Alf. Gingsar. Aged cow—1, 3 and 4, P. W. Taber; 2, Harding Bros.

Cow, three years old—1, J. J. Alexander; 2, Louis Heifer; 3, P. W. Taber; 4, Joseph Clement. Cow, two years old—1 and 3, Harding Bros.; 2, P. W. Taber; 4, Louis Heifer.

Heifer, one-year-old—1 and 3, Harding Bros.; 2 and 4, Marshall Miller. Senior heifer calf—1 and 2, Harding Bros.; 3, J. J. Alexander; 4, Alf. Gingsar.

Junior heifer calf—1 and 2, Harding Bros.; 3, P. W. Taber; 4, J. J. Alexander. Senior herd—1, P. W. Taber; 2, Harding Bros.; 3, J. J. Alexander; 4, Joseph Clement.

Junior herd—1, Harding Bros.; 2, J. J. Alexander; 3, Joseph Clement. Best three heifer calves, under one year—1, Harding Bros.; 2, J. J. Alexander; 3, Joseph Clement.

Two bull calves, one year—1, Harding Bros.; 2, Joseph Clement; 3, J. J. Alexander. Cow and two of progeny—1, Harding Bros.; 2, P. W. Taber; 3, J. J. Alexander.

Three animals, get of one sire—1, Harding Bros.; 2, P. W. Taber. Ayrshire Awards. Aged bull—1, David Ness; 2, W. F. Kay; 3, Louis Goggs.

Two-year-old bull—1, J. P. Cavers; 2, David Ness; 3, W. F. Kay. Yearling bull—1 and 3, David Ness; 2, J. P. Cavers; 4, W. D. Parker. Senior bull calf—1, W. D. Parker; 2, W. F. Kay; 3, J. P. Cavers; 4, David Ness.

Junior bull calf—1, Arsene Denis; 2 and 4, B. J. Taylor; 3, W. F. Kay. Aged cow—1, B. J. Taylor; 2, J. P. Cavers; 3, W. F. Kay; 4, David Ness.

Cow, three years—1, David Ness; 2 and 3, J. P. Cavers; 4, W. F. Kay. Heifer, two years—1 and 3, W. F. Kay; 2, David Ness; 4, J. P. Cavers. Heifer, one year—1 and 3, David Ness; 2, B. J. Taylor; 4, J. P. Cavers.

Senior heifer calf—1, Cavers; 2 and 4, Ness; 3, Kay. Junior heifer calf—1 and 2, Parker; 3, Kay; 4, Taylor. Aged herd—1, Ness; 2, Cavers; 3, Kay; 4, Taylor.

Junior herd—1, Ness; 2, Cavers; 3, Parker; 4, Kay. Four animals, either sex, get of one sire—1, 2, Ness; 3, Cavers; 4, Taylor.

Two animals, either sex, progeny of one cow—1 and 2, Kay; 3, Ness; 4, St. Marie. Two bull calves, under one year—1, Parker; 2, Kay. Three heifer calves—1, Ness; 2, Kay. Grand champion male—Ness. Grand champion female—Ness.

The proper watering of the horse is important. Mr. Peters of the North Dakota Experiment Station, makes the following suggestions: A horse before being fed hay or straw, rather than after. The reason for this is that the stomach of the horse is comparatively small and if he eats a heavy feed of grain or hay or both, and then drinks a large quantity of water a portion of the feed will be washed from the stomach into the intestines before it has sufficiently acted upon; the digestive fluids of the stomach and colic is likely to develop. The regular practice should be to water before feeding.



# FARM AND DAIRY



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## & RURAL HOME

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VOL. XXXVI

TORONTO, ONT., SEPTEMBER 13, 1917

No 37

## A Visit With R. and A. H. Baird, New Hamburg, Ont.

A Farm From Which 20,000 lbs. of Dairy Butter is Marketed Annually—F. E. Ellis, B.S.A., Editor Farm and Dairy

**Y**OU should go over to New Hamburg and see Baird Bros., an Oxford County friend advised me some months ago. "They have a big herd and a good herd. They are rood farmers, and I am sure you would enjoy a visit with them." His recommendation was sufficient, and one day this spring I drove from New Hamburg six miles through the pouring rain to Baird Bros.' farm. "You can't miss the place," the livery man informed me. "They have more big concrete silos around their barns than any other farmers in Waterloo county." I stopped when I came to the silos.

Prospect Farm, as Baird Bros. have chosen to call their establishment, lies in one of the finest agricultural sections of Old Ontario. For many miles in every direction the country is fairly level and the soil a rich, strong loam. The farms are well worked and the whole country has that prosperous appearance which is always a delight to the true farmer. In the Baird farm, which is one of the best, there are 250 acres of land, all clear and practically all work d. Really, there are two farms with two distinct sets of buildings, but both are worked as one unit. "Yes, we have excellent good soil," said Mr. Robert Baird, and then added, with commendable local pride, "You can't beat the land around here."

The interest of the Bairds centres around Jersey cattle and dairy butter. In an average year they milk about 50 cows, and from a herd of this size, they will market 20,000 lbs. of butter in a year. The butter is manufactured by Mr. Baird himself in a model home dairy plant, and for many years has been sold to the same grocery firm in the city of Hamilton. Such a reputation have they established for butter that last year they averaged seven cents a pound above the highest price paid for creamery butter. In catering to a fancy trade of this kind, the Bairds believe that the Jersey cow has qualifications that are all her own. The average production per cow in the herd, including a goodly number of two and three-year-old heifers, runs around 400 lbs. of butter in a year. This, considering the number kept, is a high average. "Now let us go out to the stable and see them," said the senior partner.

### A Result of Breeding.

The Prospect Farm herd of Jerseys is more than a good collection of animals. It is a convincing proof of the possibilities of improving a grade herd by breeding upwards. The cows I found to be of uniform type. There was no sign of any other blood than the Jersey in any of them, and I can honestly say



Two of the Four Silos at Prospect Farm. The silo in the background is 18 by 26 feet. The other three silos are smaller. Altogether they hold the corn from 60 acres.

that I have never yet seen a pure-bred herd of the same size that could compare with this one for uniformity of type and its general breedy appearance. That they are milkers is well proved by their herd average of 400 lbs. of butter. And yet

the proportion of registered females is small. Practically the whole herd has been built up from a foundation of grade dairy Shorthorns. "That cow, for instance," said Mr. Baird, indicating one of his best, "milked 45 lbs. of milk a day all last winter. She has made as high as 12,000 lbs. of milk in a year. She represents the fifth cross from a Shorthorn grade."

"How long have you been breeding Jerseys?" I asked.

"It is just 27 years," replied Mr. Baird, "since we purchased our first pure-bred Jersey bull, and in that 27 years we have been following up consistently with good pure-bred Jersey sires. Twenty years ago we decided that, in order to improve as fast as we would like, we would have to keep milk records, and we have been weighing and testing the milk now for a score of years. Our herd, such as it is, is the result of breeding to good sires and constant weighing.

### A Start With Registered Jerseys.

In recent years a start has been made with registered Jerseys. These, too, must prove their worth according to the evidence of the scale and the Babcock tester. The cows are entered in Record of Performance as they freshen, and they must qualify. Some of the most recent records are as follows: Prospect Farm Ella, two years old, 7,587 lbs. milk, 375 lbs. fat, test 4.95 per cent; Prospect Farm Jean, two years, 5,346 lbs. milk, 244 lbs. fat, and 5.37 per cent; Prospect Farm Pink, three years, 8,290 lbs. milk, 381 lbs. fat, and a test of 4.58; Brampton Wolsley G., four years, 8,064 lbs. of milk, 497 lbs. fat, and 5.4 per cent test; Prospect Farm Margaret, two years, 5,578 lbs. milk, 374 lbs. fat, and testing 6.7 per cent.

These are not all, by any means, of the official records that prove the producing abilities of the registered portion of the Baird herd. The sires that they are using at present is Brampton Dairy Farmer, bred by Jas. Baggs & Sons, of Edgely. His dam is Primrose of Edgely, an ex-four-year-old Canadian champion, and his sire is Brampton Pearl Fox, who has several good tested daughters.

### The Buildings.

The buildings on the Baird farm were built many years ago, and the stables are not strictly modern in all respects; for instance, the partitions between stalls and the mangers are of wood, where modern construction calls for steel. When they were built, however, these stables must have been among the best in Canada. None of the essentials conducive to the health and comfort of the herd were omitted. A large proportion



The Cow Stable is a Model of Cleanliness.

The cows are clean, the stable is clean, the walls are whitewashed, the windows large and the ventilation as near perfect as is possible. What more is needed for cow comfort?—Photos by an Editor of Farm and Dairy.

of the wall space is in window glass, and as the walls are glistening with whitewash, every corner of the stable is light. The floors are of cement. There is a water basin before each cow. But the best feature of the stable, and the one I am least expected to see in a stable constructed so many years ago, was a

complete ventilating system, installed on the King plan. The King system is not very highly recommended by some of our Canadian authorities on stable construction, but it is the most popular system in vogue in the United States. I enquired of Mr. Baird as to the experience with it.

"We cannot imagine how any system could be more satisfactory than ours," said Mr. Baird. "The air in the stable is as fresh and clean in the coldest weather as it is outside. We have never seen any moisture accumulating on the stable walls, and this is, I believe, the best test of a ventilating system. We are well enough satisfied with it that when we built our new calf barn in recent years, we installed the same system in it."

Light, comfortable stables and an excellent system of ventilation, make it possible to stable the cows continuously through the entire winter without injury to their health. The wisdom of keeping cows confined has been often questioned, but the general thrift of the Baird herd seemed to indicate that they at least have prospered under the system. It is planned to have four or five cows freshen every month in the year in order to maintain a constant supply of butter to meet their special trade.

#### The Calf Barn and Silos.

The new calf barn is a model. At one end is a feed room, and under it a cistern. Soft water is used altogether for the calves and once accustomed to it, they like it just as well as hard water. There is stall room for 33 calves on either side of the feed alley. Practically all of the wall length is in window glass. The walls are constructed of four thicknesses of lumber with tar paper between the two thicknesses on the inside and outside studding, and a dead air space between. A high hip roof gives lots of room above for the storage of straw. Gates between the calf pens allow of a boat being drawn through when the pens are being cleaned. As mentioned before, the King system of ventilation is installed here, too, and the atmosphere is always fresh and dry.

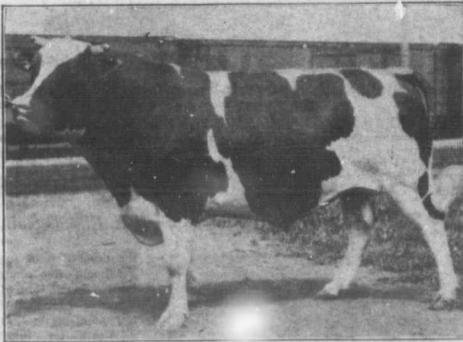
The feature of the Baird homestead that would attract immediate attention from the passerby is the silos. There are three of them in connection with the dairy barn. The largest one is 18 feet in diameter, and it is 56 feet from the floor of the silo to the bottom of the ventilator in the roof. "The corn settles so rapidly in this silo," said Mr. Baird, "that when we reach a certain point in the filling, we will continue filling for a half a day and see practically no progress." This silo, like all of the others, is built with cement walls six inches thick, strongly reinforced and with a continuous doorway. Another silo, if I remember rightly, is 16 x 40 feet, and the "baby" of the trio is 14 x 36 feet. There is a fourth silo in connection with the other set of buildings which I did not visit. The feeding of the ensilage is done very expeditiously. A cart is backed up to the silo,

(Concluded on page 9.)

## The Farm Woodlot

It Now Has a Peculiar Value

**W**OODLOTS on the farms can be made an important factor in the relief of the threatened fuel shortage. Farmers and



A Twice Grand Champion at the Canadian National Exhibition.

In both 1916 and 1917 Lakewood Dutchland Henserveid has been grand champion Holstein bull at Toronto. He was shown this year in perfect condition, which, along with outstanding quality, great substance and proper conformation, made him a comparatively easy winner. Exhibited by W. G. Bailey, Paris, Ontario.

the residents of smaller towns and villages situated within hauling distance of woodlots, should, as a measure of practical patriotism, use wood in preference to coal.

Few farmers realize the value of the crop which can be obtained from their woodlots. If even a small proportion of the attention given to other crops were devoted to the protection and improvement of the "bush," a good financial return could be secured. Aside from its value in affording protection against wind and storms, its importance in the conservation of soil moisture and its aesthetic value, the woodlot has a considerable value for the crops which can be harvested from it every year at a minimum expense. It should have a place on every farm.

Live stock should be excluded as they destroy the natural reproduction, injure the larger trees and pack the soil so that the growth of the trees is retarded. Defective and diseased trees should be removed first; then those of poor form, such as very crooked or very brachy ones which interfere with the growth of better formed neighbors. The trees of the less valuable species such as dogwood, ironwood and hornbeam should then be removed. Every effort should be made to secure natural reproduction, but, if that be impossible, planting will be found profitable.

The tendency has been to encourage the growing of soft-woods suitable for lumber, such as pine, spruce and cedar, but the function of a farmer's woodlot is better fulfilled by producing hardwoods for fuel.

The fuel value of one cord of several of the common kinds of wood is equal to the following

quantities of anthracite coal:

Hickory and hard maple, 1,800 to 2,000 lbs. of coal; white oak, 1,540 to 1,715 lbs. of coal; red oak, black oak and beech, 1,300 to 1,450 lbs. of coal; poplar, chestnut and elm, 940 to 1,050 lbs. of coal; pine, 800 to 925 lbs. of coal.

Therefore, hardwood is worth, to the owner of the woodlot, from \$6.00 to \$9.00 per cord, as compared with coal at \$10 per ton, plus the cost of hauling it out to his farm.

If a yield is to be sustained permanently, it should not exceed the annual growth which, in unmanaged woodlots, probably does not exceed  $\frac{1}{2}$  cord per acre. This production can be considerably increased by careful management. A woodlot may be considered as similar to a savings bank account from which the annual interest, represented by the growth, may be taken out or allowed to accumulate. In the case of the woodlot, however, the withdrawals can be so made as to greatly benefit the condition of the stand and improve its productivity.

The Dominion Forestry Branch and the various provincial forestry organizations have done much to encourage farm forestry by supplying advice and assistance. The Dominion Government distributes annually between 3,000,000 and 3,750,000 seedlings and cuttings among the farmers of the prairie provinces. In Ontario, the Forestry Branch of the Department of Lands, Forests and Mines also supplies seedlings for planting in farmers' woodlots.—R. D. C.

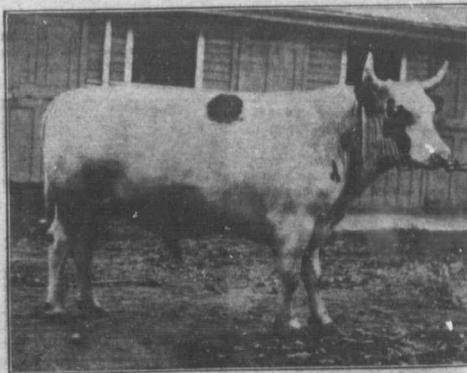
## Sour and Mouldy Silage

Some of the Abuses in Filling

J. TOBIN, Haldimand Co., Ont.

**E**VERY year I notice enquiries in the agricultural papers concerning mouldy or sour silage. Occasionally, too, I hear of a silo owner who has given up filling the silo and knocks the silo at every opportunity. Usually these knockers have had bad silage, and from their own limited experience have decided that the whole system is wrong. Certainly the filling of the silo is an operation capable of great abuses, and these abuses will explain fully every case of dissatisfaction with corn ensilage.

I have had personal experience with some ensilage, but the most that I know about it I have been content to learn from the experience of others, and from these observations I would say that in the great majority of cases, sour ensilage is due to siloing the immature corn. This immaturity

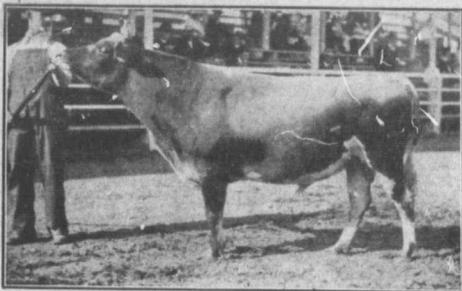


Hillside Peter Pan, Senior Champion at the Canadian National.

This bull was first in the Mature Bull Class, winning chiefly on his superior ribbing. He was in lower flesh than when exhibited last year, and consequently showed to better advantage. Hillside Peter Pan is the herd sire of Alex. Hume & Co., Campbellford, Ontario.

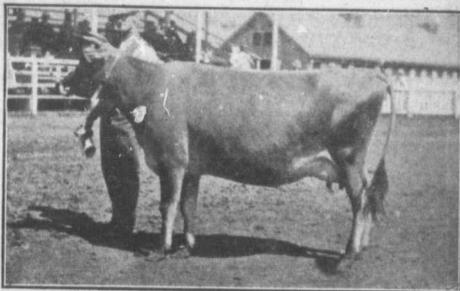
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may be large to proper source able to same to I would corn nstance, times 1 When in exc The pr advance vanced what is time, to Mouldy siloing will be Unless in the water is from the mouldy long. The likes to and he inch or is cut packs 1 the silo parts of well m silo as higher Poor mouldy general lshed o Every t cement water. brush, a necessa ever, sp stave sil to start of the s as the s air tight A con helped t and the portion from set that mu mouldy inside o



A Canadian Bred Bull as Good as the Best.

Note the wonderfully straight lines of this two-year-old bull; this along with character, constitution and capacity. Some believed him good enough for the championship which went to the senior Bull. Owned and bred by E. H. Bull & Sons, Brampton.



Winner in the Milk Class and a Grand Cow.

Brampton Oxford Vixen, shown by Jno. Pringle, London, Ont., was first in the class for mature Jersey cows. Note the pleasing conformation, great capacity and nicely balanced udder. Previous to being photographed the cow had been milked out along with the rest of her class, which accounts for the seeming lack of capacity in this vessel.

may be due to too late planting, or to the use of large southern varieties which cannot reach a proper stage of development in this climate. The sourness of this silage not only makes it unpalatable to the cattle, but immature corn has not the same feeding value as corn of greater maturity. I would risk frost every time in order to give the corn more time to mature. Last year, for instance, our corn was heavily frosted three or four times before we were able to get it into the silo. When we started to feed it six weeks later, it was in excellent condition, and the cattle enjoyed it. The proper stage to cut corn is when the most advanced ears are well denting, and those least advanced are in good condition for bolting, or in what is known as the late milk stage. About this time, too, the lower leaves will be drying up.

Mouldy ensilage, on the other hand, is due to silaging corn that is too dry. In most cases this will be corn that has been frosted a few times. Unless I am certain that there is lots of moisture in the corn, I plan to run a half inch stream of water into the blower, this water being syphoned from the threshing tank. Another source of mouldy silage is traceable to cutting the corn too long. The travelling thresher, who runs the most of the silo fitting outfits, in our district at least, likes to get the job done as quickly as he can, and he will cut all the corn three-quarters of an inch or an inch long, if we will let him. Corn that is cut in one-quarter to one-half inch lengths, packs better, and more of it can be gotten into the silo. In the silo, too, the heavier and lighter parts of the ensilage that are blown in should be well mixed. We plan to have the surface of the silo as it fills saucer-shaped, keeping the edges higher and tamping the sides thoroughly.

Poor silo construction is also responsible for mouldy and spoiled ensilage. I find that it is not generally known that cement silos must be refinished on the inside every three or four years. Every three years, we go over the inside of our cement silo with a thick wash of cement and water. This wash is applied with a white-wash brush, and a couple of coats given if two are necessary to smooth the walls. Most silage, however, spoils around the doors in both concrete and stave silos. A good plan when filling the silo is to start a roll of tar paper, suspended from the top of the silo by a cord, and unroll it over the door as the silo is filled. This makes the door perfectly air tight.

A common defect in stave silos that I have helped to fill is the wide ledge between the staves and the inside wall of the cement underground portion of the silo. This ledge prevents the silage from settling properly, and it is also at this point that much air gets into the silo, and we find mouldy silage. In a properly constructed silo the inside of the staves will be drawn in flush with

the inside edge of the concrete wall, and to insure that the silo stays in its place, bolts will need to be sunk into concrete at intervals outside and the staves bolted to them. A little rim of cement renewed each year, if necessary, will serve to keep out the air at this point. If these suggestions are followed, I am satisfied that there will be no sour or mouldy silage.

## The B.C. Agricultural College

An Institution Yet in the Making

PROF. L. S. KLINCK, Dean of College of Agriculture.

THE College of Agriculture is an integral part of the University of British Columbia. Its class rooms and laboratories are located on the campus, as are those of the other faculties of

levelled, underdrained and irrigated. As land clearing is being proceeded with the area available for the different outside departments will be increased as the expansion of the work of each requires.

### Experimental Work Begun.

At present seven acres are devoted to field experiments with roots, grasses, clovers, soiling and cereal crops. Upwards of ten acres have been planted to orchard, small fruits, vegetables and flowers, while over 25,000 specimens, representing nearly 800 species, have been set out in the botanical gardens. The remainder of the cleared area is being devoted to the growing of general field crops for live stock.

A substantial two-storey horticultural storage building has just been completed, and funds are now available for the erection of a farm barn,

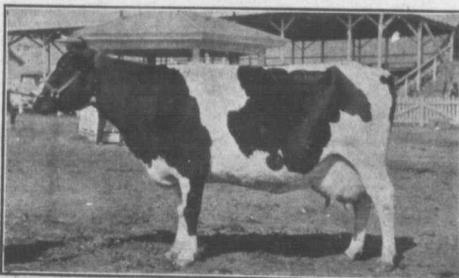
dairy stable, farm dairy and poultry plant. In addition to these permanent buildings temporary accommodation will be erected this fall for work horses, beef cattle, sheep and swine. Good individuals of at least two representative breeds in each class of live stock will be purchased for class-room purposes.

Two distinct lines of study will be offered when the College of Agriculture opens its doors to students for the first time this fall. The first course will lead to the degree of B. S. A.; the second will be a series of short courses in Agronomy, animal husbandry and horticulture. Those

students who enter upon the degree course in agriculture are required to have junior matriculation, or its equivalent, before entering upon their course. This degree will be granted only after the successful completion of four years of lecture and laboratory work. The course has been planned for students who wish to obtain a practical and scientific knowledge of agriculture, either as a basis for demonstration and teaching or as an aid to success in farm management.

### The Course of Study.

The first two years of work in this course will be devoted to acquiring a knowledge of the basic science upon which agriculture rests, in addition to the student's knowledge of mathematics and lan-



Ladoga Idoline Veeman, First in the Milch Cow Class at Toronto.

This cow put up a good argument for the championship, but was beaten by the winner of the dry cow class. Even if she is a little plain in the rump she is a grand specimen of a Holstein milch cow. Owned and exhibited by A. E. Hulet, Norwich, Ont.—All photos by an editor of Farm and Dairy.

the university. During the coming year lectures in agriculture will be given in the temporary quarters occupied by the university in the city of Vancouver. Land clearing operations, field experiments and the erection of farm buildings are proceeding at the permanent site at Point Grey.

One hundred acres of land have been cleared and are now under crop. The experimental results obtained during the past two seasons have been of great value in determining the best methods of bringing heavily timbered uplands into cultivation. The allotments of land made to the Departments of Agronomy, Botany and Horticulture have been especially prepared for experimental work, while the area set aside as a part of the farm proper has not been so fully cleared.

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**1 1/2 H. P. \$65.**

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## Sydney Basic Slag

The British Government recognize the value of Basic Slag and are urging farmers to secure their requirements for season 1917-18 on time.

See extract from Glasgow Herald published in Glasgow, Scotland, of date 14th August, 1917, as follows:

"There is likely to be a larger demand for Basic Slag than the greatest efforts of manufacturers will be able to supply. Farmers are urged by the Food Production Department to place orders with their usual merchants at once and to take the earliest possible delivery of their requirements for season 1917-18."

Canadian farmers should use Basic Slag as recommended by the British Government.

**Cross Fertilizer Co., Limited**  
SYDNEY NOVA SCOTIA

gauges and in laying a foundation for more advanced studies in practical agriculture. The third and fourth years will be devoted almost wholly to courses in applied agriculture. Specialization will begin at the commencement of the third year.

For the past two years a course on the Scientific Basis of Agriculture has been given as an elective to junior and senior students in Arts. The first Short Course in Agriculture to be given under the auspices of the University was given last year and was a pronounced success. With this foundation already laid the Faculty of Agriculture is looking forward to a steady growing interest in a steady growing interest in the advancement of agriculture in the Province of British Columbia.

## Farm Management

### Cooperative Experiments

AS long as the supply lasts, material will be distributed free of charge in the order in which the applications are received from Ontario farmers wishing to experiment and to report the results of any one of the following tests: 1, three varieties of winter wheat; 2, one variety of winter rye and one of winter wheat; 3, spring applications of five fertilizers with winter wheat; 4, autumn and spring applications of nitrate of soda and common salt with winter wheat; 5, winter emmer and winter barley; 6, hairy vetches and winter rye as fodder crops. The size of each plot is to be one rod wide by two rods long. Fertilizers will be sent by express for Number 4 this autumn, and for Number 3 next spring. All seed will be sent by mail except that for Number 4, which will accompany the fertilizer.—Prof. C. A. Zavitz, O.A.C., Guelph, Ont.

### The Wheat Midge.

EDITOR, Farm and Dairy.—After many years of freedom from its attacks, the wheat midge has made its unwelcome appearance in the county, of Wentworth, Lincoln and Welland, and also in Elgin. On some farms it has injured the crop to a considerable extent, and has caused much alarm among the farmers in those sections of the Province.

The parent fly is a very small two-winged insect, with a yellow or orange-colored body, about an eighth of an inch in length. It appears when the ears are formed on the growing grain, and lays its egg at the tip of the chaff covering the soft kernel. In about a week thereafter from them small, dark red maggots, which enter the grain and feed on its milky contents, leaving only an empty shell. When numerous, the destruction thus wrought is enormous. When full grown, the maggot descends to the ground, aided oftentimes by a rain-drop, and there, burying itself a few inches below the surface, changes to the torpid pupal state in which it passes the winter.

Nothing can be done to destroy the maggots while feeding in the ear. It only remains, therefore, to guard against future attacks. For this purpose it is most important to sweep up and burn at once all chaff and refuse from the threshing machine, which will contain many of the insects. If practicable, the stubble in the field should be burnt over, and in any case the whole should be deeply plowed in order to bury the wintering pupae so deeply that the flies will be unable to emerge next year. Rolling the ground after plowing will help materially to produce this result. No wheat should be grown on the same field, or very near it, for one or two seasons.

When the midge was so terribly destructive, some fifty or more years ago, it was found that certain varieties of wheat were "midge-proof," due to the flinty character of the straw and the chaff covering the grain, which were too hard for the newly-hatched maggot to penetrate. The general adoption of these varieties saved the situation and the midge became practically extinct. It would be well for farmers in the localities still affected to sow next year only such varieties of wheat as are likely to possess this resistant quality. The Red Fife is one that can be recommended, and probably the Marquis would be equally satisfactory.—C. J. S. Bethune, O.A.C., Guelph, Ont.

### Winter Crops in Ontario

Prof. C. A. Zavitz, O.A.C., Guelph, Ont.

ABOUT 290 varieties of winter wheat, and many selections and crosses have been grown under experiment at the Agricultural College within the past 25 years. Of the named varieties 14 have been grown in each of 22 years, and the results of these are of special value. The following gives the average for 22 years in yield of both grain and straw per acre and in weight per measured bushel of a few of the leading varieties: Dawson's Golden Chaff, 50.2 bushels, 2.9 tons, and 59.9 lbs.; Imperial Amber, 47.2 bushels, 3.1 tons, and 61.1 lbs.; Early Genesee Giant, 45.9 bushels, 3.0 tons, and 60.1 lbs.; and Egyptian Amber, 45.5 bushels, 3.1 tons, and 61.5 lbs.

The average results of the 14 varieties are as follows: Yield of grain per acre 25.6 bushels for 1917, and 44.3 bushels for the 22 year period; yield of straw per acre 1.8 tons for 1917, and 2.5 tons for the 22 year period; and weight per measured bushel 56.7 lbs. for 1917, and 60.9 lbs. for the 22 year period.

Of the 34 varieties of winter wheat which have been tested for the past five years the highest yields in bushels per acre have been produced by Imperial Amber 45.8, Kharkov 45.6, Gillespie Red 45.2, McBean's Dawson 45.1, Tuscan Island 44.9, Grand Prize 44.7, and American Banner 44.6.

These varieties of winter wheat which have produced the largest loaves of bread from equal quantities of flour in the average tests of 10 years made in the bakery branch of the Chemical Department of the College are as follows: Yuzofka, Banatka, Crimean Red, Tuscan Island, Buda Pesth, Tarnopol Red, Egyptian Amber, Kontar, Genesee Giant, Rody, Treadwell, Bulgarian, Geneva, Turkey Red; and those which produced the smallest loaves of bread are the Early Red Clawson and the Abundance.

A cross made between the Bulgarian and Dawson's Golden Chaff and the Bulgarian has furnished a new variety which in the last five years has surpassed both its parents in average yield per acre, and is about equal to the Bulgarian in bread production. This variety was distributed over Ontario in connection with the cooperative experiments in the autumn of 1916 for the first time under the name of O. A. C. No. 104, and is not yet grown in sufficient quantity in Ontario to be sold commercially. In cooperative experiments throughout Ontario in the past year, in which five leading varieties were tested, the O. A. C. No. 104 proved to be the most popular with the farmers, the improved Imperial Amber coming second in this respect.

The Petkus variety of winter rye has made the highest record both at the College and in the cooperative experiments throughout Ontario. Winter barley, which has been grown at the College in each of the past 24 years, gave a yield per acre in 1917 of 32.2 bushels, the average for the whole period being about 50 bushels per acre.

# ANNOUNCEMENT

**E**LEVEN YEARS ago a few enthusiastic farmers of the West organized a small Grain Commission Company in the hope that they might improve conditions under which grain was sold in Western Canada. They worked under handicaps and against heavy competition, but succeeded. Later other organizations were formed in Canada, each with Co-operation the keynote. What they have achieved is well known. Soon there was a demand for closer co-operation among these companies in their business efforts and now—

On September 1st the **Alberta Farmers' Co-Operative Elevator Co. Ltd.** and the **Grain Growers' Grain Co. Ltd.** will no longer be separate organizations as heretofore.

By a practically unanimous vote of their thousands of shareholders these Companies have joined hands so that they can work together in the interests of the farmers of Western Canada. The problems of marketing the products and supplying the needs of farmers are identical throughout Manitoba, Saskatchewan and Alberta. This Union of the two old companies with shareholders running well over 30,000, with assets exceeding \$3,000,000.00, with over 300 country elevators, with terminal elevators at Fort William and Port Arthur, with machinery and supply warehouses in Calgary, Regina and Winnipeg, and with an efficient organization under the supervision of a Board of Farmer Directors having full knowledge of the farmers' needs, provides a company that can give maximum service to Western Farmers.

The old companies in the future will work for the best interests of the farmers under the name of:

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## SHEEP AND SWINE

### Stay With the Bacon Hog

Prof. Geo. E. Day, O.A.C., Guelph, Ont.

WE should continue to specialize in the bacon hog. The lard hogs of the corn belt states are produced cheaply. At the same time, the lard hog is the only hog that can be raised there. The surplus pork of the corn belt states goes to Great Britain. If we attempt to send the same kind of pork, we will lose in competition as we cannot feed as cheaply as they can. This is why our packers have tried to produce something else—the bacon hog. Our competitors here are Denmark, Ireland, etc., and they cannot feed as cheaply as we can. The fat hogs produced in Canada are sold on the local market and the bacon goes 25¢ abroad. Hence it is the bacon hogs that are keeping us in the business.

### The Sire for Your Flock

TIME and again it has been said by sheep breeders that the ram is half of the flock. And in no way can the breeder add flesh or fleece to his whole flock more cheaply or more quickly than by topping the ewes with an aggressive, type sire. Only pure-bred sires should ever find a place in the flock. While a pure-bred may often be found worthless as a sire, a grade sire is sure to decrease the value of the whole flock. In choosing a sire, individuality must be looked for as well as pedigree. A good place to purchase the ram is at a fall fair or a dispersion sale, where several sires should be seen together. The ram should be typical of the breed and distinctly masculine in appearance. Some breeders practice buying a ram particularly strong in the points where their ewes show weakness. As a rule, however, it is better to buy a ram showing smoothness throughout rather than attempting with the anatomy of the flock in such a manner.

Buy the best ram you can afford. A good price will be easily made up if he succeeds in giving you better mutton or wool in his offspring. And when you have a ram that has proved its ability as a breeder, do not be in a hurry discarding him. Good breeders are not plentiful.

### The Sheep Breeding Season

THE period of gestation with sheep is usually placed at 145 days, although there is considerable variation with different ewes. With this figure, however, the breeder will be able to calculate when to breed his ewes for most satisfactory results in lambing. While breeders of pure-bred sheep usually like early lambs, the majority of farmers who raise sheep for mutton and wool like to have the lambs dropped on the grass. It saves a lot of trouble.

As the coupling season approaches, both ewes and rams should be in good condition. By feeding the ewes about one-half pound of oats a day per head, in addition to the grass they eat, they will be kept in good shape during the breeding season. The results will show in more uniform lambing next spring.

Flushing is largely practiced in England, and is becoming more general in this country. This is the practice of feeding the ewes on some succulent food, such as rape, to stimulate the genital organs and bring the flock into heat at about the same time. Ewes should always be fed as fast as to be gaining in weight in breeding time.

The ram should also be in good

healthy condition, but not overfat. He should get plenty of such succulent foods as rape or turnips. Oats and bran with a little oil cake should be fed sparingly to supplement this and to act as a condiment. The sire should never be fed mangel or sugar beets, otherwise bladder troubles are apt to result.

The ram should not be left too long with the ewes. It will be too hard on him. One hour with the flock in the cool of the evening and the same in the evening, will usually be as much as he will stand without going down in condition. With high-priced rams, it is the usual practice to use a wither or a ram well guarded with a board or bag to act as a "teaser." By this "teaser" the ewes that are in heat are found out and only these are placed with the high-priced ram. This means the conserving of a lot of his energy.

### Winter Feed for Yearlings

I HAVE just purchased 30 grade Shropshire ewes and their lambs to be wintered this year. I have abundance of clover hay and a few mangel and turnips, but will have to purchase all grain feed. What should I buy, or will I need any at all? How much roughage and roots should I allow for my flock of 30?—A. T., Argenteuil County, Que.

The winter feeding of sheep depends on the size of the sheep, the condition of the ewes when they are put in winter quarters, the date when they are expected to lamb and the costs of feedstuffs. Generally speaking, however, I would suggest the following ration: During the early winter the daily ration per ewe might consist of two to three pounds of clover hay, three to five pounds of mangel or turnips, or equal parts roots and ensilage. During the late winter, two to three pounds of hay and one to two pounds of roots, or roots and ensilage, the roots to be discontinued three weeks before lambing. In addition to this, a certain mixture composed of oats four parts, bran one part, fed at the rate of one-half to one and one-half pounds per ewe per day, depending on the condition of the ewe, will be found profitable. After lambing, a daily ration composed of two to three pounds of clover hay, three to six pounds of roots, or a mixture of roots and ensilage, in addition to a ration of from one to three pounds of grain, composed of oats five parts, bran one part and oilcake one part, together with the regular salt and water, will be found profitable. No definite amounts can be stipulated and the careful feeder will be governed largely by the condition of the ewes from time to time, which in turn is very materially influenced by the severity of the winter.

The maximum feed required for 30 ewes to be fed for six months, which would probably include some weeks after lambing, would be eight tons of clover hay, preferably second cut, 500 bushels of roots and one and a half tons of mixed grain. It is probably advisable to purchase bran and oilcake required as soon as possible, for already the markets have advanced materially. It would probably be wise to wait until the latter part of September or early October before deciding on when to purchase oats.—E. S. A.

California has recently passed a law requiring the tuberculin testing of all dairy cows from which unpasteurized milk is sold. The state veterinarian has collected a large force of men and has already entered upon the campaign.

The immediate dollar is not everything. The cheque of the cream shipper may not be as large as the one received by him in about the neighborhood, but the extra growth of his young stock and the fertility retained on the farm may be worth more than the difference.

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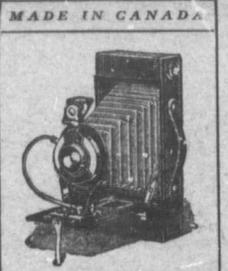
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## A Visit with R. and A. H. Baird

(Continued from page 4.)

alls, filled and then pushed in between two rows of cows. The feeder goes on top of the cart and forks the ensilage into the manger on either side of him as he pushes himself along. The whole herd of 50 or 60 cows can be fed in a few minutes.

## Crop Management.

The size of the silage is an indication of the important place that the corn crop takes in the rotation at Prospect Farm. Sixty-five to 70 acres of corn are grown every year, a variety with a large stalk and yielding a heavy tonnage per acre being preferred. The root crop covers five acres. Hoe crops are followed by grain and in a good year 5,000 bushels of wheat, barley and oats are threshed. Clover hay is the last crop in the three-year rotation, and part of it is cut for hay and part of it is pasture, perhaps 25 or 30 acres being reserved as pasture for cattle. About 25 acres of flats are in permanent pasture for the young stock, but the calves are not pastured at all in their first year.

"The silage, you will note," said Mr. Baird, "is our principal roughage. Frequently we have fed ensilage as the sole roughage along with a little straw. The cows, apparently, did just as well as when they were getting hay. The grain ration consists of a mixture of oil cake, middlings, bran and chopped oats. We have also fed a little cottonseed."

"What have you been feeding this winter?" I asked.

"We have not had oats for the cows this winter," replied Mr. Baird, "and have been feeding a mixture of one-quarter oil cake, one-quarter bran and one-half middlings. We think that we get better results from middlings than any other feed. We insist, however, on getting the best white middlings. Of this mixture we feed from four to ten pounds a day per cow, according to the amount of milk they are giving. We feed no roots unless a cow gets off her feed, when she gets roots for a time."

Pigs and poultry are important sources of revenue on this farm. At the time of my visit the breeding stock consisted of 13 sows. As a general rule there are 150 pigs being fed and last year pork sales amounted to \$5,000. No heavy grain is purchased for feeding the hogs, it all being grown on the place. The poultry flock consists of White and Brown Leghorns, with the former breed predominating. The layers this spring numbered 370, about half of them pullets.

## The Dairy House.

I have already stated that 20,000 lbs. of butter are manufactured annually on this farm. This calls for the most complete equipment, and the dairy house has all of the butter-making equipment that one would find in a small creamery. The power churn has a capacity of 250 lbs. butter, but it is to be replaced by a 300-lb. churn. A six-h.p. boiler supplies the power for operating the creamery equipment and supplying hot water and steam. The turbine cream separator has a capacity of 1,350 lbs. of milk per hour. The butter, too, is worked by machinery. A cooling vat completes the equipment. The refrigerator adjoins the creamery.

An unusual addition to the creamery building might be well calculated to stir up a feeling of envy in the hearts of many farm women. It is a completely equipped laundry, which has been in operation for five years. The washing machine is operated by the creamery power, water is boiled by a steam jet running from the boiler. Last, but not least, is a steam drying-room. It is never necessary to go outside to hang out clothes on the barest farm. This drying-room is

one of the finest features of our laundry," remarked Mrs. Baird.

Just a word about the home at Prospect Farm. It is one of the big, commodious houses that are characteristic of Waterloo County. It is heated with hot air and has all the conveniences that go with running water. It is a fitting home centre for one of the finest dairy farms that I have ever had the pleasure of visiting.—F. E. E.

Field beans approach animal foods in nutritive value. They contain a high percentage of protein and in this respect surpass the cereals commonly used as food, such as wheat and oats. There is a higher percentage of protein in beans than in the best cuts of meat, but it is not quite so completely digested. Protein is a nutrient which serves to build and repair body tissues as well as to furnish energy. It per-

forms essentially the same part in nutrition whether it is from beans, peas, wheat, meat, milk or cheese.

It is possible that the keeping of scrub cows has something to do with the making of scrub farmers?

Drinking impure water will lessen the milk flow. If there are stagnant pools in the pasture, fence them off.



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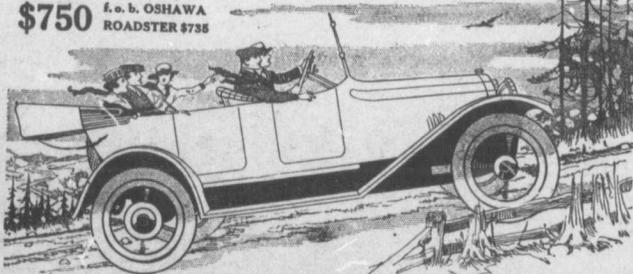
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Rural Home

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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-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue. 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 in writing to advertisers you state "I saw your advertisement in Farm and Dairy."

Requests shall not be 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.

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PETER ORO AND TORONTO

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

## The Boy and His Schooling

THESE is an old notion, not yet extinct, that to be a farmer, education is unnecessary.

This notion proves most persistent and finds the greatest number of adherents when labor is scarce. During the holidays, the boy who is just reaching high school age takes almost a man's place on the farm. He makes himself invaluable, and when school opens in the fall, father cannot see it's way clear to part with him. The boy decides to stay home another month. Too often the month lengthens to two or three months, and it is not until the winter when the lad gets started at school. He finds himself behind in his classes, loses interest and is soon keen to leave school altogether.

This is a crisis in a boy's life that all wise parents will guard against. There will be much justification this year for delaying the return to school for a few weeks, but this delay should be only in cases of great necessity. In pioneer days, with rich soil and simple standards of living, neither knowledge nor skill was necessary to reap abundant harvests and provide all material necessities. To-day, soils have been depleted of their virgin riches and must be fed as well as cropped; goods must be marketed as well as produced; at every turn the farmer comes in contact with men in other walks of life, and must be able to hold his own in business dealings with them. The rewards to-day are to the men of trained minds—and that is just another way of saying that the rewards are to the educated. The mental training of your boy is of vastly more importance to him than the amount of work he can

do within the next few weeks is to you. We hope to see the boys back at school this year in just as great numbers as they have been in the past.

## The Dairy Standards Act

WHEN the Ontario Dairy Standards Act was withdrawn last spring because of strong opposition to its provisions, friends of the measure feared that its enforcement would be delayed indefinitely. Evidently, however, the government has no intention of dropping the measure. An educational campaign has been going on quietly all summer. In eastern Ontario, where opposition to the Act was most in evidence, large scale experiments have been conducted taking all the milk of two cheese factories, which prove that the results of previous experiments were dealing with the relationship between yield of cheese and fat test, to be correct. In addition, the milk of every cheese factory patron in eastern Ontario has been tested, the average test at each factory has been ascertained and each patron now knows just how the enforcement of the Dairy Standards Act will affect him.

This is good work and bound to make many friends for a more equitable means of dividing cheese factory proceeds that is the pooling system. We congratulate the Department of Agriculture for the sincerity of purpose they are showing in connection with the Dairy Standards Act.

## The Safest Line

M R. A. J. REYNOLDS, one of the directors of the Rural Publishing Company, is quoted recently in the Toronto Globe as saying:

"There is this great point in favor of dairying: It brings in revenue every month of the year, and in every month the dairyman knows just what his income from that source is going to be. There is another important point: Dairying is a safe line; there are fewer ups and downs and fewer exceptional losses in it than in any other branch of farming."

Mr. Reynolds is right. Sometimes we dairy farmers are inclined to feel that we are tied rather closely to our work. But does not the stability and safety of the industry more than compensate? And to safety we must add financial returns. The profits of dairying, as compared with other lines of farming, are reflected in the class of farm homes and farm buildings that are characteristic of the dairy districts of Canada. At the present time, with grain at record prices and all purchased feeds abnormally high, there may be some grounds for believing that perhaps the grain and stock farmer has a little the best of the bargain. Certainly the grain farmer is getting splendid prices for all that he has to sell, and his labor bills are not so great. Present conditions, however, will not last forever. At best they can last but a few months after the war is over. The dairy farmer will then have his turn, and Mr. Reynolds' contention that "dairying is a safe line," will then be even more abundantly proven than it now is.

## What Shall We Do?

RECENTLY two official documents reached the editor's desk, both from the same source.

The first of the two emphasized the need of grain and more grain to feed the hungry people of the world. Farmers were urged to break up their meadows and increase the area of fall and spring grain. The second document emphasized the importance of live stock, related the mistakes of the Germans in reducing their breeding flocks and herds, deprecated the use of veal and lamb and urged farmers to increase their live stock holdings. To this latter end a nationwide bacon campaign is in prospect.

What shall we do? It must be evident to anyone with a moderate amount of common sense

that the farmer cannot plow up his meadows for grain and at the same time increase his live stock. One or the other must suffer. We fear that these two documents are merely a sample of the conflicting nature of too much of the advice that is being heaped gratuitously on farmers nowadays. All that we can do is to sift the wheat from the chaff, and the proportion of the latter is usually large, and use our own common sense. The policy that will appeal to dairy farmers at least is one of "carrying on." With help as it is, an increase in live stock holdings is almost impossible. Whenever possible, however, the breeding herd should be kept at its normal strength and, if reduction is necessary, only the poorest animals should be sold. This carrying on policy is in the best interests of the country at the present time and is necessary to the future well being of the dairying industry. Of this we may be certain—that milk and its products will command relatively higher prices after the war than will grain and mill feeds, which are now at a premium.

## For Farm Bookkeeping

THE late C. C. James, during the course of an Institute lecture, strongly urged that all farmers should keep books and know something of their receipts, expenditures and costs. He was promptly met with an objection from the audience to the effect that if all farmers kept books and began to look for business returns from their farms there would soon be no farmers. Mr. L. H. Newman, the secretary of the Canadian Seed Growers' Association, has recently turned this objection into an argument for accurate farm accounting, when he writes as follows:

"There is an appalling lack of reliable information as to the real condition of affairs on the average Canadian farm. Many of our farmers are average farmers is not receiving the returns on his investment that he should and yet in the absence of exact data, neither the farmer himself nor those who would act for him, can present his case. At the present time there is a rather general impression in our cities and towns that farmers are making a great deal of money owing to high prices. This opinion, in fact, has been more or less prevalent for some years with the result that the farming industry has not always, I fear, received just consideration from those who make our laws. Our city friends forget that while food stuffs are high in price, the things which the farmer must buy are correspondingly high. If a number of farmers in each province could be induced to follow a system of accounting which would provide the real hard facts of the case and would make this information available to those who, in the words of Tennyson, are required to 'shape the whippers of the throne,' I am inclined to think that the rural problem, which is really a financial one, would soon be solved."

There is much wisdom in Mr. Newman's argument. With a good system of farm accounting, such as the one designed by Mr. Newman himself, farmers would soon be able to speak in no uncertain voice regarding the economic disabilities under which they labor. We have great hopes that the farm survey to be undertaken by the Ontario Department of Agriculture, will be indirectly responsible for creating a new interest in farm accounting. Certainly it will reveal the business status of the farmer in a new light among the powers that be.

Tests made at the North Dakota Experiment Station indicate that corn that is in the glazing stage makes about as good seed corn as that which is ripe. Corn in the dough stage gave a pretty good germination, but not nearly as good as that which was more mature, while corn saved for seed in the milk stage gave a very small germination. To make seed suitable for field planting, the corn must be at least in the dough stage, but it can be saved in the milk stage for the purpose of saving some particular strain of corn that did not get any more mature. The more immature the corn, the harder it is to cure.

## The Dairy Standards Act Not Forgotten

AN indication that the Ontario government has not given up the idea of enforcing the Dairy Standards Act, requiring cheese factories to pay for milk by the butter fat test, instead of by weight, was furnished by Chief Dairy Inspector G. G. Publow at a meeting of the executive committee of the Eastern Ontario Dairymen's Association, held in Toronto, on Aug. 31. It will be remembered that at the last session of the Ontario Legislature, the time for the enforcement of this act was indefinitely postponed. Premier Hewart stated at that time that it was not the intention of the government to allow the matter to be dropped, but that it felt that educational work should be conducted before the government attempted its enforcement.

Chief Inspector Publow reported that he is having tests made this season of the milk of every patron of every factory in Eastern Ontario. In addition, samples of milk are being taken from the vats in each factory to find the average test of the milk for each factory. The tests of the milk of the individual patrons are to be compared with the average test of the milk for the factory as a whole in order to find how many patrons are supplying milk above the average and how many are supplying milk that falls below the average. In this way each patron will be able to gain some idea of how he would be affected were his factory to commence paying for milk by test instead of by weight. Farm and Dairy has since been informed by a director of the Western Ontario Dairymen's Association that similar tests are being conducted in all the factories of Western Ontario. In Western Ontario

the tests are being taken on two different days, thus giving a double check.

Chief Inspector Publow has also conducted special tests in two factories where all the milk testing above 2.5 per cent. has been placed in one vat and all testing below 2.5 per cent. in another vat. The quantities of milk in each vat have been kept track of carefully and also the total amount of cream made from each lot. In this way it has been ascertained how much more cheese can be made from a certain quantity of milk testing high in butter fat than can be made from a similar quantity of milk having a lower percentage of fat. Last year exception was taken by some people to the tests of this character which had been conducted on a small scale in the Dairy School at Kincanton, on the ground that these small tests might not be accurate. The object of conducting tests on a larger scale was to find if the results of a test on a large scale would bear out the results of the smaller tests. Chief Inspector Publow states that the factory tests so far have borne out very closely the results that were obtained last year on a small scale. Still further tests of this character are to be conducted.

It is expected that the results of all the different tests will be available for use by the time of the district conventions of the association, which usually are held at different points throughout Eastern Ontario during the month of November of each year. The matter will be gone into also next January at next annual convention of the association which will be held in Perth.

## Milk Condenseries vs. Cheese Factories

THE cheese industry in portions of both eastern and western Ontario has been seriously affected this season by the operations of milk condenseries through the action of the British government in limiting the price it would pay for cheese. The restriction on the price paid for cheese has made it impossible for the cheese factories to pay more than a corresponding price for the milk they receive. As the British government has not limited the price for the product of the milk condenseries and milk powder factories, but is buying their output in large quantities, the result has been that the condenseries and milk powder factories have been able to offer much more for milk than cheese factories in the same districts can pay. In consequence of this condition some nine cheese factories in the Chesterville district have been closed this year and four or five factories in the Woodstock district. Some of the cheese factories in the Chesterville district have been making as high as 20 cents a day. So far the Chesterville condenser has been handling about 100,000 lbs. of milk a day, but it is planning to enlarge its plant so that it will be able to handle as high as 250,000 lbs. of milk a day. Such action on its part would in all likelihood result in the closing of a number of additional cheese factories. At Brockville, a condenser is shortly to commence operations and it is expected that some time this fall a condenser will commence operations at Peterboro.

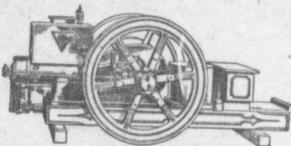
The situation that has been brought about by these conditions was considered at some length by the members of the executive committee of the Eastern Ontario Dairymen's Association and by the directors of the Western Ontario Dairymen's Association at meetings held in Toronto at the time of the Canadian National Exhibi-

tion. No action was taken by the executive committee of the Eastern Ontario Dairymen's Association, although it seemed to be generally recognized that the present situation is not fair to the cheese factories in the districts where condenseries are operating. The directors of the Western Ontario Dairymen's Association passed a resolution suggesting that either the price paid for cheese should be increased, or preferably that the price paid by the milk condenseries should be restricted in the same way that the price paid for cheese has been limited. The directors of both associations seemed to feel that farmers generally are pretty well satisfied with the prices that have paid this season in cheese and therefore that some regard should be felt for the consuming public, including the people of Great Britain who should be forced to pay unduly high prices for their food.

A W. O. D. A. director quoted a British official to the effect that the British Government is willing to buy the complete output of all condenseries and milk powder plants.

One prominent dairyman who is interested in a proposed milk condenser to be operated in Eastern Ontario, informed Farm and Dairy that a principle reason why it is possible to pay such high prices for the products of the condenseries and powder factories, is because this product can be shipped readily and handled by expeditionary forces with a minimum of expense. Farm and Dairy is corresponding with some of our leading dairy authorities in reference to this condition and expects to have further announcements to make concerning it shortly, including the rumor that a portion at least of the output of the condenseries is being shipped to the central powers in Europe through Switzerland.

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THE one who reads a bad book when he might be reading a good book, is poisoning his life instead of enriching it.

## A Vacation from Worry

(From Farm and Fireside.)

By ANNIE HAMILTON DONNELL.

MRS. HEATH'S anxious voice filled the hall, down the stairs: "Did Caroline take an umbrella?"

A cheerful 16-year-old voice drifted back up the stairs, up the hall: "I don't know, I'll count 'em."

"I know she didn't," groaned the anxious voice in the period of waiting, "and she had all her best clothes on, as she always has when it's cloudy." "She never! Here's four in the umbrella stand. But don't you go to worrying, Marmie; it only looks like rain."

Mrs. Heath resumed her darning and worrying. She was only a tiny woman, who should have been pink and white and smooth, unworried. Faint care lines, as it was, crisscrossed her gentle face. Umbrellas were but one item of her daily program of anxieties. She was the family worrier—all the possible calamities that might or might not happen to seven lusty Heaths had happened to them in her imagination.

"That lovely hat! Caroline is so care—Mercy, I'm sure I smell smoke!" She hurried to the head of the stairs. "Mig, Mig!"

"Yes'em," again the cheerful young voice.

"You there?" Mrs. Heath was mildly added to needless questions. "I smell fire, is the baby anywhere near the matches?"

The baby was five and utterly un-reconciled to his mortifying title.

"He's in the same room, but he's on the floor, and the match—"

"Then it's Thyra. She's probably lighting the fire with kerosene. Run, Mig, quick!"

"I will! I'll put her out—never you mind, Marmie!"

There was a scurry of light feet, followed by clumping little ones. It was the baby who reported, a moment later.

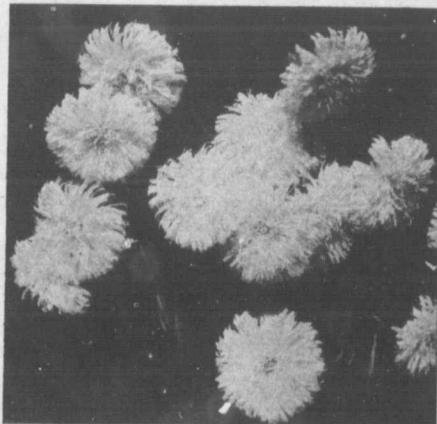
"Nothin's burnin'! 'cept the fire," he shouted at the top of good lungs.

"Well, it's a mercy! Something else will burn one of these days, with everybody so reckless. We shall wake up some morning and find ourselves burned to a crisp. I wonder where I dropped that needle! Now someone will step on it and have the lockjaw! I sha'n't take a minute's peace until I find it."

She took yet a few minutes' peace, day or night. Did Griffith read his Latin over the second time before he went to school? Had Griffith I remembered to order coal? Was Thyra coming down with another earache? What if the new neighbors turned out to be the wrong kind? What if the dressmaker got Mig's dress too short, or too long, or the sleeves skimpy? What if a hundred other dreadful things happened?

The seven other Heaths enjoyed life in a beautiful, untroubled fashion that

to the little family worrier appeared incomprehensible. The weight of the cares they ought to feel and the worries they ought to worry added to her own full quiver until the burden grew almost too heavy for her slender shoulders. It happened that this particular afternoon was destined to be the fateful one. Quite suddenly and un-expectedly the half-mended



The Aster is the Official Flower of Autumn, and these, of the Mikado variety, are Beautiful Specimens of the Aster Family.

stocking dropped from Mrs. Heath's fingers.

"I'm too tired to worry about another thing!" she said with a curious air of finality. "Somebody else must do it now—I've done my part." Her tired eyes had a strained look. She was conscious of a sudden desire to change places with the baby so that she might cry. She put her hand to her head if anything should snap—she had never been afraid before that anything would snap.

"I've got to stop worrying," she said aloud. "Henrietta Heath, you listen to me. When I say 'three' you stop!" She had left her little straight-backed sewing chair and sunk into Griffith I's soft rocker. "One—two—she counted, slowly, 'three! Have you stopped, Henrietta Heath?"

"I have stopped," nodded Henrietta Heath from the depths of the great chair. She closed her eyes in relaxed abandonment of earthly cares. But

unconsciously she worried on because she was not worrying! someone must worry—a helpless family could not be left in the lurch like this. She must find someone to take her place—

"I'll advertise," she thought, and got paper and pencil. The wording of the notice gave her little trouble; it was odd how her pencil flew from line to line. Things one might suppose to be difficult and unusual appeared simple enough now to her. She read the advertisement aloud. It sounded well.

"WANTED—A working worrier for a family of seven. Only competent person need apply. Permanent situation for the right one. References. Address Henrietta Heath, Crescent Terrace."

The Pineboro "Evening Call" went to press at noon. It was too late for to-day, but none too early for to-morrow. Mrs. Heath, in the calm conviction of doing the right thing in the right way, put on her things and departed leisurely for the printing establishment of the "Evening Call."

"I wish this advertisement" inserted in to-morrow's paper," she said to the polite person who came forward to meet her. "I am sorry it could not have been—I is too late for to-day, I suppose?"

"M—m, yes, certainly, madam." The polite person was reading the little slip of paper. He looked up un-

"I came in answer to your advertisement in to-day's "Evening Call."

"Oh! Oh, yes, you are a—!" Mrs. Heath faltered in palpable embarrassment.

"Worrier—yes. Professional. Forty years' experience. Thirteen years and a half in my last place. Lady died, man in the asylum. I can't refer you to them, but—"

"Yes, oh yes! I'd like references," little Mrs. Heath faltered weakly. This professional worrier abashed her strangely. In this presence she herself assumed such a novice—amateur. The stranger went on in a matter-of-fact tone:

"In my place before last I worried for a family of six—Mrs. Elbertus Lee, Derry Bridge. Family numbered only three in the place before that, but the work was hard, very hard. I have worked in only three places." The latter was said in a tone of pride. To have worried, professionally, for forty years in but three places appeared occasion for pride. Mrs. Heath was only thirty-four. She blushed uncomfortably.

"Well, if you think I'll suit, I'm ready to begin at once. We can give each other a trial away, but I want one thing understood at the start—"

"Yes?" hesitated Mrs. Heath.

"And that is that I'm not to be interfered with. I'm to do it all."

"There are seven. Seven is a good many—"

"I am perfectly competent to do all the worrying for seven. It must be left entirely to me. I suppose the seven includes you?"

"Dear, no!" The little amateur worrier had never worried about herself. It had not occurred to her.

"Eight, then. Names, please? I wish to get acquainted with my cases before I begin work, and any little hints that you can give me—"

"Griffith I, Griffith II, Caroline, Mig, the twins, the baby," recited the wife of one and the mother of all the rest in rather a tremulous voice. A sob seemed to be tangled up in her throat. Was she giving them all up to this solemn, sour person in black! The solemn, sour person wrote the names in a small black book, with capable flourishes.

"Have you any preference as to which one I worry about first?" she inquired, snapping the covers of the book together. "We are losing time. I should like to begin at once."

"The baby," faltered the baby's mother. He was a good one to begin with and end with. At this very minute—

"Oh, I'm afraid he's playing with matches, or falling down the cellar bulkhead!" worried the professional worrier in a businesslike manner. She entered upon her work with a perfect acquaintance with its requirements—her tone, her look, her motions were all in harmony with her calling.

Mrs. Heath found herself watching her with fascinating gaze. It was as if she was watching herself from a little distance. The anxious lines and creases in the stranger's face filled her with horror, for they mirrored her own face. She put up her hand to feel and see. They were there!

A network of fine lines threaded the forehead of the other woman. More lines ran down her cheeks, more still from the corners of her mouth. Henrietta Heath, in a little whirl of panic, ran to her own room and peered into the mirror. The face she saw there resembled faintly the lined face of the woman she had engaged to do her worrying—there was no doubt of the resemblance.

Downstairs the girl twin was drumming scales on the piano, and wrong notes drifted upward discordantly, but the girl twin's mother laughed softly.

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THE GILLETT COMPANY LIMITED  
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We also manufacture a full line of Grain Grinders, Saw Frames, Pumps, Tanks, Water Boxes, Concrete Mixers, Windmills, etc. Catalogue of any line mailed on request.

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Brantford, Windsor, Regina, Calgary

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She went back to the stranger; this was her business.

"Sylvia is practising wrong," she said.

"I know—I know," snapped the stranger, irritably, "but I can't attend to everything at once. I'm worrying about Griffith. In just this minute, for fear he'll slip under the gate instead of waiting at the railroad crossing, I can't worry about two at once with any sort of success. That reminds me, I forgot to say that if I am expected to work nights I shall charge double wages. Night work is very exhausting."

"Yes," murmured little Mrs. Heath, as one who knew, "I always worried at nights, too. You can charge extra."

The days that followed the advent of the professional worrier were easy days to the weary one released from all care. She grew round and smooth, and laughed often, sang little snatches of song. The children exulted.

"Marmie's growing young," Mig boasted. "See, Papa, how lovely she is!"

"Yes," Griffith I. agreed with unctious, and added little praises of his own in Marmie's ear.

Caroline, the baby, and all the others admitted enthusiastically. Only the hired worrier worried now in the household of the Heaths. Then like a bolt from cloudless sky came the end of this satisfactory arrangement. Henrietta Heath, at her peaceful, unworried mending one morning, beheld the worrier standing in the door with unwonted excitement.

"I've come to give warning." She spoke eagerly. "I can't wait to give two weeks' notice. I belong to the union and they've ordered me to quit work."

"I'm sorry I can't stay to finish worrying about the baby's teeth that's coming in crooked, but you'll have to finish it up. Miss Caroline's stooped shoulders came next on my list. I planned that and Miss Sylvia's run-over heels for this afternoon." She took out her memorandum and consulted it with knit brows, muttering items under her breath: "Master Griffith's cowlick, Thyra's ears, thin places in sitting-room carpet, m-m-m, ink spots on tablecloth, m-m-m," her voice trickled out into indistinctness. Suddenly she folded the paper and extended it toward Mrs. Heath: "It may be a help," she said.

"Good-by," the worrier said, and turned away. But the other woman called her—shrieked after her:

"Come back! Come back and get your list! Take it with you, I don't want it. I tell you I'm not going back to worrying. I won't!"

"Why, Marmie!"

"It was Mig standing over her. You screamed out in your sleep. You must have had an awful dream!"

The little mother swept the little daughter into her arms, laughing joyously in the while. "Then I woke up in time—I mean I went to sleep in time."

"I came up," Mig panted, breathlessly, "to tell you the baby's torn a great hole in his rompers—awful! And Sylvia's prancing G flat instead of A flat."

"Mig, listen to me. There are worse things than holes and G flats."

Henrietta Heath ran to her mirror and gazed at herself in its unflattering depths. She began to pinch and knead the sweet face. "I'll pinch 'em out—all I knead 'em out!" she said. "Then I'll start again."

Cheese has a higher food value pound for pound than meat. There is very little waste. It can be eaten raw or cooked. An ounce of cheese is equal in food value to two ounces of meat, to one egg, or to a glass of milk. The high food value of cheese, its convenience for serving, and its easy keeping qualities make it a food that can often replace meat and eggs to good advantage.



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A BIG, little engine, that "Goes Like Sixty" at every light and medium heavy job on the farm. A heavy winder, and a light eater—dominating in Quality and Service. The biggest selling engine of any size in Canada—quantity production enables us to undersell all competitors—raising the quality, and lowering the price. Do not buy a cheap engine—buy a good one at a quantity price. All sizes of horsepower values. Write today for the Free catalogue stating what size engine interests you. GILSON MFG. CO. Ltd. 487 York St., GUELPH, Ont.

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**THE UPWARD LOOK**

Advancement

**D**O we know enough of the joy of doing our best, in the accomplishment of the daily duties and tasks?

Do we often enough have the deep satisfaction of working and studying to fit ourselves for whatever afterwards we may be called to do? Do we always have the inspiration within us of the ideal, towards which we ever hope to strive?

Do we often feel as if there are so many difficulties and hindrances in the way, that it is no use trying?

Never, never must we give way to this feeling, because there is nothing in God's universe that can hinder our soul-development.

This summer we had a wonderful illustration of the struggling from one's dead self into a higher life. One morning, while we were out on the lawn, suddenly we noticed its surface was almost covered with what looked like dead mice. A young woman explained that there had probably been a disease, that had attacked the baby fishes, and their lifeless bodies had risen to the top. Next evening at sunset, we were in the water. The woman explained that there had probably been a disease, that had attacked the baby fishes, and their lifeless bodies had risen to the top. Next evening at sunset, we were in the water. The woman explained that there had probably been a disease, that had attacked the baby fishes, and their lifeless bodies had risen to the top.

from the stove on a metal base of some kind or on a wooden frame set on bricks. If tacked to a frame, the device may be suspended from the ceiling over the kitchen stove and in this way utilize all the hot air which rises while meals are being prepared.

During the next week or two, corn will be ready for canning or drying. Probably many of our Worsen Folks will be trying out the cold pack method of canning and would also like to dry some corn. If one dries a small portion only, it can be done in the oven, although it is hard to keep the heat low and even enough. If a drier such as either of the styles mentioned above is used, however, the following process may be followed.

Select young, tender corn of a good variety. If field corn is used, select as if for cooking. Boll on cob from eight to 10 minutes, using a teaspoonful of salt to a gallon of water. Drain, and with a sharp knife cut from the cob. The trays can then be spread in a thin layer on the trays of the drier. If one has a thermometer it may come in useful here in assisting to keep the proper temperature. If the thermometer is placed in the trays, the drying should commence at 110 degrees and raise the temperature gradually to about 145 degrees. The corn should be dried from three to four hours to get a uniform product. After a day or two the corn appears moist, it should be turned into drying trays again for a short time.

After the corn is dried it may be stored in paper bags, boxes, tin pails, cracker boxes, etc., and should be kept in a dry place where insects or mice cannot gain access.

To prepare dried corn for cooking, soak two to four hours, allowing two cups of water to one cup of corn and use as fresh corn.

**A Provision for Old Age**

**OLD AGE** involving dependence is a thing justly to be dreaded, and naturally shrink from it, even though relatives might support them with pleasure.

It is only reasonable, therefore, that a great effort should be made by every man and woman to provide for the later years of life that in all probability will not be productive.

To assist in making this provision, The Mutual Life of Canada has introduced its Guaranteed Pension Policy, under which the assured will begin to receive a monthly income from the Company upon reaching the age 55, 60 or 65.

If the pensioner dies before having attained the age at which the pension begins, the Company will refund to the beneficiary named in the contract the premiums paid, with compound interest at 3% per annum.

The earlier in life the policy is taken the less will be the cost to you of the annual premium. Let us quote you rates! These we will furnish for pensioners falling due at different ages if you will write giving date of birth.

Send for folder entitled "The Guaranteed Pension Policy".

**The Mutual Life Assurance Company of Canada**

Waterloo-Ontario

**An Old-Time Method Revived**

**N**OW that we are so enthused with the idea of canning as much fruit and vegetables this year as possible, the natural result is a greater demand for cans and glass jars. This increased demand is shown by the soaring prices of these containers. Those of us, therefore, who are faced with the necessity of purchasing more containers for our canned goods, may solve the difficulty to some extent by drying some of our vegetable and fruit products instead of canning them.

Drying offers one of the most economical methods of preserving food and recent investigations conducted by the University of Missouri College of Agriculture suggest that a wider application of drying might well be adopted. The old-time method of drying was by the sun, but on account of the uncertainty of the weather there is great danger of the product that is going through the drying process becoming sour.

It is not necessary to purchase an expensive drying apparatus, as the handy man around the home can construct one to fill the bill quite nicely. Or if he finds it impossible to spare the time just at present, many of us women-folk are handy with hammer and nails and need not be stuck. A series of trays may be made, about two inches deep and as large as desired, with sides of wood and bottoms of screen wire. These trays may be made to fit tightly upon one another and thus conserve heat, or may be tacked to a frame several inches apart and thus allow the air to circulate more freely and carry away moisture. They should be raised a number of inches

**WHO WILL BE FIRST?**

**W**E are now planning for the year which is of most importance in the whole year to our Women Folks—our Annual Household Number. Naturally, it is our aim that this year our Household Annual will be "higher" than ever before. As one means of attaining this end, we would like many of our women readers who are trying out new methods of doing work, or some special type of labor saving device, to assist us by sending along their experiences, in order that others may profit thereby.

We would also like to conduct a lively discussion in this Household Number on the subject, "How May the Farm Woman Help?" What we desire is a discussion of how the farm woman may get her bit during the present situation. In the face of high prices and actual shortage of food and other necessary commodities, what may the farm woman do during the coming winter? The situation measures of real economy of food and clothing, which will not be detrimental to health might be discussed. For the best articles on this subject we will present the contributor with a splendid cook book and extend their subscription to Farm and Dairy for one year. The second best contribution will also be awarded a year's renewal and for all other articles published, we will extend subscriptions for six months. Articles should reach us not later than Sept. 22. Address: Household Editor, Farm and Dairy, Peterboro, Ont.

**HALLAM'S GUARANTEED FUR COATS AND SETS**

**Why It is Cheaper to Buy BY MAIL**

Every intelligent man or woman desires to buy at the lowest possible price, considering quality.

No matter how busy you live in Canada, you can buy your furs by mail through Hallam "Direct from Trapper to You" at the same price as any one else and cheaper than elsewhere. The reasons are many: there are no sales clerks to pay; there are no retailing or jobbing profits for you to pay; there are no bad accounts to be made up.

All this means a big saving, of which you receive the benefit. You are sure of satisfaction when buying from Hallam, because of Hallam's guarantee "to satisfy you or your money back. You are the sole judge.

We are a well equipped plant to give you extra good value for your own safety, because, no mail order house can afford to have goods returned.

The two illustrations here tell about some very water, and our fur coats and sets.

**1000**— Beautiful fur coat, made from mink and seal skin. The high quality and deep shade. A 1000— Beautiful fur coat, made from mink and seal skin. The high quality and deep shade. A 1000— Beautiful fur coat, made from mink and seal skin. The high quality and deep shade.

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**Typographical**

**H**UNDER CANADIAN water. An Canada's able record the lives sound in pure water the farm. arrests the best alike, giving value of pure water profitable for is a nation. Nor need it little care the majority water. One looked to: (2) the local kind and con-

**Source**

Underground wells is the best. It is composed of pure porous water, (2) layer, as shown in the illustration, and hardpan not pass, (4) stone, containing soil containing impurities are filtered through impurities are therefore, in wells shown depth.

**The location**

of the well is important. In line of case surface water pump must be placed in the water is directly above, or with an under the highest water is not be more water in the

**When located**

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**Driven and**

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**HALLAM'S FUR STYLE BOOK FREE**

A beautifully illustrated Fur Style Book giving advance information on furs and fur goods. All these illustrations are in color. Graphs of living people—thus showing how the fur trade is the best to-day.

It is now ready for mailing and will be mailed free to you. Address, using number as below.

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## Pure Water for the Farm Home

Typoid Contaminated Water Causes Hundreds of Deaths Every Year

**H**UNDREDS die every year on Canadian farms from diseases directly traceable to impure water. And these hundreds who die are Canada's—any nation's—most valuable resource. We seek to conserve the lives of citizens. And there are sound business reasons, too, why impure water should have no place on the farm. It lowers the vitality and arrests the development of man and beast alike, and it depreciates the selling value of a farm. An investment in pure water is therefore invariably profitable for the individual, while it is a national service of high order. Nor need the investment be heavy. A little care, labor and expense will, in the majority of cases, ensure pure water. Only three things must be looked to: (1) the source of supply; (2) the location of the well; (3) the kind and condition of the well.

### Source of Water Supply.

Underground water obtained from wells is the chief source. The earth is composed of layers or strata which occur somewhat as follows: (1) a porous layer, such as loam, containing water, (2) a deeper porous subsoil layer, as sand or gravel, containing water, (3) an impervious layer of clay or hardpan through which water will not pass, (4) a porous layer, as sandstone, containing water. The surface soil contains impurities which contaminate water. But if the water is filtered through 10 feet of soil, these impurities are removed. Water found therefore, in the lower strata is pure—wells should be at least 10 feet in depth.

### Location of Well.

The location of the well for the sake of convenience, has too frequently been in unsanitary places—in the barnyard, in line of seepage from privy or where surface water gathers. While the pump must be located close to where the water is to be used, it need not be directly above the well. It may be placed in, or near the house or barn, with an underground pipe laid to well. The highest point in the pipe should not be more than 25 feet above the water in the well.

When locating a new well it should be dug in higher ground than any possible source of contamination and at least 100 feet from it. This distance is required for protection against seepage from barnyards, stagnant water or privies. To locate an underground stream the local "water witch" need not be depended upon—although "water-witching" is by the means of a sham—a mechanical waterfinder which has given excellent results is owned by the Department of Physics, Ontario Agricultural College, for use in the Province.

### Kind of Well.

There are three kinds of wells—dug wells, driven wells and drilled wells. Dug wells are more frequently subject to contamination than the others. Very often the stone, brick or other curbing is not water tight and impurities enter from seepage or run-off, or both, during every heavy rain. The curbing should be absolutely impervious to rain to a depth 10 feet below the surface and at the top should extend above the general level of the land.

Driven and drilled wells, if sunk through an impervious layer into a porous one beneath, supply pure water unless it is contaminated at the surface. All kinds of wells may be contaminated at the surface by being covered in a careless manner. It is necessary that the platform be close fitting with no cracks or crevices, else insects and filth from the feet of persons or poultry will cause impurity.

### Questions for Each to Ask.

Is my well located on ground lower than that surrounding it? If so it is in danger from impure surface water. After a heavy shower is the water in my well roily or discolored? If so, surface water is entering the well without being properly filtered.

Do I occasionally pump from my well remains of insects, earthworms or frogs? If so, the well is imperfectly covered and protected, and the water is impure.

Is my well located in the line of seepage from the privy or barnyard? If it is, grave danger lurks in the water.

Are the ducks and geese allowed to congregate near the well? If they are the cover must be absolutely close fitting.

Is the water offensive to taste or smell? If so, it should be purified immediately—fevers are often deadly.

If, for any reason, you are suspicious of well water, either at the home or school, notify Professor D. H. Jones, Bacteriological Department, O. A. College, Guelph, who will send you a sterile bottle with directions for obtaining a sample. Upon receipt of the sample Professor Jones will make a test free of charge, and will promptly forward you an analysis. Meanwhile guard the health of your family by disinfecting the water used. Dissolve a level teaspoonful of chloride of lime in a teaspoon of water. Dilute this quantity with three cupsful of water and add a teaspoonful of the diluted solution to each two gallons used of drinking water. Stir thoroughly. The water will be without taste or odor and will be safe for human consumption. Following this efficient and inexpensive method, boil all water used for at least 30 minutes.

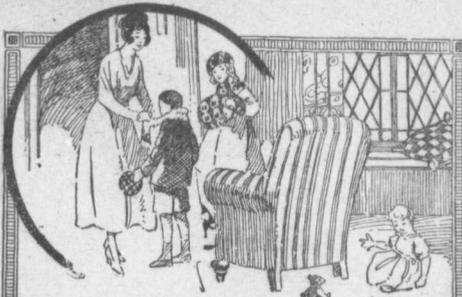
### To Improve the Old Well.

If your well is polluted, remove the cause of pollution. If it is a dug well in a good location tear out the old lining 10 feet down and relay it with cement backed by at least a foot of reddish clay of very close texture. Raise the top level of the surrounding ground and bank the paddled clay around it to shed rain or spilled water away from the well. If the well is in low ground extra precaution may be taken by laying a tile drain, backfilled with gravel, around the well and down the water course to a suitable outlet. The well should be cleaned as thoroughly as possible and the cover made absolutely tight with cement or a double layer of canvas; however, the well is located in the direct line of seepage from soil polluted by privy or barnyard, the only safe method is to change the site of the well or the source of pollution.

If the drilled or driven well is sunk in the bottom of a dug well, exactly the same precautions must be taken. The water above will contaminate that beneath. In any case it is safer to puddle the clay or to cement around the casing to the depth of 10 feet to prevent surface water following the pipe and contaminating lower waters. The result will be ensured health, increased comfort and added value to the farm. It requires only a little care, labor and expense. Nothing pays better than a pure water supply—and there is no better time to do the work than in the fall when the water is low.

### Force of Habit

Crawford—I hear a skater was drowned in the pond yesterday. How did it happen?  
Crabshaw—He was a cheffeur and paid no attention to the "Danger" sign.



## A Good Heating System Ventilates Your Home

**R**IGHT in the depth of winter is the vital time when your heating system must measure up to your demands.

Your heating system must provide ample warmth. But warmth alone is not enough. You must also have good ventilation. And the expense of obtaining these two things must be reasonable.

No other heating system combines all these advantages quite so effectively as the "Hecla." It is as nearly perfect as a heating system can be.

### A Pure Atmosphere— Guaranteed Against Cosy and Moisture-Mellowed Leaks of Dust and Gas

The "Hecla" draws an ever-fresh current of air from cold air inlets. As the air is warmed it is also supplied with the proper balance of moisture that nature requires. This moisture-mellowed warmth is easy, comfortable, healthful, it goes into every room in the house. It is constantly renewed.

The "Hecla"-heated home is as pleasant in the depth of winter as on the balmy day in June. It is a healthy home to live in—its atmosphere is pure and fresh.

Warm-air furnaces, it is true, have been known to leak gas and dust. Will these nuisances occur where a "Hecla" is installed? With the extra precautions we have made we do not think a "Hecla" could cause the trouble. The joints are sealed tight with our patented fused joint. They cannot spread! Will not allow gas or dust to escape. From the first day your "Hecla" is installed, no matter how long it is in use, it will be clean and free from gas-miasma.

## HECLA Mellow Air Furnace

Save Money by Installing a "HECLA"  
Send for These FREE BOOKLETS

It will pay you well to investigate the "Hecla" closely before you install a high-priced heating system. Think what it means to you—a home well ventilated with pure moisture-mellowed fresh air! Cozy, warm, too, without the least taint of gas or dust. Quick heat in (increased heating surface) you can save one ton of coal in seven. Write for "Comfort and Health"—tells you in words and pictures the many conclusive features of the "Hecla." Ask, too, for the interesting booklet, "A Pure Air Heating Plan." Both are free for the asking.

**CLARE BROS. & Co., Ltd.**

**PRESTON  
Winnipeg  
Vancouver**

I am interested in the warm air principle of heating-ventilation. Please send me your booklet, "Comfort and Health," and "A Pure Air-Heating Plan." This of course, does not obligate me in any way.

Name.....  
Address.....

**CLARE BROS. & Co., Limited  
Dept. P.F.D. PRESTON, ONT.**

## Get the Real Joy of Shooting

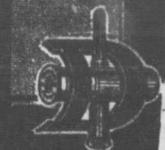
"—good ammunition—that's one way. Get genuine sport out of your trip by using ammunition you know is right.

## Dominion Ammunition

doubles your pleasure and your chances of a good bag."

Dominion, the only Made in Canada Ammunition, is backed by the big "D" trade-mark that stands for dependability in all its phases.

**Dominion Cartridge Co., Limited**  
Montreal



## The Makers' Corner

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

### W.O.D.A. Directors Meet

A MEETING of the Board of Directors of the Dairywomen's Association of Western Ontario was held on Tuesday, Sept. 4th in the Dairy Building, C.N.E., Toronto. Arrangements were made to hold the fifty-first Annual Convention and Winter Dairy Exhibition in the City of Stratford, Jan. 16th and 17th next. The Prize Lists for the Dairy Exhibition and Dairy Herd Competition were completed and entry forms will be sent out at once by the secretary.

The usual committees were appointed and other routine business in connection with the work of the association was transacted.

The directors expressed appreciation of the butter grading service begun this year by the Ontario Department of Agriculture and consider it to be in the best interest of the creamery industry to have this work extended next year.

Entire sympathy was expressed with the object of the Canadian Branch of the British Empire Agricultural Relief of the Allies Fund and the factory men and producers will no doubt cooperate with those in charge of this Fund.

The following resolution was passed: "That in view of the fact that the present price of cheese as set by the Cheese Commission is out of proportion to the prices now being received for other milk products, such as condensed and powdered milk and milk for direct consumption; that the directors of this association are in favor of any action that may be taken by the Federal Department of Agriculture in connection with the placing of milk and milk products on a more equal price basis."

The secretary was instructed to forward a copy of this resolution to the Federal Minister of Agriculture and to the Dominion Dairy Commission.

Those present: R. W. Stratton, Guelph, President; Jas. Donaldson, Atwood; F. Boyes, Dorchester; J. N. Page, Camboro; T. Ballantyne, Stratford; Geo. E. Booth, Ingersoll; W. G. Medd, Woodham; Jno. Scott, Inverkip; Geo. A. Putnam; F. Hens, Sec-Treas.

### Dairy Progress in Eastern Ontario

ARRANGEMENTS for the next annual convention of the Eastern Ontario Dairywomen's Association and reports on the season's work were considered at a meeting of the executive committee of the association held in the Carls-Ribe Hotel, Toronto, Sept. 4. Those in attendance were: President Nelson Stone, Norham; Henry Glendinning, Manilla; Geo. Leggett, Newboro; Jas. Sanderson, Oxford Station; Jas. R. Anderson, Mountain View; Seely T. A. Anderson, Almonte, Ont.; Chief Dairy Instructor G. F. Puhlow, Kingston, and W. H. Omsted, Bearbrook.

#### Make of Cheese.

In spite of a common impression to the contrary, Mr. Puhlow reported that the make of cheese in Eastern Ontario to date has been about equal to the make last year and that before the end of the season it may show an increase of five to 10 per cent. He had investigated the make in some 200 factories scattered all through Eastern Ontario and had found that while there was a slight falling off in make in a few districts these were more than offset

## TRAPPERS HUNTERS FISHERMEN CAMPERS BE PREPARED

### HAVE FISH IN CAMP

A Gill Net will supply the fish, only 20 cents per yard, mounted, with leads and floats ready for the water, give size of net, stretched measure desired.

### Sportsmen—

We carry a stock of Marble's Slights, Hunting Knives, Axes and other specialties, also Acetylene Headlights, Camp Lamps, Lanterns, Collapsible Camp Stoves, Gendron's Showbacks and Boots, Tents, Pack-sacks, Sleeping Bags, Dunning Hags, Compasses, Raincoats, Rods, Reels and Fishing Tackle of all kinds in fact, almost everything you require in the camp or trap line.

### Fishermen—

We can supply you with Hoop, Brook, Trammel, Gill, Pound and Dip Nets, Salms, Lines and other Fishermen's Supplies at very close prices.

As the factories are busy turning out supplies for the Allies, many will be disappointed this year in securing their favorite rifles, ammunition and supplies, so order early before the other fellow has picked up the goods you want.

**TRAPPERS—WE CARRY IN STOCK THE LARGEST ASSORTMENT OF ANIMAL TRAPS IN CANADA. No trapper's outfit is complete without a supply of—**

Hallam's Animal Bait \$1.00 per bottle  
Hallam's Muskrat Bait 50¢ per bottle  
Hallam's Trill Scent for \$2.00, per pound by us.  
As they will largely increase your catch of fur.

**John Hallam Limited**  
924 Hallam Bldg., Toronto

Write to-day for the new 1917-18 EDITION OF HALLAM'S TRAPPER'S and SPORTSMEN'S SUPPLY CATALOGUE, 32-pages, illustrated, which we will gladly send you free on request. It will save you money. Address in full, using number.





## Help Wanted!

These moulting fowls need help. You can supply the necessary strength to enable them to get through the moult by giving them

### Pratts POULTRY REGULATOR

It regulates the blood, bowels and digestive organs. Tones up the entire system. Strengthens the egg-producing organs. Promotes early fall and winter laying. Put up in popular-priced packages, also in money-saving 15-lb. tins and 100-lb. bags. Ask your dealer.

**Money Back if not Satisfied**

Our new book, "Poultry Wrinkles," tells how to shorten the moult. Write for it. It's FREE!

**PRATT FOOD CO. OF CAN., Limited.**  
68 N. Clarence St. Toronto.

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It is evidence that you are an up-to-date dairy farmer when you say you read Farm and Dairy regularly.

## Canning Joy!

is a Joy!



"Only \$12 Prepaid."

**COPPER TANK**

**COOKS BY STEAM PRESSURE**

Made in 5 Sizes.

The Toledo "IDEAL" Home Canner and Cooker is acknowledged the world over, after twelve years of success, to be the greatest canning machine ever made. You can do your bit for Canada in saving the Nation's food by canning at Home, or starting a Canning Club. Fruits or vegetables canned in the Toledo "Ideal" Home Canner will keep for years and years. No. 30, same as our No. 18, cost \$12.00, same as our No. 18, cost \$12.00 prepaid if your dealer cannot supply you. Eighty page cook book free if you order No. 30.

**THE LOUIS McLAINE COMPANY,**  
Winnipeg, Man.

by increases in other sections. The make this year has been feeding in spite of the fact that less feed has been done than for years, partly due to the high price of feed and largely due to the abundant pastures. Last year 200 factories in one day in August had made 1522½ cheese. The same factories on the same date this year made 1528½ cheese.

### Price of Cheese.

See'y Thompson said that he had been asked by a prominent dairyman in his section if the association could not do something to have the price of cheese advanced. For his own part he was not in sympathy with such a move as he believed the average patron had made more from his milk this year than ever before in spite of the increased cost of feed and labor. Under these conditions, he felt that there should be some consideration felt for the British consumer.

Mr. Anderson pointed out that the dissatisfaction felt about the price of milk was most evident in those districts where there were milk condenseries. The condenseries were paying much higher prices for milk than the cheese factories could pay and in consequence quite a number of factories were being closed. Mr. Anderson said that some nine factories in the Chesterville District have been closed, including the Dunbar and Melville factories making about 20 cheese a day. The point was raised as to how it was the condenseries and milk powder factories could pay more for milk even before the price for cheese was set, than the cheese factories could, but no explanation was forthcoming. It was reported that certain condenseries had received orders for their total output for several years to come, that the Chesterville plant is to be more than doubled and that a new condenser is to be established shortly at Brockville. Further mention of this matter appears elsewhere in this issue.

### Dairy Exhibition.

It was decided to hold a dairy exhibition in connection with the annual convention of the association which will be held January 10-11-12, in Perth, Ont., in connection with which the as-

sociation will offer the following prizes:

- Class 1—Cheese Made from September 1916 to 30th.**
  - Sec. 1—One White Cheese, \$75.
  - Sec. 2—One Colored Cheese, \$75.
- Class 2—Cheese Made from October 16th to 31st.**
  - Sec. 1—One White Cheese, \$75.
  - Sec. 2—One Colored Cheese, \$75.
- Class 3—Flat and Stilton Cheese Made from September 1916 to 30th.**
  - Sec. 1—Two Canadian Flat Cheese weighing from 30 to 40 lbs., colored or white, \$50.
  - Sec. 2—Three Canadian Stilton Cheese, colored or white, \$50.
- Class 4—Creamery Butter Made from November 1st to 15th.**
  - Sec. 1—One Fifty-six pound box, \$50.
  - Sec. 2—Twenty one-pound prints, \$50.
- Class 5—Dairy Butter Made from December 1st to 15th.**
  - Sec. 1—One twenty-pound Crook, Lat, \$10; 2nd, \$8; 3rd, \$6; 4th, \$4.
  - Sec. 2—Ten one-pound prints, Lat, \$10; 2nd, \$8; 3rd, \$6; 4th, \$4.

All exhibits will become the property of the association and will be sold by public auction and the money paid over to the exhibitors.

All entries must be in the hands of the secretary, T. B. Thompson, Almonte, Ont., on or before December 15th, 1917.

In Class 4, the prizes will be awarded to the creamery butter securing 94 points and upwards.

The prize money in classes 1, 2 and 3, will be divided according to the score and awarded to the exhibitors whose cheese scores 95 points and upwards.

The prize money will be increased in the foregoing classes if the money received this fall from prosecutions for the adulteration of milk by cheese factory patrons is sufficient to make such action possible. A long list of special prizes is also being offered. A list of these may be secured from the secretary.

### Special Meeting of U. F. Company

**T**AKE NOTICE that by order of the directors, a special general meeting of the shareholders of the United Farmers' Cooperative Company, Limited, will be held at the Company's Offices at the corner of King and Francis Streets in the City of Toronto on Tuesday, the eighteenth day of September, at the hour of two o'clock in the afternoon for the purpose of confirming the following by-law, that is to say:

"The directors of the United Farmers' Cooperative Company, Limited, deem it expedient to enact, and hereby it is enacted that the authorized capital stock be increased to two hundred and fifty thousand dollars (\$250,000) and that the necessary steps be taken."

DATED at Toronto this First day of September, A.D. 1917.

J. J. Morrison,  
Secretary.

**NOTE**—The above by-law was passed by the directors of the company on the second day of March, 1917, and confirmed by the shareholders present at the annual meeting of the company on that date. Application having been made to the Provincial

Secretary for authority to increase the capital stock to \$250,000, objection has been taken that in the notice calling the shareholders to the annual meeting in March last consideration of an increase of the capital stock to two hundred and fifty thousand dollars (\$250,000) was not mentioned. The matter of capital increase was raised among the shareholders at the last annual meeting.



## Windsor DAIRY SALT

For Better Butter use Windsor Dairy Salt

THE CANADIAN SALT CO., LIMITED

## HYLO SILO

Sweet Fresh Ensilage down to the last perfect



THE HYLO SILO is a perfect of spoiled ensilage around the year. Constructed of perfect fitting doors, adjustable without hammer or wrench. Made of Guaranteed Long Leaf Yellow Pine. Built to last a lifetime. Stands rigid when empty.

Write for prices and catalogue. Agents in Canada: Green Mfg. Co. Ltd. 47 York St.

### Auto Power Attachment for Ford Car



Quickly converts your FORD into a gasoline power plant for operating grain separators, ensilage cutters, wood saws, grain grinders, hay presses, electric generators, water pumps, dairy machinery, and other farm machinery. Better than a portable or stationary gas engine for general use. Drive pulley mounted or attached in a few minutes. Send for descriptive circular.

**HYLOP BROTHERS, LIMITED**  
Toronto, Canada.

## Dead easy to clean

—because it has fewer parts than other standard cream separators, the Viking is easy to wash and keep clean. The heavy blades all wash as one. The Viking bowl can be made perfectly clean in from two to three minutes. Read what successful farmers say of the Viking.

(10)

Dept. 6 Descriptive Booklet Free.

**SWEDISH SEPARATOR CO.**  
515 South Fifth Ave., Chicago





# Buy a Western Farm

Much of the land close to old established rail lines in Western Canada has been taken up but offers considerable advantages in the way of improvements and transportation facilities.

## \$15 to \$25 per Acre—Instalment Plan

Will purchase these fertile lands adapted for grain growing, dairy or mixed farming. To the man with a little capital to invest who objects to the pioneer work of homesteading they should prove a real bargain.

For full particulars and any of our descriptive booklets apply to nearest Agent or write General Passenger Dept., Montreal, Que., Toronto, Ont., or Winnipeg, Man.

### CANADIAN NORTHERN RAILWAY

## BISSELL Double Action Harrows

will thoroughly cultivate and pulverise any soil. One Harrow is Out Throw, the other is In Throw. They are simply constructed, rigid and durable. The Gangs are flexible and the Disk Plates are so designed that they "hang" right into the soil. Bissell Harrows are built in sizes and weights suitable for horse or tractor use. Write Dept. R. for free catalogue.

T. E. BISSELL CO., LTD., Elera, Ont. These Harrows exhibited at Toronto, London and Ottawa Fairs, and demonstrated at the third Tractor Farming Demonstration, Toronto.

## The Old Original Summer Hill Farm

Where you find the pure bred Oxford. We have for sale 150 head of registered ewes, 75 head of yearling rams, 50 ram lambs and 50 ewe lambs, some choice show rams and ewes, all first class individuals and guaranteed pure bred.

PETER ARKELL & CO., Box 454, TEESWATER, ONT.

## VILLA VIEW OFFERS FOR SALE

Villa View, the home of King Sages Alacarta Calandry and Dutchland Pontiac Calandry, the two herd sires that are backed up by more dams that have held world's records than the herd sires of any other herd in Canada. We have a few Alacarta bulls for sale at reasonable prices. ARBOGAST BROTHERS, Sebringville, Ont.

## SPRINGBANK AYRSHIRES

Bulls from one month to twenty months old for sale, and a few heifer calves. All are bred to color and type and from R. O. P. dams. If you need a well bred bull or heifer write at once.

A. S. TURNER & SON, Ryckman's Corners, Ontario

## REGISTERED YORKSHIRE PIGS

Orders booked now for delivery, middle of September. Only a few left. Write at once. Price \$18.00, six weeks, north gore, QUEBEC

Every Farm should have an Ayrshire

MORE MILK MORE BUTTER

MORE PROFIT

CANADIAN AYRSHIRE BREEDERS ASSOCIATION HUNTINGDON QUEBEC

## INGLEWOLD AYRSHIRES & CHESTER SWINE

One young bull fit for service. Three bull calves from cows with large official records. All are sired by a son of the Canadian champion two-year-old milch cow.

WILSON McPHERSON & SONS, ST. ANN'S, ONTARIO

## LAKESIDE AYRSHIRES

A select lot of young bulls, all ages, sired by Auchenbach Sea Foam (Imp.) 29785 (8865), Grand Champion at both Quebec and Sherbrooke, from Record of Performance Dams. Write for catalogue.

Proprietor: GEO. H. MONTGOMERY, Dominion Express Bldg., Montreal. Manager: D. McARTHUR, Phillippsburg, Que.

**A FAVORITE OF YOU** Please mention FARM AND DAIRY when writing to our advertisers.

## Postal Card Reports

Correspondence invited.

**CAPE BRETON CO., N. S.**  
SALMON RIVER, AUG. 22.—The hay crop is short. Wet weather interferes with the work and causing some rust on grain. Potato beetles have done some damage but will be a heavy crop. Grain is looking and will be a heavy crop. Prices are high and all produce is in good demand.—J. J. McE.

**DURHAM CO., ONT.**  
CAMPELLS CROFT, Sept. 1.—During the last two days, heavy thunder storms have done a great deal of damage, burning several barns. There is considerable oats to draw in yet. Some threshing has been done and grain is turning out well. Beans will not be a large crop. Potatoes, judging from the tops and the early kinds, will do well. The recent dry weather has hurt the clover seed. Roots are growing but generally weak. Very little fall wheat has been sown so far. Help is very scarce. There still seems to be a number of eggs for shipment, but they are not as good as when the grain was cheaper. Butter is too low in price in comparison with grain and expenses, 35c and 25c being the figure.—J. A. S.—T.

## The R.O.P. Report

THE ninth annual report of the Canadian Record of Performance test is now available to those interested in the Branch of the Live Stock Commission, Department of Agriculture, Ottawa. This report contains the official records of the cows tested under the regulations of the R.O.P. during the year ending the March 31st, 1917. In the case of each herd the standard registration in the Record of Performance is also given. A few outstanding records covered by this report in each breed are given.

### Ayrshires.

Mature cow: Lady Jane, owned by A. S. Turner & Son, Ryckman's Corners, 19,405 lbs. milk; 75 lb. fat. Heifer Brown, owned by A. S. Turner & Son, 14,669 lbs. milk; 75 lb. fat. Two-year-old cow, owned by T. C. Freverton, Latta, 15,865 lbs. milk; 107 lb. fat; Daisy of Perndale, W. C. Tully, Aylmer, Que., 15,481 lbs. milk; 693 lbs. fat. Four-year-old: Milkmaid of Orkney, Dawson McPherson, Orkney, 14,872 lbs. milk; 594 lb. fat; Clara of Bulbar, S. D. Thorne, South Mountain, 12,127 lbs. milk; 620 lb. fat. Three-year-old: Scotch Thistle, A. S. Turner & Son, 14,987 lbs. milk; 631 lb. fat; Springbank Myrtle, A. S. Turner & Son, 13,210 lbs. milk; 565 lb. fat; and in the two-year-old class: Springbank Rosie, A. S. Turner & Son, gave 12,509 lbs. milk and 546 lbs. fat. Guernsey.

In the mature class Triplet of White-water, owned by C. Hawthorne, Chilliwack, B. C., gave 15,092 lbs. milk and 651 lbs. fat. In the four-year-old class Western Queen, owned by Bamford Bros., Chilliwack, gave 12,132 lbs. milk; 661 lb. fat.

### Holstein Friesian.

Mature class: Calamity Johanna Nie, Joseph O'Reilly, Peterboro, 25,443 lbs. milk; 826 lbs. fat. Mercent Calamity Toesch, W. Fred Falls, Millbrook, 26,448 lbs. milk; 833 lb. fat; Niagara Maid, John E. Brown, Stamford, 20,816 lbs. milk; 755 lb. fat; Poach Queen Wayne, P. Russell, Alex. Alta, 20,843 lbs. milk; 783 lb. fat. Four-year-old: Jewel Cora, W. M. Brown, Weston, 23,863 lbs. milk; 953 lb. fat. Four-year-old: Hillcrest Pontiac Vale, G. A. Brodwin, Newstead, 20,782 lbs. milk; 783 lbs. fat; Johanna Korndyke DeKok, Manitoba Agricultural College, 20,710 lbs. milk; 681 lb. fat. In the three-year-old class, Violet Sylvia DeKok Wayne, Jas. Nees, Mercerville, Ont., 20,237 lbs. milk; 745 lb. fat; Mildred Pietertje Abbokker, W. J. Shaw, Newmarket, 21,150 lbs. milk; 701 lb. fat. Two-year-old: Poach, Wm. Sharkey, Essex Echo, W. J. Abina, Bellville, 16,001 lbs. milk; 585 lb. fat. Full-blooded May Ewe Pietertje, G. A. Peever, Renfrew, 16,313 lbs. milk; 652 lb. fat.

### Jersays.

Mature class: Alexander Golden, Edwards and Norwood, Hillhurst, Que., 13,223 lbs. milk; 653 lb. fat. Four-year-old class: Beauty M'd class, D. Morrison, Woodstock, 14,852 lbs. milk; 679 lb. fat. Two-year-old class: Beauty of Glenburgh, D. A. Boyle, 11,554 lbs. milk; 624 lb. fat; Paddy of Edgemoor, Alfred Bages, Edgemoor, 11,212 lbs. milk; 629 lb. fat. Three-year-old: Lady Pauline, Wesley McIntyre, Kardin, B. C., 10,623 lbs. milk with 491 lbs. fat.

### Shorthorns.

Mature class: Convent 2nd, Ed. Knight, Yarmouth, Ont., 17,725 lbs. milk; 653 lb. fat; Golden Rose, Ont. Agricultural College, Guelph, 12,790 lbs. milk and 560 lbs. fat.

SHIP YOUR BUTTER & EGGS

—to us. We are not commission merchants. We buy direct prices and re-ship promptly.

THE WILLIAM DAVIES COMPANY LIMITED

Established 1854. TORONTO, ONT.

ROOFING PRICES AT FACTORY

HALLOWAY COMPANY, 100 HAMILTON STREET, TORONTO, CANADA

BONE SPAVIN

cured by Fleming's Spavin and Ringbone Paste, no matter how old the blemish. Full price refunded if it fails to cure either Bone Spavin, Ringbone or Ringbone. Fleming's Wet Pocket Veterinary Aid—write for free request.

FLEMING BROS. CHEMISTS

8 J. CHURCH ST., TORONTO, ONT.

FOR SALE AND WANT ADVERTISING

THREE CENTS A WORD, CASH WITH ORDER

WANTED—Two married men, experienced in farm work. Wages \$510 per year in dairy work. Free house, garden lot. Apply Box 53, Farm and Dairy, Peterboro.

Tenders will be received up to Tuesday, October 2nd, for the purchase of the Wyandotte Cheese and Butter Factory, frame dwelling, large brick factory, two acres of land, abundance of spring water, factory operated continuously for past five years, fully equipped for manufacturing both cheese and butter. Make starting for 1917, 140,000 lbs. butter. Tenders will be opened at 10 o'clock on Tuesday, October 2nd, at 2.30 o'clock when parties who tender are requested to be present. Lowest or any tender not necessarily accepted. (See T. AGUR, R. O. N. 3, Moorefield, Ont.)

Cheese Factory fully equipped, never failing stream, hot-air spring water through factory; basement, curing room, ideal drainage, good house in connection, hot cold water; make of cheese in year around over hundred tons; Box 60, Farm and Dairy, Peterboro.

One horizontal Leonard engine, in A1 condition, six h.p., suitable for cheese factory or creamery. A snap for quick sale. Jas. T. Grive, R. R. No. 2, Dorchester, Ont.

Creamery wanted in Western Ontario. Give full particulars as to size of plant, equipment, average yearly output, price wanted, etc. to: J. H. Hoffman, Seaford, Ontario.

WHITE AND COLUMBIA WYANDOTTES, LIGHT BRAMMAS, B. C. WHITE LEGHORNS.

Michael K. Boyer, Box 23, Hammonds, N.J.

TAMWORTH—Young Sows and Boars from several litters just weaned. Herodias Farms, Hammondsville, Ont. Niagara District.

Stopping an advertisement to save money is like stopping a clock to save time. Advertising is an insurance policy against forgetfulness — it compels people to think of you.

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# Market Review and Forecast

**T**ORONTO, Sept. 10.—Harvesting throughout Ontario is drawing to a close and in some counties threshing and plowing are claiming the attention of the farmer. Crops generally throughout the province are very satisfactory, except the corn. Crops in Western Canada will yield considerably higher than was expected earlier in the season. Due to general rains throughout the prairies during the last two weeks in August. The latest estimates place the Western wheat crop at \$1,000,000 bushels.

The grain market is inactive. Dealers are waiting the action of the Government in fixing the price for Manitoba wheat. It is thought that a similar action will be taken with Ontario wheat. Hogs are recovering from the slump of a couple of weeks ago, and their prices kept steadily upward during the week. Offerings were small and the demand was great.

### WHEAT.

While threshing is general throughout Ontario, the offerings of Ontario crop wheat have not yet assumed any considerable proportions. It is probable that the grain will not be marketed in large quantities until after the fall plowing has been completed. With trading, expecting every day Government action on the fixation of a price on Manitoba wheat, and probably a similar action will regard to Ontario wheat, trade is inactive. There is considerable speculation about the price of No. 1 northern, the consensus of opinion being that it will be in the neighborhood of \$1.25 to \$1.30. P. L. Williams, Toronto dealers are pre-empting that Ontario wheat will not fetch about \$2.20 delivered. Market quotations: No. 1 Northern, in store, P. L. Williams, \$2.21; No. 2, \$2.12; No. 4, \$2.07.

### COARSE GRAINS.

The large oat crop of Ontario is being reaped in pretty good condition, although some reports are coming of grain being broken by the recent rains. The percentage of grain that will be still outside the barns at the end of this week will, however, be small. Most of the offer for new crop Oat oats, have been at 60 cents, but few sales have been made. The Western crop is considerably later than usual and harvesting is still under way. Quotations: Oats, C.W. No. 2, 67½c; Ontario No. 2, 60c; No. 3, 55c; corn (Chicago) \$1.14½ to \$1.14; barley, new \$1.20 to \$1.22; buckwheat, \$1.70. Montreal quote oats, C.W. No. 2, 75½c; corn, \$2.15 to \$2.20; barley, \$1.25.

### MILL FEEDS.

The tone of the market for mill feeds was a little weaker during the week. Little business is happening in mill feeds at present, but a fair demand is being met for mixed car lots. In car lots delivered, Montreal freighter shorts, \$42; bran, \$35; middlings, \$42 to \$44; good feed flour, per bag, \$3.25. At Montreal bran, 35c; shorts, 34c; middlings, \$43 to \$60; molasses, 45c to \$60.

### HAY AND STRAW.

With threshing and plowing claiming their attention, few farmers are marketing hay or straw at the present time. Hay is quoted in Toronto on track, extra No. 2, \$11 to \$11.50; mixed, \$10 to \$10.50; straw, car lots, \$7 to \$7.50. At

Montreal, hay No. 2, car lots, \$9.50 to \$10.

### EGGS AND POULTRY.

Toronto wholesale avocets were started out the first of the week to reduce the price of eggs at country points. These were a reduction of two cents a dozen, but dealers, however, found that they were not to get the eggs. The fact that the supply coming to market is not so heavy and that storage stocks have had to be drawn on, induced many of the dealers to pay the extra cent. Prices at country points are thus quoted at 40c to 41c, while the wholesale price to the retail trade, ex-carriage, are 41c to 42c. The movement of poultry is not yet fair this week, but prices are not yet high enough to induce farmers to market their birds. An interesting movement throughout Ontario new food is being started for getting the birds in shape for market.

### DAIRY PRODUCE.

There is little change in butter, the demand not being exceptional. Creamery solids sold at 43c to 44c; creamery prints, 42c to 44c; cheese dairy prints, 36c to 37c; ordinary dairy prints, 33c to 35c; bakers', 32c to 33c.

Cheese is fairly active. There is a considerable agitation throughout the country for a higher price for cheese. These factors are making it difficult to hold their patrons when condensers receive for their product. Quotations here for new large cans: 23½c; old large, 20c to 21c; twin, 13c.

### CHEESE BOARD SALES.

Madro, Sept. 5.—720 cheese sold at 21½c.

Poleboro, Sept. 5.—3,500 colored sold at 21-25c.

Kingston, Sept. 5.—497 white and 23 colored sold at 21½c.

Brockville, Sept. 5.—1,110 white and 1,431 colored. 555 white and 954 colored sold at 21-25c.

Stirling, Sept. 5.—960 boxes sold at 21½c.

Cornwall, Ont., Sept. 7.—2,360 boxes sold at 21½c. Corresponding week last year, 2,147 at 20½c.

Pictou, Ont., Sept. 7.—2,373 boxes sold at 21-16c.

St. Catharines, Ont., Sept. 7.—679 colored and 1,142 white sold at 21-16c.

Alexandria, Ont., Sept. 7.—740 white sold at 21-16c.

Innisville, Ont., Sept. 7.—240 colored and 555 white sold on the curb at 21½c.

### LIVE STOCK.

Heavy receipts of shipping 6,000 head on Monday and increased to 7,500 head by Thursday, resulted in a less active market. In addition heavy shipments have been made direct to the abattoirs from western Canada during the past two weeks. Consequently, on Monday trading was inactive and prices were cut from 18 to 25 cents on choice lambs and from 10 to 40 cents on medium and common. The lighter quality of cattle resulted in more activity toward the close of the week in good quality cattle, and quotations closed about 10 cents higher than those prevailing on Monday. The quality of cattle offered at present is only fair, many common sheep and lambs on sale.

Sheep and lambs were steady. Light supplies of hogs raised the market from 21½ to 21½. An announcement of the British government that it has restricted the export of hogs which may be purchased will also tend to strengthen the market.

Choice heavy steer	11.50 to 12.00
Butchers' choice handy	10.25 to 11.00
do good	9.00 to 10.00
do medium	8.50 to 9.50
do common	7.50 to 8.50
Butchers' bulk, handy	7.50 to 8.50
do good	7.50 to 8.50
do medium	6.50 to 7.50
Butchers' choice	6.25 to 7.25
do good	5.00 to 6.00
do medium	4.00 to 5.00
do common	3.00 to 4.00
Stockers, 700 to 900 lbs.	3.50 to 4.50
do medium	2.00 to 3.00
do common	1.50 to 2.50
Milkers, good to choice	90.00 to 125.00
do com. and medium	65.00 to 85.00
Springers	75.00 to 125.00
Calves, val. choice	14.25 to 15.00
do medium	11.00 to 12.00
do common	7.00 to 8.00
do grass	6.00 to 7.00
do heavy fat	10.00 to 11.00
Springers, cut	14.75 to 15.00
Sheep, ewes, high	8.00 to 10.00
do heavy and butch.	5.00 to 6.50
do kids	4.00 to 5.50
Hogs, fat and wacker	10.00 to 12.00
do cut cases	13.50 to 15.00
do Leb.	17.25 to 19.00

## FOR SALE

This beautiful 4 months old show calf, sired by **PONTIAC SEGIS KEYES, 21979**, whose 18 tested dams average 28 lbs. of butter in 7 days.

**HEIS DAM—DORA DEKOL, 13707**, a grand young cow, always testing 4% fat and milks 70 lbs. per day.

**ALSO—THIS CALF'S** 3-4 brother, and one 9 months old, from R. O. M. sister of **MAY ECHO SYLVIA**.

**Bargains for quick sale. Write for photos, full information, etc., to—**

**A. ARTHUR GIBSON R.R. No. 2 Newcastle, Ont.**

## HIGHLAND LAKE FARMS

Some of the bulls we have for sale at attractive prices:

- 1. Born May, '17, two dams average ..... 35.62 ss.
- 2. Born March, '17, two dams average ..... 34. ss.
- 3. Born March, '17, two dams average (1 at 3 yrs.) ..... 34.15 ss.
- 4. Born March, '17, two dams average (1 at 3 yrs.) ..... 33.15 ss.

These are sons of **AVONDALE PONTIAC ECHO**, our best sire under head, and son of **MAY ECHO SYLVIA**, the world's record cow. Only one other 41-lb. bull in Canada.

Send for extended pedigrees and prices on these and others, a few of serviceable age, one from 11½-lb. cow. We guarantee satisfaction. Twenty-five females for sale.

**R. W. E. Burnaby Farm at Stop 55 Yonge Street Radial Jefferson, Ont.**

## EWE LAMBS FOR BREEDING PURPOSES

The Sheep Breeders' Association in Quebec are offering several hundred choice ewe lambs for breeding purposes—Shropshire, Oxford, Hungarian, Lincoln and Cheviot grades. Prices, \$12.00 to \$18.00 each. Orders also received for pure bred ewes of the above breeds at \$20.00 to \$40.00 each.

Apply

**A. A. MACMILLAN, in Charge of Sheep Husbandry, Macdonald College, Que.**

## KING SEGIS WALKER'S

Oldest daughter with first calf made 456 lbs. milk and 24 lbs. butter; with her second calf, 569 lbs. milk and 29½ lbs. butter. His first granddaughter, through his son, at 3 years 3 months, made 440 lbs. milk and 23½ lbs. butter. Young stock for sale.

**A. A. FAREWELL, QSHAWA, ONTARIO.**

## RIVERSIDE HOLSTEINS

For Sale, Choice Young Bulls, sired by King Johanna Pontiac Korndyke, a grandson of Pontiac No. 1 Korndyke, and the progeny of Pontiac Lady Korndyke. 35.92 butter in 7 days, 154.82 lbs. 20 days—world's record when made. Also females bred to "King." **J. W. RICHARDSON, CALEDONIA, ONT.**

## HOLSTEINS

We have the only two sons in Canada, of the 46-lb. bull Ormsby Jane King—only mature son of the world's most famous cow. One of them for the butter in 7 days. All 11 bull calves of lesser note, and females of all ages.

**R. M. HOLTVAY, R.R. No. 4, PORT PERRY, ONT.**

## LAKEVIEW HOLSTEINS and CLYDESDALES

FOR SALE—30 registered and high-bred Clydesdales, one and two years old. Also several richly bred Holsteins—males and females, either got by us or calf to **DUTCHLAND COLANTHA BIR MONA**.

Toronto Exhibition, Prop. to spend a day at Lakeview. Terms cash or time.

**MAJOR E. F. OSLER, Bronte, Ont. T. A. DAWSON, Mgr.**

## KING SEGIS

of Forest Ridge, 10th, whose three nearest dams average over 30 lbs. of butter in 7 days, is the sire of a bull calf we offer. His dam has an official test of 42 lbs. milk in 7 days. Born March 10th, 1915. Growthy and loads of quality. Splendidly marked. **THIS IS A GREAT CHANCE FOR SOME ONE. FIRST CHEQUE FOR \$90.00 TAKEN.**

**O. L. JORDAN, Spruce Row Stock Farm, SARNIA, ONT.**

**When You Write—Mention Farm & Dairy**

## SEEDS

### TIMOTHY

Present paid on two or more bus. of Timothy, or two bus. or more of what in Ontario. These extra at 40¢ each. Government standard No. 1.....\$4.00 bus. Government standard No. 2 (Extra No. 1 for party), \$4.00 bus. Government standard No. 3 (No. 2 for party), \$4.00 bus. Dawson's Olden, \$4.00 bus. Chief Fall Wheat (Cash included), 2.75 bus.

### FRUIT BASKETS

11 Quart Fruit Baskets with covers.....\$5.50 per 100 covers.....\$5.50 per 100 6 Quart Fruit Baskets \$4.50 31 bush covers, \$2.50 with covers.

Write for one of our Fall Fruit Catalogues

**GEORGE REIDSON, 101 BRIDGE ST. TORONTO**



Then you appreciate, indeed, the value in dollars and cents of a pure water supply. It increases the value of your property. The wise buyer will pay for pure water every time. And the buyer's idea is sound—absolutely. Impure water is a constant menace to health. Typhoid contaminated water alone is more dangerous than a machine gun—it is as deadly and it gives no warning.

**The Importance of Pure Water** cannot be overestimated. It is more necessary to health, strength and physical development of man and beast than is food. As you already have discovered it increases the selling value of the farm. Therefore an investment in pure water is invariably profitable for the individual while it is a national service of high order—it conserves the health and strength of the nation's man power and livestock.

**NOR NEED THE INVESTMENT** be heavy. Only a little care, labor and expense, usually, are required to ensure pure water. In the early fall when water is low is a most convenient time to do the work.

#### Why Water is Contaminated

**SOURCE OF SUPPLY.** The surface soil contains impurities, and these contaminate surface water. When filtered through ten feet of soil, however, the water is purified. Wells, therefore, in ordinary soil formation should be at least ten feet deep and should be protected to this depth to prevent the entrance of surface water.

**LOCATION OF WELL.** Wells frequently have been dug in the barnyard, in direct line of seepage from manure pile or privy, or in a low spot where surface water collects. Water from such wells is likely to be impure. If, to avoid these sources of contamination, the well is located at some distance from the buildings, the pump may be placed conveniently in the house or barn and connected with the well by an underground pipe. But the highest point in the pipe must be not more than 25 feet above the water level in the well.

**PROTECTION OF THE WELL.** The dug well very often permits the entrance of surface water, as do many drilled and driven wells. Every well should have water tight curbing or casing for the first ten feet and a close-fitting, water-shedding cover to pre-

vent the entrance of surface water, of insects, frogs, mice, etc, and of filth from the feet of persons, animals and poultry.

#### Questions For Each to Ask

Is my well located on ground lower than that surrounding it: after a heavy rain is the water discolored? If it is, surface water is entering the well without being properly filtered.

Do I occasionally pump the remains of insects, earthworms, frogs, mice, etc, from the wells? If so, the cover or curbing is not tight and the water is impure.

Is the well located in direct line of seepage from privy or barnyard: is the water ever offensive to taste or smell? If it is, grave danger lurks in the well—fevers often are deadly.

#### To Purify Drinking-Water

Any who are at all suspicious that the water, either at home or at school, is impure are invited to write Professor D. H. Jones, Bacteriological Department, O. A. College, Guelph. Professor Jones will at once send a sterile bottle with directions for obtaining a sample. Upon receipt of the sample a test will be made free of charge, and the analysis will be promptly returned.

Meanwhile guard the health of the family by disinfecting the water used, as follows: Dissolve a level teaspoonful of chloride of lime in a teaspoonful of water. Dilute this quantity with three

cupfuls of water. Then add a teaspoonful of the diluted solution to each two gallons of water and stir thoroughly. The water thus treated will be without taste or odor and will be safe for human consumption.

#### To Improve the Old Well

The next step is to remove the cause of pollution. If it is a dug well in a good location, tear out the old lining ten feet down and relay with cement backed by at least a foot of puddled clay. Raise the top above the level of the ground and bank with puddled clay to shed water. Then make the cover absolutely tight with cement or a double layer of boards. In case the well is in direct line of seepage from barnyard or privy, however, the only safe method is to change either the location of the well or the source of pollution.

If the drilled or driven well is sunk in the bottom of a dug well, exactly the same precautions must be taken. In any case, it is safer to puddle the clay or to cement around the casing to the depth of ten feet to prevent surface water following the pipe and contaminating lower water. The cover in all cases should be made perfectly tight.

For practical, timely and detailed information concerning:

The location of underground water.

Proper location of the well.

Proper protection of any particular well. Relative value and uses of different kinds of pumps.

Installation of water systems for house or barn.

Purifying water in or out of well.

How to have water tested for impurities. Diseases that are caused by impure water.

Value of pure water in development of live stock.

Or information concerning any other point of practical interest regarding wells, pure water or water equipment, write the Office of the Commissioner of Agriculture, Parliament Buildings, Toronto, Ont.

#### Do-You Know of a Farm For Sale?

If so let us know. It is expected that returned soldiers with some capital will wish to buy good farms in Old Ontario, conveniently located and at a reasonable price.

If you wish to sell your own farm kindly forward a complete description of it—the location, distance from church, school, post office and nearest town, and the condition of the roads, nature and condition of soil, amount of drainage done and required, kind and condition of fences, number of acres and how cropped, noxious weeds prevalent, complete description of buildings and source and condition of well water. State sum for which you will sell.

Write at once the office of the Commissioner of Agriculture, Parliament Buildings, Toronto.



**THE ONTARIO DEPARTMENT of AGRICULTURE**  
PARLIAMENT BUILDINGS, TORONTO

**SIR WM. H. HEARST,**  
MINISTER OF AGRICULTURE

**DR. G. C. CREELMAN,**  
COMMISSIONER OF AGRICULTURE