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FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

AUGUST 10

1911.



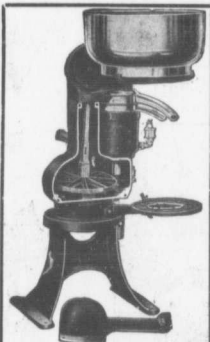
A PRODUCTIVE APIARY THAT YIELDS ITS OWNER A GOOD LIVELIHOOD

Millions of dollars would be added to the income of Ontario farmers were a sufficient number of bees kept to convert into honey the nectar of flowers that goes to waste each year. Our orchard men would have better settings of fruit were more bees kept in their orchards. Many of us who have a few colonies of bees have found them profitable. Here and there a beekeeper is found who is making a comfortable living from bees alone. In this latter class is Mr. W. A. Smith, of Northumberland Co., Ont., whose productive apiary is here shown. Mr. Smith may be seen to the right of the illustration.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

Not One Good Point But Many

Some makers of Cream Separators lay special stress on the **ONE STRONG POINT** in their machines, losing sight of the fact that they have weak points, and forgetting that no Cream Separator is stronger than its weakest part. A Separator that turns easy is of no particular merit if it is constantly getting out of order. A Separator that is easy to wash will not long remain in favor if it does not get all the cream out of the milk. It is not enough that a Separator have **ONE** good point. It must be good in **EVERY** particular.



Showing accessibility of gearing. Removing the body-rod, exposes the gearing and lower bearings.

Look at the good points of the **'SIMPLEX' LINK-BLADE SEPARATOR**, with the **SELF-BALANCING BOWL**. IT GETS **ALL THE FAT** that can be obtained from the milk by any process. It is **Self-Balancing**, and does not cause trouble as other separators do by the bowl getting out of balance. It is the **LIGHTEST RUNNING**. It is the **SIMPLEST** machine, having the fewest parts, and will not get out of order like

the more complicated machines do. It can skim cold or hot milk, and **WILL NOT CLOG UP**. In fact, it has **ALL** the latest features in Cream Separators, many of which belong exclusively to the **"SIMPLEX"** machine.

That is why our machines are giving satisfaction wherever used. They **STAND THE TEST OF LONG, HARD USE**. We **GUARANTEE** them to give satisfaction.

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CANADIAN NATIONAL EXHIBITION

AUG. 26th, TORONTO SEPT. 11th.

\$60,000 IN PRIZES

FOR PRODUCTS OF THE FARM AND HOME

Greatest Live Stock Show on the Continent

SPECIAL PRIZES: \$800.00 for Best Animal in Holstein Classes, \$500.00 for Best Animal in Shorthorn Classes. ALL ENTRIES CLOSE AUGUST 15th

For Prize List and Information write

J. O. ORR, Manager, City Hall, TORONTO

Mr. John McKee Makes Reply

Editor, Farm and Dairy.—I observed in Farm and Dairy, July 13th, that my name figured rather conspicuously in a communication from our friends, the Messrs. D. C. Platt and Son. I notice that the Messrs. Platt do not contradict the statements I made, but rather glory in the "vigorous appetite" of their favorite breed.

I am not going to say anything disparaging regarding the Holstein breed, as I do not think there is anything to be gained by newspaper controversy. People cannot all see alike, and what will suit one will not suit another. There is abundance of room in this wide Dominion for our three leading dairy breeds. There are, however, in the letter above referred to, a few statements made which I deem it my duty to briefly refer to.

ABOUT COMPARATIVE PRICES.

The question is asked: "I wonder what is the trouble with Mr. McKee and with some other Ayrshire breeders that they are trying so hard to knock the Holstein cow?" Perhaps it is the fact that at a grade Holstein at public auction will sell for nearly as much as their registered Ayrshires." I believe about the greatest trouble Ayrshire breeders have is their inability to supply the demand for Ayrshires. At no time during the past quarter of a century has the demand for Ayrshires been so keen and at such remunerative prices as now prevail. It is utter nonsense to talk of grade Holsteins selling for as much as registered Ayrshires. I would suggest, Mr. Editor, that you send a marked copy of Farm and Dairy, containing the world's record sale of Ayrshires by Messrs. Robert Hunter and Son to the Messrs. Platt, so that they can see what present-day Ayrshires are selling for. Where in this wide Dominion are grade Holsteins cows selling for from \$300.00 to \$350.00, and yearling heifers as high as \$700.00; with the stock bull bringing the magnificent sum of \$2,600.00? I know of none—many exist.

Perhaps we will be told that this was a very exceptional sale of imported stock. Then go back a little over a year ago to the "Benning Sale" at Wilton, N. S. This was a herd of Canadian-bred Ayrshires that had not been heard of for many years either in the show ring or in the dairy test, and yet cows sold as high as \$500.00.

With regard to the kindly advice that "the Ayrshire knockers pay more attention to the improvement in the weak places in their favorite cattle, I would just say that here the Messrs. Platt read a very recent editorial in Farm and Dairy they would have seen that the editor had observed in visiting Ayrshire herds all over the country, that Canadian Ayrshire breeders had been doing just that very identical thing, and that now the old style small feated Ayrshire had been supplanted with cows possessing grand large tests that were making splendid records in the yearly record of performance test.

FEED COST IN SHORT TESTS.

With regard to the bluff about conducting a test of taking food into consideration, the Messrs. Platt are behind the times again. Such a test was held at Guelph some years ago and proved to be a regular farce. It is an utter impossibility to get at the cost of milk production in a short test. A cow that had been highly fitted while dry could be fed on a very cheap ration for some time after calving and still give a good supply of milk, so that the food consumed during the test would not at all represent the cost of production of the milk.

The Messrs. Platt speak rather slightly of the "tiny tests" of the (Concluded on page 9)

Electric Power on the Farm

Hon. Adam Beck and Mr. P. W. Sothman, chief engineer of the Hydro-Electric Commission, returned July 29th from an extended tour of Europe, where they succeeded in securing much valuable information relative to the application of electricity to commercial purposes. Throughout the continent they found that electric power was extensively used for farm purposes, and the Minister of Power hopes as the outcome of his investigations that the commission will be materially aided in the proposed scheme of supplying farmers and small users of electricity in Ontario.

In the course of an interview Mr. Beck said: "Our visit to Europe



Investigating the Electric Power Problem

The Hon. Adam Beck, chairman of the Hydro-Electric Power Commission, may be here soon testing an electric plow near Munich, Germany. The plow is turning soil at the rate of 25 acres per day. It is the intention of the Commission to extend the use of hydro-electric power to the rural districts of Ontario.

for the purpose of investigating a number of important matters connected with the Hydro-Electric scheme has been successful beyond our most sanguine expectations. We secured much valuable information at the Electrical Exhibition at Munich which was confined almost exclusively to the use of electricity in the house, in the workshop, and on the farm. Some of the interesting features was a model farm, fully equipped with electricity, and a practical demonstration of electric plowing, where from 25 to 30 acres was being plowed per day with one plow.

LARGELY USED ON FARMS

"In practically all the European countries electricity is largely and extensively used on farms of from 2 to 100 acres for light and other purposes, such as threshing, cleaning of grain, cropping, root cutting, seed sowing, pumping water, milking, warming and lighting houses, stables and barns.

"As the municipal farm in Berlin where over 400 horse-power is being used, the municipal representatives and the users of electricity were most courteous and willing to give us information that we desired. The information secured will be of great assistance to the commission in its proposed scheme of supplying farmers and small users of electricity.

"While we found that the cost of power and light for the farm was higher on the whole than it will be with us, the cost of distribution to the delivery to the farmer was less, as they do not live on their farms, but are grouped in villages. Electricity from an economic standpoint should be of greater value to our farmers as wages are from 50 to 100 per cent higher here and farm labor more difficult to secure.

Enclosed is my renewal for Farm and Dairy for another year. I am well pleased with the paper.—J. H. Eagleson, Northumberland Co., Ont.

Issued
Each Week

Vol. XXX.

Favorable Exp

Robert A.

The weighing of dairy cows has been, and larger in 1903, and from our good cows.

In 1907 we started found that we were not worth the best and bought lbs. of butter, which we had done with years before. In and 881 lbs. of increase being during our milk.

We were able to dispose of the poor deal better advantage cows we got the dairymen should in his stable, so that note the difference in the fat will be surprised ways he can improve has been our experience.

Feeding Da

L. K. Sho

For producing more I find that not aftermath. Many the second growth value for adding increasing the following ration than its has been, however, clover aftermath a nest of the fertilizer soil we cannot see deer so much valuable peas, oats and vetch contributes to the

Our standly, however both green and usually have a good this is fed in conjunction through the early fall. We as a great many depending on the green no other feed on the corn when it is. We often wondered, have wondered also, the corn, the cows, a milk flow, actually w

A chemical analysis however, explains this in tassel (the stage started to feed), it

FARM AND DAIRY & RURAL HOME

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FOR WEEK ENDING AUGUST 10, 1911.

No. 32

Favorable Experience With Cow Testing

Robert Murray, Picton Co., N.S.

The weighing and testing of the milk from our dairy cows has led to better breeding, better feeding, and larger returns. We started dairying in 1903, and from then till 1907 we just guessed at our good cows. We made very little headway. In 1907 we started weighing and testing. We found that we had some very poor cows which were not worth their keep. We kept two of the best and bought two more. In 1908 we sold 578 lbs. of butter, which was a great deal better than we had done with the same number of cows five years before. In 1910 we sold 375 lbs. of butter and 881 lbs. of butter fat from six cows, this increase being directly due to testing and weighing our milk.

We were able to pick out our best cows and dispose of the poor ones, also to feed to a great deal better advantage, because we knew which cows we got the most butter fat from. Every dairyman should have a set of scales at least in his stable, so that he can weigh his milk and note the difference that change in feed or exposure to cold rain and cold winds makes in the milk flow. Anyone who starts weighing the milk from his herd and keeping records for at least three days in the month and testing it for butter fat will be surprised to see in how many different ways he can improve his herd. At least that has been our experience.

Feeding Dairy Cows in the Fall

L. K. Shaw, Welland Co., Ont.

For producing milk in the late summer and fall I find that nothing is equal to a good clover aftermath. Many of our neighbors plow down the second growth of clover, claiming that its value for adding humus to the soil and so increasing the following crop is a greater compensation than its value for feed. Our experience has been, however, that cows will milk as well on clover aftermath as on June pasture, and as much of the fertility is returned directly to the soil we cannot see our way clear to turning under so much valuable food. The last cutting of peas, oats and vetches, sown late in June, also contributes to the fall feed of our dairy cows.

Our standby, however, for fall feeding, is corn, both green and in the form of ensilage. We usually have a good supply of ensilage over, and this is fed in conjunction with peas, oats and vetches through the dry part of the summer and the early fall. We once made the same mistake as a great many farmers are still doing of depending on the green corn for fall feeding. Having no other feed on hand, we would start to cut the corn when it was little better than water. We often wondered, and I suppose many others have wondered also, why when we started to feed the corn, the cows, instead of increasing in their milk flow, actually went back.

A chemical analysis of corn at various stages, however, explains the difficulty. When corn is in tassel (the stage at which we at one time started to feed), it is almost all water, and the

cows could not possibly consume enough to get a sufficient quantity of dry matter to supply their needs. Knowing this, we feed our left-over ensilage first and reserve the green corn until it is in the late milk or glazing stage. From experience I should estimate that ripe corn is worth at least four times as much for feeding as corn in the tassel.

The corn is run through the cutting box and fed in the stable when the cows are being milked. When the corn is cut and loaded onto a wagon and then drawn to a pasture and dumped the more timid among the cows do not get their fair supply, and particularly in the latter part of the season, when the corn is most valuable as a feed, a large percentage of the coarser portions will be wasted. Feeding in the stable has an additional advantage in that the cows there are cool, free from flies, and consume their rations much more contentedly and hence with better results in the milk flow.

When we have more alfalfa hay we believe that we will be able to do away with the feeding of corn in the fall almost altogether. I have been fed by experienced alfalfa growers that alfalfa hay gives excellent results as supplementary feed for short pastures.

Should Calves Suck The Cows?*

Prof. H. H. Dean, O.A.C., Guelph.

Some extensive experiments conducted at the Michigan Agricultural College, indicate very strongly that there is no profit in producing steers by allowing the calves to suck their dams. The average of three years' experiments with grade Shorthorn, Hereford and Polled Angus beefing animals raised in this way showed that it cost 6.73c a pound live weight to produce beef when calves sucked their dams, while similar calves from similar cows raised on skim milk and where the cream was made into butter, produced beef at an average of 5.23c a pound, while the cows gave a profit of \$27 to \$28 a cow over cost of feed on their butter. The animals fed on skim milk made nearly as good gains in live-weight as did their companions that sucked their dams, and the cost was considerably less. In a word, the animals raised on skim milk and meals were sold at a slight profit, whereas those allowed to suck their dams were produced at a loss except for the manure.

The practical lesson for farmers in those sections where calves are allowed to suck their dams is that such cows are kept and such beef is produced, at a loss, whereas if the cows are milked, the calves reared on skim milk and its substitutes and the cream manufactured into fine butter at the creamery, it would add profit to the farm and help the creamery business. In nearly every creamery section in Western Ontario we have some farmers following the expensive plan of producing beef by allowing calves to suck their dams. There is room for missionary work among such farmers.

*Extract from an address before the W.O.D.A. Convention at Stratford.

A Good Profit from Hogs

D. P. Cameron, Stormont Co., Ont.

There is lots of money to be made out of hogs by keeping the right kind and feeding them well from start to finish. At the price of pork and the price of milk feed to-day there should be a good margin of profit left for the feeder. To prove my statement I will give my own experience with hogs this spring and summer.

I had a pure bred Yorkshire sow two years old weighing 600 lbs. that farrowed 13 pigs on February 26. I sold six of the little fellows to my neighbors at from six to seven weeks old for \$5 each, as breeders, reserving six boar pigs and one sow. I castrated five of them and commenced feeding the bunch. They had what they would drink, which I didn't value, as otherwise it would have been left at the cheese factory. The following is a statement of feed and profit:

April 20	By 7 pigs at \$5.00 each	\$35.00	
	" 100 feed flour at \$1.70	1.70	
	" 5 cwt. middlings at		
	" \$1.40	7.00	
	" 7 cwt. shorts at \$1.25	8.75	
July 3	To 5 pigs sold at \$6.75;		\$55.68
	live weight 325 lbs.		
	" 1 sow sold as a brood		
	sow		15.00
	" 1 boar pig on hand.		15.00

\$52.45 \$85.68
62.45

Leaving for profit \$33.23
The pigs averaged 165 lbs. at 128 days old.

Alfalfa as a Soil Builder

D. W. Friar, Colorado Agricultural College

The great virtue of alfalfa is its ability to increase the nitrogen content of the soil. About 77 per cent. of the air is nitrogen. It is estimated that there are 35,000 tons over every acre of land, worth, at the present rate of 18 cents a pound, over \$12,000,000, if it could be used. It is taken out of the air into the soil by very minute plants called bacteria, which live in the little nodules found on the alfalfa roots. It takes about 25,000 bacteria to measure an inch.

They take the nitrogen from the air and use it in their life processes and then give it up to the alfalfa plant in another form. Alfalfa plants remove a large amount of nitrogen from the soil, but the bacteria collect so much that a portion is left for other plants that follow.

If the soil is too wet, the bacteria cannot work, and if too hard, the air containing the nitrogen can not get to them.

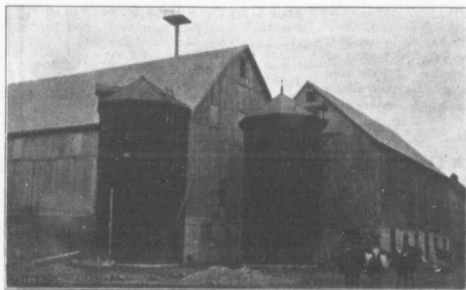
All plants which have the ability to add nitrogen to the soil, like alfalfa, are called legumes. Some legumes closely related to alfalfa are sweet, red and white clover; some more distantly related are beans and peas.

We have solved the question of getting rid of ragweed seed in clover. Ragweed has a large seed. Our seedsmen are installing rollers which, while not injuring the clover seed, will crush the ragweed.—T. G. Raynor, Seed Branch, Ottawa, Ont.

The Fine Points in Finishing Dairy Cattle

It is wonderful how a few long hairs will detract from an animal's appearance in the show ring. It is in the very fine points of finishing, such as trimming off these hairs, which points are neglected by the great majority of exhibitors, that gives to the herd of the high-class show man at the big fairs, that smooth sleek appearance that is not seen in the exhibits at our smaller fairs. In a previous issue of Farm and Dairy the main essentials in feeding and fitting dairy cattle for the show were given. The points mentioned herewith are attended to in the last few days before the show or even the day before, and while they may seem of minor importance, great stress is laid on them by the high-class show man.

Hair clippers play an important part in the final fitting. All of the long hairs around the udder should be cut off and the hairs on the belly trimmed in such a manner as to show up the milk veins to the best possible advantage. Long hairs on the udder and belly give the animal a coarse look that is not consistent with dairy quality. The tail above the switch should be clipped in any case. Additional clipping depends upon the breed. Many Ayrshire men clip all of the head, neck and the fore part of the shoulders, and such treatment improves the appearance of the Scotch bossy, while the same treatment for the Jersey would almost ruin its chances of winning. A general rule would be to clip off all long hairs around the udder and belly, to clip the tail, and elsewhere only when it will give the animal a



Two Money Makers on a Brant County Farm

The two silos here illustrated have enabled their owner, Mr. A. W. Van Sickle, Brant Co., Ont., to keep double the stock that he was able to before erecting the silos. The silos are of crows, 16 by 33 and 17 by 31 feet, and cost \$175 and \$155 respectively, including paint. The larger silo has been up 11 years, the smaller one eight.

—Photo by an Editor of Farm and Dairy.

smoother and more refined appearance, and will not interfere with its "breedy" look.

In slicking up the hide some breeders use preparations of oil, but hand rubbing and continual brushing with a soft brush are equally effective. Putting up the tail in small braids the night before the animals are judged and unbraiding the following morning gives the switch a fine, silky appearance. All irregularities and roughness on the horns should be filed off and the horns sandpapered or scraped with glass. They may then be polished. I once heard a prominent Jersey breeder state that his rule was to polish the horns until he "could see his face in them." The hoofs also, which particularly in the case of bulls are apt to be overgrown, should be chiselled down and polished.

Indications of good feeding capacity is one of the first points looked for by the judge of dairy cattle. A large barrel therefore is desirable and can be obtained even on an animal weak in this respect by a special course of feeding. The day before the judging both the food and water rations are cut down considerably and the animal given a couple of handfuls of salt. A few hours before the judging is to take place the animals

are watered and given a good feed of some palatable food of which they will eat a large quantity. I have secured best results with green alfalfa hay or, lacking that, green corn or peas, oats and vetches. The animal then goes before the judge with a good full stomach and consequently a barrel showing large capacity. Of course, with old cows inclined to be paunchy or aged bulls such a line of feeding must not be followed too far, and the breeder must use his own discretion. No course of feeding immediately before judging, however, can make up for lack of fitting beforehand.

The rules of most fairs require that the cows be milked dry the evening previous to judging, but the morning before they are judged milking should be deferred until after judging in order that the cows show a good full udder. Letting the cows go for two milkings, as some breeders do, is not only cruel and inhuman, but with a good judge is detrimental to their chances of success, as the udder will be too hard and lack that silky quality that a first-class udder shows when not too full.—"Herdsmen."

The Silo—and a Substitute

A. D. Wilson, Extension Division, Minn.

The shortage in the hay crop should prove a great stimulus to the erection of silos. It should also have the desirable effect of increasing the acreage of corn. With a good acreage of corn, and silos to store it in, the shortage in the hay crop, from the standpoint of feeding the stock on the farms is not serious.

A safe policy for the management of our farms must provide a good acreage of hay and pasture, a good acreage of corn, and ample silo capacity. With a good supply of silage left over from the preceding winter's feeding, the drought and temporary shortage in pasturage is not serious to the stock-raiser. With ample silo capacity, and a good acreage of corn, a shortage in the hay crop need not worry the stock raiser; because he can put in the silo enough of his corn crop to take care of

his stock. It is desirable, however, to plan for a reasonable acreage of pasture and hay; because of the great value of these crops in cleaning land and maintaining in it a reasonable supply of vegetable matter.

A SUBSTITUTE FOR ENSILAGE

If one has not a silo, fodder corn—that is, corn sowed thickly and cured in the shock in the field—makes a most excellent substitute for hay. In fact it is a very valuable adjunct to be live stock ration, even though there may be plenty of hay available.

A number of farmers who have no silos are getting excellent results stacking the corn green outside. Corn thus stacked has come out as "A No. 1" ensilage, except for the eight to 12 inches around the outside, that naturally moulds because the air gets at it. This method of supplying succulent feed in the winter is worth looking up by farmers who haven't silos.

Dogs or noisy and rough boys soon change the balance to the wrong side of the ledger. Gentleness pays in the dairy herd.—H. Johnson, Middlesex Co., Ont.

Cultivate Corn to Preserve Moisture

Andrew Boss, University of Minnesota

In many sections the rainfall last year was insufficient to fill the subsoil, and the rainfall during the growing season this year has been light. As a consequence, there is not moisture enough to mature the corn crop unless every available pound of it is conserved for that purpose. Corn does not demand a large supply of moisture during the early part of the season because the frequent cultivation necessary to keep down the weeds forms a dust-blanket and retains the larger part of the water that falls.

A period has been reached in the growth of the crop, however, when moisture is needed. The plants are large, the leaf surface is fully developed, and transpiration is rapid. In addition to the large amount of water transpired by the plants, the hot summer sun, reaching the bare ground, will evaporate large quantities from the surface, unless the soil is broken by continued cultivation. The ground must be covered with a dust-blanket, or with a close cover-crop of some kind, to prevent evaporation. Unless the water is saved for the use of the plants, rubbings and small ears will form, and these will not completely fill out.

FREQUENT CULTIVATION

Experiments in the continued cultivation of corn during hot weather indicate that an increased yield can be obtained by frequent cultivation. It is well known that, in fields where the leaves of the corn are curling, evaporation and suffering from lack of moisture can be overcome by cultivation. Some of our corn experts have in their own fields in this way added 10 to 20 bushels of corn per acre to their yields. They have also secured full crops of corn, when corn on adjoining land that was not cultivated has been a very short crop.

It will not be possible, of course, to continue cultivation with the sulky or riding cultivator after the corn tassels out. Single row cultivators, however, drawn by one horse, can be sent through the cornfield until the 1st of September, if necessary. The cultivation should be shallow, not more than two to two and a half inches in depth, and as frequent as necessary to form a perfect dust mulch. Judgment in this matter is necessary, and the experience of others should be drawn upon to give the best results.

It is worth while for the farmer to give special attention to this matter at this time, for the reason that there is a probability that all of the grain crops, as well as corn, will be short and feed prices consequently high. If 50 cents to \$1 worth of cultivation per acre will give a yield of five to 10 bushels more of 60-cent corn, it is an investment well worth making. There is no doubt but the cultivation will increase the yield and insure better-filled ears and a more marketable product.

Great care and judgment should be exercised in securing the hay crop. Many of the yields and the poor condition of the stock are traceable to the inferior quality of the bulky feed provided for them.—N. J. Kuneman, Winnipeg, Man.

In a province like Ontario, where agriculture occupies such an important place and in which the live stock industry is being so largely developed, it should be the aim of every farmer to make the very most out of his soil. The pasture should be greatly increased in quantity and quality. Careful provision, however, should be made to supplement the pasture lands by furnishing suitable green fodder crops when required in the summer season. If this important branch of the work were properly looked after, it would make a tremendous difference in the development of the live stock industry and in the financial progress of the agriculture of Ontario.—Prof. C. A. Zavitz, O.A.C., Guelph, Ont.

An extremely tion of a colt, and great errors are is in biting. C. This organ exersing the a tributing to t

It is not of the that the mount ing him, in prof head and neck, lating speed.

These things thr that organ has become respons meant one that the bit brought rider or driver. The pressure is to collect, or alter

CULTIVATION

The cultivation prime important liability, comfort and action of a give it special a remember that it is easily spoiled remedy. There teaching a child's mouth. In both muscles and ner the muscles a to make smooth in the other yu nerves of the he sure. Both p practice, and t horses make a t of carrying out t bit is usually p driven before h pressure from it, ing out this lac may result, part horses, who read

BAD

The experience tion with the m as putting the to drawing the tong the mouth open, pulling, instead of carrying the head mixing the hair, away. In order mouth responsive get the tongue t pressure from the bars of the lower injury. In cultiv to simply put a bit colt used to its exert increasing use of reins buckl lack, on either s is frequently mad at first, and the on the tongue b The reins at first so that when the position the slight brought to bear on his nose out fe the restraining inf to it. Constant r

*Extract from an address

Educating the Colt's Mouth*

F. C. Grenside, V.S., Guelph, Ont.

An extremely important point, in the education of a colt, but one that is very imperfectly understood, and one in connection with which great errors are made and much suffering caused is in biting, or the cultivation of the mouth. This organ can undoubtedly be considered as exercising the most important influence in contributing to the control of the horse.

It is not only, however, in influencing control that the mouth exercises its very important function, but also in balancing the horse, in steadying him, in promoting a graceful carriage of the head and neck, in increasing action and in regulating speed.

In order that we can attain all these things through the medium of the mouth, that organ has got to be cultivated until it becomes responsive. By a responsive mouth it means one that readily yields to the pressure of the bit brought about by tension on the reins by rider or driver. The mouth responds, whether the pressure is intended to restrain, guide, steady, collect, or alter the carriage of head and neck.

CULTIVATION OF MOUTH IMPORTANT

The cultivation of the mouth being of such prime importance in contributing to the reliability, comfort in using, style, speed, balance, and action of a horse, it behoves the trainer to give it special attention, in handling a colt, and remember that in the process of biting, the colt is easily spoiled, and that defects are hard to remedy. There is a marked analogy between teaching a child to write and making a colt's mouth. In both instances you are cultivating muscles and nerves. In one case you are teaching the muscles and nerves of the hand and arm to make smooth lines easily in forming letters; in the other you are educating the muscles and nerves of the head and neck to respond to pressure. Both processes take time and repeated practice, and the mistake many handlers of horses make is that there is no systematic plan of carrying out the training of the mouth. The bit is usually put in the mouth, and the colt driven before he understands anything about pressure from it, and what it means. By following out this lack of method many bad habits may result, particularly in sensitive, nervous horses, who readily chafe under any discomfort.

BAD HABITS CULTIVATED

The experience of repeated irritation, in connection with the mouth, leads to such bad habits as putting the tongue over the bit, tongue lolling, drawing the tongue up in the mouth, going with the mouth open, crossing the jaws, side lipping, pulling, unsteady carriage of the head, carrying the head too high or too low, going corner-wise, carrying the head sideways, hitching, interfering, mixing the gait, rearing, plunging, and running away. In order that we can make a horse's mouth responsive and steady, it is necessary to get the tongue to stand a reasonable amount of pressure from the bit, as this organ protects the bars of the lower jaw from undue pressure and injury. In cultivating the mouth the first step is to simply put a bit in it for a few days to get the colt used to its presence, then by slow degrees exert increasing pressure on the tongue by the use of reins buckled to the bit, and then buckled back, on either side, to a surcingle. The mistake is frequently made of having these reins too short at first, and thereby exerting too much pressure on the tongue before it becomes inured to it. The reins at first should be only sufficiently tight, so that when the colt holds its head in its natural position the slightest amount of pressure is brought to bear on the tongue, but when he sticks his nose out he feels the increased pressure, and the restraining influence of the bit, and he yields to it. Constant repetition of this results in fre-

quent yielding, thus cultivating responsiveness, and at the same time habituating the tongue to pressure. Every day or so the reins can be shortened slightly, thus increasing the pressure by slow degrees, but never sufficiently to tire the nerves and muscles, so that the colt will fight it or hang on it. If he drops his head too low, use a bearing rein, in addition to the other reins. Use a separate bit for the bearing rein.

FURTHER EDUCATION

A couple of weeks of this sort of treatment in a box stall will be a good start in making the mouth responsive. Leading the colt about or lunging him with the lifting tackle on will still further promote the education of the mouth, but you cannot finish the making of the mouth in this way. It has to be done in harness, or in the saddle. A great deal depends upon the delicacy of touch of the driver or rider of a colt, as to the progress the mouth makes in responsiveness. The hand should be light, but steady, the mouth should always be felt, and the colt kept collected, as well as the progress of his education will per-

Experience With After Harvest Cultivation

E. F. Eaton, Colchester Co., N.S.

After harvest cultivation is one of the best methods I know of for getting rid of annual weeds such as mustard, pig weed, etc., and it will even go a long way towards eradicating weeds with a creeping root-stalk, such as perennial sow thistle or quack grass. We have practised after harvest cultivation for the eradication of mustard with good success, but one of our neighbors, an Englishman, who a few years ago bought a very dirty farm, has had phenomenal success with cultivation at this time. His farm was so dirty with yellow mustard, or cadlock, as we call it, that decent grain crops could not be grown, and it was a continual struggle to keep the hoe crops, mangolds and potatoes anything like clean.

A couple of years ago our English neighbor surprised us by cutting about one-half of his grain crop when quite green and making it into hay and starting fall plowing immediately. It was only a couple of weeks until the plowed land had



The Traction-Engine can be made to play an important part in Road-Making

A traction-engine can be made to do the work of six or eight horses in hauling the road grader, when grading gravel or stone roads. On such roads the traction-engine is the cheapest power and does the work constructed under the Ontario county roads system.

mit. Loose rein drivers are an abomination, as they teach the mouth nothing, and are apt to spoil a horse's gait. Hitching, forging, and bad carriage are promoted by loose rein drivers.

The position of the bit in the mouth is of much moment. It should not be too high or too low, and the trainer has to be guided by the manner in which a horse faces it, in determining its proper location. If the mouth does not yield to the pressure of the bit, lower it, and put it down as low as possible, in order that the animal will still face it with a reasonable degree of firmness and not put his tongue over it. If he shows evidence of doing this and keeps behind the bit, raise it. Much harm is done by the common practice of placing the bit too high in the mouth. When it is too high leverage is lost, and you cannot bend the head upon the neck, and get response from pressure. Other untoward results are that the lips are curled up and the angles of the mouth made frequently sore, and the cheeks are pressed against the anterior grinders, causing abrasions and excoriations of the lining of the cheek. Lungers, side-liners, tongue lollers, open mouths, sore mouths, dry mouths, crossed jaws are encouraged by having the bit too high in the mouth.

I have seen men trotting loads of apples five and six miles in springless wagons. It is not hard to imagine the condition of these apples after such treatment. Were I a buyer, I would refuse to buy apples not drawn to the station in wagons having springs.—Albert Tamblin, Durham Co., Ont.

a fine mat of young mustard. This was immediately plowed under, as was also the crop that followed it. Two or three plowings and frequent diskings did much to clean that field, and by following up the same practice our neighbor will soon make a clean farm out of what was always known as the dirtiest farm in the section.

After harvest cultivation has other advantages besides the control of weeds. The frequent cultivation brings the land into a very fine tilth, and soil moisture is conserved. If it is ribbed up in the fall to give the frost a good chance to work the land in is the very best condition to produce a first-class crop of roots or grain the following year.

Jottings From Farmers

Never give milk to a calf in a dirty pail. Dirty pails and over-feeding with skimmed and sour milk are the principal causes of scours in calves. A good remedy for scours is to quit giving skim milk and give a pint of new milk in which is stirred a small handful of powdered charcoal. Continue this treatment until the calf recovers.—H. Johnson, Middlesex Co., Ont.

A weed seed very commonly found in red clover is ribbed grass, or buckhorn, which most farmers know very well, especially those who are producers of seed. This weed could be very largely eliminated from our clover fields by going over the meadows a few days after they have been mown in narrow strips armed with a spud or hoe to cut them out just below the crown of the plant.—T. G. Raynor, Seed Branch, Ottawa, Ont.

*Extract from an address at the Ottawa Winter Fair.

SWINE DEPARTMENT

Our readers are invited to ask questions in regard to swine. These will be answered in this department. You are also invited to offer helpful suggestions or relate experiences through these columns.

Farmers' Opinions on Hogs

As long as Ontario farmers go in for dairying as extensively as they now do, hogs will occupy an important place on the farm, and the supply will be fairly consistent. Reports received from Farm and Dairy correspondents in all parts of Ontario, however, indicate that hogs are not looked on with great favor as profit-making animals, but are kept mostly to enhance the dairy by-products. Almost all Farm and Dairy correspondents report fewer spring litters in this than in previous years, and also a serious loss in spring litters.

The unpopularity of the hog that was once known as the mortgage lifter is variously explained by Farm and Dairy correspondents. An Ontario county farmer, Mr. F. M. Chapman, says: "Recent prices (\$7 a cwt.) will pay us for our trouble in looking after hogs, but most of us feel that a price below this yields us no profit." For several months recently prices have been considerably below \$7, which has discouraged many farmers from breeding their sows for fall litters.

Another reason for the unpopularity of hogs is touched by Mr. Thos. H. Myers, of Lambton County, when

he calls it a "most uncertain business." Several of our correspondents believe that did our packers pay according to quality there would be more encouragement for farmers to breed a good class of bacon hogs. Mr. J. R. Cole, of Durham County, complains that "packers and drovers do not discriminate enough between select and fat hogs for the good of the bacon industry." In some sections also the large growth of our towns and cities, and the consequent demand for milk and cream at remunerative prices, is driving farmers out of hogs altogether. "Farmers sell their milk and cream, and are going out of the hog business altogether," writes Mr. Wm. Clarkson, of York County. "We are raising more calves than in other years, good milk cows being high in price and offering larger returns than the raising of hogs."

It would also seem from the reports received that we farmers ourselves are partly responsible for the unsteadiness of the hog market. Little effort is made to produce a steady supply, many of us rushing into the hog business when prices are high, and dropping out again in the slump that follows. There are still those, however, who regard the hog as one of the most profitable animals on the farm. On another page of Farm and Dairy this week, Mr. D. P. Cameron, of Stormont County, Ont., gives figures showing where he has made money in hogs. The reports of some of our correspondents follow:

MORE THAN LAST YEAR
"There are more hogs in this local-

ity than last year, and the tendency is towards more hogs yet."—A. Blais, Glengarry Co., Ont.

"The falling off in the number of hogs this year is very noticeable, due to a low price commencing last fall and continuing through winter. There are fewer spring litters than previously."—A. P. McDonald, Glengarry Co., Ont.

"There are fewer hogs here than at this time last year's cause, high price of feed and low price of pork. Fewer sows have been bred for fall litters."—W. E. McKillop, Glengarry Co., Ont.

"There are not as many hogs as last year, and the tendency is towards less."—D. P. Cameron, Stormont Co., Ont.

DEPENDS ON THE PRICE
"There is a larger number of hogs on hand than last year. The number of hogs depends on the price."—Arthur Christie, Dundas Co., Ont.

"There were more spring litters than last year, but more was so heavy that there are fewer for sale."—D. H. Barber, Grenville Co., Ont.

"There were fully double the number of spring sows this winter as compared with the winter previous. There were, however, many losses in spring litters, and a heavy mortality in young pigs. There is a perceptible increase in the number of hogs."—F. A. Cameron, Hastings Co., Ont.

"There are about the same number of hogs as last year."—J. R. Cole, Durham Co., Ont.

"Hogs are slightly in excess of last year. Present low prices will cause many of us to raise fewer hogs."—M. Chapman, Ontario Co., Ont.

"The number of hogs is on the decline owing to low prices."—Wm. Clarkson, York Co., Ont.

SELLING THE SOWS
"The pig crop is about the same as last year. Some farmers are of the opinion that hogs are going down and are selling their sows."—Geo. Laithwaite, Huron Co., Ont.

"There are fewer litters than in previous years, but the litters have been unusually large."—Wm. L. Falkingham, Grey Co., Ont.

"There are fewer hogs here than a year ago. The loss in spring litters was serious."—H. A. Drummond, Wentworth Co., Ont.

"Hogs are falling off to a slight extent. Some farmers are breeding only one sow instead of two."—D. C. Brodie, Middlesex Co., Ont.

"There will be one-third and, perhaps, one-half less hogs shipped from here than a year ago. Neighbors who have kept up to 80 hogs now have 10 or 12." It is a most uncertain business."—Thos. H. Myers, Lambton Co., Ont.

Some June Contracts
C. L. Whitely, in Charge of Records, Ottawa, Ont.

Many grade cows are making good records this season. One grade cow near Cassel, Ont., has given over 200 pounds of butter fat in three and a half months. In the cow testing associations at Warsaw, Ennismore, Cassel and Tayside, Ont., the average yield of all cows tested for June was over 35 pounds of butter fat. Eight associations in Quebec average over 30 pounds of fat per cow. A good many herds, however, in Ontario and Quebec average less than 700 pounds of milk and 25 pounds of butter fat during June.

In Prince Edward Island the highest average yield for June was at Kensington, where the 150 cows included in the "Dairy Record Centre" there gave 787 pounds of milk, 3.7 test, and 30 pounds of fat. Included at this centre are several individual cows that gave over 900 pounds of milk and 35 pounds of fat. One of the best yields was from a seven-year old grade Shorthorn that gave over 1,200 pounds of milk and 40 pounds of fat. But hard by these good rec-

ords are found poor yields of only 500 pounds of milk and 18 pounds of fat from fat and unweaned cows that freshened in April and May.

Between yields of 40 and 100 pounds of fat in one month there is too great a difference to be overlooked. It is all the difference between a very satisfactory return and no adequate payment whatever for all the energy, time, feed and care expended on cows that are not capable of making money from their unweaned calves. We should conserve our energy by keeping better cows. We cannot afford to keep a herd of only medium capacity.

Cow testing pays abundantly for it shows which cows are making a good profit, and again which cows cannot by any strength of imagination be considered in the same category.

The 3,500 Lb. Cow Again

Editor, Farm and Dairy.—In the reply to my letter published in Farm and Dairy of June 22nd, re "Favors the 3,500 Lb. Cow," it is stated that the question of feeding dairy cows is not what it was in the past. I return the cows will give. This statement is correct, but you have made wrong deductions. Intensive dairying does not pay at present prices of butter and cream. I am glad to see you follow up my ideas so closely, but you soon drift from the straight and narrow way in your statements about cost and profits. You neglect two important items in your estimate of the cost of the cows and their attendance. This will very materially reduce the 35 per cent. net profit on Mr. Brodie's fresh cows.

You contend that the 3,500 lb. cow will not give 35 cents profit a day even if fed on nothing. Also that she is only fit for the rich man for the farmer and his society. Your theories show that you are a genuine underfoot in need of coaching. The 3,500 lb. cow is milked about six months yearly; she gives a fine flow for about five months which is gradually reduced if she is not associated. Her first job is to rear her calf, which she readily does on half her product. The calf is worth \$12 at four months. She also produces cream during her period of lactation to produce 225 worth of butter. The skim milk at 20c a cwt. is worth \$7, making a total of \$44. The first cost of the cow as a heifer would be about \$30.

These results are obtained by cows in my herd in six months on grass and browse on a rough range. Being dry early, such a cow puts on flesh and is able to practically winter herself. She gets a little wild hay, some straw and a quantity of turnips. The whole is worth more in manure than in any other form. Being dry a long time, she has no calves, and is in fine form for her summer's task.

You will note that this cow practically pays one hundred cents on the dollar, her own price included, each year. This bears out my contention that no cow nets more, cost considered, than this desirable animal. This cow, instead of being merely society for the rich man, is one of the best levers to drift the farmer out to easy street.—G. W. Cann, New Westminster Dist., B. C.

I received my pure bred Chester white pig shipped me by Mr. F. H. Bessor, of Cedar Grove Farm, Farm and Dairy in return for the nine new subscribers. I secured for that paper, last Wednesday, and I am very much pleased with him. Everybody says he is a nice one, and I think he was worth trying for, as I had no trouble in getting the subscribers. All the subscribers are pleased with the paper, and I think that more boys should try to secure pure bred pigs too.—Clarence R. Nott, Elgin Co., Ont.

FARM

Seeding Fall

(1) I have a lot of oats and clover to sow in the fall, which I am going to sow in the fall to show for it. I have a yard manure, which I am going to sow in the fall to show for it. I have a lot of oats and clover to sow in the fall, which I am going to sow in the fall to show for it.



What

Gates that have been a good source of opened, are a glad

I shall be glad to matter from some experienced in soil. It is a good fall wheat in the Co. Ont.

(2) It is difficult satisfactorily, no crops you grow rotation you are in any case the plowed at once and in the kept cultivated will work consider the thistles, although you will be able you will be able in which case you again during the spring before pl Should you n field for it again next seed, outing it. Any thistles t topped off with next spring, and the clover catch the thistles in cl can get a hoe c looking after the If you can u and you fear the sufficiently by it will give between may carry the fl next spring, and the next season. (2) Some sple have been reported from seeding in wheat. The alfalfa since we would no be own in this perimental way, methods of sowing certain of giving

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FARM MANAGEMENT

Seeding Failed—Thistles Prevalent

(1) I have a field of 14 acres (of barley and of oats) which I seeded down last spring with red clover and timothy, but owing to the dry season there is nothing to show for it except about 3 acres of yard manure. There are a good many thistles in the field; they seemed to thrive in spite of the dry season. Can you advise me what to do with such a field? I am completely stuck. I don't incline to a bare fallow, and yet it won't do to sow it again with so many thistles. Some suggest sowing rye this fall, plowing it the next year, and then pasturing it down.

Good Gates an Asset

Rolph A. Steele, Guelph, Ont.

A large percentage of the profits from farming leaks out through ramshackle gates. Many a crop has been seriously damaged by stock gaining access to it through makeshift gates. Farms on which dilapidated gates are used seldom bring their full value when sold.

Money invested in light, strong, durable, good looking gates will yield a return of interest. A farm with poor gates offered for sale at \$10,000, for example will often sell readily, with \$100 invested in modern gates, for \$11,000. Gates must be opened and shut in inspecting a farm. More than any other class of fixtures they are

In opening and closing most farm gates enough time is consumed in a year to pay for an entire new set that would last 10 years or more and reduce operating expenses 75 per cent. One of the most detestable features of driving or riding over farms consists in opening and closing, dragging, mud-clogged, unsightly gates.

I have called attention to this question of gates in the belief that it is entitled to the serious consideration of all stock-farmers. Gates are a large factor in successful husbandry. No farmer can secure the full results of his work nor make the most of his opportunities if the gate problem is not solved for him. Ignored, it is sure to cause accidents and trouble representing hundreds of dollars. Good business farmers will not ignore it.

Nova Scotia Crop Report

The present season in Nova Scotia has been dry and crops generally will not be as good as last year, which was a banner year. The fruit crop, however, is an exception to the rule, the highest yield on record being anticipated. Fruit growers report unusual freedom from fungous pests, and they are looking for the best quality of apples they have ever produced. Hay, compared with 1910, will be a short crop, as will also be potatoes, which is a very important crop in Nova Scotia. Although this is not as good as last year, the grain crops, turnips, and other roots will be above the average.

There has been a three per cent. increase in the number of dairy cattle. Beef cattle remain stationary. Sheep

have declined three per cent. Swine have increased four per cent. All correspondents report live stock in extra good condition, due to the abundant crop of the past year, and the extra amount of hay on hand during the past winter.

Seed Grain Selection

J. W. Clark, Brant Co., Ont.

We farmers as a rule are paying more attention to the selection of our seed grain since the Canadian Seed Growers' Association commenced its work. I have been working with the Association, and when I say that it is a good thing, I speak from experience. As a rule, we farmers are too careless in the selection of our seed grain. Too many of us thresh all the grain together and then take what we want from the bin for seed. The simplest plan and, for the most of us I believe, the best plan, is to start before we cut our grain and select the best part of the field, cut, store, and thresh it by itself.

The best method of selecting seed and the one which will give the best results, is to go into the field and select the very best individual plant and breed up a strain of seed from this plant only. Most farmers, however, will not do this. And for them the first plan is the best.

Land For Alfalfa.—Alfalfa will grow anywhere that red clover flourishes. Land for alfalfa should be well drained either naturally or artificially as wet land is not good for any kind of clover.—Henry Gindinning, Ontario Co., Ont.



What a Source of Satisfaction is a Gate that Opens Easily

Gates that have to be lifted and carried back by main strength are a constant source of annoyance—particularly to the women folk. Good gates, readily opened, are a good investment.

I shall be glad to have some help in this matter from some one older and more experienced in such cases. "alfalfa" on fall wheat in the spring?—E.L. Halton Co. Ont.

(1) It is difficult to advise you satisfactorily, not knowing what other crops you grow and what system of rotation you are following. But in any case the field had better be plowed at once as shallow as possible and be kept cultivated with a broad shared cultivator, in which case you will work considerable destruction to the thistles, although it is hardly probable you will eradicate them. Next year you can use this field for corn, in which case you would manure it again during the winter or next spring before planting the corn.

Should you not care to use this field for a hoe crop you may sow it again next spring with barley or oats, seeding it again with clover. Any thistles that are left may be topped off with a scythe before the grain shoots into the head, and should the clover catch be good it will keep the thistles in check until you again can get a hoe crop on the field following after the clover or timothy sod.

If the field be real bad with thistles and you fear they will not be checked sufficiently by the cultivation you will give between now and fall, you may carry the field over, work it well next spring, and on into early summer and then sow it to alfalfa, sowing it without a nurse crop about the last of June, should you wish to devote this area to alfalfa. Or you might carry it over as for the alfalfa and sow part of it to rape, seed the rape early in July.

We would not advise you in any case to leave the field under bare fallow next season.

(2) Some splendid catches of alfalfa have been reported as being obtained from seeding in the spring on fall wheat. The alfalfa seed being expensive, we would not recommend that it be sown in this way except in an experimental way, there being other methods of sowing it which are more certain of giving a successful stand.

seen of the public. If they are easy to open and shut, and present an attractive appearance, an impression is made that may be and often is an important asset.

A farmer's character and standing can be accurately judged by his fences and gates. Most of the boys who have left farm homes have passed off their parental soil through miserable gates. A stranger or hired man using a gate that is rickety, heavy and hard to open usually yields to the temptation to leave it open.

Wooden gates costing a few dollars must be replaced every three or four years, while steel gates, capable of efficient service for much greater periods, cost but little more and last indefinitely.

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There never was a time in the history of Canada when the dairymen were paying so much attention to ventilation, sanitation and equipment of their dairy stables. This is an age for concrete and steel. When you are laying your stable and select the very best material to install steel stalls and stanchions. An increasing large number of stables are being built with Louden's Stalls and Stanchions because they give Perfect Satisfaction whenever they are used. They are made of tubular steel, fastened together firmly with malleable couplings without any rivets. This will hold the strongest bull, and yet they are so arranged that no weight of any kind rests on the animal's neck.

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HORTICULTURE

A Central Organizing Body for Cooperative Associations

Editor, Farm and Dairy, — You have requested that I should write on "The Need of Centralization of Cooperative Fruit Concerns." You will notice the difference between the heading as I have constructed it and as you have suggested. There is a great difference in the two ideas. Centralization implies bringing together under one head the different cooperative fruit associations of the province with a central management and controlled by a central body. In this way, if the organization were successful a real and very powerful combine would be effected. While some differences in the management are forceful economic weapons, they in nearly all cases abuse their powers, antagonize the people at large, invite restrictive legislation, and result in the eventual breaking up of the combine.

UNIFORM ORGANIZATION
 A central organizing body implies the organizing of cooperating societies along certain uniform, constitutional lines, which makes it possible for these societies to work together as a federation of self-governing bodies where economic and other advantages are gained by so doing. On the other hand each body of cooperators, through the constitution granted them by the central organizing body, is a complete entity and able to stand and work alone where individual initiative is advantageous and local requirements make it best to do so.

A federated body of uniform cooperative societies (organized under a central body whose only business it is to organize individual societies and federations of them) stand in the same relation to each other as Britain's self-governing colonies, each having its own government and controlling their own local affairs, yet able to work together when advantage is to be gained thereby. A centralized body of cooperative societies having one government as would be required stands in the same relation that the countries of England, Ireland and Scotland with government from London are in to-day. There are strong indications that federalization will take place in Great Britain and this is what is wanted in cooperative societies.

HOW FORM AN ORGANIZING BODY
 A central organizing body as it is worked in Ireland would proceed as

follows: It would work out a uniform constitution embodying in it all the best features of the cooperative experience that the past has taught and eliminating those things that have been proven by experience to be hurtful in a cooperative society. The detail of management would be sought to suit the conditions, but certain essential points would be preserved throughout. Before a society was organized the central association, through its trained organizer, would investigate conditions and find out whether or not the proposed society in the place intended and the kind of society best suited to the conditions. This would eliminate the haphazard methods now in use.

At present a number of men conclude that a cooperative society should be formed. They know nothing about the subject and in organizing make the same mistakes that other societies have made, the most common of which are restricted shares; votes according to shares; the mixing up of the buying and selling ends of the societies; provision for reserve fund fields of operation that are too small for profit or, on the other hand, too wide fields of operation. Certain of the cooperative societies now seem inclined to think that co-operation means the control by one organization of all of the others. This mistake would be fatal to cooperative success. A central organizing body would obviate such mistakes and difficulties.—S. E. Todd, B.S.A., Lambton Co., Ont.

Box Apple Trade

Jas. A. Findlay, Cargo Inspector, Glasgow, Scotland.

The box apple trade in Glasgow is one of increasing dimensions, and last year's trade indicates that Glasgow offers an outlet for a large proportion of high class boxed fruit at all periods of the recognized apple season. Boxes containing apples characterized by uniformity of size and color, with skins free from blemish and clean for the variety, and boxes in size that do not exceedingly so nor irregular in shape so as to be deemed coarse—will return to shippers a much enhanced price over the barrel equivalent. The barrel, I presume, will always retain its place as the popular commercial package, but very large quantities of boxes were shipped here from United States districts last season, influenced no doubt by the scarcity of Ontario and Nova Scotia barrel supplies.

Buyers are becoming increasingly discriminating regarding value of appearance and Ontario archardists are forced to capture and retain a portion of this high class box trade, decidedly more scientific care of orchards and more careful selection of fruit in picking is essential. I am satisfied that an increased quantity of boxed Ontario apples can be absorbed here, and it lies with the Ontario packers to cater for the Scotch consumer's eye as well as his palate. The popularity of the King, Spy and Baldwin on this market is admitted on all hands, and granting the excellent flavor of these varieties, buyers are influenced by uniformity of size, evenness of color and cleanness of skin. The most popular size of Oregon Newton Pippins here is from 36 to 42 apples per pound case, the latter size preferred.

There is often too much cultivation in the orchard in July and August, and the soluble plant food in the soil is set free and wasted. Do not leave the land without some cover crop. Have something growing when possible, and then, to save the plant food as far as possible, plow under this crop.—W. C. McCalla, Lincoln Co., Ont.

It pays to advertise. Try It.

APICULTURE

A Successful Bee Man

A bee-keeper who has made a success of his business and believes that a good living can be made out of bees is Mr. W. A. Smith of Northumberland Co., Ont. Mr. Smith has a very small place, but his bee-yard, in which are 75 hives, mostly eight frame Langstroth, yields him a good income and many of the luxuries of life as well. (One of the editors of Farm and Dairy, who called on Mr. Smith recently, learned that he has lately used an automobile.)

One of Mr. Smith's colonies in 1910 stored 452 lbs. of extracted honey. Mr. Smith gave this colony every thing he had left supers until he had eight full sized supers on the hive, and it was necessary to get up on a sugar barrel to reach the top. Mr. Smith does not deal in comb honey. "You can get," said he, "two pounds of extracted honey to one



An Artistic Home for Bees

A noticeable feature of the apiary of Mr. W. A. Smith, of Northumberland Co., Ont., and his room for two swarms, is that it is movable, and room can be made for care as shown on the front cover illustration.

pond of comb, and the foundation and setting are sold along with the comb."

FROM SMALL BEGINNINGS

It is 14 years since Mr. Smith started to keep bees in a commercial way. At first he had only five or six hives. A few seasons ago there were 172 colonies in the apiary, but foul brood got in, and 144 colonies were lost. Last year from 75 colonies Mr. Smith estimates that he had a clear profit of \$500.

An extractor, run by a gasoline engine, is owned in a cooperative way by Mr. Smith and two other neighboring bee-keepers. "It does not take us nearly all our time to look after the bees," said Mr. Smith. "My wife helps me with the swarms, and in the whole year I do not believe that there are more than 36 days of steady work. It is, however, work that requires attention at the proper time, and it is not well for a bee keeper who is into bees as a commercial proposition to have other work that he must be at a certain number of hours each day."

I believe there is more money in bees than in most other departments of the farm.—W. J. Telford, Peterborough Co., Ont.

There is nothing to equal sugared syrup for winter feeding bees. Al clover honey is just as good if you can get it, but buckwheat honey is not in it.—W. A. Smith, Northumberland Co., Ont.

POULTRY

Increases Production

There is an increasing demand for eggs in the market to 80 or 100 cents per dozen. It is not surprising that the price of eggs is so high, which are as important as any other product of the farm. There is an increasing demand for eggs in the market to 80 or 100 cents per dozen. It is not surprising that the price of eggs is so high, which are as important as any other product of the farm.

Yet 50 hens, which would yield a larger profit to the farmer, someone to take care of (falling off in the summer). Indeed, the price of eggs is so high, which are as important as any other product of the farm.

Summer Egg Production

Prof. C. E. Brown, Minnesota, says that the percentage of eggs in the summer is as high as 50 per cent. This is a noticeable feature of the apiary of Mr. W. A. Smith, of Northumberland Co., Ont., and his room for two swarms, is that it is movable, and room can be made for care as shown on the front cover illustration.

The man who sees egg production last year, and who is a man who has been successful in saying anything to the keeping of hens in barns, and it was the result of this particular barn that had such a high production of eggs. The man who sees egg production last year, and who is a man who has been successful in saying anything to the keeping of hens in barns, and it was the result of this particular barn that had such a high production of eggs.

The peculiar thing that was that they did not much use of the run. The cool shade and the basement of the farm. If one would like to see what you would find it quite a large all the birds that

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 TWO CENTS A WORD CAN
 HARDWOOD SHEDS—By
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 During 1910 we sold over 133,400 acres; during the past four years we have sold over 400,000.

POULTRY YARD

Increase Poultry Products

There is an inherent tendency in mankind to go out after the things that are up to the mind's eye. In doing this the more practical things which are as important in the long run are often passed by. We farmers show it too in the conduct of our farms. The biggest things in agriculture, such as horse raising, cattle raising, etc., receive our attention in preference to what are usually considered small side lines such as poultry. A loss of 50 hens by some disaster is not looked upon as of very great importance, while a sick cow will claim our first attention, and we will put forth our very best efforts to secure her recovery.

Yet 50 hens, well cared for, will yield a larger profit than one cow. We farmers, somehow, do not seem to think so, and the result is a large falling off in the supply of poultry and eggs. Indeed, the situation in business has become acute. Not only has Canada given up exporting eggs, but does not produce enough to supply the home market. This should not be. It is possible to treble the products of eggs and poultry without in any way lessening the output from the other branches of the farm. Every farmer keeps poultry of some kind, and if the same attention were given to housing, feeding and caring for the poultry as is given to other branches of farming there would be a different story to tell.

Summer Egg Production

Prof. C. E. Brown, University of Minnesota
Ordinarily hens lay from 50 to 75 per cent. of eggs in the spring. As soon as the warm weather begins to come—the latter part of May and into June—egg production begins to taper off. It is not an uncommon thing for birds to lay not more than 35 to 40 per cent. through the month of July and gradually falling off from that through August. With care we could hold that production up to as high as 50 per cent. at least.

The man who secured the greatest egg production last year, to my knowledge, was a man who kept his hens in the basement of a barn. I am not saying anything to recommend the keeping of hens in the basement of barns, but it was the conditions that existed in this particular basement that had such a potent influence on the high production that was secured. This particular barn was built on the southern slope of a rather steep, sandy hill. The north wall was set deep in the face of the hill and well drained with farm drainage tile; the south face of the basement was well lighted. There was a large door on the north end through which the birds could run out freely, and the 300 of them in the barn had access to this run.

CONGENERS THE FACTOR
The peculiar thing about those hens was that they did not seem to make much use of the run. They preferred the cool shade and fresh air of the basement to the sunshine outdoors. If one went into that well lighted basement on a hot summer day they would find it quite cool and practically all the birds there busily engaged in scratching the litter; similar to what one would find in a laying house in the winter time.

The most peculiar thing of it all was that these birds began to molt in July, they molted gradually, and when the writer last saw those birds in September, they were practically in new feathers and were laying at least 40 per cent. at the time when the majority of hens had ceased.

All poultrymen cannot have conditions such as these, but they can keep their poultry houses well cleaned out and ventilated, and can provide ample shade for their birds in the yards by the use of shade trees, pergularis fruit trees, or by growing corn fodder, or planting bushes. These are the conditions that will assist materially in keeping up the egg production throughout the summer.

To Prevent White Diarrhoea

The large mortality among young chickens due to the ravages of white diarrhoea can be decreased if proper precautions are taken. The following preventative measures are recommended in a recent United States bulletin.

From the time the chicks begin to hatch until they are removed to the brooder, the incubator should be kept dark. This will largely prevent the chicks from picking at the droppings.

Since infected chicks make unsatisfactory development for the first few weeks, and may later regain vigor and make fair growth, it is advisable to select at an early age those intended for breeding purposes. The selection may be made when the chickens are from eight to 10 weeks of age, reserving only those which show greatest vigor and development.

Incubators, brooders and all other appliances used in the hatching and rearing of the chicks should be cleaned and disinfected frequently.

Food and water should be supplied in such a manner as to prevent contamination with infected droppings. The use of fine absorbent litter in the brooder, especially for the first few days, is also advisable.

SOUR MILK A PREVENTIVE
The feeding of sour milk may prove very effective as a preventive measure. The milk must be fed early, or during the infection stage. After the white diarrhoea organism has once entered the general circulation, such treatment is of little or no value. Hence, sour milk should not be looked upon as a cure, but merely as a possible preventive agent.

Since perfect physical condition is, as a rule, a barrier to disease, it is important that the health and vigor of the breeding stock and chicks be raised and constantly preserved. Proper methods of housing, feeding, incubation, brooding and management should therefore be employed.

Poultry Pointers

It is too late to be setting eggs. For this reason it is well to take the male birds out into a pen by themselves.

Throw open the windows every night, but tack some wide-meshed cloth or screen of some kind over them to keep out things that have no business in the house.

Sort the young growing stock as to size, it will give them all an equal chance and you will find they will grow better and less trouble will be experienced.

When there are two pens of fowls in the same house, separated by a partition, the drink dish may be set in the partition so that the fowls can drink from both sides. It should rest on a shelf so that it may be easily removed for cleaning and disinfecting.

Mr. John McKee Makes Reply
(Concluded from page 2)

Ayrshires. I would consider that a 2-year-old heifer yielding upwards of 10,000 lbs. of milk and 437 lbs. of butter-fat was a pretty creditable record. I notice in report No. 2 of the Canadian Record of Performance that at the same time 29 Holstein 2-year-old heifers had qualified in the Record, and only one of them had surpassed the Ayrshire record. Most people, I think, would consider 521 lbs. of butter-fat a very fair record for a 3-year-old heifer. In this same report I see that only one Holstein had beaten it. I only mention these figures to show that if Ayrshires are making "tiny tests" then a great many Holsteins make still timier ones.

ABOUT "KNOCKERS."
It is rather amusing to see the Messrs. Platt calling down your humble servant and a few others for "knocking" the Holsteins as they call it, and then proceed themselves to knock the Ayrshires. My letter of June 29th was not intended for publication when written, but I had merely replied to a question from an editor of Farm and Dairy regarding my observation of rations fed to different breeds in the Winter Fair Dairy Tests.

In conclusion, Mr. Editor, the gratuitous advice contained in the poetry was altogether unnecessary, for Ayrshire men the whole country over are wearing the smile that won't come off those days. I believe no class of breeders are so little given to blowing about their own breed and to knocking rival breeds as are Ayrshire breeders. The Ayrshire coop has won the proud position she occupies to-day by her merit. The Record of Performance Yearly Tests are demonstrating to the world that we have in our "Ayrshire bossie" not only one of the most beautiful breeds in existence, but also one of the most useful. — John McKee, Oxford Co., Ont.

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FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



1. **FARM AND DAIRY** is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Redford, District, Quebec, Dairymen's Associations, and of the Canadian Holstein, Jersey and Jersey Cattle Breeders' Associations.

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

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

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The paid subscriptions to Farm and Dairy exceed 8,500. The actual circulation of each issue, including copies of the paper sent subscribers only and slight quantities in arrears, and sample copies, varies from 8,500 to 11,000. All subscriptions are accepted at less than the full rates. Thus our mailing lists do not contain any duplicate names.

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

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

FARM AND DAIRY

PETERBORO, ONT.

OUR STAND ON RECIPROCITY

For years leaders of the farmers and the agricultural press, have been telling us farmers that we should unite in securing recognition of our rights from the government and in the advancement of the interests of agriculture. At election times, however, we have invariably failed to follow this advice, and have divided on party lines. Farm papers that urge us to take independent action and then remain silent at election times, but prove their own inconsistency. We believe that the agricultural press should support the stand taken by the farmers' organizations in so far as their stand is in the best interests of agriculture, even when that stand is not in accordance with the stand of one or the other of the great political parties.

We believe the reciprocity question to be the greatest issue pertaining to the interests of the farmers that has ever been before the country. It is the issue above all others on which we should stand together because it affects us primarily. It is an issue which every farmers' organization that has been heard from, has endorsed.

The only farmers we know who are opposing it are those who are reading the straight party press, and who have never taken any part in an open discussion of the question at any farmers' meeting.

The farmers' organizations which so far have expressed themselves in favor of reciprocity, include: The Dominion Grange, The Nova Scotia Fruit Growers' Association, The Eastern Ontario Dairymen's Association, The Grain Growers' Associations of Manitoba and Saskatchewan, and The United Farmers of Alberta. We have yet to hear of a farmers' organization with the exception of a small fruit growers' association, representing special interests in British Columbia, which has taken a stand on the other side. Farm and Dairy in supporting reciprocity is, therefore, but voicing the sentiment of Canadian farmers as expressed by practically all the leading farmers' organizations of the Dominion.

In endorsing the stand of the united farmers on this question, Farm and Dairy does not wish it to be understood that it is thoroughly satisfied with the action of the Dominion Government. We feel that the Government should have gone further in reducing the preference on goods imported from Great Britain, as was asked by the farmers' deputation at Ottawa last December. We feel that the expenditures on militia and defence are out of all right proportion to the expenditures on agriculture. We feel that the government might have made greater reductions in the tariff on such manufactured articles as agricultural implements, spraying machinery, mixed fertilizers, and cement also, as was requested by the farmers.

The Government, however, has taken a great step towards placing agriculture on an equal footing with other industries. It is offering to do more for the farmers in the matter of freer trade than the Conservative party is prepared to do. The opening up of the United States market to Canadian farm produce will be of incalculable benefit to us. Consumption in the United States is rapidly overtaking production, and as the years go by the United States market will become more and more valuable to Canadian farmers. In Canada, with the opening up of the vast agricultural regions of New Ontario and the Canadian west, the demand for wider markets for our farm produce will become ever more insistent. With our large exportable surplus of farm produce we should supply the growing demand in the United States for farm produce from outside sources.

Farmers who are lining up in opposition to free trade proposals will do well to ask themselves from what

source they are gathering their information, whether it can be relied on to give them both sides of the case, and why they are taking a stand in direct opposition to what has been requested by all the farmers' organizations in Canada.

OFFICIAL TESTS

On this page in our last issue we published a clipping from Farm and Home, in which the following statement appeared:

"The seven-day test is not of great value to practical dairymen, 'who consider that it is no indication of either the profit or production that may be expected in a year. Holstein breeders are now 'the only ones to use the short test, and as it is made under official supervision of the experiment stations it is reliable so far as it goes. But the cows are forced to such abnormal production, both in total milk yield and per cent. of butter fat that seldom is their record maintained in a 30-day test. The week's test is all right, but it is about as accurate in testing the year's yield as would a three-furlong spurt to tell how far 'a horse could travel in a day.'"

The foregoing remarks do not do justice to this excellent test. The seven and thirty day tests are the most reliable and accurate tests of any kind that are made to-day. They are supervised at every milking by officials appointed by the government or dairy schools. These officials weigh and test every milking, and thus the tests are as accurate as they can well be made. This cannot be said of any other system of test now in use.

The statement that the cows are forced to such abnormal production in the seven day tests that their records are seldom maintained in a thirty days' test, is hardly borne out by facts. It not unfrequently happens that the total production for the thirty days is larger in proportion than for the first seven days. Cows holding the seven day records often hold the thirty day record also.

The Holstein men were the first to recognize that production is of more importance than show yard form, and to adopt an official test. Their seven day test is not only the first official test adopted by any breeders' association, but it is still the only strictly official test that is made of dairy cows. While there is truth in the statement that the seven day test immediately after freshening is not a true indication of either the profit or production that may be expected in a year, still the Holstein Association has not failed to recognize this fact, and has adopted the seven and thirty day official test eight months after calving for those who prefer it. This latter test offers probably the most accurate official test that can be obtained of a cow's possibilities as a persistent producer. Only a few breeders—these, as far as we know, being located across the border—have resorted as yet to unjustifiable methods to increase the milk and butter production of their cows in seven day tests immediately after calving. Still,

as the article in question shows, there is a tendency to discount some of these tests because of what these few men have done. For this reason we feel that the Holstein breeders will be acting wisely if they devote more attention to tests made eight months after calving. Were a number of breeders to do this and to draw attention to the fact that their tests were so made, they would soon reach the rewards of their foresight and enterprise.

It is hardly in order for any paper or organization to endeavor to cast discredit on the best official test that has yet been invented without offering something better in its place. This has not yet been attempted, as it is generally recognized that the expense involved in a yearly official test makes it impracticable. The seven day official tests have done more to advance the interests of dairy cattle than any other one factor, and they deserve to be encouraged, especially those made eight months after calving.

MUST WE PLOW DEEPER

There is an opinion among many of us farmers, and it has found wide spread belief, that it is the proper thing to plow shallow rather than deep. Undue pressure of work and a general shortage of labor have contributed to the ready acceptance and practice of shallow plowing. Then, too, the erroneous notion has gotten abroad that the sub-soil is deficient in fertility and some of us believe that if we plow deep and bring the sub-soil to the top we will get a poorer crop for some time.

Years of plowing of from four to six inches deep is having the untoward effect of decreasing yields. The land dries out more quickly than it formerly did when it was the common practice to plow more deeply, and the shallow plowed land is more quickly adversely affected by drought.

Where shallow plowing has been advocated it has been also advanced that it be followed by deep cultivation. When the soil has been plowed, however, the necessity for the deep cultivation is overlooked, and the consequence is a shallow root zone and a compact soil not capable of holding and retaining a maximum of soil moisture, which is so necessary for plant growth.

On our experimental farms greater attention than was the case some years ago is being given to the plowing and they are "going it" deep. Mr. John Fixter, Farm Superintendent of Macdonald College, as many Farm and Dairy readers know, is a strong advocate of very deep plowing, and the results he secures demonstrate his contentions to be well founded.

Evidence is continually cropping up that it will pay to plow deep, and it appears that we are about to enter another period when deep plowing shall be the general practice. Farm and Dairy readers will recall the illustration of a deep plowing implement published in our Special Farm Machinery Number, June 1st. One of these implements was made use of last spring on the farm worked by Hoard's Dairyman. Writing editors

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"Dairyman," t

Last spring we something practical so we purchased Deep Filling Machine No. 1,800. The wheels are 24-inch wide disk cuts sired depth and completing the 24-inch depth. We about three-fourths of corn ground in balance of the year. It is before about six inches was easily drawn.

At the outset, I never before seen and thoroughly and bottom soil was layers, the under whole depth was gathered in a matter. This land was fielded corn well.

So far we are the deep plowed the best. The growth and much. It has stood much the best. It is no evidence of crop whatever.

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ally of their experience recently in the "Dairyman," the editors say:

Last spring we determined to know something practically on this subject, so we purchased one of the Spalding Deep Filling machines. This machine weighs 1,200 lbs.; the plowing is done by the 24-inch steel disks. The forward disk cuts the furrow at any desired depth and the rear one follows, completing the depth to 12, 16, 20 or 24 inches. We determined to plow about three-fourths of a 12-acre piece of corn ground 12 inches deep. The balance of the piece had been plowed the fall before with ordinary plows about six inches deep. The big plow was easily drawn by three good horses. At the outset, we saw what we had never before seen, our land really and thoroughly plowed. The top and bottom soil was not laid in separate layers; the under soil on top, but the whole depth was sliced and mixed together in a most satisfactory way. This land was fitted and planted to ensilage corn with the rest of the field.

So far we are forced to admit that the deep plowed portion is showing the best. The corn is of a stronger growth and much the deepest in color. It has stood the dry, hot weather much the best, we think, and there is no evidence of any setback to the crop whatever. This encourages us in the determination to plow all of our arable land, once at least, 12 inches deep, and that as soon as practicable.

Farm and Dairy would welcome for publication the experience of its readers on this important question of deep plowing. Have you found it advisable to plow to a greater depth than five or six inches?

"ADVERTISING NEW ONTARIO"

The time has come when the Ontario Government should launch a much more vigorous immigration policy in connection with the settlement of New Ontario than it has yet undertaken. This is the psychological moment. Within ten years we should have seventy-five thousand to one hundred thousand farmers settled in the clay belt. This can be accomplished if the Ontario Government will handle the situation in the energetic, capable manner that conditions call for. The strongest men procurable should have charge of this work.

Settlers from the United States, as well as farmers in Ontario who are thinking of going west, are beginning to discover that the free lands of the west are now exhausted. To obtain land there now one has to pay a stiff price for it. If free land is required, settlers are forced to go into sparsely settled sections, remote from railroads, where the expense of locating is so great as to involve a heavy burden in itself. The lack of timber is also a great drawback as the country is cold and the need for fuel is great. In stating this we are simply telling facts, and have no desire to disparage our great west.

In New Ontario the conditions are more favorable. This section is now entered by the Temiskaming and Northern Ontario Railroad. The Transcontinental Railway, which will traverse it from end to end, is nearing completion. Shortly the new line of the Canadian Northern Railroad, which will pass through many of its best sections, will be well under way. Thus, the clay belt will shortly have

the benefit of two transcontinental lines, as well as of numerous branch lines running north and south.

The country is well watered, which cannot be said for large sections of the west. It is well timbered, the timber about offsetting the cost of clearing the land. It has excellent markets near at hand, in the mining and railway camps, and in the cities of old Ontario. It has land equal to the best that can be obtained anywhere, and most of it is not as far north as Winnipeg. An Experimental Farm has been located in New Ontario, which will prove of great value to settlers in advising them in regard to the production of crops.

Some fifteen years ago but little was known about the prairie provinces. A vigorous immigration policy was launched by the Dominion Government at that time. Through the publication of extensive advertisements in British and United States publications reaching the farming classes, as well as in home papers, turned the tide of immigration into the west. This tide has grown year by year.

Owing to the conditions now existing in the west, much of this flow of immigration might readily be diverted into New Ontario. The Government should seize this opportunity to advertise the advantages of this great section of country. Ontario farmers who are thinking of going west should be urged to go north instead. Agencies should be started in the States to attract immigration. This policy has proved successful in the case of the west.

The Ontario Government has already done considerable work of this character, but much more remains to be done. If the Immigration Department is without the necessary funds, these should be provided at the next session of the Legislature. When the public sees that the Government of Ontario has enough confidence in the advantages of New Ontario to be willing to spend considerable money making them public, then people will be willing to visit and locate in the north country, but not before.

A recent official inquiry addressed to 600 Misseron farmers' wives brought from 53 per cent. of those who answered, the reply that the cause of their dissatisfaction with farm life is that they have no running water in the house. It is no small matter to carry water from a distant pump a dozen times a day.

Introspection

Get the habit. Emerson tells us that "man is a bundle of habits." And there is, perhaps, no habit so prolific of results as the habit of introspection. What kind of a proposition are you working? What are your profits? What service are you rendering the community and to humanity? What is the prime motive at the bottom of your business? Is the dollar the touchstone of your every thought and action? Are you striving for nothing higher?

The quiet hour of introspection at the close of each day's labor is a wonderful help in clarifying the vision and preparing the way for the next day's duties.



**CREAM
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If you want the highest price for your butter fat, use

The De Laval CREAM SEPARATOR

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98% of the PROFESSIONAL buttermakers use the DE LAVAL SEPARATOR

Agents Everywhere

THE DE LAVAL SEPARATOR CO.

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BOYS! GIRLS!

You can be independent, earn money, win a pure-bred pig, a bull calf, or other pure-bred live stock, and many other valuable premiums, or, if you wish it—CASH.

HERE IS THE PROPOSITION

We want new subscribers to Farm and Dairy. You can help us get them. We will help you get them. That means we will work together.

Don't ask father for every cent you want. You can earn many of the things you would like to have, and money, too, by helping us to get new subscribers to Farm and Dairy.

YOU CAN TAKE PART

in our campaign for new subscribers. Read what we have said to the boys. This same proposition is open for you. See if you can beat the boys in helping us to get more subscribers.

There are a good many of your best friends and neighbors—FARMERS, who live near you, who do not take Farm and Dairy. They would take Farm and Dairy if they knew about our paper and actually understood what a **Great Big Dollar's Worth** Farm and Dairy would be to them for a year.

Send us the names of two, three, four or five of the very best farmers you know who do not now take Farm and Dairy.

We will send them sample copies of Farm and Dairy, and write them each a personal letter telling them that your father takes Farm and Dairy, and asking them if they will subscribe, and to hand you their subscription of \$1.00, or that you will call for it.

This will be easy for you. One new subscriber will entitle you to a splendid Fountain Pen, nine will earn you a pure-bred Pig, 25 an Ayrshire Calf. Get us four new subscribers—all must be taken at only \$1.00 a year—and we will give you \$2.00 CASH.

Will you try? Sure you will. Get paper and ink, and write us now, sending us the names. Do it right now, and we will do our part.

FARM AND DAIRY

PETERBOROUGH, ONT.

Cheesemakers! Buttermakers!

Be up-to-date and progressive. You need the latest books in your line. We can supply you. Write us today for catalog and prices and then give us your order.

BOOK DEPARTMENT

Farm and Dairy

PETERBOROUGH, ONT.

AUGUST 31st

FOURTH ANNUAL EXHIBITION NUMBER OF FARM AND DAIRY

A Good Number for Advertisers and Readers

"Better than ever," is the motto before us in preparing for the Fourth Annual Exhibition Number of Farm and Dairy to be issued August 31st.

That means that we are going to give our readers extra value this year, since past Exhibition Numbers as well as other Special Magazine Numbers of Farm and Dairy, have been popular with our readers.

"I would like to express my appreciation of the splendid number of Farm and Dairy you are out under date of September 1st (Exhibition Number). You are giving us farmers each week the greatest value for our money that I ever heard tell of. Farm and Dairy is worthy of our best support. I speak a good word for it whenever I speak the opportunity.—John B. Stuart, Wentworth Co., Ont.

The above is one of many such expressions of appreciation that have been received from readers of Farm and Dairy. The Exhibition Number of 1911 will contain live, up-to-date information in every department—just what our readers desire and are looking for.

OUR READERS will eagerly look forward to this number and will tell their friends about it. As a result the CIRCULATION will be largely increased over our regular issue. Many copies will be distributed at the several large fall fairs and exhibitions in Eastern Canada to those who are seeking the information it will contain.

OUR ADVERTISERS, knowing from experience the value of former exhibition numbers, will use large space in this one. Advertisers who have not yet used Farm and Dairy will find this issue a good one in which to begin their fall campaign. No advertisers who want to tell the most up-to-date, progressive farmers and dairymen of Eastern Canada of their goods and at what exhibitions they can be seen, can afford to miss this number.

Further information may be had on application to

ADVERTISING DEPARTMENT FARM AND DAIRY PETERBORO - ONT/110

Creamery Department

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

Side Lines for Creameries*

Prof. H. H. Dean, O.A.C., Guelph. Profitable "side-lines" for the creamery man are eggs and ice-cream, to say nothing of buttermilk, the sweet cream trade, casing, hogs and other lines of profit.

The collecting of eggs fresh from the farm two or three times a week by the cream drawers ought to prove a profitable "side-line" for creamery-men. We seem unable to supply our home market for clean fresh eggs. The eggs are fresh on the farm, but we do not seem to be able to evolve a proper system of marketing. The cooperative egg circles are a step in the right direction, but in connection with our creameries, we have all the machinery needed for collecting and distributing eggs. Who will give it a trial in Ontario?

During the hot weather Canadians seem to have developed a mania for eating ice-cream. In many fashionable hotels ice-cream is on the bill of fare all the year. With modern machinery, ice-cream manufacture can very well be made a part of the creamery business, especially where the creamery is located in, or near a town or city. The local demand for ice-cream will frequently pay all the running expenses of the creamery in the hot weather. This is no inconsiderable sum in creameries, and is worthy the careful attention that these studious economy in creamery management.

The value of buttermilk as a healthful, wholesome drink is not sufficiently realized. That there is a pronounced temperance wave sweeping over Ontario all will admit. What shall take the place of the accustomed drinks? Nothing better than good, wholesome buttermilk. It furnishes the accustomed stimulant in the form of lactic and carbonic acids; at the same time the consumer takes a valuable aid to digestion.

U.S. Opinion of Cream Grading

Quat. Holt, Verpus, Miss.

Quite a few of our leading creameries have realized that it is just as wrong to pay the same price for a poor can of cream as for a can containing first-class cream as it would be for our elevator men to pay the same price for Nos. 2 and 3 wheat as for No. 1. Paying for cream according to its quality is something that ought to be done in the creamery business, as it will surely crush out the poor cream, which is always in the way of the creameries turning out the highest possible product that obtains the highest possible price.

A creamery can well afford to pay two cents a pound more for nice sweet cream than for the sour, stale sweet cream that often gets, and if one farmer would sell his cream and get a higher price you may be sure his neighbor would not like to get less for his cream, and he would surely make up his mind to bring cream that would grade No. 1, and in so doing while there would be nothing but sweet cream coming in.

If the butter-maker know his business he could turn out butter that would bring two and three cents more per pound with such cream. Just stop and figure out how much those two and three cents would amount to in one year in a creamery that makes say 75,000 pounds of butter. And it's only the smallest creameries

*Extract from an address before the W. O. D. A. Convention at Stratford.

that make that much each year. Friends and patrons of the farm cooperative creameries should adopt this plan, and the sooner the better. It has worked well in our creamery.

The Refrigeration of Butter

J. A. Ruddick, Dom. Dairy Commissioner.

Refrigeration is probably more useful to the buttermaking industry than it is to any other industry pertaining to other food products. It is also highly essential in the practice of the art. The principal buttermaking countries of the world are in the northern hemisphere and the periods of production are more or less intermittent, owing to the fact that summer season is more favorable for production than are the winter months. It follows, therefore, that there is a large surplus of production over consumption at certain periods of the year which must be held in reserve to supply the shortage at other periods. Before the days of refrigeration, the consumption of butter during the off-season was very much curtailed, owing to the fact that it was difficult to secure supplies in good condition.

With efficient refrigeration available for storing the surplus production during the summer months, consumers can now obtain their requirements in practically as good condition during the winter months as at any other time of the year. This has resulted in an enormous increase in the consumption of butter over all other countries, because we spread it thicker when the quality is good, and the business of dairying has grown and developed to an extent which would not have been possible without the aid thus rendered by refrigeration.

LOW TEMPERATURE FOR BUTTER. Butter is an unstable product. It is at its best when freshly made, and its fine quality will last only a few days at ordinary temperature in the summer months. As the temperature is reduced, the changes which take place in the butter—rancidity and other undesirable flavors proceed more slowly so that the "age" of butter is determined by the length of time at which it is kept rather than by the number of days or weeks made. At any time it was thought to be undesirable to keep butter below the freezing point of water under any circumstances, but gradually, through the light of experience, the storage temperature of butter has been reduced, until at the present time we have it being held as low as zero F.

Experiments and investigations have shown that butter eventually changes perceptibly under any storage temperature that has so far been tried, and that the effect of storing at a certain temperature is only a matter of degree and not of absolute stoppage of all change in any case.

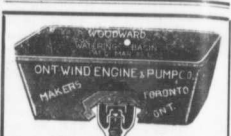
The cold storage manager, in determining the temperature at which butter is to be stored with a view to economic and good results, must consider two things. First, how cold the butter is and at what temperature it has been held previous to being offered for storage, and secondly, how long it is to be stored before it will go into consumption. A point worth noting in the storage of butter is that heavily salted butter does not keep as well as unsalted butter, and the lighter the difference has been attributed to the fact that it will require a lower temperature to freeze the highly salted butter, but experiments at variable temperatures may show the freezing point of the butter, show a slight advantage in the lightly salted butter.

The executive committee of the National Creamery Buttermakers Association has voted unanimously to accept the proposition of the National Dairy Show Association, and the next convention will be held in Chicago November 1st, 2nd and 3rd.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD, CASH WITH ORDER

WANTED—By the first of September or earlier, a first class Butter Maker, to take full charge of a creamery near London, Ontario. Apply, giving references, to W. B. Dinwiddie, Arva, Ontario.



Woodward Water Basins

Will increase the flow of milk from your cows and at the same time keep them healthier. The wind blows a uniform temperature. There is no swelling of cold water once a day and a resultant checking of the natural flow of milk.

They are not expensive to install, and the extra profit will pay for it in a very short time.

Send your name and address to-day for a copy of our Free Catalogue.

ONTARIO WIND ENGINE & PUMP CO. LIMITED TORONTO

FACTORY MANAGER WANTED

To use the best and cheapest preparation for all cleaning purposes in Cheese Factories and Creameries. Used at Dairy School Guelph and by the leading factory-men of Western Ont.

Write for prices to

R. A. TRELEAVEN

MOOREFIELD, - - - ONT

SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

Any person who is the sole head of a family, or any male over 18 years of age may homestead a quarter section of arable land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Land Agency, or sub-agent for the District Entry by proxy may be made at any time on certain conditions, by father, mother, son, daughter, brother or sister intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him, his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may purchase a quarter section alongside his homestead. Price \$10 per acre. Duties—Must reside six months on homestead or pre-emption six months in each of three years, cultivate 40 acres and erect a house worth \$50.

W. W. GOINT.

Deputy of the Minister of the Interior. *—Unauthorized publication of this advertisement will not be paid for.

Cheese De

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

A Successful

Connolly Bros., At the request of we herewith outline making cheese. Our

so use a starter make. It is put in stirring before the milk. We use from 1000 lbs. of starter to 1,000 lbs. or so of milk. We stir the milk at one hour until the milk reaches a temperature of 86 degrees. We then add a quart of thickens in 12 minutes. We make a rennet test—5 with a dram of milk. We stir the milk using enough rennet to give a coagulation in 12 minutes.

B. J. Connolly

As soon as the curd is cut, using the water cutting longwise and then across with the hand curd is then strands for 10 minutes gradually until it reaches 88 degrees F. It is then stirred for 15 minutes.

We use the hot iron when conditions are more the curd from the press of curd strings quarter to three-quarters of the hot iron we run and dip the curd in milk. Curds are stirred and set down 10 minutes and piled up six inches deep to mat. After 20 minutes the curd is cut into strips fold and turned over. In 15 minutes the curd is piled up six inches deep and turned over. After four times and even minutes until the curd is white and soft.

FRESHING

When salt is dissolved in the press and 45 minutes before making large wheels we use the cheese in the hoop and press them for 15 minutes under usually make and sell wheels, however we press 17 hours.

During the summer ripen and working at 78 degrees F., not use more than usual and ripen F., with good results should be exercised after dipping and let the milk be better salting. Unusually make and sell from lot of cheese. As needed our cheese for years without complaint they are giving satisfaction.

Cheese Department

Makers are invited to send contributions to the department to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Address Editor, The Cheese Maker, 10, Parliament.

A Successful Maker Talks

Conolly Bros., Oxford Co., Ont.
At the request of Farm and Dairy we herewith outline our methods of making cheese. Our factory is situated about nine miles northwest of Ingersoll in the County of Oxford. We are supplied with milk by 28 farmers, each one hauling his own milk. We make between 70 and 80 tons of cheese in a season of eight months.

B. J. Conolly
In manufacturing cheese we use a starter throughout the season. It is put in the vat in the morning before the milk starts coming in. We use from four to five pounds of starter to 1,000 lbs. of milk. When 1,000 lbs. or so of milk is run into the vat we start heating and proceed slowly until the milk reaches a temperature of 86 degrees F., then we make a rennet test—5 ounces of milk with a dram of rennet. When it thickens in 12 seconds we set the milk using enough rennet to start coagulation in 12 minutes.

CUTTING THE CURD

As soon as the curd breaks clear we cut it, using the wire knife, first cutting lengthwise and crosswise and then once with the horizontal knife. The curd is then stirred with the hands for 10 minutes and then heated gradually until it reaches a temperature of 98 degrees F. The time occupied in cooking varies from 40 to 45 minutes.

We use the hot iron test to determine when conditions are right to remove the curd from the vat. When a piece of curd strings out fine from the vat to three-eighths of an inch, we dip the hot iron over the curd and dip the curds into the curd milk. Curds are stirred five times and let stand 10 minutes stirred again and then piled up six inches deep and allowed to mat. After 25 minutes they are cut into strips four inches wide and piled over. In 15 minutes they are turned two deep and stirred at intervals of five minutes until ready to mill. After milling we stir three or four times and every 10 or 15 minutes after until the curd gets quite shallow and soft.

FRESHING

When salt is dissolved we put the curd in the press and press slowly for 45 minutes before dressing. When making large cheese we generally turn the cheese in the hoops in the morning and press them for two days. As it usually makes Shilton and flat cheese, however we press only for 16 or 17 hours.

During the summer when milk is pretty ripe and working fast we set at 78 degrees F., not using any more salt than usual and cook to 102 degrees F., with good results. Great care should be exercised to stir well after dipping and let the curd mellow will better salting. Under this system of making we have a very fine cream lot of cheese. As one firm has handled our cheese for a number of years without complaint we believe they are giving satisfaction.

An Ideal Milk Stand

Mr. Alfred Shaw, Russell Co., Ont., has an up-to-date milkstand. It is a building of the "lean-to" type, as the accompanying illustration will show. The outside dimensions are 17x 11 feet. The front faces south, so that the sun may shine throughout the interior to keep the building sweet and kill any germs there may be about the place. The stand is eight feet high in front and six feet at the back. The outside clapping-boarded and painted cream color with red trimmings. The building stands on a stone foundation faced with cement, so that it is practically heat-proof. The tank is underground and is 13 feet long by five wide and four deep, and is made of cement. Large trap doors cover it entirely, so that the building may be used for other purposes if desired. The cans may be sunk deep enough to close these. There are frames fitted into the tank to hold the cans securely so that they cannot dip. A pipe connects the tank with a force-pump worked by a windmill. Saturday's and Sunday's milk when placed in the tank can be kept till Monday morning without any more attention. Mr. Shaw believes it could be kept for 48 hours. In very hot weather the water would have to be changed once in this time.

A drain pipe runs the water off into a trough for watering the cattle and other live stock. At the west end of the stand there is a window to provide light and air. The



Where Milk is Always Sweet

Mr. Alfred Shaw, Russell Co., Ont., whose milk stand is here illustrated, has never troubled with sour milk. For full particulars concerning this stand read the article adjoining.

Photo. furnished by W. W. Dool, inside of the building is lined with paper and boarded. This also is to be painted. A crane is part of the equipment and this will lift the cans from any part of the tank and place them on the milk wagon.

This stand is highly commended by Mr. W. W. Dool, Sanitary Inspector for the Ottawa District.

Comments on the Season's Make

Frank Hearn, Chief Dairy Inspector, W. Ontario

The quality of cheese and butter in Western Ontario up to the end of June was never finer, but since the extremely warm weather in this high quality has been difficult to maintain. In some cases the milk and cream is not properly cooled at the farm; it arrives at the factories at too high a temperature and consequently is over-ripe and gassy. Raw material of this kind cannot be made into the finest cheese or butter. The makers are putting forth a special effort to keep the factories in a clean, sanitary condition.

Many cheese factories are in need of better insulated curing rooms. There is a wide difference in the texture of cheese held in curing rooms at 60 degrees, compared with those held in ordinary rooms, the temperature of many of which went up to 75 or 80 degrees. Such high temperatures injure the flavor and texture of the finest made cheese. Some creameries also need better cold storages, as it is difficult to properly keep butter even for a few days in poor storages, so that it will retain its fine flavor.



You CAN Afford a SHARPLES Tubular Cream Separator

Because The Tubular Wears a Lifetime and Repeatedly Pays For Itself by Saving What Others Lose.

But you cannot afford to risk anything on any other, because farmers who have others are rapidly discarding them for Tubulars. Why? Because other separators are weak in skimming force and repeatedly lose the cost of a Tubular for their owners. And, also, because others are filled with disks or other contraptions which cause much needless work and repair expense.

Skimming force is what does the work. Sharples Tubulars have twice the skimming force, and so skim faster and twice as clean as others. Simplicity saves work and wear. Sharples Dairy Tubulars are the only cream separators without disks or other contraptions.

Tubulars are The World's Best. Later than and different from many patented separators. Built on the only known principle which overcomes the disadvantages of others. Patented. Cannot be imitated. That is why other manufacturers still use the old-fashioned abandoned over ten years ago. In world-wide use. Guaranteed forever by the oldest concern on this continent. You can own a Tubular cheaper than any other. Let "peddlers" and other low priced separators alone, for they last on the average about one year. Our local representative will show you a Tubular. If you do not know him, ask us his name. Write for catalogue No. 253.



THE SHARPLES SEPARATOR CO., Toronto, Ont. Winnipeg, Man.

THE IDEAL GREEN FEED SILO



WILL save your hay and decrease your grain bills, you will produce more milk at less expense and with less labor, built from lumber thoroughly treated with specially prepared wood preservative. Free catalogue on application.



The Oldest Company in Canada Building Silos

Canadian Dairy Supply Co., Limited
592 St. Paul Street, Montreal, Canada

Common Errors in Cheese Factories

Thos. F. Boyes, Middlesex Co., Ont.
In the London group of cheese factories over which I am instructor, I have found during the season that most of the factorymen are making a fine quality of cheese. There were a few makers in the early part of the season who were not doing the best work, but they have improved very much, and their cheese are now of the finest quality. A number of the smaller errors I have found the factorymen in general making are in the preparation of their cultures and in the handling of the curd in the vat just after cutting, some being a little rough. If the makers would carefully read and adopt the plan of culture, given by Mr. F. Hearn and Mr. G. G. Publow, in Bulletin No. 188, much less difficulty would be encountered in the manufacture of their cheese.

One of the common difficulties arises from allowing the culture to remain at too high a temperature over night, thus developing too much acid and an undesirable flavor. I also find a number of makers not exercising sufficient care in cooking their curds, very often heating them from 86 degrees to 98 degrees in from 20 to 25 minutes, where they should take from 35 to 40 minutes on a normal curd. Heating the curd too quickly cooks it on the outside, not allowing the moisture to escape. In

warm weather, some makers use too much culture, causing their curd to develop acid too quickly, and thereby not allowing them to stir the curd dry enough after dipping.

The milk in some sections was not as good a quality as it should be—some over-ripe and some very gassy. I firmly believe that if the patrons and makers would cooperate more and the patrons cool their night's milk down to 60 degrees, having everything thoroughly clean in connection with it, many of the difficulties would be overcome.

In Farm and Dairy of July 20, Inspector Howie, of Belleville, is quoted when it is stated that the water at Sidnev Town Hall cheese factory was troublesome. Mr. Howie assures Farm and Dairy that the water there has always been O.K.

Those who are connected with the cheesemaking industry will be interested to learn that according to private advice the shipments from New Zealand for the past season to the 1st of March have showed a decrease compared with the same period for 1909-10 of 8 1/2 per cent. The total quantity of cheese exported to that date was 13,944 long tons, or about 390,000 boxes. The shipments of butter from Australia show a very large increase, and total to the 1st of March 32,235 tons.—J. A. Ruddick, Dairy Commissioner, Ottawa.

It pays to advertise. Try it.



DO the duty which lies nearest you, and which thou knowest to be a duty. Thy second duty will already have become clearer.—Carlyle.

The Second Chance

(Copyrighted)

NELLIE L. McCLUNG

Author of "Sowing Seeds in Danny"

"THE dirty spalpeen!" John Watson exclaimed angrily. "Ye may well say that, Pa, after all she had to stand from the old man. But that's what the piece said: 'But Tom, too, took to drink'; He said 'twas a harmless thing; So the arrow sped and my bird of hope

Came down with a broken wing." The Watson family were unanimous that Tom was a bad lot! "Tom cut up worse than the old man, and she used to have to get some of the neighbors to come in and sit on his head while she took his boots off, and she'd have clean give up, if it hadn't been for her little boy, like Danny here; but if I ever thought that our Danny would go back on us the way that young Jim went back on his ma, I don't know how I'd stand it."

"What did he do, Pearl?" Mary asked.

"Soon as he got big enough nothin' would do but he'd drink too, and smoke cigarettes and stay out late, and one day stole somethin', and had to scoot, and she says so pitiful:

"I've never seen my poor lost boy From that dark day to this."

Then the poor woman goes to the poorhouse, mind you!"

"God help us!" cried Mrs. Watson, "did it come to that?"

"Yes, Ma; but what d'ye think? One day a fine-folkin' man came in to see all the old folks, silk hat and kid gloves on him and all that, and this poor woman got talkin' to him, and didn't she up and tell him the whole story, same as I'm tellin' you, only far more pitiful, and sure didn't she end up by beggin' him to be kind to her poor Jimmy if he ever comes across him; and I'm tellin' him how she always prays for him and knows he'll be saved yet. She never held it against the young scamp that he never writ back even the scratch of a pen, just as full of excuses for him, as Ma would be if it was one of you lads," and Pearl's face quivered a little.

"But, sure, now, it is wonderful how things turn out!" Pearl went on, after she had wiped her eyes on the sleeve of her checked apron, "for wasn't this Jim all the time forinst her, and her not knowin' it, and didn't he grab her in his arms and beg her to forgive him, and he cried and she cried, and then he took her away with him, and she had a good time at last."

The next day Pearl borrowed the book from Maudie Ducker and learned the words, and for several evenings recited them to her admiring and tearful family. Then, to make it more interesting, Pearl let the young Watsons act it. Jimmy spoke right up and says he: "I bo' to be the old man, and come home drunk," but

as this was the star part, Jimmy had to let Tommy and Billy have it sometimes.

The first scene was the father's spectacular home-coming. The next scene was the wedding, and Jimmy made the speech after Pearl had coached him, and in most feeling terms he spoke of his son-in-law against the flowing bowl, and told what a good girl his little Nancy was, and what a bad pa he'd been; and then he broke down and cried real tears, which Pearl said was "good actin'." The third scene was where Tom came home drunk. It was somewhat marred by Mary, who was playing the part of the broken-hearted bride, and she was supposed to burst into tears when she saw the condition of her husband, and say:

"So the arrow has sped and my bird Comes down with a broken wing."

Now Mary had her own ideas of how intemperate husbands should be dealt with, and she had provided herself with a small flat stick as she sat waiting in what was supposed to be joyful anticipation for her liege lord's homecoming. When she discovered his condition she cut out the speech he was naturally indignant, but he used the stick with so much vigor that it seemed he was in more danger than the bird of hope of having a broken wing. Billy, the bridegroom, was naturally indignant, but his father was disposed to approve of Mary's methods. "Faix, I'm thinkin'," he said, "there'd be less of it if they got that every time they come home that way."

Scene IV. was the young son (Patsy) fleeing from the hands of Justice. Pearl hid him behind the flour-barrel until the two sleuths of the law, Danny and Tommy, passed by, and then he was supposed to do his great disappearing act through the cellar window.

Scene V. was the most important of all. It was the poorhouse, and required a good deal of stage-setting. All evidences of wealth had to be carefully eradicated. The cloth was taken from the table, and the one mat lifted off the floor. Newspapers were pinned over the windows, and the calendars were turned with their faces to the wall. The lamp with the cracked chimney was lighted instead of the "good lamp," and then Pearl, with her mother's aid, blacked away around her shoulders, ceased to be Pearl Watson and became poorhouse Nan, widowed, deserted, old as the world itself, with heartbreak and tears.

John Watson sat and listened to her with a growing wonder in his heart. But as the story went on bright he forgot that it was Pearl, and shed many unshamed tears over the sorrows of poorhouse Nan.

Camilla came in one night and

heard Pearl recite it all through.

The morning of the contest an emergency meeting of the W. C. T. U. was hurriedly called at the home of Mrs. Francis. What was to be done? Maudie Ducker and Mildred Bates had the medals, and could not recite, which left only four reciters. They could do with five, but they could not go on with four. The tickets were sold, the hall rented, the contest had been advertised over the country! Who could do the recitation in a day? Miss Morrison was sent for. She said it was impossible. A very clever pupil might learn the words, but not the gestures, and "a piece" was nothing without gestures. Mrs. White again exclaimed: "What shall we do?"

Mrs. Francis said: "We'll see what Camilla says."

Camilla came and listened attentively while the woes of the W. C. T. U. were told her. It was with difficulty that she restrained an exclamation of delight when she heard that they were short of reciters. "Pearl Watson knows Maudie's selection," she said quietly, "and recites it very well, indeed!"

"It is possible," Miss Morrison exclaimed. "She had the second time."

"I think she knows your training, Maudie," Camilla ventured.

"Only once," Miss Morrison replied, "and she can not possibly know

Thanks to Her Friends

I herewith acknowledge the receipt of the dinner set sent me as a premium for securing nine new subscribers for Farm and Dairy. I am very much pleased with it, and the prompt manner in which Farm and Dairy forwarded the same.

I also wish to thank Farm and Dairy for the pure bred Ayrshire heifer calf sent me through Mr. H. H. Scott, of Iron Hill, Que., as a premium for securing 25 new subscribers for Farm and Dairy.

Kindly extend through your valuable paper, to the friends who favored me with their subscriptions, my sincere thanks for their kindness in helping me secure these premiums.—Annie M. McLeod, Soulanges Co., Que.

the gestures; but we will be glad to have any one fill in. People will not expect her to do very well when she has had no training," she added charitably.

When Camilla returned to the kitchen she was smiling gently. "There's a surprise coming to little Miss Morrison," she said.

The night the hall was full to the door, and people stood in the aisles. Everybody loves a contest. Pearl and the other four contestants sat in a front seat. The latter were beautifully dressed in white net over silk, with shoes and stockings of white, and numerous bows of ribbon.

By the draw that Miss Morrison made, Pearl came last on the programme, and Miss Morrison kindly asked the chairman to explain that Pearl had had no training whatever, and that she had only known that she was going to recite that morning. Miss Morrison wished to be quite fair!

Camilla sat beside Pearl. She had dressed Pearl for the occasion, and felt rather proud of her work as she sat beside Contestant No. 5. Pearl's brown hair was parted and brushed smoothly back, and tied with two new bright red ribbons—Camilla's gift. It did not occur to Pearl that she was in the race for the medal. She was glad of a chance to fill in and help the contest along.

John Watson, Mrs. Watson, and all the little Watsons were present, and filled the two side seats. Mrs. Francis had heard something from Mrs. Camilla that caused him to send tickets to the whole Watson family, and even one himself, which was an unprecedented event.

Lucy Bates was the first contestant, and made her parents and many admiring relatives very proud of her, as she recited "Saloons Must Go." She stamped her feet white fast, and stoutly declared that saloons must go, and then backed away, leaving beautifully all a flutter of lace.

Maudie Healy—the star reciter of the Hullett neighborhood—recited a good, clear, ringing recitation. The Hullett people thought they were sure of the medal as if they were the chairman pinning it on Maudie.

Two other girls recited, with numerous gestures, recitations of the same class, in which various accidents, fire, and railway accidents figured prominently.

Then the chairman made the explanation in regard to Pearl's appearance, and asked her to come forward and recite. Camilla gave her hands an affectionate little squeeze as she stepped to the seat, and thus fortified, Pearl Watson faced the sea of faces before her.

Then came that wonderful change—the little girl was gone, and an old woman, so bowed, so broken, began to tell her story, old enough to be of us, but strong always in its griping pathos—the story of a child cheated of her birthright on whom because some men will grow rich on other men's losses and fatten on the tears of little children. The liquid traffic stood arraigned before the bar of God and forgiven, on an unblinking darker and darker characterizing the woman's life. It had been the curse that had followed her along, had beaten and bruised her, and mercifully.

The people say it in their awfulest and the pity of it rolled over them as they listened to that sad, old, cracked voice.

When she came to the place where she so bravely the well-dressed stranger to try and save her from being a dancing her trembling hands brought to God of Heaven to bear with her a little longer, and let her see the desire of her heart, her son redoubled and forgiven, there was an audience from some one in the back of the hall, and many a boy away from him, careless and forgetful of his own name, remembered her now with sudden tenderness. The words of his prayer were stiff and unnatural, when did the Spirit of God descend upon felicity of expression? It was about wherever there is the base heart, and when Pearl, with tears flowing down her cheeks, but with voice steady and clear, thanked God of all grace for sending her the answer to her prayers, even the faint listener got a glimmering of a truth that there is "One behind the shadows who keeps watch above the dawn."

When Pearl had finished, the audience sat perfectly motionless, and then burst into such a tornado of applause that the windows rattled on their hinges.

John Watson sat still, but his face was singing with enthusiasm. "Patsy, Pearl, God bless her!"

When the judges met for their decision it was found that they had forgotten to mark Pearl as the memory question was pronounced as their rules required them to do.

Father O'Flynn, the little lay priest, wiping his eyes moistly, said: "Gentlemen, my decision is Number 5." The other two nobles

(To be continued.)

The Upw

Avoid

No.

For God hath not of fear; but of p of and a sound 1-7.

When once we occupation to whic to believe that God have a right to exp upon our efforts, no nature may be, if w time with all our h God's will. It is even more than ou missionary show on conversions to the farmer should fa and not as before m ness man should a business should imp The business man gained not to be slo (Romans 12:11)

In the home the pect to see her chi loving and capable, more some affectiona ate, and the peace God to abound more than that we are serv fulfilling the com ans 6, 5 and 7, and

The Upward Look

Avoid Fear
No. 20

For God hath not given us the spirit of fear; but of power, and of love and of a sound mind.—II. Timothy 1:7.

When once we are engaged in an occupation to which we have reason to believe that God has called us, we have a right to expect God's blessing upon our efforts, no matter what their nature may be, if we steadfastly continue with all our heart to strive to do God's will. It is then God's work, even more than ours. The minister or missionary should expect numerous conversions to attend his efforts; the farmer should farm as before God and not as before men, and the business man should anticipate that his business should improve and expand. The business man is especially enjoined not to be slothful in business. (Romans 12:11)

In the home the mother should expect to see her children grow more living and capable, her husband become more affectionate and considerate, and the peace and blessings of God to abound more and more. Should it be that we are servants, then, if we are fulfilling the command in Ephesians 6:5 and 7, and we are working

with the object of pleasing God and not as men pleasers, we may well look forward with confidence to the time when we will be our own masters and mistresses, for "if our heart condemn us not, then have we confidence toward God. And whatsoever we ask, we receive of Him, because we keep His commandments and do those things that are pleasing in His sight." I. John 3:21, 22.)

If success is not attending our efforts as we feel that it should then we should ask God to help us to search many reasons. Whatever we find, however, we must have faith to believe that God loves us enough to give us the victory over the causes, or defects of character, that are hampering us.

Our fears hold back most of us. We are afraid to try. The minister may be afraid to speak out and tell plain truths to his congregation, the farmer or business man may fear to introduce new and approved methods and do that in the home which she would like to because her efforts might be derided. Our fears prevent us from growing and expanding as God desires that we should. We fear failure, and thus we do not attempt.

Fear is a spirit. The spirit of fear is sent into our hearts by Satan. Our given us the spirit of God. It comes from an entirely different source. In I. John 4:18, we are told why God has

not given us this spirit. It is because fear hath torment. He that feareth is not made perfect in love.

If the minister feels that he should speak out and fears to, if the farmer or business man feels that he should improve or extend his operations in certain ways, but lacks the courage to assume the extra burden involved, talk plainly to her boys and girls about moral or spiritual matters, she hesitates through the expectation of a rebuff, if any of us are being held speaking to us tells us that we should, then we may know that Satan is gaining the ascendancy over us through should use the spirit of God by bringing to our mind and believing such assurances as that contained in Philippians 4:13, "I can do all things through Christ which strengtheneth me," or Psalm 18:32, "It is God that girdeth me with strength and maketh my way perfect. He maketh my feet like hinds' feet and setteth me upon my high places. He teacheth me upon my hands to war, so that a bow of steel is broken by my hands."

Let us once realize that fear comes from the Evil One, and that our strength cometh from the Lord, who gives us power and a sound mind, and we will then be better able to cut the cords with which Satan would hold us back from attaining the success that we might and should.—I. H. N.

Medicinal Properties of Fruit

Ripe apples eaten raw and thoroughly masticated are excellent for digestive troubles.

The pear shares the medicinal qualities just recited, and in addition, is somewhat more easily digested by weak stomachs than is the apple. The quince is only used in the form of preserves, as a rule. It is said that owing to its excessive astringency when raw, it is employed by the peasantry of Europe to stop hemorrhages by placing slices of it on wounds.

The curative powers of the grapes are established facts, as the history of the "cures" in which the vine plays the chief part, testifies.

Rhubarb, owing to the large proportion of oxalic acid that it contains, is a capital anti-scorbutic. In the case of minor forms of scurvy it acts as a curative. The young plant, when stewed and eaten at breakfast, is of great assistance to the constipated. Its laxative qualities in general are well known.

Bananas should be used with caution by the constipated.

The fig possesses laxative powers of a high order. This is also true of dates and tamarinds.

Peaches, apricots, and nectarines have marked laxative effects.

The plum, greengage, damson, and so forth, all have medicinal qualities. Blackberries, raspberries, huckleberries, and most other berries act as blood purifiers and laxatives.

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Not Bleached

Not Bleached

MADE BY THE WOODS MILLING COMPANY, LIMITED, MONTREAL

FARM AND DAIRY CROP REPORTS

—OUR FARMERS' CLUB—

PRINCE EDWARD ISLAND KING'S CO. P. E. I.

LOWER MONTAGUE, July 25.—Having a very dry crop of clover at the moment. Potatoes are fine; turnips and rutabagas are doing well. Corn is doing well, although very little rain has fallen yet. Potato bugs are very bad. The apple crop will not be up to what was expected owing to so many falling off the trees due to the dry weather. The milk at the cheese factory is falling off badly in quantity.—G. A. A.

QUEBEC.

MISSISSAUGUE, July 27.—A good crop of hay is not being housed, but shoveler weather and lack of help has prevented a great amount of it being housed. The intense heat the first of the week caused the ripening to be a little time. It is now ripe enough to thresh. The best and driest together have dried off potatoes and the yield of milk has dropped about 25 per cent. Horn feeds are very troublesome. Potatoes are thriving, but unless we get heavy rains I am afraid the yield will be small. Hogs sold at 12c per lb. for sows. Butcher at 23.5c.—J. H. C. W.

EASTERN ONTARIO GLENAGRY CO. ONT.

ALEXANDRIA, July 28.—Crops are likely to be better than expected. Hay is now in progress and it is expected the crop will be an average one. Potatoes are healthy. Rye and wheat have proved the pasture. Oats, barley and corn are looking well.—M. E.

FRONTENAC CO. ONT.

ELGINBURG, Aug. 1.—Hay is over and old meadows still prove as good as expected. Corn and new seedling good. Grain is nearly all ripe, and a number have been sold in the stacks. Early potatoes are not proving good, but late ones are looking fine. A few hogs have been sold at 12c and 87.5c. Cattle are being sold for their milk, but as the after grass is good they are being held.—H. B. T.

HASTINGS CO. ONT.

CHAPMAN, Aug. 1.—Hay is completed and the crop has in most cases proved good. Rye is making a good growth. Barley is nearly all harvested, and the corn and rutabagas are doing well. Corn and root crops are making a good growth. Early potatoes are in many cases a failure. Pastures are becoming short and the milk flow is diminishing. Hogs are selling at 16c a lb. and eggs at 16c.—H. B. T.

NORTHUMBERLAND CO. ONT.

BRIGHTON, Aug. 1.—Hay is below the average. Oats are an excellent crop; potatoes very small and few in the hill. Some corn crops are making a good quality fruit. There is an abundant crop of raspberries, but no cherries. Prices are good for all kinds of farm produce. Live stock is in good demand at light prices.—H. C.

CARLETON, Aug. 1.—Cows are falling in milk on account of shortage of pasture. Cheese is selling for good figures. The dry weather has affected the pea crop in this district. Corn and potatoes look fine. Rye and wheat is almost all cut and threshing has commenced. Apples are fair and buyers are paying good prices.—M. E.

THE GULLY, July 28.—Hay is light, running from one-half to three-quarters of a ton an acre, with no after grass. Pastures are good. Milk has fallen off a ton to 80 to 90 per cent. Turnips are doing well.—H. B. T.

WICKLOW, July 27.—Hay is nearly done. Timothy is a fair crop, but there is a little clover. Grain is ripening fast. Winter wheat is cut and a very heavy crop. Barley is a good crop. Other grain crops are all average. Apples are a good prospect. The outlook for bee-keepers is discouraging; there is little honey, and foul brood has made its appearance in the eastern part of the county.—E. B. H.

PETERBORO CO. ONT.

LASWADDE, Aug. 1.—We have had having some fine showers of rain the past week, which were badly needed. Grain crops are doing well. Potatoes are better. The farmers have their haying nearly finished. Cows are milking fine owing to the showers. Potatoes are selling for 81 a bag, but are getting scarce, as they did not come in very plentiful as yet. Butcher is 15c.—M. W.

ONTARIO CO. ONT.

COOPERS FALLS, July 19.—The hay crop is fair, yielding about 1 1/2 tons an acre. The corn crop is a better crop than last year, and some not quite as good. There will be plenty of pasture.—Marlin Justin.

WESTERN ONTARIO SIMCOE CO.

ALLISTON, July 25.—There has been an unusual dry, hot spell during part of the week and the corn crop is a short crop; so also is fall wheat, which is not so well as usual. Barley, peas and other spring crops are all suffering. The complete failure. Rains since the 13th of July, while retarding the harvesting, will be of benefit to the root crops.—J. H.

WENTWORTH CO. ONT.

KIRKWALL, Aug. 2.—The weather is still very dry. Harvest is nearly over. Pastures are still very dry and short. Cows are falling away on many farms young cattle are losing in flesh. Beef cattle are scarce and dear. Choice beef is worth 60 a lb. It is impossible to do except turnips, which are a failure. Some are ready to go to seed. Late potatoes are promising well. Apples and other fruit are a failure. Corn is medium. Fall pasture promises fair after the heavy rain. We are preparing land for fall wheat, which is above the average in acreage. Cattle have kept in good condition. Cows have dropped some milk in milk. We will be favored with a rural mail delivery service after August.—A. B.

WATERLOO CO. ONT.

ELMIRA, July 28.—Your scribe has been somewhat heavy through pressure of work, but now takes the opportunity to report from our good German riding. Hay is in good condition. Light crop, about one and a quarter ton an acre. The drought has affected newly seeded clover, but also early peas and other crops. The drought is broken and spring crops, although very dry, are not having all out fairly well. Part of the grain of fall wheat will be short of straw. Roots have revived and are doing well. Except turnips, which are a failure. Some are ready to go to seed. Late potatoes are promising well. Apples and other fruit are a failure. Corn is medium. Fall pasture promises fair after the heavy rain. We are preparing land for fall wheat, which is above the average in acreage. Cattle have kept in good condition. Cows have dropped some milk in milk. We will be favored with a rural mail delivery service after August.—A. B.

ESSEX CO. ONT.

WINDSOR—A uniquely prosperous country flourishes in a fertile valley along the Clair River at Pettit Co. It is a French-Canadian parish, dating back to the first settlements along its banks. Its climate is healthy, its soil is rich, and its people are industrious. The parish is famous for its radishes, which are sought by visitors in distant cities such as Montreal, Quebec. The thrifty farmers of Pettit Co. farm five to 10 acres each and make a highly profitable living. The return running as high as 8% on an acre. They grow a variety of crops, including all sorts of potatoes on the same land. Mr. Habitant first puts in his potatoes, then before they are up to the ground he puts in his corn. He plants his corn in rows, and the best radish being out of the way soon enough for the potatoes to expand to their liking. Of course this requires careful, intensive cultivation, but it is not a lesson from the old world that provincial westerners must learn sooner or later.—T. G.

COMBER, July 20.—The extra dry season, has made the hay crop not over one ton an acre. Pastures are almost dried up (thorn). Spring wheat is doing well. It is reported by some to be good, but plants very small. With frequent showers it will make good. We have bumper yield of wheat, barley, oats and corn.—W. G. C.

NORFOLK CO. ONT.

WALSH, July 25.—The hay crop is better than the majority of farmers expected. It will average better than a ton to the acre. Pasture is very short. Presumably have been better than in cutting, the dry, hot weather in the early part of July being the cause. Some clover catches at a failure. Some are plowing up and re-seeding.—M. H. R.

WATERFORD, July 26.—Hay is better than was expected, and is a good fair crop. Wheat is a fair crop. Oats are showing well. Corn is doing well, as are potatoes. The local farmers generally have greatly improved the pasture. All countries don't think of it as a scrubble.—A. R. E.

OXFORD CO. ONT.

GOLAPLE, Aug. 1.—The root crop is doing well. Farmers in general kept the southerly and hose at work to keep the moisture. Some of the farmers have never come on account of the dry weather. Some sowed Hungarian grass, but it did not come up.—A. A.

BRANT CO. ONT.

FALKLAND, July 10.—Haying is finished. The yield was good. Wheat is nearly all cut and the corn has been cut by the Hessian fly. It is a fair crop. Barley is short. Oats are in need of rain. Turnips have made a poor stand generally, and

many are cultivating the ground over again. Those that did come up were badly attacked by the flea beetle. Corn is growing nicely where the cultivator is used. Turnips are doing well. Potatoes are a light crop. Raspberries are doing well, while gooseberries have been cooked off the bushes by the recent hot wave.—L. T.

WILLAND CO. ONT.

STONE QUARRY, July 29.—Another week will find the harvest pretty well completed. Nearly all the spring grain is cut and some has been taken in. It is below the average. Some wheat has been threshed. It is not turning out as the best yielding a little over 20 bush an acre. A great deal of damage was done early in the season by the wind storm. The most severe loss befell the apple crop; 50 per cent. of the fruit was lost. The other crops were less. New potatoes are very scarce and selling from 60c to 75c a peck.—J. E. J.

HURON CO. ONT.

GODERICH, Aug. 1.—Oats cutting is now well under way, barley and wheat having already been stored. Oats are short and the grain is well filled. Fall wheat and barley are good crops. A wind storm of July 25 spoiled the barley that was still standing. Considerable damage was also done to corn and apple. At least 50 per cent. of the trees were blown off, so that the crop will be light.—D. G.

GREY CO. ONT.

HANOVER, July 18.—Hay is a fine crop, yielding about one and three-quarters to two tons an acre. Clover was not affected by frost, and pastures are very good. Fall wheat only a half crop. Spring crops look well, especially oats. S. B. Clarke.

ALGOMA DIST. ONT.

THESSALON, July 24.—Algoma, in the Rocky district of Northern Ontario, is not destined to become a popular "Farmer's Home"; still there are some of as fine farms as can be seen anywhere. These fine places are especially to be found in the Barre River neighborhood. Crops on the whole are ahead of those in Wellington County. Hay is splendid, and was mostly well saved, some fields turned out three tons an acre. Grain crops look well and with the present showery weather should fill well. Roots are too backward to make heavy crops. Land is moderate in price, and to a man with small capital, plenty of grit and success is a reward for the means of making a good living. Our climate is good in summer time; pretty cool (sometimes) below in winter. There was quite a frost on the morning of 17th a few miles north of this place. Along the C.P.R. potatoes had been turned black and corn white in consequence, but the area is affected appeared to be limited. The same scarcity of help prevails as elsewhere. saw one man drawing in hay alone, but he had a "loader" and a well-trained team, and he left the field with a good amount of haying managed to detach the loader from his place on top. The great help to the farmer is the machine would seem to indicate the wisdom of placing farm implements on the free list if possible.—D. G.

MUSKOKA DIST. ONT.

ARKWORTH, July 25.—The hay crop is decidedly above the average. There was no winter-killed clover, and the prospects for fall pasture are very promising. Grain and roots will also be above the average.—G. T.

BRITISH COLUMBIA NEW WESTMINSTER DIST., B. C. CHILLIWACK, July 22.—The apple crop is poor on account of the worms. Hay is good. Live stock are doing well. Pork has declined in price. Potatoes are still a good price. The grain crops are exceedingly good, there being much rain during the months of May and June.—J. C.

GOSBISH

Farm and Dairy is receipt of a letter from Mr. G. A. Gilroy of Glen Biel, Ont., who has recently returned from Western Canada, where he disposed of a couple of car loads of pure bred Holstein stock at the Calgary Exhibition. His stock did well at the exhibition, winning both the championship and the reserve championship for females. All the males in the first prize herd were furnished by Mr. Gilroy.

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MARKET REVIEW AND FORECAST

Toronto, Monday, Aug. 7.—As is to be expected, wholesale trade is quiet, but dealers report that prospects for the fall trade are good and getting brighter all the time.

A resume of the week's operations show that the prices of dairy produce firm to stronger. Wheat and corn grains are firm, and little change is to be noted in the cattle market. Hogs are strong.

Cash money rules here at \$12 to 6 per cent.

WHEAT

Wheat has been decidedly stronger this week than last, and quotations for Manitoba wheat are a great advance on the market. The increase is strong in the wheat market has been continuous since the first of the week.

COARSE GRAINS

There have been few changes in the market for coarse grains. Oats and corn have hardened without much advance in price, while peas have advanced.

MILL FEEDS

Manitoba bran is quoted in Toronto at \$21 in bags, shorts, \$23; Ontario bran, \$21; shorts, \$22.50.

HAY AND STRAW

A feature of the hay market in both Quebec and Ontario is the large buying of United States dealers, it being reported that one Toronto firm has ordered 1,000 carloads in Ontario to be delivered before the end of the year.

HIDES

Latest quotations for city hides are: No. 1 inspected steers, 12 to 13c; No. 2, 11 to 12c; city calf skins, 15c.

FRUITS AND VEGETABLES

Reports received from correspondents show that in some of the best sections of the apple crop has been blown off by the recent high winds.

Wholesale quotations are: Raspberries, 15c to 16c; cherries, 11 ct. bks., \$1.35 to \$1.50; 6 ct. bks., 75 ct.; cauliflower, 1 doz., \$1.50; cabbage, crate, \$2.25 to \$2.50; cucumbers, 20 to 25c; wax beans, 30c to 50c; tomatoes, 11 ct. bkt., 35c to 50c; string beans, 10 ct. bkt., 11 ct. bkt., 50c to 60c; apples, bkt., 30c to 25c; pears, 10c to 75c; corn on cob, doz., 15c; and black currants, 11 qts., 85c.

New potatoes now have the run of the market. Wholesale quotations average the

\$4.30 a hbl. New Canadian potatoes are \$1.50 a hbl. Beans are quoted at \$1.25 for primes and \$2 a bush for hand picked.

The old potatoes are now being offered on the Montreal market and what supplies are coming to hand are small lots of the new crop from nearby farmers. Prices for nearby crops from \$1.90 to \$2 for three-pound pickers.

HONEY

Wholesalers are selling buckwheat at 5c to 7c a lb.; clover, 4c to 5c; alfalfa, 4c to 5c; while strained clover honey is 10c a lb. 60-lb. tins: 5 to 10 lbs., 11c. No. 1 comb honey is quoted at \$3 to \$2.50 a doz.

EGGS AND POULTRY

Receipts of eggs are slackening and quotations are ruling stronger. Dealers are quoting 22c to 23c for strictly new and 18c to 20c for fresh gathered. On the Farmers' Market new laid eggs are 22c to 23c.

A feature of the Montreal market is the strong demand for eggs in select lots. The shrinkage in straight receipts is still very heavy. Dealers are buying at shipping points west of Toronto, 44c; east of Toronto, 55c. No. 1 stock commands 18 to 20c and select quality 25c.

DAIRY PRODUCE

The market for dairy produce continues firm. The feature of the butter market is the large buying of butter by the States operators to be held in cold storage. The market for cream is also very strong. Quotations are as follows: Creamery prints, 25c to 26c; solids, 25c to 26c; butter prints, 15c to 16c; inferior, 15c to 16c. On the Farmers' Market butter quoted at 24c to 25c. New cheese is quoted 15c for large and 12 to 14c for twins.

HORSES

There being so few horses changing hands, it is not possible to give any extended report on the horse trade. Prices are quoted purely nominal, as follows: Good heavy drafters, \$250 to \$350; medium weight, \$190 to \$240. Good agricultural horses, selling \$150 to \$200, and fair quality ones, \$100 to \$150. Express horses are quoted \$170 to \$230; drivers, \$150 to \$200; and saddlers, \$140 to \$250.

LIVE STOCK

Few changes in prices are to be noted as a result of the operations on the live stock markets last week. A week ago tobacco was weathered and exceptionally heavy run made the market drag, although choice animals were not affected.

Further recessions in prices and a slow trade were induced on the closing market.

O. K. Canadian U-Bar Patented Steel Stanchions

Are free and easy on the cattle, but durable, strong and light, being made of galvanized sheet steel. It is impossible to break or bend them out of shape. The welding day, warm weather and other classes of cattle. Write for not to be opened cables on sanitary Stalls and Stanchions.

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HOLSTEINS

If you are wanting HOLSTEIN AND COWS, write: GORDON H. HANBARD, Hanbard, Ont.

Homestead Holstein Stock Farm

Offers for sale 2 Choice 5-year-old Cows of best breeding and heavy persistent production. Also 100 lbs. of the highest R.O.P. bred bulls in Canada. B. R. BARR, Harrietteville, Middlesex Co.

HOLSTEINS

WOODCREST HOLSTEINS

A few choice Bull Calves for sale; six to ten months old. Some of Homestead Farm The King of St. Pierre, and grand dam, recently imported from the U.S. Write for pedigrees and prices.

WOODCREST FARM

RIFTON; ULSTER CO., - - NEW YORK

Lyndale Holsteins

Offers one young bull born September 1910, one of them from a tested daughter of Brightest Canary and sired by a female of a 20.35 lb. yearling daughter of Heald record 24 lbs. Col.

BROWN BROS., - - LYN, ONT.

RIVERVIEW HERD

Offers bull ready for service, sire, a son of King of the Pontiac; dam, a daughter of King Slegis with 21 lbs. butter at 3 years and 3 months. P. J. SALLEY, LACHINE RAPIDS, QUB.

GLENSPRINGS OFFERS

Six fine pure bred bull calves from the sire's record cow, Pontiac, which is a really tested dam. Every one of them is of very fine type. Those that wish Hengerson blood secure one of them. Write for pedigrees and prices. E. B. MALLORY, FRANKFORD, ONT.

FAIRVIEW FARMS HERD

Has for sale— Sons of Pontiac Koradyke, sire of the world's record cow, Pontiac, 31 lbs. of milk in the sire of seven daughters with a record average 21.15 lbs. of milk in the daughters of any other sire of the young's bull of the sire's sire is 21 lb. daughter.

Also offer sons of Bag Apple King, whose dam Pontiac has a record of 37.20 lbs. butter 7 days in the young sire's dam and her full sister; a record that average for the two is 34 lbs. each.

We have in service, and can offer you one of our best cows, the daughter of the highest record daughter of Hengerson De Kol, 114 A.R.O. daughter of record of 35.22 lbs., making his dam a higher than that of any other sire of the breed. Let me send you breeding as good a price on anything you want in the young's bull of the sire's sire is 21 lb. daughter.

E. H. DOLLAR, St. Lawrence Co., N.Y. Near Prescott, Ont.

LAKEVIEW HOLSTEINS

Three bulls fit for service and seven cows. All sired by Count Hesperus. Also 100 lbs. of the highest R.O.P. bred bulls in Canada. Write for descriptive as follows: P. P. OSLER, BROXTON, ONT.

HOLSTEIN CATTLE

The MOST FAVORABLE DAIRY BREED Illustrated Descriptive Booklets Free HOLSTEIN-FRIESIAN ASSN. OF AMERICA, 14, WASHINGTON, D.C., BOX 85, BRATTLE STREET, BOSTON.

"LES CHENAUX FARMS" VAUDREUIL, QUE.

HOLSTEIN-Winners in the ring at the fair. Gold Medal herd at Ottawa. They combine Conformation and Production. Bull and Heifer Calves from our herds for sale. DR. HARWOOD, Prop., D. BODEN, Mgr. B-38431

of the week by which it finished. There are also calves of pure secured for \$18. In fact quotations for pure bred calves are 85c to 95c; better ones, 95c to 1.05; common to medium, \$1.00 to \$1.25; and inferior ones, \$1.25 to \$1.45. Trade in milk cows animals selling at \$6 to \$10; medium, \$12 to \$15; and heavy and culls are quoted at \$3.50. Live hogs are set with a liberal demand. Market being \$7.65 for 100 lb. shipping. A feature of the market has been the first time this season fresh calves from the supply on the market has been there for some time. They are fairly steady, and are quoted at \$6.25, price is 8c. Good cows are quoted at \$5.30 to \$5.75; and common, \$4 to \$5. Trade in small milk with demand equal to \$4 to \$5. Lambs

INTERNATIONAL GALT

Cures White Horns

International Gall cure and infallible cure for White Horns, Sores, Mouth, etc. Will not melt and will not burn. Possesses extraordinary qualities, international disease, most anti-venereal. Cure on the market money if ever fails to lead as it is almost a d.

INTERNATIONAL GALT

25c. and 50c. INTERNATIONAL STOCK TORONTO

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Farm an would like to purchase Boars, Ayrshire Boars, and Holsteins from 6 to Write Circular

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THIS SIZE SPACE cents per insertion in of Farm and Dairy, giving our advertising tags as users of labor the confidence of our 2 cents a word per for Farm and Dairy

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FARM & DAIRY A

lot of the week by the large numbers of fat finished stock with which the market was deluged. There were practically no new slow buyers offered and the high price secured for butcher cattle was \$1.82. Latest quotations are as follows: Export cattle, choice, \$2.25 to \$2.52; medium, \$5.65 to \$5.90; bulls, \$4.50 to \$5.25; butcher, choice, \$5.70 to \$6.10; medium, \$5.30 to \$5.60; common, \$4.90 to \$5.25; butcher, cows, \$4.40 to \$5.00; common to medium, \$2.80 to \$4.25; bulls, \$4.00 to \$5.25; canners, \$1.50 to \$2.25; feeder steers, \$2.25 to \$5.50; stockers, \$4 to \$4.75.

Trade in milk cows is very dull, choice animals selling at \$60 to \$70; common to medium, \$25 to \$50; springers, \$25 to \$50. Trade in sheep and lambs is dull. Lambs are quoted at \$6 to \$7; ewes, \$3 to \$4.25, and bucks and culls \$2 to \$3.50. Cows are quoted at \$3.50 to \$7.25.

Live hogs are steady and receipts are met with a liberal demand. Hogs on the market bring \$7.65 to \$7.75 and \$7.35 to \$7.60 f.o.b. shipping points.

A feature of the trade on the Montreal market has been the arrival for the first time this season of about 200 head of fresh cattle from the west. Although supplies on the market have been larger for some time past quotations have been fairly steady, due to the good demand from local buyers. Choice steers are quoted at \$6.25, but an average top price is \$6. Good export stock brought \$5.20 to \$5.75; fairly good, \$5 to \$5.25; and common, \$4 to \$4.75.

Trade in small meats is fairly active, with demand equal to supply. Sheep sell at \$10 to \$12; lambs, \$7.75 to \$5, and

calves, \$3 to \$6 each according to size and quality.

MONTREAL HOG MARKET.

Montreal, Saturday, Aug. 5.—The market for live hogs opened firm, with prices advanced over the quotations current last week due to the scarcity of supplies and offering demand, but with the increased offerings toward the close of the week prices eased off and selected lots weighed off cars were sold at \$7.75 to \$7.85 a cwt. There was a good demand for dressed hogs and fresh killed abattoir stock sold at \$10.95 to \$10.75 a cwt.

EXPORT BUTTER AND CHEESE.

This week's trade in cheese for export has not been as lively as during the two or three weeks previous and cable advice from the other side would indicate that this is due to extremely high prices current—which are interfering very much with the demand for this article of food. It is many years since July cheese sold for such high prices—the prices paid in the country during the past week being from one cent to one cent and a half above the prices current during the corresponding week a year ago. The present prices would not be prevailing if it were not for the fact that the price of cheese in England—which in some districts is 25 to 30 per cent. less than it was at this time, has been so low that the price of cheese here is being held up well of weather. The receipts this week into Montreal are fully 15 per cent. less than they were a year ago, and, unless we have very general weather to look for a small make this fall, which will help to maintain prices at a high level.

The market for butter is very firm and prices are advancing steadily, the top prices of the present season having been reached this week when 24 c. lb. factories has been paid. The trade is meeting with a good demand from England, the west and the local trade which is the cause of the present high price ruling.

CHEESE MARKETS.

Waterbury, N. Y., July 31—7,800 at \$1.35 a lb.
 Montreal, July 31—189 boxes of butter: 11 sold at 23 1/2c.
 Stirling, Aug. 1—860 boxes boarded: all sold at 17 1/2c.
 Campbellford, Aug. 1—Cheese boarded: 600; 910 sold at 12 1/4c; balance forwarded 15 1/2c.
 Yankton Hill, Aug. 3—1,303 boxes of white and 181 boxes of colored cheese boarded. The price paid was 12 1/4c to 12 1/2c.
 Brockville, Aug. 3—2,729 colored and 785 white offered; 40 colored sold at 12 1/4c; 12,516 offered; 11,259 offered for 12 1/2c; balance, but was refused.
 Kingston, Aug. 3—Cheese sold at 12 3/8c to 12 5/8c; 1,100 boxes of white and 175 of colored boarded.
 Ottawa, Aug. 4—337 white and 513 colored cheese boarded, sold at 12 1/2c.
 Niagara, Aug. 5—Cheese sold at 12 1/2c to 12 1/4c.
 Winchester, Aug. 4—330 colored and 624 white registered; 12 1/4c offered; none sold.
 Napanee, Aug. 4—610 white and 775 colored, selling at 12 1/4c.
 Picton, Aug. 4—2,379 boxes; 1,563 sold at 12 3/8c and 811 sold at 12 1/2c.
 Brantford, Aug. 4—745 cheese; 635 at 12 1/2c; 110 at 12 1/4c.
 Victoriaville, Que., Aug. 4—200 boxes sold at 11 3/8c.
 Kemptonville, Aug. 4—629 boxes boarded; 467 boxes sold for 12 1/4c.
 Cornwall, Aug. 4—1,411 boxes of cheese; all sold; white at 12 1/4c, colored at 12 1/2c.
 London, Ont., Aug. 5—900 boxes offered, 335 sold; bidding from 11 1/4c to 12 1/2c.
 Cowansville, Aug. 5—743 packages of butter and 28 boxes of cheese. Eight buyers were present. The butter all sold at 24c. The cheese all sold at 12 1/2c.
 Canton, N. E., Aug. 5—1,300 tubs sold at 26c. 2,200 boxes cheese sold at 12 3/8c; output 40 per cent. off.
 Belleville, Aug. 5—1,635 white and 75 colored cheese boarded. Sales were 650 at 12 1/2c; 498 at 12 1/4c; 688 at 12 1/4c. Colored receipts at the latter figure.

St. Hyacinthe, Que., Aug. 4—600 boxes of cheese sold at 11 7/8c and 500 packages of butter sold at 23 1/2c here to-day.

AYRSHIRE NEWS.

The minutes of the Annual and District meetings of the Canadian Ayrshire Breeders' Association together with a scale of points, rules and regulations for Record of Performance work and some superlative illustrations are published in the Ayrshire world and are published in book form for distribution in the interests of the Ayrshire breed. Copies are to be had from the secretary, W. F. Stephen, Huntingdon, Que.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association, all of whose members are readers of the paper. Members of the Association are invited to send items of interest to the Holstein breeders' column for publication in this column.

HOLSTEINS ACCEPTED IN THE RECORD OF PERFORMANCE

Summer 1911 Countess (9287), two-year-old; Indian Holstein (9288), two-year-old; average per cent. of fat, 3.32; number of days in milk, 342. Owned by C. R. Dyke, Arncliffe, Ont.
 Helena Hengerveld Hayes (7366), three-year-old; 15,328 1/2 lbs. milk; 41.61 lbs. fat; average per cent. of fat, 2.69; number of days in milk, 365. Owned by A. D. Foster, Bloomfield, Ont.
 Kermathie Diastle Keys (7395), three-year-old; 15,229.62 lbs. milk; 428.03 lbs. fat; average per cent. of fat, 2.81; number of days in milk, 365. Owned by A. D. Foster, Bloomfield, Ont.
 Winnie B. Calamity Posch (7221), four-year-old; 14,324 lbs. milk; 471.31 lbs. fat; average per cent. of fat, 3.29; number of days in milk, 365. Owned by Lakewood Farm, Brant, Ont.
 Lakewood Bessie (11564), two-year-old; 14,013 lbs. milk; 504.75 lbs. fat; average per cent. of fat, 3.50; number of days

in milk, 365. Owned by Lakewood Farm, Brant, Ont.
 Azgie DeKok Witzdy (6640), mature calf; 13,709.75 lbs. milk; 466.79 lbs. fat; average per cent. of fat, 3.45; number of days in milk, 335. Owned by J. M. Van Patter, Aylmer, Ont.

Angrie Mercedez (7607), three-year-old; 13,643.75 lbs. milk; 475.56 lbs. fat; average per cent. of fat, 3.51; number of days in milk, 365. Owned by J. M. Van Patter, Aylmer, Ont.
 Dandy DeKok Isabella (7655), three-year-old; 9,783.95 lbs. milk; 281.6 lbs. fat; average per cent. of fat, 2.88; number of days in milk, 335. Owned by F. I. Burrill, Brook, Ont.

Polly Woodland DeKok (10390), two-year-old; 9,633.15 lbs. milk; 302.04 lbs. fat; average per cent. of fat, 3.20; number of days in milk, 365. Owned by S. M. Peacock, Mt. Salem, Ont.

Fater 4th's Azie DeKok (9739), mature, 13,466.56 lbs. milk; 453.33 lbs. fat; average per cent. of fat, 3.37; number of days in milk, 315. Owned by Thos. Hartley Downpoint, Ont.

Kornlyde Wayne DeKok (9609), two-year-old; 10,302 lbs. milk; 408.70 lbs. fat; average per cent. of fat, 3.71; number of days in milk, 340. Owned by J. W. McCormick, Moorewood, Ont.

Georgie (9767), mature; 12,292.72 lbs. milk; 393.74 lbs. fat; average per cent. of fat, 3.21; number of days in milk, 341. Owned by J. B. Arnold, Easton's Corners, Ont.

W. G. W. CLACKSON, Secretary.

INTERNATIONAL GALL CURE

SOLD ON A SPOT CASH GUARANTEE

CURES While Horses Work or Rest

International Gall Cure is a certain, sure, quick and infallible cure for Galls, Core Neck, Bare Backs, Sore Mouths, Utes, Bruised Heels, etc. Will not melt and dissolve from the animal's back and stays right where it is applied. Possesses extraordinary healing and soothing qualities. International Gall Cure is the cleanest, most antiseptic, purest and best Gall Cure on the market. We will refund your money if it ever fails to cure. Keep a box on hand as it is almost a daily need on the farm.

25c. and 50c. At all dealers.
 INTERNATIONAL STOCK FOOD CO., Limited
 TORONTO, ONT.

PIGS & CALVES WANTED

Farm and Dairy would like to purchase Yorkshire Boars, Chester Whites, Boars, Ayrshire Heifer Calves, and Holstein Heifer Calves from 6 to 8 weeks old.

Write Circulation Manager **FARM AND DAIRY** Peterboro, - - Ontario giving prices and ages of animals

LOW COST, BIG RETURNS
 THIS SIZE SPACE (one inch) costs 20 cents per insertion in the display columns of Farm and Dairy. This is a far better saving than any other same advantages as users of larger space, and avoid the confusion of different rates. 2 cents a word per insertion is the rate for Per Sale and Want advertisements.

FARM & DAIRY A PAVING MEDIUM

PIPE BARGAINS

Life is short. Why be slaves and carry water all your life?

At a very small cost, and with an ordinary Pipe Wrench, you can have the water brought into the house and out again; no plumbers needed, a few hours spare time will do; then water in your barn will pay for itself the first six months and will earn more than its cost every year afterwards.

Saves Time and Labour Every Hour of the Day

We have now ready to ship over 450,000 feet of Pipe just taken out of some large buildings that are being dismantled.

This Pipe is suitable for Water, Steam, Fencing, Drains, Green-houses, Columns, and Supports in Buildings, Stanchions, Irrigation Purposes, etc., and is as good as new, except a slight difference in appearance. Every foot is carefully inspected before shipping.

Note These Cut Prices and Send Your Orders

Diameter..... 1/2 in. 3/4 in. 1 in. 1 1/4 in. 1 1/2 in. 2 in.
 Price per foot..... 2c. 2 1/2c. 3c. 4c. 5c. 7c.

Delivered free on cars here. Other sizes up to 10 inches.

Send us a list of the lengths you need, and we will give you a special low price on the lot, cut and threaded and put together with fittings.

We also have enormous quantities of Fire Fencing, Belting, Pulleys, Shafting, Cable, Rails, Roofing, Saws, Vices, Forges, etc., at 25 per cent to 75 per cent. less than regular prices.

Catalogue sent on request.

THE IMPERIAL WASTE & METAL CO.
 65 Queen Street, MONTREAL
 THE HOUSE FOR BARAINS AND SATISFACTION

BREEDERS' DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines, nor for less than six months, or 25 insertions during twelve months.

DE LEE'S COMPOUND OF BEST SPANISH BLISTER-CURE. Scientifically correct. Write The Absorbent Spanish Blister Co., Toronto, Ont.

HAMPSHIRE PIGS—Canadian Champion herd. Boar herd under. Sows three months' age.—Hastings Bros., Crosshill, Ont.

CLYDESDALE HORSES, SHORTHORN STEEL-LARGE BOLDHEADS OF BEST SPA. Prices reasonable.—Smith & Richardson Breeders and Importers, Columbus, Ont.

EMERSON HOLSTEINS AND TAMMERS WORTH'S—Young stock for sale. Quality good, prices reasonable.—George H. McKenna, Thornhill, Ont.

CLYDESDALES—Home of Acme. (Imp.) Holsteins—Home of King Payne Segis Clothide, nearest 7 dams 7 lbs. butter per week, and Broken Welsh Ponies. W. B. M. Holby, G. T. B. & P.O., Manchester, Ont., Myrtle, O.P.B.

SHROPSHIRE AND TAMWORTH HOGS— Personal attention. Write—A. A. Dyrnes, 434 Parkdale Ave., Ottawa.

SUNNYSIDE HOLSTEINS—Young stock, Quebec.

HOLSTEINS AND TAMWORTH'S—All ages, all C.W. Lehighs. Young stock for sale at any time.—J. McKenna, Willowdale, Ontario.

TAMWORTH SWINE—Cholice stock for sale at all times at reasonable prices. Correspondence invited.—Wm. Keith & Son, Toronto, Ont.

HOLSTEINS—Just Calves for Sale, sired by Imperial Pauline De Kol, whose 2 nearest dams on his sire's side average 27.3 lbs. butter in 7 days, and 4 nearest dams on his dam's side 34.3 lbs. of butter in 7 days. Manchester G.P.B. and York P.P. Station.—R. W. Walker, Utica P.O., Ont. Bel Telephone.



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for
this
free
book



\$3,600 in Cash Prizes for Farmers

Tell Us How You Did It

You may win a prize by doing so

SUPPOSE your friend Bob Wilson, on the next concession, "pulled up" at your front gate on the way back from market and asked you about that silo or barn foundation you built, you would be glad to tell him, wouldn't you? And it wouldn't take you long either, would it? And, as a matter of fact, you'd find as much pleasure telling him as he would in listening—isn't that right?

First, you would take him over to view the silo or barn foundation. Then you would start to describe it—its dimensions—the kind of aggregate used—the proportions of cement used—number of men employed—number of hours' working time required—method of mixing—kind of forms used—method of reinforcing, if any—and finally, what the job cost. So that by the time you finished, neighbor Wilson would have a pretty accurate idea of how to go about building the particular piece of work which you described.

Now, couldn't you do the same for us, with this difference—that you stand a good chance of getting well paid for your time?

In Prize "D" of our contest, open to the farmers of Canada, we offer \$100.00 to the farmer in each province who will furnish us with the best and most complete description of how any particular piece of concrete work shown by photograph sent in was done. The size of the work described makes no difference. The only important thing to remember is that the work must be done in 1911, and "CANADA" Cement used.

In writing your description, don't be too particular about grammar or spelling or punctuation. Leave that to literary folk. Tell it to us as you would tell it to your neighbor. What we want are the facts, plainly and clearly told!

Sounds simple, doesn't it? And it is simple. And surely it is well worth your while when you think of the reward in view.

Now, sit right down, take your pen or pencil—fill out the attached coupon—or a post card if it's handier—and write for the circular which fully describes the conditions of this, the first contest of the kind ever held in Canada.

Every dealer who handles "CANADA" Cement will also be given a supply of these circulars—and you can get one from the dealer in your town, if that seems more convenient than writing for it.

Contest will close on November 15th, 1911—all photos and descriptions must be sent in by that date, to be eligible for one of these prizes. Awards will be made as soon as possible thereafter. The decisions will be made by a disinterested committee, the following gentlemen having consented to act for us, as the jury of award: Prof. Peter Gillespie, Lecturer in Theory of Construction, University of Toronto; Prof. W. H. Day, Professor of Physics, Ontario Agricultural College, Guelph; and Ivan S. Macdonald, Editor of "Construction."

Having decided to compete for one of the prizes, your first step should be to get all the information you can on the subject of Concrete Construction on the Farm. Fortunately, most of the pointers that anyone can possibly need, are contained in our wonderfully complete book, entitled "What the Farmer Can Do with Concrete." A large number of Canadian farmers have already sent for and obtained copies of this free book. Have you got your copy yet? If not you'd better send for it to-day. Whether you are a contestant for one of our prizes or not, you really ought to have this book in your library. For it contains a vast amount of information and hints that are invaluable to the farmer.

Please
send full
particulars
and book.

Canada Cement Company, Limited, Montreal

Name

Address