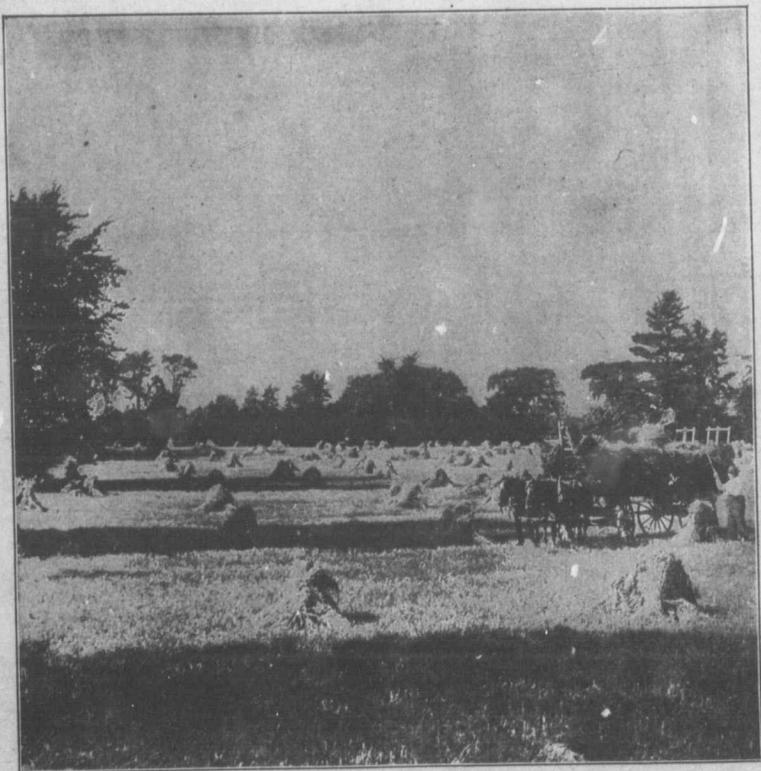


FARM AND DAIRY & RURAL HOME

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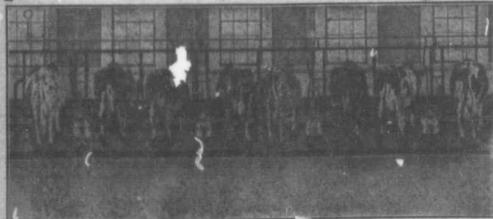
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Farming "Somewhere in France"

A FORMER member of the staff of Farm and Dairy, Mr. Milford Hardill, who is now overseas with the 33rd Battery, has had an excellent opportunity for observing agricultural conditions in France. The following extracts from a letter, written under date of June 19, tells something of how farming is conducted in that war-distressed country:

"The people in this section seem to be fairly prosperous. One thing they can do, and that is farm. The farms are only small, but from the appearance of the crops, some of which are almost seven feet in height, the fields must be well worked. Sowing is all done by hand. In the case of the root crops, they are put in in such a way that the rows run lengthwise, crosswise and diagonally. It is common to see a man hitched up to a small cultivator with another at the handles. On seeing this, any of the boys who happen to be marching past usually yell out the French for 'Get up!'"

"In one small field the other day I counted 13 people working, most of them women. They do their day's work right along with the men. At another time I saw a couple of women and men hoeing. Every farmer has his great, big, heavy horses—excellent specimens of horse flesh. They travel very slowly in the fields. One horse is the rule, and he pulls a plow up and down a field with apparent ease. Only one rein is used in driving, and it is a piece of rope not much thicker than binder twine. The bit used takes all notion of running away out of the

horse's head. It is an extreme curb with shanks at least five inches long and with a chain tight underneath the jaw. How they manage with one rein I cannot understand, unless it is that so many jerks mean to turn one way, and so many the other.

The wagons are usually three-wheeled, a small wheel in front and with no pole. The man does the steering, and a brake keeps the wagon from running away down hill. In a good many cases the stables and house are all in one. From where we were we can see the hens climbing up a ladder that apparently leads to the attic of the house."

Two Sturdy Boys Nudging Homes

One of our Folkies need a little boy to brighten the home? We have just received word from Mr. H. S. Wegg, secretary Children's Aid Society, St. Thomas, Ont., stating that that society has a boy aged five years and a baby boy aged five months, for whom desirable country homes are desired. Any of our Folkies wishing to secure one of these little fellows should write immediately to Mr. Wegg. There will probably be many applications. Those applying first will have the greatest chance of securing one of the boys. No time, therefore, should be lost in communicating with Mr. Wegg.

A Remarkable Cow

HARRY MANN, of Covell, bought a cow and is now supplying his neighbors with butter and fresh eggs.—From the frontown, Ohio Register.



One of the Thrifty, Serviceable Type of Ayrshire they Favor in the West. She is in the Herd at the Saskatchewan Agricultural College, Saskatoon.



FARM AND DAIRY



It's Welcome Practical Progressive Ideas

& RURAL HOME

The Recognized Exponent of Dairying in Canada

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

VOL. XXXV

PETERBORO, ONT., AUGUST 24, 1916

No. 33

Dry Farming, East and West

The Conservation of Moisture is the Main Object of Cultivation. Dry Farming is Simply Good Farming

WHEN Campbell invented his system of dry farming, and added several million acres to the agricultural lands of the United States, there was quite a fuss made about it, for Americans are not noted for doing good by stealth and blushing to find it fame. So well advertised were his methods of cheating the weather man and making two bushels of wheat grow where only one cactus plant grew before, that they were soon heard of in western Canada. Great were the things expected of the much heralded system. There was lots of vacant land where the rainfall was fairly adequate for grain production, but what was left after the railway companies, the land companies and the individual speculators had made their reservations, had been pretty well taken up. Settlers were beginning to crowd down to the south and west corner of the Canadian prairies where the Great American Desert, as they used to call it in the geographies, and which is now known as the dry belt, pushes a couple of hundred miles north of the 49th parallel. Climate is hopelessly contemptuous of imaginary lines and 25 plus 7½ per cent. trade barriers. With the rainfall around 12 inches a year, the prospects for the wheat growing in the dry belt were not of the brightest. One steer to a dozen acres was the best that the ranchers could do with it. There was a world of promise in the term "dry farming." Visions of waving wheat fields, flourishing in cheerful independence of passing showers, filled the minds of the settlers. Campbell's dry farming system was going to add another tract of land the size of two or three European countries to Canadian agriculture.

A Prophet Honored.

But when the best farmers began to analyze this much-talked-of system it was found that dry farming methods, similar to those advocated by Campbell, and quite as well suited to the needs of the dry belt in western Canada, had been quietly practiced and taught there for years. Angus McKay, superintendent of the Experimental Farm at Indian Head, Sask., had tackled the problem of moisture conservation 20 years before, for Indian Head was only a hundred miles or so from the edge of the dry belt, and the rainfall was not so plentiful that they could neglect its conservation. Mr. McKay had worked out a system of cultivation, based on the principle of utilizing three years' precipitation for two years' crop, which, with due attention to the finer points of the same, had proved to be suitable to the conditions as found on the Experimental Farm and on the farm throughout the larger portion of the West. He had recognized the value of his system, not only in those parts where the amount that could be said about the rainfall was that it was usually limited, but also in those parts where

By R. D. COLQUETTE, B.S.A.

the best that could be said of it was that occasionally it was sufficient. For years he had advocated the adoption of this system, not with the blare of trumpets, but consistently and persistently. The good farmers of the West were practicing it. When the dry farming methods that had worked such wonders in Idaho and other



The Farmer's Complex Life

WE used to think that life on the farm was simple, and that life in the city was complex. But now we know that just the contrary is true. We might better say that urban life is complex for the mass, but simple for the individual; while rural life, simple enough if taken as a whole, is highly complicated for the individual.

The city man, whether he drives a team, or runs a machine, or balances a ledger, or solicits advertisements, is a specialist. He has one line to learn, one thing to do. He has been frequently called a cog in the vast social machine.

The farmer, on the other hand, is almost the whole machine. He does not have a host of co-laborers, each one performing some separate task in the operations of the farm. He must be both buyer and seller. He must be both materials, manufacture and distribute. He must plan and carry out plans. He must finance his own plant, earning the funds and directing the expenditure. The farm is a little world—a unit of civilization in which of necessity a complexity of duties and interests fall upon a single family. The tasks may not be separated and allotted, detail by detail, to different individuals. Every labor is a part of a sequence, stretching back into the past, bringing its reward in the future.—C. A. Taylor.

semi-arid States were first introduced, it was taken for granted by many that they were far in advance of the methods advocated by Mr. McKay. Careful comparison, however, revealed that the two systems were not dissimilar, but that each was best suited to the country in which it was practiced. For the hotter, dryer climate of the semi-arid States the more scientifically detailed Campbell system was necessary. For the cooler climate of the Western Provinces, with greater precipitation and less evaporation, the system that had been practiced by good farmers for years, was sufficient and more economical. At the Dry Farming Congresses, representatives from the Western Provinces now talk of the McKay system of dry farming. The grand old man of Western agriculture has lived long enough to learn that a prophet may sometimes be honored in his own country—if he advocates a good thing and keeps at it long enough.

Dry Farming East and West.

But no system of dry farming has upset any of the scientific laws governing moisture conservation as understood by agricultural authorities everywhere. It is simply a case of adapting methods to suit local conditions. Where Jupiter Pluvius is practically sluggish and Old Sol is right on the job 300 days in the year, so that it takes two years' precipitation to grow one year's crop, a man needs two farms which he crops alternately, in the meantime looking carefully after the dust blanket and the keeping of the sub-surface soil well packed. When the rain and snow fall is a little more liberal and the sunshine strikes the surface a more glancing blow, a farm and a half, with one-third of the land under fallow, is enough. Where the precipitation is normal, one farm growing a crop every year is sufficient, but even there moisture conservation must not be neglected, and where cultivation for the conservation of moisture is practiced, dry farming is practiced. The laws governing the movement of water in the soil are the same in each case. The system of dry farming followed to the best advantage is simply the one best suited to climatic conditions. Hence it is that dry farming is simply good farming, and that good farmers are dry farmers, whether the rainfall in the particular region where they wrestle with soil problems, is 10 inches or 30 inches a year.

In the wettest districts of eastern Canada more damage is done to crops by drouth than by excessive precipitation. The yield of crops is there, as elsewhere, almost directly proportional to the rainfall. The two months' downpour of last spring may make this year an exceptional one, but that is because it came at an inopportune time and interfered with seeding operations. Wet we-

ther made last year's crop the greatest in our history. Make two charts, one representing the annual rainfall of your district in the last 20 years, and the other the yield of your chief field crops for the same period, and you will find the ups and downs in one to fit over those in the other with a correspondence that will be startling. The only safe system of farming to follow is the one that is designed to save every drop of water possible for the growing crops. They will generally need it all.

Evaporation from the soil is continuous while it is uncovered with snow. Even from frozen soils there is some evaporation. With unhoed crops there are three or four months between the time when they are well above ground and harvest time, during which the soil cannot be cultivated for moisture conservation. But this period can be considerably shortened. The surface crust can be broken, and a new dust mulch established when grain is well above the ground. I saw the packer put on a field of oats in Manitoba when they were six inches high. The wise ones shook their heads and said those oats would never point skyward again. That fall I saw them threshed, and they went a little better than 70 bushels to the acre. The packer had broken the crust and firmed the ground, re-establishing capillary action between the surface of the soil and the sub-soil, and with the increased supply of moisture, the oats had soon recovered from the effects of the packing. Breaking that crust that forms after the rains that generally come just after seeding, is one of the ways of increasing the value of subsequent rains, though it may appear at the time to be rather drastic.

Salting Down the Rainfall.

"The King is dead. Long live the King!" That is the way the death of one sovereign and the accession of another is announced. It implies that no time is lost in transferring allegiance from the dead king to his successor. The speed with which the dry farmer transfers his attention from the old crop to the new one, is not exceeded by the most ardent courtier in hastening to pay his obeisance to the latest thing in kings. In fact, the new crop is sometimes a usurper. In the dry belt, I once saw a big tractor pulling an eight-foot binder and an eight-bottom gang. The binder was kicking the sheaves out on the plowed ground. It is not uncommon, for men and horses are plentiful, to see the disc harrow following the binder, the sheaves being deposited on the newly disked land. In such cases, very little moisture escapes in the few minutes that elapses between the time when the grain is cut and the land, or most of it, cultivated. Where the rainfall hovers around the 12-inch mark, it is necessary to work moisture conservation down to a fine point.

In eastern Canada it is not necessary to "follow up" so closely, but early after-harvest cultivation is part of the "dry farming" system suited to the east. Not for years has it been so necessary to pay attention to this matter of after-harvest cultivation as it is this season. Excessive rains, followed by excessive heat, have provided ideal conditions for brick making. Some of the clay fields I have visited recently are literally as hard as pavement. They will need the most careful attention if the soil is to be restored to its usual till. Simply turning it upside down with the plow will not do this. The plow will do nothing but break it up into indigestible clods that next season's crop will starve to death on. Nor will any amount of cultivation after plowing make a suitable seed bed. The surface may be disked, harrowed and rolled, until it is as fine as is needed, but there will still be a layer of hard lumps just above the sub-soil. Between these

(Continued on page 9.)

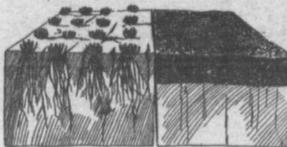
Ingenuity and Concrete

They Make a Productive Combination

If the farmer would combine a little ingenuity with concrete he could make many useful things from a single unit or pattern, just as he could cut up a board for sundry purposes. The manufacture of concrete lumber of this type is a simple matter. Consider, for example, a simple concrete board or slab. Some of the uses to which this cement lumber could be put are as follows:

If two of the boards were firmly planted in upright position and a third slab placed across the top, the farmer would have an everlasting stone bench.

Two of the boards planted longitudinally with



Why Stubble Should Be Disked.

The undisked ground cracks and loses valuable moisture and food elements as in the illustration at the left. The picture at the right shows stubble disked immediately after the harvest—a profitable investment of a little time and labor.

a third board placed upon the top would make an excellent culvert or cover for a small drain.

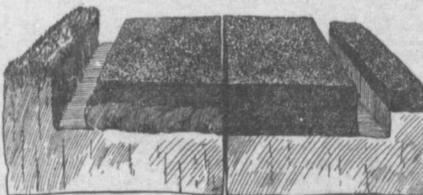
By providing proper supports, whether of concrete or other convenient material, these slabs would serve as steps.

Laid upon the ground, one after another, they would make an excellent walk.

Planted at the sides of the garden walk they would keep the vegetable or flower beds in position. The walk between could be composed of a series of slabs.

If made sufficiently wide they could be utilized for the sides of a hot bed or cold frame.

Made a little thicker and stronger they would constitute an excellent pavement for a cellar, carriage-house or ground-level porch.



Land Disked After Plowing.

A good seedbed, but air spaces left in the bottom of the furrows where the plow did not fill in.

Land Disked Before and After Plowing.

A perfect seedbed clear to the bottom of the furrow. This will pay well in increased crops.

Another convenient type of concrete lumber is the small beam. In a box of required length could be cast 4 x 6-inch sections of concrete corresponding to timber of that dimension, or in larger size if desired. These would be reinforced with $\frac{3}{4}$ -inch rods, one in each corner. Four of these firmly planted would carry a large slab, thus making an indestructible, weather-proof table. They could also be used for posts or supports.

For making boards or slabs the farmer should have a shallow box or form that will hold concrete to the depth of two or three inches. It may be of any desired length and width. A layer of

concrete placed in the box to one-half the depth of the latter would be the first step in the manufacture of the board. Upon this would be placed a layer of woven wire and the box then filled to the top.

Other Devices.

In brief, as stated, the farmer would have so much concrete lumber on hand, and if he were to exercise his ingenuity he would find many uses for it other than those described above. It would not be necessary in every case to purchase lumber for making forms for some types of construction. For example, there is the case of a builder who utilized some old kegs for making supports for a building, and in another instance several kegs were piled one upon the other to make a strong concrete column, the concrete subsequently being wrapped with wire and plastered to bring it into proper shape. Again, a man desiring a flower screen at a point where it was impossible to dig, merely divided an old store box into two compartments and placed therein some five inches of concrete. In the centre of each block was imbedded, while the concrete was soft, a section of 2-inch pipe. The two timber supports for the flower screen were inserted in these pipes and proper cross pieces attached from top to bottom. After serving this purpose throughout the summer the supports came into play in other convenient ways, one of them being used as a base for a Christmas tree, and on another occasion it was called into service on the lawn as a support for a large sun-shade.

A mixture consisting of one part Portland cement, two parts clean, sharp sand and four parts crushed stone would make a strong and dense concrete. The concrete should be used at once after mixing and be given ample opportunity to cure thoroughly, which would require from a week to 10 days. In the meantime it should be kept out of the hot sun and wind, and should be sprinkled daily. The forms in which slabs or posts are cast should have a simple locking device and hinges to facilitate removal after the concrete has set.

The purpose in adopting concrete rather than lumber would be to eliminate all outlay for renewals and repairs, such as are essential when wood is used. Time and exposure to the elements increase the strength of concrete and hence for the various devices specified it would serve the purpose as long as required.

The dairy cow as a converter of raw material into the finished product has many advantages over the fattening steer. In the first place she will return more money for the feed and where the skim milk is fed to the pigs or calves, the amount of the fertility returned to the soil is only about five per cent, less than when the same feed is given to the steer. Winter dairying also gives a better division of labor, more milk per cow for the whole year, and where property looked after, fall calves get a better start and are easier to raise than spring calves.

Cement floors and mangers are best from a sanitary and economic standpoint. The stables should be whitewashed every fall, which will add much to their light and sanitary condition. The manure is removed from gutters twice daily and the cows curried and brushed every day.—Henry Glendinning, Ontario Co., Ont.

The one condition that is prevalent in farm values throughout Ontario is that a man who buys unimproved land and improves it can never get out of it the value of his improvements. That is a condition which is general.—E. C. Drury, Simcoe Co., Ont.



Reaping His Reward.—A Harvest Scene on an Ontario Farm.

Exercising the Bull

An Effective and Inexpensive Method

WE read with much interest of the high prices being paid for bulls of approved breeding and type, and when we consider that the sire is half the herd we become convinced that in most cases it is a good investment. If one is progressive enough to pay a long price for such an animal, he should be willing to take some measure to insure getting the best and most efficient service from him. This can only be had by keeping him in the best of condition, and that means that he must not only be well fed and tended, but must receive plenty of exercise. Many high priced animals are kept in a box stall almost continually from year to year and are seldom given any exercise except when used for service. This is not as it should be, for if the strongest and healthiest of offspring are to be had he must have enough exercise to keep him in good trim.

One man provides this health giving exercise by leading his bull to water twice a day. The place of watering is about 10 rods distant from the stable; the animal would thus get 40 rods of walk every day. The leading and handling twice a day does much to make him quiet and safe to work around.

Another plan much advocated at the present time, and one that is almost ideal, is to fasten the bull to a strong wire cable stretched between two strong posts some distance apart. This cable must be high enough so that the bull cannot reach it with his horns. A fence or obstruction should be built about six feet inside the posts so that the bull cannot go round the posts and thus become entangled.

A suitable trolley may be attached to the cable, equipped with swivel and a strong snap. The swivel prevents the line or chain from getting twisted and injuring the animal.

The bull can travel back and forth at will and can be easily caught when wanted. If the cable can be so arranged to run into the bull stall of a shed, good shelter from the sun or storms is thus provided, and the animal will require but little attention during the summer days. He is by this means kept in the best of condition, and he will be more healthy and safer to handle.



Flint Corn Growing Near Taber, Alta.

The Corn belt is continually on the march northward. A few years ago only optimists said it could be grown in the Northern States. Now it is being successfully grown in all the Western provinces.

Work the Colt But Give Him the Advantage

LAST spring I had three good horses and a two-year-old colt, and decided that the work of the old horse could be made easier with benefit to the colt. Early in the winter the colt was broken and used at light work. In the spring when doing my farm work I made a four-

horse evener from a piece of 2 x 4-inch elm, the end holes being five feet apart, the centre hole two feet from one end and three feet from the other.

The best team was given the short end of the evener or three-fifths of the load. On the other end was put the colt, and the third horse, having two-fifths of the pull, but the colt's end of the doubletree was 22 inches long, against 11 inches for the other horse. This gave the colt four-thirtieths against eight-thirtieths for his mate, the other horses each pulling nine-thirtieths of the load.

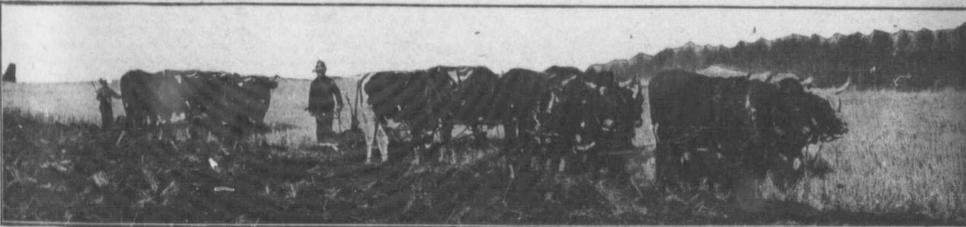
As the colt became accustomed to the work the doubletrees were changed till he pulled about two-thirds as much as each of the others. This helped the other horses and was not harmful to the colt.—Wm. Hardy, in Farm and Home.

Two farms lie practically side by side. One of them consists of 100 acres of undrained land in a poor state of cultivation; the buildings on it have a value of not more than \$600. The other farm is in a good state of cultivation, and the value of the buildings on it would amount to \$7,000. That farm changed hands at a price of \$4,000. The poor farm could not be sold at more than \$1,000. You can easily see how a man who buys a farm, improves, cultivates it and erects buildings, stands to lose when it comes to a sale.—E. C. Drury, Simcoe Co., Ont.

The important consideration for the dairyman to-day is not whether the industry is paying one or not (thousands of farmers have proven that it is), but it is to endeavor to decrease the cost of production which very often mounts up higher than it should, caused by inferior individuals in the herd, the proper kinds of feeds being withheld (sometimes one of these factors, sometimes both. Either one of them sufficient reason to cause an increase in the cost of producing a pound of milk.—E. P. Bradt, B.S.A., Dundas Co., Ont.

Public opinion is very strong in favor of not assessing improvements at all. I have talked to a great many farmers over the whole country, and except in one or two cases, they all said that a man who improved his land had a right to enjoy his improvements free from taxation.—E. C. Drury, Simcoe Co., Ont.

German in official circles have been detected stealing their own food. As the Kaiser calls all food his, they are in trouble.



The Way in Which Many Western Farmers Started on the Road to Prosperity.

experience, is it any wonder that they do not succeed?

But this is not the only cause of failure with the beginner. The others might briefly be stated as too much land; buildings too scattered, installing too much unnecessary labor; the breed or breeds selected not being suitable for the purpose intended; houses not built upon the sanitary plan; too much changing of the bill of fare; unmindfulness of small details; harboring too much unprofitable stock; carelessness in caring for all birds; relying too much on hired help; and learning too fast.

It is a waste of money to buy too much land. From five to ten acres is sufficient for the largest kind of plant. A general mistake is the continual changing of the bill of fare. There should be one system in feeding, and that regularly followed. The bill of fare should contain the greatest variety possible, but the system should not be changed. New articles of food should not be given to the exclusion of others until the fowls have had a chance to become acquainted with them. All additions or changes should be gradually made. If the fowls are doing well on what they are getting, no change should be made at all.

Probably the most common error is "learning too fast." It is a noteworthy fact that, as a rule, by the close of the first year the beginner forms the opinion that he knows it all. Thirty years spent in the poultry yard has taught the writer that he has much yet to learn. There is always something new turning up. The wise man reads, studies, practices and investigates, thus daily adding to his store of knowledge.

Beginners must go in to win. They must not become faint-hearted. They must put their shoulder to the wheel. In all occupations the successful ones are those who stick to their work. There will be dark clouds—it is so in all businesses. There will be days of discouragement, but the wide-awake man battles right along, never tiring, never getting the "blues." He knows that "every cloud has a silver lining," and that the sun will surely shine some day.

The poultry business wants men with pluck.

Marketing Hints

HERE are a few hints to those who market poultry or poultry products:

Market ♀♂ roosters separately. Aim to attract the eye of the buyer. Have regular market days. Try to build up a reputation for prime stock.

Grow bone and muscle first and then fatness.

Big combed broilers are apt to be wrongly classified in market; always notify your commission merchant before shipping.

Young fowls shipped with old stock will command old-stock prices.

Poultry should be killed the day before marketing when going direct to the consumer.

Do not mix white-skinned chickens in the same shipment with yellow-skinned ones.

Have a tag fastened on each fowl you send to market. It is the best way to advertise your stock.

Always cater to the whims of the buying public, notwithstanding what our own personal ideas may be.

Assort market eggs according to size and color. It pays to cater to the whims of the market. There is no difference in the quality of a brown-shelled egg and one with a white shell, but one should no sooner think of sending a consignment of brown eggs to a white egg market than of sending roasting fowls to a man who asks for broilers.

Poultry Jobs

Never allow a green scum to coat the drinking vessels. Such a condition is a disease breeder. Drinking vessels and feed troughs should be kept scrupulously clean.

During clear weather, the windows and doors of the houses should be opened wide so as to allow the fresh air and sunshine to enter and purify the atmosphere. In short, cleanliness means not only keeping the floor, dropping boards and the walls clean, but also the cleanliness of the air

made so by nature's remedies: pure air and searing sunshine.

Every poultry keeper must fight mites. They are carried by sparrows and in various other ways. Mites thrive in unclean houses—in the nests on the floor, and in cracks and crevices about the roosts. They are first noticed in early summer hiding under and about the perches. When allowed to multiply they spread to all parts of the house. They attack the bird at night and live by sapping its blood. They may kill little chicks and effectively reduce egg production. When

you first notice the mites clean the house thoroughly and spray the nests, dropping boards, walls and perches with kerosene. As a precaution, white-wash the entire house.

Chicks will not make the best development unless they are free from lice. Fight the mites and lice vigorously during the hot months.

Begin to market the old hens as they stop laying. Be sure they are good and fat.

A layer is a hen or pullet devoted to market eggs, and should not be used in breeding pens.



New Prices, August 1st, 1916

The following prices for Ford cars will be effective on and after August 1st, 1916

Chassis	<u>\$45000</u>
Runabout	<u>47500</u>
Touring Car	<u>49500</u>
Coupelet	<u>69500</u>
Town Car	<u>78000</u>
Sedan	<u>89000</u>

f.o.b. Ford, Ontario

These prices are positively guaranteed against any reduction before August 1st, 1917, but there is no guarantee against an advance in price at any time.

Ford Motor Company of Canada Limited

Ford, Ontario

FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY



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The Rural Publishing Company, Ltd PETERBORO, ONT.

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

The Amortization Plan

EXCEPT in those cases where land has been purchased under an agreement in which it is stipulated that each year a certain amount of the principal is to be paid along with the interest, practically all of the farm mortgages in Canada are permanent in character or are drawn so that they become payable in full at the end of a stated number of years. In practice they are nearly all permanent. When no provision is made for their gradual extinction the tendency is for them to be renewed or transferred at the date of expiry. The creation of a sinking fund, to which annual contributions are made for the liquidation of heavy future liabilities, may be practicable for corporations, but such a plan is not likely to be adopted extensively by individuals. Since the amount of a mortgage usually far exceeds the amount that can be saved from one year's earnings, the almost universal practice is to have it renewed at the date of maturity. There is thus a tendency for all mortgages to become permanent in character, and this is the case with the majority of farmers and banded themselves together for the purpose of consolidating their credit and of borrowing cooperatively they have provided that the money borrowed on the security of their land will be repaid by annual instalments. The amortization plan, by which principal and interest are repaid in equal annual instalments, is the one generally adopted. The great agricultural credit schemes that have proved so successful in European countries follow this plan. In Saskatchewan, where cooperative agricultural credit will be available to the farmers as soon as the conditions of the money

market are such that the scheme which has already been adopted can be put into operation, repayment of mortgages will be made by amortization. The same principle has been adopted in British Columbia, and the land banking system recently established in the United States includes the same provision. Wherever the interests of the borrowers have been made a first consideration the repayment of long-term loans in equal annual instalments is provided for.

Under the amortization plan the farmer has constantly in sight the date on which his land will be free from encumbrance. The motive for saving is therefore continually operative, and he is greatly encouraged in his endeavor to free himself from the obligation that his mortgage entails and from the annual tribute that it imposes. That the result from the community standpoint is that the sum total of the mortgage indebtedness undergoes a process of gradual extinction.

Paying Off the Mortgage

THREE years ago information regarding the extent to which the farms of Ontario were mortgaged was collected by the Department of Agriculture through the district representatives. It was found that forty-five per cent of the farms were encumbered. Investigations carried on in Saskatchewan about the same time showed that in that province a still greater proportion, in some districts as high as eighty per cent, of the farms were mortgaged. These two provinces may be taken as fairly representative of the east and west. Information regarding the total amount of the mortgage indebtedness of the farmers of the Dominion is not readily available, but it can be safely assumed that the amount is large and constitutes a heavy drain on their annual incomes.

Paying off the mortgage is a big contract. Only those who have had experience of it know what a constant source of anxiety it is. Making the annual interest payments, providing the means for reducing or wiping out the principal, planning and economizing, ever looking forward, sometimes in the face of many discouragements, to the day when the title deed will be clear, such is the unenviable position of the man who, in the cold language of the law, is known as the mortgagor.

When we realize that in an old and settled province like Ontario nearly one-half of our fellow farmers are engaged in a struggle to pay off mortgages, and that in the newer districts a still greater proportion are so engaged, the conviction is borne in upon us that nothing should be left undone to provide the best possible facilities by which they can discharge their mortgage obligations.

A Farmer's Measure

THE statement is sometimes made that the single tax would bear more heavily on farmers than on those living in towns and cities. Since by it all improvements would be exempted from taxation it may be made to appear that in centres of population, where these improvements are concentrated, such exemption would result in lightening taxation to an unwarrantable extent, and that the burden would therefore be shifted to those outside those centres, that is, to the farmers. This statement is rendered the more plausible because, under single tax, public revenues would be raised by taxation levied upon land values only, and, since the amount of land upon which towns and cities are amount of land upon which towns and cities are built is inconsiderable when compared with that devoted to farming, it is assumed that farmers would be compelled to contribute more than their share to the public treasury.

This misconception of the case is due to the confusion of land with land values. When we consider that in any of our larger cities, such as

Montreal, Toronto and Winnipeg, the value of a single acre may be greater than that of the farm lands of a whole county, it is easily seen that under single tax such centres would not escape their just measure of taxation. As was clearly brought out at the district conventions of the U. F. O., held a few weeks ago, the value of land used by the cities, towns, and villages of Ontario exceeds that of all the land used for farming purposes in the province. Add to the revenue that would be secured by levying a just tax on this land the amount that would be raised by taxing the value of all land held for speculative purposes and of water works, mining properties, public franchises and all such community-created values, and it will be seen that the freeing of improvements from taxation would not discriminate against the farmer.

That, on the contrary, the single tax would materially benefit the farmer is evidenced by the fact that some of the most progressive farmers' movements are definitely committed to it. Several of the state granges on the other side of the line are out-and-out for the single tax. The Grain Growers' Associations of the western provinces favor it, the Manitoba Association sending its president to the recent single tax conference at Niagara Falls with instructions to support a resolution calling for a special tax on land values for the purpose of raising money to pay off the debt incurred by the war. Many of the leading farm papers, both in Canada and the United States, are advocates of this measure of tax reform. The support that it receives from those who have the best interest of the farmer at heart indicates how beneficial it would be to him.

Proportional Representation

THE following extracts from a letter received by Mr. Ronald Hooper, of Ottawa, Secretary of the Proportional Representation Society of Canada, from Earl Grey, shows clearly the stand that is taken by that British statesman on the question of proportional representation.

"It is a great satisfaction to me to know that a P. R. society has been founded for Canada on such strong ground. You have a splendid list of names; Presidents, Vice-Presidents and Council. It is a list that cannot fail to make an impression upon all those who are sufficiently patriotic to subordinate party and personal to national interests.

"The failure of our present system to secure a true representation of the people, and the success of P. R. in Tasmania, Johannesburg, Belgium and Finland in securing the representation which mirrors faithfully the opinions of the electors ought to carry conviction to the mind of any impartial democrat that a system of P. R., based upon justice, equity and absolute fairness to all classes of electors, should replace the present system which offers no security for the true representation of the people. . . . I sincerely hope that the career of the P. R. Society of Canada may be conspicuous as a marked success in creating a public opinion in favor of a just system of representation which is the first essential of a true democracy."

The best feature of many of the troubles we are prone to worry about is the fact that most of them never come. It was Lowell who said: "Let us be of good cheer, remembering that the misfortunes hardest to bear are those that never come."

There are some that no circumstances or combinations of circumstances can thwart or keep down. Let circumstances seem to thwart or circumvent them in one direction, and almost instantly they are going forward along another direction. Circumstance is kept busy keeping up with them.

Dry Farming, East and West

(Continued from page 4.)

lumps dead air is imprisoned. The lumps and dead air combined will prevent the rising moisture from the sub-soil of next year's crop. Dry farming provides two conditions of moisture control. It prevents loss by evaporation, so that any water that gets back into the atmosphere must be fed to it through the leaves of the growing crops, and it provides facilities for the rapid rise of moisture to the feeding ground of the plant. No matter how fast the surface is made, unless the second of these provisions is made, the crop cannot flourish.

Cultivate Before Plowing.

By thoroughly disking the stubble before it is plowed, this condition is provided. The plow will turn the pulverized soil down and throw the hard lumps up to the surface where they in turn can be reduced by cultivation. From top to bottom of the furrow slices, the soil is therefore broken up and rendered a fit habitation for the roots of the coming crop. What cultivation does is to reduce the lumps which by the loss of moisture will be finished by the frost. The loose soil will be in a condition to absorb the fall rains. When winter closes down and this water is sent into cold storage, the expansion due to freezing will complete the job of producing that crumb structure of the soil so favorable to plant development.

To thoroughly break down the structure of the soil that has resulted from the baking process to which it has been subjected this season should be the chief object of fall cultivation. Lumps in the soil are worse than useless. The plant food in them is out of the reach of the rootlets. They take up room and hinder root growth and the movement of soil water. Plant food is absorbed in the root solution. It is dissolved by the thin film of water that surrounds the soil grains and is carried into the roots when this is absorbed. The fewer the lumps the greater is the surface exposed to film water and the more food is dissolved. Some one has estimated that there are three acres of surface exposed in a cubic foot of ordinary loam soil in good till, which figures out to about 10,000 square miles in the first six inches of soil on a 100 acre farm. This represents the area exposed to the dissolving action of water. Under given conditions of fertility and moisture supply, the plant food liberated is proportional to the area exposed. Good tillage may increase the interior surface of the soil on an average sized farm to an amount equal to the area of half a dozen counties.

Good crops are secured, not by depending on wet seasons, but by providing against dry ones. To handle the soil so as to secure good crops, even in a dry year, is dry farming. The average annual precipitation may not change the conditions, but it does not affect the principles involved. Experience has shown that no matter where a man farms, whether it be in Idaho, Southern Alberta, Ontario, or the Maritime Provinces, moisture conservation is one of the first considerations. The principles of dry farming are equally applicable in the semi-arid dry belt and in the comparatively moist climate of Eastern Canada.

Points on Silo Building

BEFORE beginning to build a silo it is well to know something of the principles of silo construction. By keeping the following points in mind a satisfactory silo will be secured. They apply equally to all cases, no matter what material is used.

- The walls must be airtight.
- The walls must be smooth inside.
- The best type of silo is round.
- The roof should be waterproof.
- The substances should be substantial enough to stand great pressure.
- The cost should be from \$2 to \$5

for each ton of capacity if the total capacity is to exceed 100 tons.

A silo should be placed as near as possible to the place where silage is to be fed and should be on the least exposed side of the barn.

One hundred tons of silage will feed twenty-five head of stock for 200 days.

A silo 14 feet in diameter and 85 feet high will hold 100 tons of silage. Any kind of a good silo is a valuable piece of property on the farm where livestock is to be fed.

An Acre of Alfalfa

WHAT is the value of an acre of alfalfa? Here it is valued at in Minnesota, where the cost of production is quite as high as it is in eastern Canada, and where prices for products are somewhat lower, owing to the greater distance from the export market: It costs about \$12 to cultivate it.

At least 80 per cent. of the fertilizer value is returned to the soil when the crop is fed.

A yield of three tons will return \$4.50 if fed to pigs as pasture when the pigs sell for 7 cents a pound.

A similar yield if fed to steers at 6 cents a pound will bring \$42.60.

The same yield fed to cows giving 210 pounds of butter fat at 30 cents a pound will bring \$44.

Farm feeds should be judged by the total nutriment produced on an acre, bearing in mind the cost of production. Alfalfa provides a large amount of nutriment for every kind of stock. Besides this it provides nutriment for the soil, hence increasing land value.



Don't Delay buying a
DE LAVAL
SEPARATOR
a single day longer

IF YOU ARE SELLING CREAM or making butter and have no separator or are using an inferior machine, you are wasting cream every day you delay the purchase of a De Laval.

THERE CAN BE ONLY TWO real reasons for putting off buying a De Laval; either you do not really appreciate how great your loss in dollars and cents actually is or else you do not believe the De Laval Cream Separator will make the savings claimed for it.

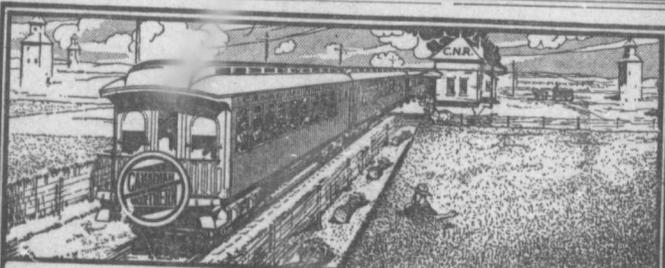
IN EITHER CASE THERE IS

DE LAVAL DAIRY SUPPLY CO., Ltd.

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Aug. 17th and 31st . . . From Toronto east to Chaffey Locks and Kingston, also north to Thornhill.
Aug. 19th and Sept. 2nd . . . From Toronto west and south, including the N., S. C. and T. Ry.

DESTINATION TERRITORY.—Tickets one-half cent per mile (minimum 50c) till Sept. 30th, 1916, of Winnipeg to any station east of Calgary, Edmonton and Tannis, Alta.

RETURN FARE AND LIMIT.—One-half cent per mile (minimum 50c) to Winnipeg on or before Nov. 30th, 1916, plus \$18.00 from Winnipeg to original starting point.

For tickets and leaflet showing number of farm laborers required at each point, also wages paid, apply to nearest C.N.R. Agent, or Gen. Passenger Depts., Toronto, Ont., or Montreal, Que.

CANADIAN NORTHERN ALL THE WAY



THE rarest feeling that ever lights a human face, is the contentment of a loving soul.—Henry Ward Beecher.

God's Country and the Woman

(Continued from last week.)

ONE by one he pulled out the fish. Snapping jaws met the fish in midair. There was no fighting—no vengeful jealousy of fang. Once when a gray and yellow husky snapped at a fish already in the jaws of another, Josephine reprimanded him sharply, and at the sound of his name he slunk back. One by one Phillip drew out the fish until they were all gone. Then he stood and looked down upon the flat-bellied pack, listening to the crunching of bones and frozen fish, and Josephine came and stood beside him again.

Suddenly he felt her start. He looked up and saw that her face was turned down the trail. He had caught the quick change in her eyes, the swift tenseness that flashed for an instant in her mouth. The vivid color in her face had paled. She looked again as he had seen her for that short space at the door in Miriam's room. He followed the direction of her eyes.

A hundred yards away two figures were racing toward them. One was her father, the master of Adare. And on his arm Miriam his wife.

CHAPTER SIXTEEN.

The strange effect upon Josephine of the unexpected appearance of Adare and his wife passed as quickly as it had come. When Phillip looked at her again she was waving a hand and smiling. Adare's voice came booming up the trail. He saw Miriam laughing. Yet in spite of himself—he could not keep himself from looking at the two women with curious emotions.

"This is rank mutiny!" cried Adare, as they came up. "I told them they must sleep until noon. I have already punished Miriam. And you, Mignonette! Does Phillip let you off too easily?"

Adare's wife had given Phillip her hand a few hours' rest had brightened her eyes and brought color into her face. She looked still younger, still more beautiful. And Adare was rictus with joy because of it.

"Look at your mother, Josephine," he commanded in a hoarse whisper, meant for all to hear. "I said the forests would do more than a thousand doctors in Montreal!"

Adare had turned into a sudden volley of greetings to the feasting dogs, and for another moment Phillip's eyes were on mother and daughter. Josephine was the taller of the two by half a head. She was more like her father. He noted that the color had not returned fully into her cheeks, while the flush in Miriam's face had deepened. There was something forced in Josephine's laugh, a note that was unreal and make-believe, as she turned to Phillip.

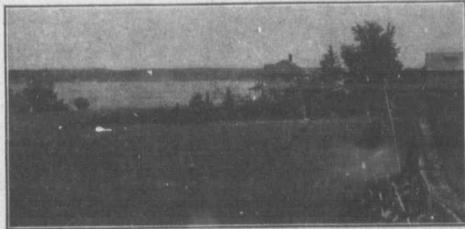
"Isn't my mother wonderful, Phillip? I call her Mikaw because that means

a little more than Mother in Cree—something that is almost undying and spiritlike. You will never grow old, my little mother!"

"Ponce de Leon made a great mistake when he didn't search in these forests for his fountain of eternal youth," said Adare, laying a hand on Phillip's shoulder. "Would you guess that it was twenty-two years ago a month from to-day that she came to be mistress of Adare House? And you, Ma Cheri," added Adare tenderly, taking his wife by the hand, "Do you remember that it was over this same trail that we took our first walk—from home? We went to the Chasm."

"Yes, I remember."

"And here—where we stand—the wood violets were so thick they left perfume on our boots."



An Ideal Situation for the "Springbank" Home.

The illustration herewith shows the beautiful farm home of one of our subscribers, Mr. J. F. Nelson, in Perry Sound district, Ont. Our good friend, Miss Marion Dallas, who has charge of our Amusement Department, sent us a snap from which the illustration is reproduced, and tells us that she spends her summer holidays at this farm home.

"And you made me a wreath of them—with the red bakneesh," said Miriam softly.

"And braided it in your hair," she was breathing a little quickly. For a moment it seemed as if these two had forgotten Phillip and Josephine. Their eyes had turned to each other.

"Twenty-two years ago—a month from to-day!" repeated Josephine. "It seemed as if she had spoken their hidden meaning. Adare straightened with a sudden idea.

"On that day we shall have a great anniversary feast," he declared. "We will ask every soul—red and white—for a hundred miles about, with the exception of the rogues over at Thorsau's Place! What do you say, Phillip?"

"Splendid!" cried Phillip, catching triumphantly at this straw in the face of Josephine's plans for him. He looked straight into her eyes as these spoke. "A month from to-day these

forests shall ring with our joy. And there will be a reason for it—more than one!"

She could not misunderstand that! And Phillip's heart beat joyously as Josephine turned quickly to her mother, the color flooding to the tips of her ears.

The dogs had eaten their fish and were crowding about them. For the first time Adare seemed to notice Meotsoin, who had stood motionless twenty paces behind them.

"Where is Jean?" he asked. "Josephine shook her head. "I haven't seen him since last night."

"I had almost forgotten what I believe he intended me to tell you," said Phillip. "He has gone somewhere in the forest. He may be away all day."

Phillip saw the anxious look that crept into Josephine's eyes. She looked at him closely, questioning, yet he guessed that beyond what he said she wanted him to remain silent. A little later, when Adare and his wife were walking ahead of them, she asked:

"Where is Jean? What did he tell you last night?"

Phillip remembered Jean's warning. "I cannot tell you," he replied evasively. "Perhaps he has gone out to reconnoitre for—game."

"You are true," she breathed softly. "I guess I understand. Jean doesn't want me to know. But after I went to bed I lay awake a long time and thought of you—in the night with that gun in your hand. I can't believe that you were there simply because of a noise, as you said. A man like you doesn't hunt for a noise with a pistol, Phillip. What is the matter with your arm?"

lean over, still clinging for safety to her husband's shoulder.

"It is beautiful," he said. Josephine spoke as if she had not heard him for his blood.

"I do not believe there is another man in the world quite like my father. I cannot understand how a woman could cease to love such a man as he—even for a day—an hour. She couldn't forget, could she?"

There was something almost plaintive in her question. As if she feared an answer, she went on quickly:

"He has made her happy. She is almost forty—thirty-nine her last birthday. She does not look that old. She has been happy. Only happiness keeps one young. And he is fifty. It wasn't for his sake, I believe he would appear ten years younger. I have never known him without a beard, I like him that way. It makes his look 'beasty'—and I love beasty."

She was ahead of him, and John Adare lifted his head from the tree when they joined them. The time Josephine took her mother's arm. At the door to Adare House she turned to the two men, and said:

"Mother and I have a great deal to talk over, and we are scheming not to see you again until dinner time. Little Daddy, you can go to your foxes. And please keep Phillip out of mischief."

The dogs had followed her close to the door. As the men entered to Josephine and her mother, Phillip paused for a moment to look at the pack. A dozen of them had already settled themselves upon their bellies in the snow.

"The Grand Guard," chuckled Adare, waiting for him. "Come, Phillip. Sit down to follow Mignonette's suggestion and do some work on your foxes. Jean had a splendid surprise for me when I returned—a magnificent black. This is the dull season, when I can amuse myself only by writing an experiment—a little later, when the fur begins to come in, there will be plenty of life at Adare House."

"Do you buy many furs?" asked Phillip.

"Yes. But not because I am in the business for money. Josephine put me into it because of her love for the forest people." He led the way into his big study, and added, he threw off his cap and coat: "You know they have been starving for more than two hundred years—these men, women, and little children of the traplines. You have noticed how thin-waisted they are. It's the result of two centuries of hunger. The Big Company has been just good enough to keep them alive."

"For a two thousand dollar bill they have been given to an Indian a sackful of flour and sugar and in and tobacco that you could buy down in Montreal for thirty dollars. That was an exception. But it is bad enough when they come for a dollar bill for five dollars, and charge four dollars for six pounds of sugar. It may be nice to go to a Waldorf or an Astor and pay twenty dollars for a dinner occasionally. But you wouldn't like to do that every meal of your life, would you? And every time that John the Trapper gives himself and his wife what you and I would call a square meal, he pays the equivalent of half a beaver skin for it."

"That's why Josephine started me buying furs. I bring in supplies at a 20 per cent. profit. We give John the Trapper a cent for every beaver skin he brings. For that reason the people about us are living. They are so dying because of waists that are too thin. It's Josephine. She's made the one oasis of life in all this North land!"

(Concluded next week.)

The Upward Look

The Art of Living

THE Art of Living—how many of the throng that daily sets forth to labor with the sun, stop to think of themselves as artists? If only they could know and feel what artists they are!—working away, unconsciously but everlastingly, at the greatest canvas ever stretched—the canvas of Life. It seems strange that men and women should not more freely recognize living as the prime art, and yet the reason is not deep-hidden. The ordinary run of things—the common events of yesterday and to-day, the flowers which blossom in endless profusion and the stars which shine in countless hoeks—these are so well known to us that we seldom stop to consider their beauty and their power. Such a mistake cannot be fully appreciated until some day there comes a realization of the splendor and freshness of dawn, or the marvellous working of the human frame, or some such example of the Creator's genius.

There is no lull in the painting of the great picture of Life. To each is given some part. I may have to deal with the clouds, you with the trees, you being with the sunny skies; but only joy can guide the hand that feels itself carrying out the will of the Master painter.

For each painter who lays down his brush with the dusk, comes another with the dawn, who lifts that brush to even better purpose, perhaps. For each who hands his palette back to the Master, comes a new claimant—and the palette, rich with fresh colors and rest of its rough, scarred surface, becomes a new factor in the mosaic of the ages. Beyond the mountain tops, beyond the stars, there is one art more high. But here, we reach the height of life's possibilities when we realize the art of living.

The above paragraphs are but the gleanings from a little book replete with beautiful thoughts, full of wisdom and inspiration, from the skillful hand of one of the Master's workmen. He knew the art of living, and has helped many to paint a more beautiful picture on their canvas of life. A day will come in our lives when the Master-painter will come to inspect our work. Should we not strive with humble and reverent hearts, to spend out our life picture before Him, knowing that we have painted our best and according to His will.—L.B.W.

Live Answers to Live Questions

ONE of the most interesting features of the meeting of the Women's Institute held at Richmond Hill, Ont., in June of this year, was the question drawn conducted by the Department delegate, Mrs. W. J. Hunter, of Brampton. It is the opinion of our representative, who attended the meeting, that the question drawn is one of the best ways of getting the women to discuss topics of vital interest. In the case of the Richmond Hill meeting, the president passed round slips of paper before the meeting commenced, and these slips were gathered later on. Some of the questions and answers are given herewith:

What would you consider an ideal program for the Institute for a year? A comprehensive program that will take in from month to month all our interests. Any subject that is of interest to women, and not only the subjects that will help us in our daily round, and common task, but sugges-

tions for social life, discussing current events of the day. I don't know that I favor very specially many outside speakers. I think you make a mistake if you depend too much on outsiders. One of the benefits of our Women's Institute to the women is the fact of having to prepare papers for the meetings. If we deprive the women of that, they lose one of the benefits. It is not well to take three or more topics for one afternoon. A question drawer is, I think, one of the most helpful features. Roll call occasionally is also helpful, but not helpful unless you can get women generally to answer roll call.

The method of opening and closing our meetings is something that every branch must decide for themselves. Always remember that our Institute is a national organization, under government supervision, and we must be non-partisan and non-sectarian. It is always safe to open or close with the national organization. The most helpful improvement of which I know is that our meetings be opened on the minute, if I were president of a branch, I would state an hour for the meeting and would open at that time, and also have a stated time for closing.

Mention a few suggestions on the social life of the home.

The idea of the social, family life is the developing of a social atmosphere in the home. Take an evening in the home. I picture to myself that living room. (You know we haven't parlors in some homes nowadays). We can do without a parlor, but we couldn't possibly do without a living room. In that room we should have a good library with suitable periodicals, a musical instrument and games, comfortable chairs, reading lamp, and all things which should be in a room in which the family live. Then all the members of the home can have a pleasant time together. Father and mother should endeavor to get too old to join in the games and social time. There is no bulwark that we can put beside our young people to go out of our homes that will help them more than the remembrance of that home, if it is just what we want it to be.

Should the daughter in the country home receive other vocational training than that of housekeeping?

The popular opinion to-day is that every girl should be made independent, that every girl should be so trained that she can earn her living if necessity arises, and there is a great deal to be said about that. Just now there seems to be more occasion than ever. In the country home it is very difficult for the mother to secure the necessary help. If there are a few girls who will go into domestic service, they crowd into the cities. In that case, I believe there are many girls who leave their mother's side to take up some other calling, when we feel it is her duty to stay with her mother. There may be many reasons for her wishing to leave home. You ask her why she was so restless and she will remark: "Well, to tell you the truth, I don't like housework." Now we don't believe that is a wholesome attitude, for every girl has the ambition to have a home of her own some day.

I think, perhaps, more than anything, she wants to be independent and have money of her own. I often suggest, in rural branches that there are numbers of cases in our country homes where the girls are making some sacrifice to stay with their mothers, where there might be some adjustment of the finances, so that the girl would be contented, and in the final disposal of the family estate, she might have her fair chance with the boys.

Don't overfeed. Give only what the chickens will eat up eagerly in a few minutes.

Grip Bits of Golden Brown-
Light, Alluring Texture -
Your Rolls are Greatly Relished

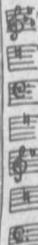
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Pastries



TO EVERY LOVER OF MUSIC



Many farm homes have decided this fall to purchase a GOOD piano—that gift which adds new happiness and breaks ice sunshines through the long dreary winter evenings and keeps the children home.

The Williams Piano Company will have on display an assortment of especially finished models of the renowned WILLIAMS' New Scale PIANO at their booth in the Manufacturers' Building of the Toronto Exhibition this year.

As these Exhibition Models are greatly in demand, it would be wise to write the Williams Piano Company, Oshawa, Ont., in advance for illustrations and easy payment plan regarding these special models.

"Empire" Metallic Shingles

The original brand with a 30 year reputation behind it. Every sheet true and uniform and heavily galvanized. A post card will bring you particulars.

Metallic Roofing Company, Limited, Manufacturers, Toronto

Ontario Veterinary College

Under the Control of the Department of Agriculture of Ontario

Established 1862

AFFILIATED WITH THE UNIVERSITY OF TORONTO
College will reopen on Monday, the 2nd of October, 1914

110 University Ave., Toronto, Canada.

Calendar on application E. A. A. GRANGE, V.S., M.S., Principal.

BOYS — How would you like to work for us during your holidays?

The work is pleasant, keeps you out in the open air and your income is only limited by your energy. You can make lots of pocket money during the holidays by giving us a few hours of your time each week. Write us to-night for particulars.

CIRCULATION DEPARTMENT

FARM & DAIRY PETERBORO, ONT.

BOOKS

Make yourself more efficient. Improve your spare time by reading. Send for our descriptive catalogue of Farm Books. A postal will bring it to your address. Write.

Book Dept. FARM & DAIRY Peterboro

WHEN USING WILSON'S FLY PADS

READ DIRECTIONS CAREFULLY AND FOLLOW THEM EXACTLY



Far more effective than Sticky Fly Catchers. Clean to handle. Sold by Druggists and Grocers everywhere.

HOME CLUB

The Play Problem
"Rain, rain, go away,
Little Tommy wants to play."

How often we have heard the familiar nursery rhyme. How few of us have given thought to the seriousness of the play problem. Certainly little Tommy wants to play, and we want him to play, but how shall we insure good, clean recreation for him?

As a rural school teacher of some experience, I find the play problem a very serious one. You surging your little ones in purity and innocence. Mrs. Careless and Mrs. Ignorant allow their children to run at large. These children imbibe in the course of their unguarded roving bad habits and impurity. The children of both families reach the school age and are thrown into contact in the same school. They study together and play together. Recreations usually finds them engaged in a good, clean game, for the careful teacher, if not actually on the play ground, is within sight or hearing.

Noon hour—the teacher goes to lunch, and the restraint is removed. What of the noon-time games? Too often, I fear, it affords opportunity for the heretofore carefully-shielded child to be instructed in the undesirable knowledge of the other child.

Most teachers, I think, will admit that they are unable to successfully cope with this evil. It exists in almost all schools. Shall we allow the childhood of our land to be thus robbed of its innocent bloom, or how shall we prevent it?

Some Home Club members, no doubt, know from experience of this difficulty. Will you not give the matter your thought and pass on, through our Club, to me and to others your suggestions?—"School Ma'm."

Our Awnings

THE home is filled with sadness, with sorrow and with gloom; We walk with silent footsteps through every darkened room; Pa says he can't do the place—he stays out late at night; Before, this home was happy and everything was bright.

But now in the bright sunlight, the blinds are all pulled down, If we attempt to raise them, ma has an awful frown. What is it caused this sorrow, this misery and distress? Why, mother cut the awnings up to make herself a dress.

No more upon the porch we sit and find a shady spot; For now there is no shade at all, no place where 'tis not hot; And sister lost her one best beau because of all this row.

Oh! I wish they'd change the fashions back to something plain, right now;

For if stripes went out of style, ma would have something new. If she didn't have the latest, she'd be sure to fret and stew; And peace would reign at home again, and how the time we'd bless. If ma'd give us back the awnings that she took to make a dress.

T. G. R.

Lay in Supply of Honey

THE following comes from the Ontario Beekeepers' Association and will be interesting to many housewives. With prices of all other foods soaring, housewives will be pleased to learn that there is plenty of honey

and that the prices will not be advanced. The report recently issued by the Ontario Beekeepers' Association shows that a large crop of light honey has been extracted this season. The quality is unsurpassed, being light in color, heavy body and a very good flavor. The Association's Honey Crop Committee have advised that last year's prices be not advanced so that honey will be freely bought in many households.

As it requires no preserving and will keep in first class condition in any dry place, the 60-lb. can will be a popular size. An average family will conveniently use that quantity throughout the winter. It is to be hoped that the supply will be equal to the demand. Many customers are buying early. The prices recommended by the committee are as follows:

No. 1, light extracted, wholesale, 10c to 11½c per lb; No. 1, light extracted, retail, 12½c to 15c per lb; No. 1, comb, wholesale, \$2.00 to \$2.75 per doz.; No. 1, comb, wholesale, \$1.50 to \$2.00 per doz.

These prices are f.o.b. in 50-lb., 10-lb., and 5-lb. tins, the former being net weight with the tin thrown in, the two latter being gross weight.

Excellent Sandwich Fillings

THIS is the season of the year when we are on the lookout for variety for our picnic lunches, societies, garden parties and so forth. It is sometimes difficult to think of anything different in the line of sandwiches. Here are a few suggestions which may prove useful when next preparing our basket of good things.

Meat thinly sliced or finely chopped and seasoned, or mixed with salad dressing.

Celery chopped fine and mixed with salad dressing.

Olives chopped fine and mixed with salad dressing (½ c. to ¾ c. olives).

Celery, pineapples and nuts, chopped fine and mixed with salad dressing.

Cream cheese and nuts, or olives, or pimientos or cream.

American cheese grated, seasoned with tomato catsup.

Lettuce with mayonnaise and nut meats.

Peanuts, pounded smooth, seasoned and moistened with cream.

Figs cooked to smooth paste, sugar, lemon juice and nuts added.

Dates and preserved ginger.

Dates and peanuts chopped fine, moistened with cream.

Raisins cooked to smooth paste, lemon juice and nuts added.

Ham chopped fine with hard-boiled eggs and mayonnaise dressing.

Cucumbers sliced thin with mayonnaise dressing and English walnuts.

Bananas sliced thin, dipped into juice of lemon, mayonnaise dressing and nut meats.

The bread should be 24 hours old and cut in thin even slices. If fancy forms are desired, shape before spreading with butter. Cream the butter and spread evenly.

Jots

A teaspoonful of common baking soda in the water when rendering lard makes it white and sweet. Another good idea is to put a thin layer of salt in the bottom of the jar in which the lard is poured to keep it from getting rancid. When furniture becomes denuded and not broken, the marks may easily be made to disappear. Treat it in this manner: Wet the bruised spot with water. Double a piece of brown paper five or six times and soak it in warm water. Place it upon the bruise and apply a warm (not hot) flat-iron till the moisture has evaporated. If dent has not disappeared, repeat the treatment.

MAKE YOUR ENGINE Do the Wash!

Almost every farm household has its gasoline engine. One of the best uses you can put it to is connect it up with a

PAGE WASHER

Here is a power washer that we are prepared to back against any other on the market. In strength, in simplicity, and in sheer ability to wash clothes clean, it has just no competitor. Will do the heaviest wash in less than an hour—that means about 2 cents worth of gasoline per week. Not only washes clothes clean, but wrings them dry too.

The Page Wire Fence Company, Limited, 1139 King Street West, Toronto.

To the top of the highest silo

THE GILSON SILO FILLER is the one blower that can be successfully operated with aniline power or a h.p. There is a Gilson Silo Filler for every purpose—from the smallest farm, for the feedlot, and our large capacity machine for the co-operative labors.

GILSON ENKILAGE CUTTER

We guarantee every Gilson Silo Filler to cut 1000 bushels more silage with the same power than any other blower cutter.

Write for Catalogue to-day.

Gilson Mfg. Co. Ltd., 87 York St., Guelph, Ont.



It Will Pay You to mention Farm and Dairy when writing Advertisers.

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EATS DIRT

MADE IN CANADA

PICKERING COLLEGE
Resident School for Boys and Girls

Established in 1865. Beautiful new buildings. A attractive location, with large campus, surrounded by rolling land and forest. Best instruction. Plans of character-making surroundings. Reasonable tuition and charges.

Prep and Collegiate Courses. Complete Training in Musicology, Typewriting, Bookbinding, Modern Art. Lessons in practical agriculture under U.A.C. professor.

For Illustrated Annual Booklet address the Principal, NEWMARKET, ONTARIO.

SHIP YOUR BUTTER & EGGS

—to us. We are not commission merchants and remit promptly.

WILLIAM DAVIES COMPANY LIMITED
Established 1854. TORONTO, ONT.

ADVERTISE In these popular columns, which others are not available, costs you only \$1.65 an inch.

BOOKS Send for our Books. Sent Free on Request.



Through Nature's Fairyland

Send your vacation visiting the great natural wonders of Canada, on the Grand Tour "Niagara to the Sea." The grandeur of the scenery leaves an indelible impression on the memory. Every moment is filled with pleasure and comfort. The grand tour costs only \$47.50, including meals and berth, and may be started at any point on the trip. Shorter tours at proportionate rates. Get free booklet, or send for to cover postage on book "Niagara to the Sea."

J. V. FOY,
Local Agent, or A.C.P.A.
Yonge St. Wharf, Toronto.

The Makers' Corner

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

Washing Milk Cans

THE matter of washing cans by city dealers, while only a small part of the daily operations, is a very important one. Many different methods are used by various dealers in caring for the cans after the milk is removed from them. Some of these methods are as follows:

1. Retaining the cans unwashed.
2. Rinsing with water (either hot or cold).
3. Rinsing out by means of hose with either hot or cold water. This is quite common at some plants but is not satisfactory.
4. Rinsing out with hose and then steaming with live steam.
5. Washing the cans out by means of washing powder and hot water and a hand brush, then rinsing.
6. Same as 5, with an additional rinsing with boiling water or steaming.
7. Cleansing by means of machines of various kinds.

One of the simplest of these machines is a jet machine, by means of which sprays of cold and hot water and steam are successively forced into the can. Some of these simple machines also have dryer attachments, by means of which a draft of air is forced into the cans. Another type of machine is the brush machine, by means of which the cans are brushed out with washing powder and water and then rinsed. They may be steamed after washing

by a spray of live steam. Some of the largest machines are fitted with powerful pumps, and the cans, in an inverted position, are run through the machine and sprays of soap and water, rinse water, hot water and steam are successively forced into them under considerable pressure. After being thus washed and sterilized they are also dried in the modern machine.

In justice to the farmer the dealers should give considerable attention to this question of washing the cans. If the cans are allowed to go back unwashed to the farmer it is a very difficult and often an impossible task for him, with his facilities, to clean them. Even a rinsing with cold water is better than nothing, though of course it is not satisfactory. It does not matter what method is used, so long as the cans are well cleaned and sterilized. The drying of the cans is also an important factor. Not only does this leave the can in a much better condition, but it will also preserve its life, as it helps to prevent rust. It is also important that the cover be thoroughly cleaned and sterilized as well as the can. It is not a good plan to put the cover onto the can until the latter is dry. When the covers are not put back on the cans immediately, the cans should be kept in a clean place where there is no dust or contamination. The covers should be placed lightly on the cans before they are returned.

Some of the large dealers who operate country stations not only wash the cans in the city, but also rewash and sterilize them when they arrive at the country plant. This is owing to the fact that the covers may be removed from the cans during the trip back to the country and thus the cans may be contaminated.

Considerable experimenting has been carried on by the Dairy Division

in regard to sterilizing cans. Bacteria counts were made from cans receiving ordinary washing and rinsing. The results showed that the cans contained from 300,000 to 13,000,000 bacteria per cubic centimeter, with an average of 4,600,000. To 10 gallons of milk put into one of these cans there would be added more than 100 bacteria per cubic centimeter, as an initial contamination from the can above; that is to say, that is the least number that would be added. With a little steaming these same cans could be rendered practically sterile.

One dealer who had recently installed a modern washing machine had some tests made by his bacteriologist on the results obtained. From the preliminary tests made less than 200,000 bacteria were found to the can and some were undesirable. Before the machine was installed, counts from the old one, which had a much less efficient steaming device, ran as high as 70,000,000 bacteria to the can and some were undesirable. Of course the large dealer must have a machine that will do good and rapid work, but the main result to be obtained is a clean, sterile and dry can regardless of the machine used. The main means to accomplish this is thorough cleansing with washing powder and water, rinsing, sterilizing with live steam, and rapid drying, then cover the can and keep it from contamination.—U. S. Dairy Division.

What Experts Are Saying

THESE should be cooperation between instructors and creamery men in establishing cream grading in Ontario. That is the way it started in other provinces. To be efficient, however, grading must be honest, not different premiums in different districts according to the com-

petition.—Mac Robertson, Hastings Co., Ont.

For nine years we have been grading on flavor and paying a premium of five cents per pound of butter fat for the best cream. The result has been an improvement in the quality.—Mr. Dunca, Toronto, Ont.

We have screens all over the factory to keep out flies. We have a swatter inside for every man. There is no time that a swatter should be more used than early in the season. It keeps down the fly plague of the later and warmer months wonderfully.—B. A. Reddick, Manager of the Dominion Dairy Station, Finch, Ont.

Cleanliness from start to finish is the greatest essential in the making of good butter. Fresh cream should always be cooled before it is added to what has already been collected and this cream should be well stirred every time fresh is added. When putting cream in churn it should be strained through a perforated dipper. One cannot learn the art of butter making by reading or seeing it done. It has to be learned by experience and by using a certain amount of your own judgment.—Mrs. A. Thomson, Wellington Co., Ont.

Cleanliness is getting better each year. By this we do not mean that the best cheese is improving, but that we are receiving less and less inferior cheese.—G. G. Pulbow, Chief Dairy Instructor, Eastern Ontario.

Drinking places of the cattle should receive attention. Ponds should be cleaned out at the proper season, boggy corners fenced off and all steps taken to secure a clean and reasonably pure supply of drinking water.

Prevention is always better than cure, and it will save endless worry to keep dirt out of the milk, rather than to strive later to get the better of the troubles which it will set up.

A High Grade Home for a High Grade Herd

The Het Loo Herd at the W. J. Shaw Stock Farm, Newmarket, Ont.

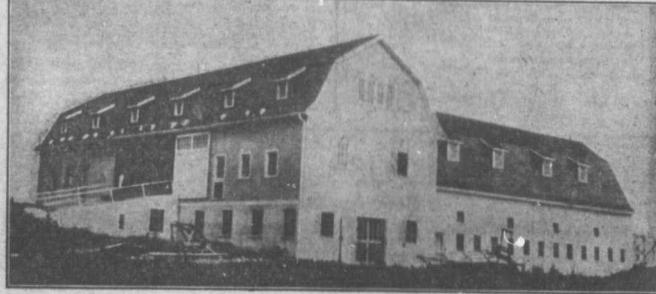
In purchasing the Het Loo herd we believe we got the best blood obtainable. We got type, quality, blood and production—an invincible combination. At the head of our herd is PONTIAC KORNDYKE HET LOO, who is unequalled in type and breeding, and we have fifteen of his daughters. Here are a few of the outstanding individuals in our herd with their records:

Het Loo Clothide.

Butter 7 days at 2 years old, 22.1.
Milk 7 days at 2 years old, 43.3.
Butter 30 days at 2 years old, 20.2.
Milk 30 days at 2 years old, 181.3.

Oakvale Elsie Johanna,

who won in the Dairy Trial at Ottawa as a 2 year old. Here is some of her work:
3 yr. old record for 7 days, 27. lbs. butter.
4 yr. old record for 7 days, 29.17 lbs. butter.
5 yr. old record for 7 days, 31.70 lbs. butter.
10th day's milk, 85.5 lbs.



The new home of the Het Loo herd. The splendid barns on the W. J. Shaw farm at Newmarket, Ont.

Mildred Pieterje Abbeker.

Butter 11 days at 3 years old, 34.1.
Milk in 7 days at 3 years old, 67.1.
She has a record of over 100 lbs. milk every day for a month, and an average of 12 lbs. per day for 92 days.

Colantha 4th Johanna.

Butter 1 day, 4.59 lbs.
Milk 1 day, 106.60 lbs.
Butter 7 days, 25.18 lbs.
Milk 7 days, 651.7 lbs.
Butter 1 year, 255.25 lbs.
Milk 1 year, 27,452.5 lbs.

VISIT US WHEN AT THE EXHIBITION

We extend a very cordial invitation to all who are interested in Pure Breds to visit us at Newmarket and see the Het Loo herd in their new home. A visit will repay you. Good roads will be to the cattle barns the leading days of the show, and will make arrangements for parties to visit the herd. Metropolitan car stops at the farm at Mullocks.

W. J. SHAW, Prop., Newmarket, Ont.

Gordon H. Manhard, Mgr.

Market Review and Forecast

CHICAGO, Aug. 21.—The chief interest of the market at this time of year is always centered on wheat. Far from being an exception, this year has brought out features in the wheat market of unusual interest. Though the average was smaller than that of last year, a better crop of wheat could be compared favorably with any crop previous to that of 1914, can reach until a few weeks ago. On the other hand, reports have been coming in of the ravages of rust in the wheat crop of the west, especially in the older wheat growing districts. Reports from Manitoba and also in some districts of Alberta have been out to prevent further deterioration from these sources. Reports from Alberta, however, indicate that black rust has not been so prevalent there, but the crop will be considered below that of last year. In the face of these reports prices are still rising very fast, and at the time of going to press a 6 per cent advance on all grades of Manitoba wheat was reported.

In sympathy with wheat, flour has been steadily advancing in price, and the strength of the flour market has had a tendency to advance the price of mill feed. High prices are at low levels, one reason of this being that there is more oil in the dealers' hands than was expected. Prices are likely to continue low.

GRAINS.

Wheat, No. 1 northern, bay ports, \$1.87; No. 1, \$1.84; No. 2, \$1.82 to \$1.85; No. 1 commercial, car lots, \$1.18 to \$1.20; No. 1, \$1.17 to \$1.18; No. 2, \$1.12 to \$1.12; feed wheat, 30c to 31c; oats, bay ports, C. W. No. 2, \$1.45; No. 2, 54c; extra No. 2, white, 51c to 51c; American corn, No. 1, 50c; No. 2, 48c; No. 3, nominal; car lots, \$1.36 to \$1.35; eye, No. 1, new, 98c to \$1.00; At Montreal, American corn, No. 1 yellow, 76c to 77c; oats, C. W. No. 2, 87c; No. 3, 85c; extra No. 1 feed, 55c.

MILL FEEDS.

Our lots delivered, mill freight, shorts, 13c to 13 1/2c; good feed, 12c to 12 1/2c; middlings, 12 1/2c to 13c; At Montreal, best, 13 1/2c; shorts, 12c; middlings, 12 1/2c to 13c.

HAY AND STRAW.

Hay, No. 1, track, here, new, 110 to 112; car lots, No. 1, 75 to 80; straw, No. 1, 10 to 11; Montreal, hay, No. 1, car lots, 110.

EGGS AND POULTRY.

Hens—candied (cartons), 34c to 35c; candied (cartons), 35c to 36c.

Poultry—

Broiler broilers (14 lbs. and over), 22c to 24c; 25c to 26c; Old hen, 18c to 20c; 22c to 23c; Duckling, 14c to 16c; 16c to 18c; 20c to 22c.

LIVE STOCK.

The feature of the week's market was that hog reached a low price level, fetching

as high as \$12.25, off cars. A slight further reduction in cattle prices is to be expected, but the market for the moment, however, is fairly steady. Quotations are as follows:

Cattle—

Good, \$11.00 to \$12.00; medium, \$10.00 to \$11.00; poor, \$9.00 to \$10.00; calves, \$10.00 to \$11.00; yearlings, \$10.00 to \$11.00; cows, \$10.00 to \$11.00; heifers, \$10.00 to \$11.00; bulls, \$10.00 to \$11.00; steers, \$10.00 to \$11.00; calves, \$10.00 to \$11.00; yearlings, \$10.00 to \$11.00; cows, \$10.00 to \$11.00; heifers, \$10.00 to \$11.00; bulls, \$10.00 to \$11.00; steers, \$10.00 to \$11.00.

General prices for good milkers and springers were unchanged, though one quality good springer sold for \$10. Offerings were light, demand firm. Choice milkers brought \$78 to \$80; cows to med., \$60 to \$70; springers, \$65 to \$80. Calves to \$70; yearlings, \$65; bred, \$11.50 to \$12; cows to med., \$5 to \$10; grass, \$1.50 to \$2.00.

Some lambs showed a slight further advance, being quoted at 11 1/2c to 11 3/4c for choice, and 11c to 10c for common; sheep, ewes, light, brought \$1 to \$1 1/4; heavy and bucks, \$5 to \$6; culls, \$2.50 to \$3.

Hogs weighed off cars, sold for \$12.25; fed and watered, \$11; heavy and light, \$10; hogs, \$9.

DAIRY PRODUCTS.

The under tone of the cheese market has been decidedly better than for the last week and business has become lively. Zealand and Austria will not be on the market to any extent within the next two or three days. It is expected that no make is said to be short. She will have to depend largely upon Canadian cheese for supplies. The market in Canada begins to show signs of decrease and will probably continue to fall off from now on. Prospects are, therefore, that high price levels will be maintained for some time.

On this market, new large cheese are quoted at 18c to 18 1/2c; twins, 16 1/2c to 17c; triplets, 15 1/2c to 16c; June and September, large, 25c; triplets, 23 1/2c.

Butter—

Best, 25c; extra, 24c; common, 23c; firmer and prices have been further advanced. Reports received from England show that England is suffering from a shortage of butter. The market in Canada is being placed by the Russian government on all exports from that country and the market in Sweden, Germany taking a large portion of the butter from these countries.

On this market, creamery prices are quoted at 25c to 26c; solids, 21c to 22c; choice dairy prints, 25c to 30c; ordinary dairy prints 25c to 27c; bakera, 24c to 25c.

CHEESE BOARD SALES.

Madoc, Aug. 18—232 at 15c.

Kingston, Aug. 18—230 colored and 35 white at 17 1/2c.

Alexandria, Aug. 11—436 white sold at 17 1/2c.

Victoria, Aug. 11—2,000 at 14 1/2c.

Perth, Ont., Aug. 11—700 white, 400 colored, at 17 1/2c for white, and 17 1/2c for colored.

Vankleek Hill, Ont., Aug. 11—1,070 white, 1,070 colored, at 17 1/2c.

St. Hyacinthe, Aug. 12—700 sold at 17 1/2c.

Montreal, Aug. 12—2,065 at 17 1/2c.

London, Aug. 12—563 boxes, no sales.

Montreal, 16 1/2c to 17c.

St. Paul, Aug. 18—455 boxes at 17 1/2c. Eighty-two boxes of butter sold at 12 1/2c.

Cambridge, Aug. 18—555 white at 17 1/2c.

Stirling, Aug. 18—750 at 15c.

Madoc, Aug. 18—320 at 14 1/2c.

Woodstock, Aug. 18—300 offered. Highest bid 17 1/2c. No sales.

Normal, Aug. 18—(Special)—3,200 offered. Highest bid 18 1/2c.

Piston, Aug. 18—1,520, all colored, sold at 17 1/2c.

Brookville, Aug. 18—706 boxes colored and 40 white offered. 505 boxes sold at 17 1/2c.

Board of 132c, 132c, 132c offered.

Napawa, Aug. 18—570 white and 1,180 colored. All sold at 13 1/2c.

Mont. Joll. Que., Aug. 18—About 100 boxes cheese sold to-day at 17 1/2c.

AYRSHIRES FOR SALE

Males and females, all ages, including 1000 pure bred, are on hand for exhibit at Ottawa or write for particulars.

Rebt. Belg. Jr., R.R. 3, Lashuis, Que.

BREEDERS DIRECTORY

Herds at the Exhibitions

A chance to see the herds from which you are buying your Sires and foundation stock. Look for us at the cattle barns.

HOLSTEINS

VILLA VIEW HIGH TESTING HOLSTEINS

At Toronto Exhibition.

Take a look at the different Holstein herds and then pay a little extra attention to the Villa View Exhibit. We believe that you will agree with us that we are breeding along the right lines for type and production. We have a few choice Bull calves for sale, guaranteed right in every way.

ARBOGAST BROS., SEBRINGVILLE, ONT.

IS IT A HERD SIRE YOU WANT?

We are offering for sale some choice young stock. The bulls are all sired by DeWolf Mutual Count, winner two nearest dam's combined yearly record in 45,871 lbs. milk and 1,968.75 lbs. butter.

We believe Count to be the best sire in Canada to-day, so don't fail to look up our lot for fuller particulars in the two succeeding issues of Farm and Dairy, and get in touch with what we are offering. Better write us a line to-night if you are in need of a herd head.

W. A. McELROY, Hillside Farm, CHESTERVILLE.

Lakeview Stock Farm, Bronte, Ont. The home of Dutchland Colantha Lad, 101 A.H.O. daughters, over 83 lbs., and 7 over 20 lbs.; 3 of them world records for 365 days; and Sir Mona's 1st 2-yr.-old daughter is the new Canadian Champion Sir, 3-yr.-old, 34.66 lbs. Choice young bulls for sale.

MAJOR E. F. ORR, Jr., Port Perry, ONT. A. DAWSON, Mgr.

3 HOLSTEIN BULLS READY FOR SERVICE

One black dam 15 1/2 lbs. butter in seven days at two years, her dam 1,007 lbs. butter and 25,000 lbs. milk in one year. Three bull calves four to six months old.

R. M. HOLTV, P. R.R. No. 4, PORT PERRY, ONT.

Fairmount's Ayrshires

Young bulls for sale of all ones of the great King Segis Aclaira Cattle, whose progeny demand average over 100 lbs. butter and nearly 4.50 per cent. fat. All from good record dams; one from a 22,000-lb. granddammer of Colantha Johanna Lad, 21 prices that will sell these dams and calves and heifers bred to King.

PETER S. ARBOGAST, R.R. No. 2, Mitchell, Ont.

Holstein Cows Excel All Others

Proof is Found in 106,000 Official Testings of Profitable Field of Milk, Butter and Cheese. No Other Breed Can Equal Them For the Production of High Class Veal, When Age or Accident Ends Their Useful Lives. Holsteins Make a Large Amount of Good Beef.

W. A. Clemens, Sec'y., H.-F. Assn., St. George, Ont.

AYRSHIRES

Gladden Hill Ayrshires

Herd headed by Fairview Milkman, a son of Milkmaid 7th. Some choice young bulls for sale from dams with 10,000-lb. records as 2-yr.-old and upwards. Also a few females.

LAURIE BROS., AGINCOURT, ONT.

PEACH BLOW AYRSHIRES

Young Stock for sale, always on hand (both sexes), from high-testing heavy producers. Good sires and large test. A special feature of my herd. Three fine young Sires ready for service. Get particulars of these if you need a sire.

R. T. BROWNLEE, Peach Blow Farm, HEMMINGFORD, Que.

FOR SALE

Ayrshire cattle, all ages, bred from first prize stock and good producers. For sale, \$5.00 each, or \$7.00 registered, when 6 weeks old. Offered to apply to ROBERT LINTON, Manager, or to HON. W. OWENS, Proprietor, Riverside Farm, Montebello, Que.

TANGLEWYLD AYRSHIRES

The Leading R. O. P. Herd

Large Cows, Large Tests, Large Records, High Testers. Choice Young Bulls and Bull Calves and a few Cows for sale.

WAGGONER, S. E. B., HARRISVILLE, N.Y.

AYRSHIRES AND YORKSHIRES

We will be at Toronto and other Exhibitions with a full herd of choice animals. We have some very fine young stuff for sale from our show animals. Be sure to see them while at the shows.

We have also some very choice Yorkshire Boars over 4 months old, fit for service.

ALEX. HUME & CO.,

CAMPBELLFORD, Ont.



The Farmer's Most Versatile Servant

This Wonderful Pump Engine for \$42.50

Concent it with your Cream Separator by a Governor Pulley, 14 inch fit by belt to your wife's washing tub. Use it to pump water, to churn. All this work and a lot more, you can do more cheaply than you could hire a man to do it.

The heavier work there are those who will equally satisfactory Pump Engines.

1 H.P. \$46.00
 2 H.P. 55.00
 3 H.P. 65.00
 4 H.P. 85.00

Write for particulars.

The Pipe Wire Fence Company, Limited.

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If not, do it NOW
They are proving very popular

They are popular with Our Folks.
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We like them best because after Our Folks get them they will constantly become more valuable. A cheap and trashy premium would be lost or destroyed in the course of a few months, but at the end of that time one of our

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Pure Bred Ayrshire Bull Calves

These are guaranteed to be good, strong-boned, typey calves, well marked with clearly defined colors and of the very best breeding.

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