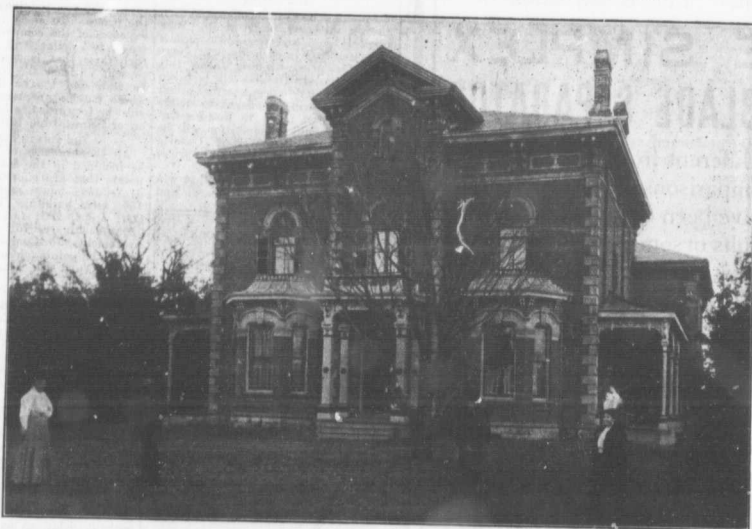


FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

APRIL 29 1909



DAIRYING AND MIXED FARMING MAKES FARMERS PROSPEROUS

Mixed farming and dairying is the specialty on this Elgin Co., Ont., farm. All "critters" on the farm are registered. Four Holstein cows, entered for the Record of Performance last season, qualified for the advance registry, all having given over 1000 lbs. more than was required (10,500 lbs.) and butter fat in proportionate excess. The farm house illustrated is owned by G. H. Caughell & Son. It is surrounded by a spacious lawn. The lawn is adorned by hedges at its borders, and by several species of evergreens and many kinds of deciduous ornamental shrubs and trees.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

In Doubt

It is no longer a question of "Is a Separator necessary," but "What machine shall I buy?"

Every make of Separator has some good 'talking points,' but as 'talking points' don't skim the milk, the safest way is to buy a machine that has something else to commend it. The construction of

THE SIMPLEX LINK-BLADE SEPARATOR

is so different from other makes that comparisons are useless. You may have been disappointed with the results of some other machine, but a month's free trial of a **SIMPLEX SEPARATOR** will convince you that it is a machine that is sold on its merits and not by a smooth-tongued agent. Exclusive features of the Simplex are the **Link-Blade and Self-Balancing Bowl.**

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WE WANT AGENTS FOR A FEW UNREPRESENTED DISTRICTS

A PROVINCIAL DAIRY FARMS COMPETITION WILL BE HELD

The Final Announcement About the Big Competition to be Held This Year by Farm and Dairy.

Farm and Dairy has decided to extend the dairy farms competition, that it will hold this year, so that it will include the whole province of Ontario, excepting only the unorganized districts. Eastern and Western Ontario will be divided at Yonge St., Toronto. Eastern Ontario will be sub-divided into two districts. The dividing line will run north from a point at or about Kingston. Western Ontario, also, will be sub-divided into two districts. The dividing line will run from Hamilton to Gederich. Thus Western Ontario will be divided into northern and southern districts. The dividing lines here given may be changed somewhat for the convenience of the judges, after the entries are all in, if it is found that any of the districts described have an unduly large number of entries. Should a rearrangement of the districts be found necessary the districts will be so divided that each will have about an equal number of entries.

THE PRIZES

Fifteen prizes will be offered in each district this year, or 60 in all. Five splendid gold and ten silver medals will be offered in each district. Next year the prize winning farms this year in Eastern Ontario will be given an opportunity to compete for special prizes that will be offered to determine the best farms in Eastern Ontario. A similar competition will be held next year in Western Ontario among the farms that win prizes this year.

The third year, the farms that win prizes next year in both Eastern and

Replenish Your Stock

Send us only seven new yearly subscribers to Farm and Dairy and we will send you, absolutely free of cost, a pure bred pig, of any of the standard breeds, with pedigree for registration. It should not take you seven hours to secure seven new subscriptions to Farm and Dairy. How could you earn a pure bred pig easier? Circulation Dept. Farm and Dairy, Peterboro, Ont.

Western Ontario will take part in a final competition to determine the best farms in the province. In addition to the medals that will be offered as prizes each year, handsome diplomas, that can be framed and kept for years, will be given to all competitors who win prizes.

A CHANGE IN PLANS

It will be noticed by the foregoing announcement, that a change in the plans of the competition, described in the April 8th issue of Farm and Dairy, has been made. At that time the members of the committee who will assist in the management of the competition, expected that it would be possible to secure the assistance of some of the officials of The Dominion Department of Agriculture as judges in the competition, thus materially reducing the expense of conducting the competition. This has been found impossible. It has been decided therefore, instead of offering large cash prizes in each district, as we first proposed, to offer gold and silver medals instead, as well as handsome diplomas. More prizes will be offered in each district than there would be were cash prizes given.

In the announcement about the competition that was made in the April 8th issue of Farm and Dairy it was stated that cash prizes would be offered in the Midland counties of Ontario this year. As no entries had

been received from this district, the members of the committee have felt free to change the prize list as here announced. However, any intending competitors in the Midland counties feel that this change in the prize list is unfair to them, Farm and Dairy will pay them any of the cash prizes first offered, if they may win, provided they send us their entries on or before May 10th with a statement that they desire to compete for a cash prize instead of a medal.

A SPECIAL COMPETITION

In addition to the foregoing competition, Farm and Dairy will hold a special competition this year in the counties of Peterboro and Durham. Two gold and three silver medals will be offered in each of these counties for the best farms of any class.

As announced in the April 8th issue of Farm and Dairy, the competing farms will be judged twice, once about the first of July and once about the month of December this year. The farms that score the highest on the two judgments will be given the prizes. To assist in meeting the expenses of the competition an entry fee of two dollars will be charged on each farm that is entered. For the present at least the competition will be restricted to the first 250 farms whose entries are received. Entries must be forwarded to Farm and Dairy on or before June 10th, next.

THE POINTS OFFERED

All the branches of the Farm will be included in the competition. The points that are offered, in brief, are as follows: houses and surroundings, 150; farm buildings, 150; live stock, 200; crops, 200; farm management, 160; machinery, 75; permanent improvements, 75. Complete information about the points offered was published in the April 8th issue of Farm and Dairy.

INTENDING COMPETITORS

Already the competition is creating great interest in Eastern Ontario. Mr. Alex. Hume, the well known Ayrshire breeder of Northumberland county, has announced his intention of competing. Mr. Wm. Stuart, Jr., another well known Ayrshire breeder of the same section, is thinking of taking part in Ontario county. Mr. Henry Glendinning, the well known Farmers' Institute speaker, is a probable competitor. From Western Ontario we have received word that Mr. George Laitwaite, of Huron county, intends to enter his farm. We hope that other farmers, in all parts of the province, will send in their entries without delay so as to do to the interest taken in the competition.

NOTES

Agricultural societies throughout Ontario are invited to offer special prizes for those of their members who enter and score the highest in this competition.

Numerous special prizes will be offered. These will be announced before long.

If possible a part of Quebec will be included in the competition the second and third years. We are trying to see if this can be arranged.

Tell your neighbors about this competition. Induce as many as you can to enter. It will be a great honor to your section if a farm in your county wins a prize.

Do not be afraid to enter because you have poor buildings, weeds on some of your land, or some other handicap. There are few farms that have not got disadvantages of some kind. The object of the competition is as much to reward farmers who are doing the best possible with their farms under their circumstances as it is to find who have the best farms.

Issued
Each W

Vol. XX

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FORMERLY THE CANADIAN DAIRYMAN AND FARMING WORLD

Vol. XXVIII.

FOR WEEK ENDING APRIL 29, 1909.

No. 17.

The Cultivation of Corn

A. L. Arner, Essex Co., Ont.

Corn requires careful attention and a favorable climate, if its growth is to be success. It is a crop that requires some study in its general management. It must have a good seed bed. A rich black loam is the best, but it will do well on any rich soil, that is well drained. Clover is the best crop for corn to follow, but timothy will answer fairly well, much better than for it to follow any cereal crop.

When it follows clover, the ground is generally plowed in the spring, as soon as it is in fit condition. For timothy fall plowing is preferable, as the timothy sod being very tough, becomes putrid, and makes a better seed bed when plowed in the fall. On spring plowed sod follow each day's plowing with the roller. Then commence the working of the ground. If it is free from stumps and roots, the spring tooth cultivator is best for tearing up the sod roots, and making the ground mellow. The sod should be put in as loose and mellow a condition as possible. If there are stumps and roots the disc-harrow may be used. First double disc the land the way it is plowed; then disc it cornwise. Finish the field with several harrowings with the drags. On fall plowing the ground may be worked in the same manner with the exception of the rolling.

When manure is to be applied on ground for corn, it should be applied in late winter or early spring, and plowed under. On fall plowing it is best to top-dress, provided the manure is well rolled and very fine. If not it should be applied in the fall and plowed under.

After a perfect seed bed is made, and the weather is warm enough for rapid plant growth which is usually from the 25th of May to the first of June, the planting should be done. Before planting see to it that you have made a selection of strong, healthy seed. Test it by taking a grain from every ear that is to be planted, and putting it in sawdust or earth in some warm place to sprout. After the seed has been tested get it ready to plant. Shell the butts and tips of the ears off before shelling the ear. By this means the grains are all of a uniform size, and drop better in the planter.

We use the two-horse planter for planting corn. Until recent years the old method of marking out, and using the hand planter was used. Our corn is planted three feet eight inches each way for dent varieties, and three feet six inches for flint. If the ground is dry and inclined to be lumpy, the roller is applied ahead of the planter, but if it should be a little wet the drag-harrow is applied cornwise ahead of the planter, as it

has a tendency to dry the top of the ground and by going cornerwise, the harrow marks do not interfere with the mark made by the marker on the planter.

HARROWING CORN

When the corn is just appearing through the ground, and even though it is an inch or more high, we harrow it with an ordinary drag harrow, a light one is preferred. This kills all small weeds and gives the corn a free, loose soil to grow in. The corn will appear to be entirely covered at the time and some little of it will be torn out, but in a few days, it can be seen to shoot ahead. As soon as it is high enough (from two to three inches) we cultivate it with the two-horse cultivator, cultivating as close to the corn as possible. By keeping the fenders of the cultivator just off the ground, a little loose earth will work in around the young plants thereby covering any weeds that may be starting in the hill. The next time

general rule (once each way). This implement consists of an ordinary five-shovel cultivator, with one three inch shovel in front, and one ten inch thistle cutter, and twelve three inch thistle cutters (or sweeps) behind. These sweeps do not go deep in the ground, but rather make the surface loose, at the same time cutting all weeds, but not cutting off the corn roots. This outfit is used once in a row, and after it has been through once each way, the corn cultivating is finished for the season, except should there be some very bad weeds to kill. As a general rule by the time the last cultivating is finished, the ears are beginning to droop, and are liable to be broken off by the horse in walking through. The method as outlined has proved very successful in raising bumper crops of corn.

The Importance of Healthy Stock

Dr. David Roberts, Wisconsin State Veterinarian
1906-7-8

Many things must be considered in order to be successful in stock raising. Perhaps the first thing to consider is the breed of cattle to keep. This can only be decided by the stock raiser himself. We should select a breed that will be the most profitable in our locality, always keeping a pure bred sire at the head of the herd.

In selecting dairy cattle there is a large variety to select from such as the Holstein, Jersey, Guernsey, Ayrshire, Brown Swiss, Red Poll, Dutch Belted, French Canadian, and a number of others.

In selecting dairy cows we have a different standard to go by than in selecting beef animals. A dairy cow should be a machine that turns feed into milk, so we must look for a cow that will convert the largest quantity of feed into the largest quantity of milk. The type of dairy cows we want is a cow weighing from 1,000 to 1,200 lbs. She should have a lean head and neck, her eyes should be clear and large, indicating health and temperament. Her body should be narrow over the shoulders and broad at the hip and rump. She should have a large chest, indicating vitality. Her barrel or belly should be large, showing that she is able to consume a large amount of rough feed. She should have a set of large, branching milk veins leading to a well developed udder on which are placed four, large well shaped teats. She should carry enough flesh to look well, but not in excess.

SELECTING A BEEF HERD

In selecting a beef herd, select cows that have broad, deep square bodies, cows with a good coating of flesh for these if bred to the right kind of sire will produce calves that will prove profitable feeders.

In selecting a sire select a good, pure bred bull



Sliding Up the Road at a Seasonable Time

Marvellous indeed is the work of the split-log drag. It costs little. Anyone can make the drag, and it is always available when wanted. This is the second season for the split-log drag on the piece of road illustrated. The photo was taken recently on the road dividing Mr. H. R. Nixon's farm, by our special representative while in Brant Co., Ont.

it is cultivated the fenders are raised a little more allowing a little more earth to work in around the hill, just enough so that the corn is not covered. In all it gets from four to five cultivations with the two-horse cultivator, or the cultivator is used as long as possible before it breaks the corn. At each cultivating the shovels are set a little farther from the corn, to prevent cutting off the roots, and the fenders are raised until the corn is tall enough to have the earth thrown directly against it, at which time they are removed entirely. The kind of shovels used on the two-horse cultivator, are two ordinary four inch shovels on the outside.

FINISHING TOUCHES

After the corn is too large for the two-horse outfit, the one-horse cultivator is used, twice as a

as he is half of the herd. He stamps his qualities on all of the calves, not simply on one calf a year as does the cow. Be sure and get a registered bull of the breed you want, even if you have only grade cows, as then you are sure you are getting a heifer or dairy bred from beef or dairy ancestors. Select a bull that is of good size, with a proud masculine bearing, a good intelligent head, broad and full between the eyes, a short face and a strong, clear eye, yet with a quiet expression, as a nervous, excitable animal is not desirable.

BUYING CATTLE

In buying cattle see that each one appears to be in a strong, healthy vigorous condition, with a bright eye, glossy coat and of good spirit; free from any enlargements on the jaw or any part of the body. See that the udder is in perfect condition possessing developed quarters, perfect teats of good size and shape, free from bunches or sores. If the animal is in the period of lactation you should see that each teat is in milking condition. Avoid hard milkers unless you intend to overcome this trouble after you have bought the animal.

TUBERCULOSIS

All cows, heifers, bulls and calves should be submitted to the tuberculin test and pass same without a suspicion so that you may know that they are free from tuberculosis. The introduction of one tubercular cow into a herd will sooner or later contaminate the entire herd, thus bringing about a heavy financial loss to the owner.

CONTAGIOUS ABORTION

Another disease that goes hand in hand with tuberculosis is contagious abortion, which should never be overlooked in buying cattle. Each cow, heifer and bull should be thoroughly examined as to their freedom from contagious abortion as this disease is bringing about greater financial losses to the stock industry to-day than any other disease known. A herd afflicted with contagious abortion is damaged to the extent of from \$12 to \$25 a head per annum. The loss brought about is not only in the actual loss of the calf and the shortage of milk, but also the ruination of the cow.

DIFFERENT FORMS OF CONTAGIOUS ABORTION.

Contagious abortion may appear in a herd in many different forms such as the actual loss of calves, or in other words, calves being expelled too young to live outside of the mother's womb, or by living abortions; or by calves being expelled before their actual time, but having vitality enough to survive this exposure and live. Such calves are noticed to be undersized and if they follow they make a pitiful noise, oftentimes spending most of their time sleeping until time for them to be born. Then they will awaken and undergo a great change. Or, abortion might appear in a herd when calves are carried full time but die of diarrhoea or scours at any time between the time of birth and a month old; the scours being due to the germs of abortion; or a herd may carry their calves full time and still be afflicted with the germs of abortion. Perhaps the only noticeable sign of the disease is that the calves do not do well and oftentimes the glands of the throat are swollen.

Another noticeable sign of the disease is a shortage of milk even in cows that have carried their calves full time. Perhaps the only noticeable symptom in contagious abortion in cows that have carried their calves full time is that they are liable to come in heat at irregular periods, oftentimes a few days after calving.

BARRENNESS A SIGN OF ABORTION.

Following all of these symptoms of contagious abortion comes another indisputable symptom in the form of barrenness. Barrenness may be due to one of two causes. Either to the germs of abortion which set up a catarrhal inflammation of the mouth of the womb, or an acid secretion which prevents conception. All of these ailments may be traced back to contagious abortion in cows which is the ruination of many valuable herds.

Waste Land Planting in Ontario*

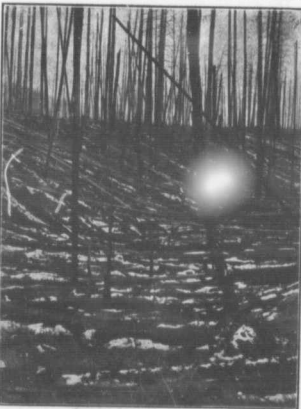
E. J. Zavits, M.S.F., Guelph, Ont.

The Department of Agriculture of Ontario is concerned with two forestry problems, namely: It aims to assist farmers and other landowners in properly handling their woodlands and reforesting waste portions of the farm. It has also inaugurated a policy of segregating and placing under forest management the large areas of waste lands throughout older Ontario.

The farmer's woodlot represents in the aggregate, about 8500 square miles of woodland. Waste land in the form of sand, gravel or rock formations and steep hillsides would probably represent another 8,000 square miles. It is safe to state that there is in old, agricultural Ontario at least 8,000,000 acres of private land which should be managed eventually for forest crops.

The potential value of eight million acres of woodland to Ontario is worthy of notice. Estimating an annual acreage increment of half a cord of wood at stumpage value of \$2.00, this land would represent an annual resource of \$8,000,000.

History has proven that proper management of private woodlands is not easily attained. Government assistance, in a problem of this nature,



Reforestation and the Fire Peril

Young forest growth should be jealously guarded from fire—every tree of it, as though it were a dollar bill. If so guarded, it will soon be worth many millions of dollars. The illustration shows pine land burned over 14 years ago, and again five years ago.

is necessary and advisable. To meet this need the Department of Agriculture has undertaken to furnish forest trees for waste land planting, and also to assist owners in the better management of their woodlands. At present, planting material is sent out free of charge with certain provisions for care and protection. (The conditions of this distribution are given in a circular which may be had upon application to the "Forestry Department," Guelph.) This last season's distribution amounted to about 400,000 trees composed of the following species: White Pine, Scotch Pine, Jack Pine, Norway Pine, White Ash, Black Locust and a small amount of Catalpa, White Wood, Walnut, Butternut and Cedar. The larger proportion of this material was planted on waste lands on the farm, although a number of applicants used the material for planting in worn-out woodlots. The Department especially urges farmers to plant Pine and Spruce about the borders of woodlots in order to give more protection to the soil, this lack of soil protection being one of the chief faults in the average woodland of small acreage.

*Extract from an address delivered at the recent Forestry Convention in Toronto. In a subsequent issue, a part of this address, showing that reforesting can be accomplished at a profit, will be published.

A second forest problem confronting the Department of Agriculture is the reclamation of the large contiguous areas of non-agricultural soils which exist in many parts of the Province. In the more settled parts of Ontario the waste areas are sand formations. On these lands Pine was the most valuable growth and it was cut off in the early days. In many cases agricultural settlement followed, and where the land was cleared for farming purposes, it gave, at first, in many cases, good returns. As soon as the vegetable mould or old, forest soil disappeared from the sand, it became a difficult matter to keep up the fertility and gradually sand wastes developed.

Some of the more important sand formations are as follows: Norfolk, 10,000 acres, Lambton, 40,000, Bruce, 30,000, Simcoe, 60,000, Northumberland and Durham, 15,000.

It is generally admitted, that these waste lands can be made permanently productive only by being managed for forest crops. The only solution of the problem is in a policy which has as its aim the gradual segregation of these lands, to be managed as Provincial forests.

Large portions in the waste districts were not entirely cleared but at present are covered with a scrubby, second growth. In the Norfolk County area Scrub Oak with scattering, second growth White Pine forms the soil cover. In the Simcoe area a small amount of Scrub Oak, Poplar, etc., with scrubby Red Pine is the type. Continual ground fires sweep over and kill out the young Pine. With fire protection, there is much of this so-called waste land, which would soon fill with Pine, through natural seeding.

On the land, which has been cleared for farming, it will soon have to be done to obtain new growth of desirable species.

Obstructions in Cows' Teats

Dr. H. G. Reed, V.S., Halton Co., Ont.

Obstructions in the milk duct have been a source of great trouble and considerable loss to dairymen. This trouble usually develops while the cow is "dry." The teats may have been all right when the cow was dried off the previous season, but when she freshens again one or more of them are found to be almost or altogether "blind." A growth has taken place in the duct and it usually is the result of an inflammatory action which was set up during the period when the animal was not milked.

This inflammation is often so slight as not to attract the attention of the owner, and as a consequence develops to a growth that almost or entirely obliterates the duct. Cases of this kind are difficult to treat successfully, the judicious use of a teat syphon or milking tube will assist, but the results are often unsatisfactory. Preventive measures are always the best and it is a good practice for the dairymen to try at least once a week the teats of his dry cows. If he should find one that was milking tough he may conclude there is an inflammation in the duct and he should proceed by fermentation and hand rubbing to arrest the development of the inflammatory action and thus prevent a growth from taking place, which is most likely to occur if no precautionary measures are adopted.

It may be said that as a general rule trouble with the udder and teats of a dairy cow can (to a large extent at least) be prevented by the exercise of good judgment and care, but if once established they are sure to entail considerable trouble and sometimes serious loss.

When turnips are sown it is best to sow early maturing varieties so that a rapid growth may be secured. Where rape is grown and stock are turned in it is best to fence off portions of the field so that the balance may be kept in good growing condition for the stock to eat when they are ready for it.

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The Future of the Dairy Industry

A. A. Ayer, Montreal, Que.

The reason for the diminution in the make of cheese and butter, taken as a whole throughout the Provinces of Ontario and Quebec, demands serious attention of the country in general, and of dairymen in particular. During the year 1903 the total make of cheese in these two Provinces amounted to over 3,000,000 boxes, while during the year 1908 the production was reduced to about 2,100,000. While we have not exact statistics to prove it, the general impression is that more butter is being made than was made five years ago. Personally, I do not think that the increase in make has been greater than the increase in population. It is well known that the new Western Provinces have vastly increased in their make during that period, and that the receipts in Montreal during the past year have been a great many thousand packages greater than for any previous year. This alone will account for the surplus in Montreal this year. The general report is, that the drought affected the make of both cheese and butter throughout these two Provinces, and also, that there are less cows in milk than in former years.

PREPARE FOR CONTINGENCIES

It seems to me that it is high time that our farmers did their farming in such a way as to be prepared for droughts and other contingencies. The number of milk cows is not so important as the quantity of milk given per cow. It is well known that there are quite a number of farms where more milk has been produced from less cows in 1908 than ever before. What these farmers have done every farmer in Canada can do. What have they done? These successful farmers are practising a system of "Rotation of Crops." They have come to realize that in dairy farming they must grow a large quantity of corn and keep succulent feed in silos thus being prepared for contingencies. They have learned that clover hay is a far better feed for cows than timothy, and that by practising a system of "Rotation of Crops," the product of the farm is vastly increased.

I do not need to point out the necessity of weeding out the poor cows, grading up the herds, and keeping absolutely nothing but thoroughbred bulls, and generally improving the condition of the dairy. The system of testing dairies and the practice of it, showing up the poor cows in the herds, is now so well-known that every first-class farmer is practising it.

GIVE SUFFICIENT FEED.

The great lack among nineteen-twentieths of all farmers, is not giving the cows sufficient feed. It is impossible to expect that a cow will do her best unless she is fed the utmost and best possible. I am quite satisfied that our dairymen could easily increase the production of their dairies at least 50 per cent. by better feeding and keeping a better class of cows. Fifty per cent. would mean an addition to the yearly income of the farmers in the two Provinces of fully \$15,000,000 to \$20,000,000.

The next great necessity, more especially in the butter-making sections is, greater cleanliness in milking, greater care of the milk, and its delivery to the creameries, or factories, in an absolutely pure and sanitary condition. The Agricultural Departments of the Dominion and of the two Provinces should give their special attention to the sanitary condition of all our butter and cheese factories, and more especially to those who practise the gathering of cream. In order to make this effective, the farmer should first be visited and restricted to sanitary conditions of dairying.

A great deal of attention has been given by instructors and makers to the improvement of the quality and to expert making, so that Canada is well up to the mark in this direction. The next improvement, therefore, must be in the

quality of the milk delivered. The great majority of our farmers give little or no attention to the condition in which the milk is kept. It would be a good idea for the readers of Farm and Dairy to give you if they could any instances where the maker in any factory could honestly say that every farmer, or even the majority of farmers, in his factory or creamery, kept and delivered their milk in real sanitary and first-class condition.

Lasting Increase Quite Impossible

H. C. Van Pelt, Supt. of Dairy Farm, Ames, Iowa

From the letter of Mr. J. G. Mann appearing in Farm and Dairy April 8th, it would seem that in the one particular instance the percentage of butter fat was increased by the use of the feed stuffs, pea chop and bran and later with oat chop and bran. It would not be safe to say, however, that the use of these feed stuffs would in all cases increase the butter fat percentage as it did in this instance. Oftentimes cows that are not receiving a sufficient amount of nutriment to produce at the limit of their ability will increase not only in milk, but also in percentage of butter fat when their feed is increased to the necessary amounts.



Another Co-operative Cheese and Butter Factory in Friesland, Holland

Danish butter makers, with their superior equipment and more carefully produced milk, have a better chance to produce good results than have our butter makers. Danish butter is very uniform and reliable and it is said that practically all sells at the same price. A glance at the structure illustrated, as well as its well-kept surroundings, gives us an inkling as to why Danish butter is good and uniform. This illustration and the one in our Dairy Number, April 8th, were kindly furnished us by Mr. J. A. Ruddle, Dominion Dairy Commissioner.

This is a subject that has been greatly discussed for a great many years and oftentimes feed stuffs have appeared that would apparently increase the percentage fat test, but later it has been found that to make any lasting increase in the percentage test with any regularity was almost, if not quite impossible.

In this instance where one cow only was used the resulting increase in percentage test might be accounted for in two ways. First, that the cow was not accustomed to being fed a ration so rich in protein and fat, and secondly that this individual cow might be influenced greatly by the changing of feed. It might be interesting were this experiment carried out on a larger number of cows for a greater length of time.

A Prominent Money Producer

D. Foster, Prince Edward Co., Ont.

The dairy cow is probably the most prominent money producer in Ontario. Is she as perfect as we can make her? No. Those who missed out

short course in stock judging at Picton were losers by a great deal. Knowing how to select a dairy cow or calf is of first importance, next is her feed and care. The average cow will respond to a great deal more care than she receives. The more you do for a cow, the more she will do for you. Regularity should be the watch word in the dairy. Cows will give much better returns when milked and fed at the same time each day. Clean, fresh water in front of the cow at all time, and plenty of good wholesome food are prime requisites. It never pays to feed second quality hay, grain or silage. Grooming should not be neglected; it pays. Plenty of bedding is also a good investment.

Calves should be grown to a large size. The stunted half-starved calves found on many farms can never make profitable cows. Calves can make good use of skim milk until they are a year old. Plenty of coarse feed should be provided so that they will grow up hardy and with plenty of capacity. It is a mistake to turn them out to skim milk when too young. They require new or whole milk for the first four weeks at least. We make use of scalded flax food in the skim milk until they are six months old. Dry grain is given after them after their milk. Feeding them grain after

they get their milk prevents them from sucking each other.

An Effective Horn Stop

G. H. Caughill, Elgin Co., Ont.

We find after using it for three years on our valuable calves, Gillett's lye is a safe and sure horn killer. It is the cheapest, surest and most humane mode of de-horning. We herewith give our fellow dairymen our method. We tie the calf by itself so no other can rub or lick it. Take as much of the powder as can be held on a five cent piece; moisten it to a salve with some spittle; dip off the hair over the small lump of a horn, then wet it with spittle and apply the paste. Rub it well in with a knife. It will give pain for an hour or so. It soon heals over, however, and makes a much prettier head than cutting or sawing off the horns at a more matured age.

The operation should be performed at about as near three weeks old as possible. The horn is sometimes hard to locate before this, and if left till much older they become too hard for the lye to entirely destroy them.

part of our land is not suitable for corn. One of these fields, a half, part of which is stiff clay, is seeded down to alfalfa and has given surprising results. Clay knolls which are usually hard to work and hard to crop, if clean and well manured, will often be the most profitable land on the farm if seeded to alfalfa. This great forage plant makes one of the best feeds that a dairyman can grow.

Our usual rotation, where practicable is as follows: Sod, heavily manured, is plowed down and sowed to corn. Next year to corn and roots which usually leaves the land clean and in good condition. The next year we sow mixed grain; i.e., oats, to which is added a little warm wheat, two-rowed barley and a few pounds of flax. This is sowed again the next year and seeded down. We usually sow about 8 lbs. red clover and 3 lbs. red clover, and rarely fail to get a catch no matter how thickly the oats stool.

This rotation is varied to suit circumstances. Sometimes only one crop of corn is taken off and the meadows are sometimes left two years before being plowed up. Where we cannot sow corn and do not care to put alfalfa we use peas to complete the rotation.

Information Concerning Millet

Would you kindly give me some information about millet; what kind of soil does it require, and when should it be sown. Is it injurious to the horse? What is the yield per acre? Is it more profitable than hay? I have read about it and would like to try it.—J. A. N. Coaling, Que.

Millet is a rather comprehensive term since it includes a very great many varieties, which differ materially in characteristics and in value to the Canadian farmer. Generally speaking, the large sorts, Japanese barnyard, etc., are so uncertain as to make it advisable not to try to grow them at all extensively on the average Canadian farm.

Hungarian Grass, however, is a fairly certain cropper and is usually profitable, although it also sometimes falls short of being entirely satisfactory. Hungarian Grass, or in fact any of the millets require a warm well drained soil in good tith and fairly rich. Hungarian Grass should be sown about 40 lbs. per acre. The land should be well prepared before seeding and the seed sown about June 20th or later.

It is excellent feed for dairy cows and most other classes of live stock, but had better be fed in small quantities, if at all to horses, as it is apt to affect the urinary organs of this class of stock. It may be expected to be ready to harvest ten weeks or

thereabout after seeding. It should be cut when in blossom and if a good crop will give as high as two tons per acre of good hay.—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

Our Legal Adviser

LAND AND MINING COMPANY.—A large block of land held by a company lies just south of a thriving settlement, separating it from another thriving district. The land was bought when the country was first settled by a mining company, who also claimed the timber, and who has cut or sold most of it. No mine has ever been opened inside the limits. What is best to do towards having this country opened up for settlement, or which course is best, positioning the Government to have it done, buying it gradually from the company, or forming a syndicate to buy the whole limit, i.e., a syndicate of farmers and business men, on both sides of limit?—Young Subscriber.

It is extremely probable that the Company has acquired a good title to the land referred to, and that there are no conditions or provisions in the grant by which their rights therein could be terminated. It might, however, be best in the first place, to enquire the terms of the grant, and this information could be obtained by application to the Department of Lands and Mines, Toronto, or possibly by search in the Registry Office. If the Company is standing on its rights, you should endeavor to form a little organization as you suggest, to meet the Company and endeavor to persuade them to dispose of the lands on moderate terms.

RIGHT TO LAND.—A and B each own a mill on the same stream and work together to certain extent. Our dams caused the water to flow over a piece of low land belonging to C. It has killed the grass on that land and now shows signs of becoming a meadow. C never cleared it but it has been sowed over for a period of 60 years more or less. C threatens to sue us for damages to his meadow if we do not take the water off by the 15th of May next. To do that will damage us. Our mills are common law mills. The public gets more benefit from them than we do. We work so cheap for the people that we cannot afford to pay for plowing land. What course would you advise us to take.—A. W. Digby Co., N.S.

The fact that A. and B. are rendering a useful work to the public, would not entitle A. and B. to dam back the water on C's land. They would have to show, either a grant from C, or his predecessor in title, of such a privilege, or else that the damming back of the water had been for such a long and continuous period as to give A. and B. a prescriptive right to do so.

Cold Climates for Dairying

Is the production of milk an industry that can be more successfully carried on in a cold than a warm climate? If so, then Canada is well situated for a business of this kind. In discussing this question one of our exchanges says:

"The production of milk is likely to always remain a business more adapted to cold climates than to warm climates. In cold climates, the production of grass is more abundant than elsewhere, and grass is the best food for the making of milk. Further south the soil does not naturally cover itself with grass but sends up a larger and woodier growth.

The northern part of the temperate zone of the northern hemisphere is particularly adapted to the production of milk, both on account of the climate and the soil and also on account of the kind of people inhabiting it. As we go north, the importance of the lacteal fluid increases till we find the inhabitant of the region just below the Arctic circle living on the milk of the cow and the milk of the reindeer.

The coldness of the soil water in cold climates is a great help to dairying. It makes it possible to draw from the ground through the whole year water varying in temperature from the thirty-five to forty degrees. In some of the localities far to the north the water from the ground even in summer has the temperature near that of ice water.

Great as has been the development of the dairy industry in cold climates, we may assume that its importance is scarcely being realized and that the time will come when the cow will be a much greater factor in the prosperity of this region than at present.

A higher grade of butter can be made in cold climates than in warm climates, as the undesirable bacteria are not so abundant in the air. In winter time there are no germs to speak of in the air, and when the land is covered with snow the germs are entirely locking, except in the warm stables. This is a great help in the keeping of the butter.

The stock bull, Gano's Favorit, sold at the recent Holstein dispersion sale of Messrs. E. S. Stevenson & Son's and reported in Farm and Dairy as having been purchased by Mr. George Ward, of Brantford, was purchased by the enterprising young breeders, Messrs. Ward & Bailey, of Hagersville, not by Mr. George Ward, of Brantford.

The "Orchard and Garden Number" of Farm and Dairy was O.K.—W. R. Leroux, Hochelaga Co., Que.

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HORTICULTURE

Fruit Crop Outlook

The outlook for a fruit crop in Canada is good. Trees and bushes have wintered well, except in a few localities. The show for bloom is up to the average. Crop correspondents of Farm and Dairy report the situation in their respective districts to be as follows:

NEW WESTMINSTER CO., B.C. Agassiz.—Our trees are coming out in blossom and I see no signs of injury to the fruit buds. We have suitable weather now during the blooming. I see no reason why we may not expect a good crop of fruit.—T. A. S.

ROOTENAY CO., B.C. Kaslo.—Trees all wintered in good shape. No damage from frost. Spring very late. Spraying universal. Last year's growth promises a heavy blossom.—J. W. C.

Golden.—All fruits are looking well. Apples are all in bud. Everything seems favorable for a good crop. Strawberries slightly damaged on account of severe cold weather and spring frosts.—W. J. W.

Clarksburg.—Buds are in splendid condition. There is every indication for a good crop. Did not have enough hard weather to burn anything. On four occasions only did the thermometer go as low as zero.—J. G. M.

Craighurst.—All kinds of trees and shrubs have wintered well. The prospects are good for the fruit crop.—G. C. C.

Simcoe.—Prospects for all kinds of fruit are good.—J. M.

Burlington.—Fruit buds generally appear to have wintered well. Some varieties of peaches, plums and blackberries are in flower, perhaps 50 per cent. Hardy varieties appear practically sound. Too early to anticipate crop outlook.—A. W. P.

Newcastle.—Fruit buds seem to have set well on apples and pears. Outside of late frosts or an excess of rain during blossoming, we will have good crop prospects for an excellent crop of all kinds. Young trees have also done well, not winter killed and the mice have not got in their fine work this spring. Many new orchards going out this spring. Newcastle Fruit Growers and P. forwarding Association have bought the 10,000 hard fruit house of H. W. Dudley.—H. C. B.

Bellevue.—The condition of fruit buds on apple trees continues to look very promising.—F. S. W.

St. Catharines.—Fruit buds are swelling nicely on peaches, cherries, plums and pears and, if weather is right during blossoming period, there is promise of a fair crop of most kinds of fruit. Strawberries wintered well although plants did not take as many runners as usual last fall on account of drought. Raspberries were slightly frosted back in canes last winter. Things look fairly promising so far.—G. A. R.

Abbotsford.—There is an unusual quantity of dead wood in cherry orchards, but on young and thrifty trees and shrubs, the buds have come

through the winter uninjured, with a good show of bloom.—J. M. F.

Prince Co., P.E.I. Tignish.—Our spring is very backward. On the 10th inst., a snow-storm gave us six inches of snow with mercury down to 20 degrees above zero. Fruit trees appear to have wintered well and are budding nicely. It is impossible at this date to make any forecast of fruiting.—A. L. Mc.

York Co., N.B. Fredericton.—Excepting the parts of strawberry beds that were covered with ice, all fruit trees and plants are promising well. Newly set apple trees came through nicely. The damage from ice on strawberry plants may not appear so bad later on, many of them still being covered with ice and snow.—J. C. G.

Kings Co., N.S. Kentville.—Though we had a good crop of apples last year, the buds as observed when pruning, indicate another good crop. Plum look particularly well. Peaches have also wintered well. Japan plums and cherry buds have enlarged very perceptibly the last 10 days.—H. S. B.

Annapolis Co., N.S. Paradise.—Too early in season to predict correctly probable crops. Apple trees seem fairly filled with fruit buds. Expect a large number of canker worms this season in this locality.—H. J. S.

Hants Co., N.S. Cambridge.—Fruit trees in this district wintered well. Fruit growers are paying particular attention to the care of orchards. Pruning is practically finished and preparations are being made for spraying. Many new power sprayers are being purchased this spring, preparing for the expected ravage of the canker worm. The outlook for an average crop is good.—H. C.

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Watering Small Seeds and Seedlings

T. Newman, Russell Co., Ont. If any of the readers of Farm and Dairy have only a small quantity of small seeds or seedlings to water, say a box or two or a pot or two, an excellent way is to stand the boxes or pots a few inches away from a wall, or a few boards placed to act as a wall, and arrange the wall hard with water a few feet over the boxes. A fine close mist will be thrown back over the seeds or seedlings in the boxes without disturbing a particle of soil or the finest seed. It is surprising how soon this fine mist penetrates the mould. Another way is to stand the pots or boxes in an inch or two of water. By capillary action the whole of the mould will soon be wet through without disturbing the seeds or seedlings in the least.

How To Grow Parsley

A. V. Main, Lanark Co., Ont. There is an unfailing request for parsley every day of the year. In some gardens this crop gives annoyance; it will probably not germinate or a bed of it may suddenly die off, for reasons apparently unknown. A piece of ground newly dug with plenty of manure, six inches from the surface is satisfactory. Parsley has long, tap roots, and these must get down a good depth amongst the manure to withstand drought. Ground that cracks is seldom drills and, if dry weather continues, the seed must be watered for several weeks. Parsley is very slow to germinate; allow six weeks. Thin out the plants to three inches, better and more lasting foliage results. When growth gets rampant and coarse, cut down a portion of it for a fresh supply of

leaves. Once established it will come up year by year, but is best renewed every third year, as old plants run to seed.

Pruning the Apple Orchard

A. E. Sherrington, Bruce Co., Ont. The time of pruning that I prefer is the latter part of the winter, that is, after the severest frost is over, so that the cells of the wood where the cuts are made may not be injured by frost. For removing large branches, a saw with fine teeth should be used so as to leave a smooth surface. All dead and decaying branches should be removed, also branches that are growing crossways or rubbing against other limbs. In removing large limbs, two cuts should be made, so that no splitting or peeling of the bark below the cut will take place. The cut should be made close to the main branch or body of the tree. In so doing, the healing over is much quicker, but if it is necessary, then cover the wounds and keep them covered with paint or wax so as to prevent decay. In fact, it is wise, as it is in practice, to paint all wounds over one inch in diameter. Prune so as to leave the branches at moderate distance apart and growing straight out from the body of the tree, aiming to have a well-balanced top. Avoid cutting out bearing branches that are growing down near the forks of the tree. Never cut out the centre, as it has a tendency to weaken the tree. Retain the leader, if possible. Having removed all large branches with the saw, now take a ladder and the pruning shears and go all round and through the tree thinning out the small twigs so as to let in light, sun and air. My idea in pruning is to give the tree a general thinning, aiming to prune so as to leave the bearing wood in a good condition throughout the tree.—From a pamphlet by The Ontario Fruit Growers' Ass'n.

POULTRY

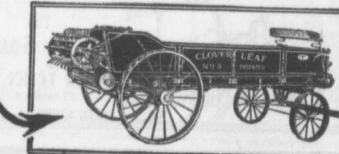
Artificial J. March... Few... A few... my experience... and show some of... be obtained... rearing of chicks... should be given... incubation. I... orous health... for when gated... amount of car... got fertile e... won.

STARTING... The incub... cleaned and... run the machi... to get regula... ting eggs into... is located in... sand floor. T... enough to g... eggs (about... kept at a tem... They are tur... and 8 p.m... matting the... trimmings th... About two h... eggs, a look... whether or n... the heat a... machine is l... turning again... eighth day... about a third... eggs is too... little, or open... space is too... Eggs of di... never be plac... together, that... dots or spe... not be plac... breeds, as th... few hours ca... chicks soon... lighter breeds... ADVANTAGE... The incubat... over the hen... as most hens... a few of them...

POULTRY

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POULTRY YARD

Artificial Versus Natural

J. Marcy, *Since Co., Ont.*

A few practical hints gleaned from my experience in operating an incubator and a brooder follow. I shall show some of the many advantages to be obtained by artificial hatching and rearing of chicks. More attention should be given to the selection of eggs that are to be used for incubation. If the eggs are from vigorous healthy stock and properly cared for when gathered, also if a reasonable amount of care has been bestowed to get fertile eggs, half the battle is won.

STARTING THE INCUBATOR

The incubator has been thoroughly cleaned and aired, heat started. I run the machine twelve hours or more to get regulator adjusted before putting eggs into machine. My machine is located in a concrete cellar with sand floor. The windows are open just enough to give circulation of fresh air without draught. The eggs are kept at a temperature of 103 degrees. They are turned twice daily, 8 a.m. and 8 p.m. After turning the eggs each time the lamp is filled and trimmed, that is the wick is trimmed. About two hours after turning the eggs, a look at the lamp tells me whether or not everything is all right, and the heat is at 103 degrees. Then the machine is left until the eggs need turning again. About the seventh or eighth day the ventilators are opened about a third. If the air space in the eggs is too large, they are closed a little, or opened slightly if the air space is too small.

Eggs of different breeds should never be placed in an incubator together, that is, of a Rock, Wyandotte or the heavier breeds should not be placed with the eggs of lighter breeds, as the light breeds hatch a few hours earlier, also, the heavier chicks soon crowd out and kill the lighter breeds in the brooder.

ADVANTAGES OVER THE HEN

The incubator has these advantages over the hen, she, (or it), is not lousy as most hens are, (for they all have a few of them), thus your chicks are

saved that annoyance and pest. Then you can test your incubator eggs and take out infertile ones. These should be boiled hard and placed away to feed your chicks which hatch later on. It is hard to get setting hens early in the season, at least that has been my experience; and you have to pay a stiff price for a ducking hen. The incubator is always ready and will hatch just as well as the hen if given proper attention, and you are able to hatch a larger amount of chicks than with 15 or 20 hens. Look at the feed you save, look at the trouble and worry connected with 15 or 20 hens as against the incubator.

You should always have a good brooder or two to care for your chicks by artificial means. You won't have to get your feet wet poking around in the wet grass in the morning to find your chicks; as in the brooder there is no hen to lead the chicks away giving them cold. It is always where you leave it and your chicks are with it looking bright and crying for their breakfast. The care of the brooder will be treated in a subsequent issue.

Co-operative Poultry Association

A Co-operative Poultry Producers Association was recently organized in Eastern Canada at a well attended meeting held at Macdonald College, Que. Many poultry associations throughout the Dominion have been organized mainly for the purpose of the one recently organized at Macdonald College has for its primary object the encouragement of the co-operative spirit among producers, and of bringing producers and consumers closer together. Other objects of this association are: To encourage the adoption of the best breeds and types of utility poultry; to encourage the small producers to form local branches, or circles, for mutual assistance and co-operation in selling; to aid in establishing a uniform and recognized standard of dressed poultry and eggs; to keep the producers in touch with those buyers who put a premium on quality; to do everything possible to promote good fellowship among poultrymen, and to advance and dignify the poultry industry.

UNIFORMITY OF PRODUCT

The idea of this co-operative association was started during the poultry short course at Macdonald College, where a provisional committee was appointed and various poultrymen in Quebec and Eastern Canada communicated with. Their efforts culminated in the recent meeting, and the forming of the Co-operative Association. At the organization meeting, Prof. Elford pointed out that at present each farmer markets his produce independently of his neighbor. The practice results in increased cost and decreased prices owing to the lack of uniformity. Producers in each locality by forming themselves into a co-operative circle could prepare and market their stuff through one, and thereby increase the uniformity of their products and also their returns. The establishment of such circles is to be one of the first efforts of the association.

CO-OPERATION.

In the past there has been an absence of co-operation among poultrymen. There has been too much competition. Poultrymen have been afraid of one another and have been working without system; in fact, consumers and producers have been together apart. The newly formed association will endeavor to draw them together. It is not intended that the organization shall act as middlemen; that is, it will not buy from the producer and sell to the consumer. The aim is purely co-operative in relation to the former.

The officers of the newly-formed or-

ganization are: Hon. pres., Dr. Robertson; hon. vice-pres., Mr. A. G. Gilbert; pres., Mr. A. P. Hillhouse; vice-pres., Bro. Liguori; second vice-pres., Mr. Peter White; auditors, Messrs. G. O'Hara and T. Ward; executive committee, Messrs. L. T. Ogilvie, Brockville; L. P. Shorthall, Washburn; A. G. Taylor, Dewittville; J. J. G. Morgan, Stanbridge; Mr. George Robertson, Ottawa; Mr. Chapman; Mr. Cochrane; Mr. K. Fink, N.B.; Mr. H. Baird. At a meeting of the executive committee, F. C. Elford was appointed sec-treas.

Factors in Rearing Chicks

Thomas W. Lee, *Managing Director Poultry Yards of Canada, Ltd., Pembroke, Ont.*

In the rearing of the chicks to which many persons are now giving attention there is one factor which perhaps the most important of poultry work. While hatching means giving life to the tiny creatures, wonderful no doubt, yet the treatment which they receive the first four weeks after their issuance from the shell counts a whole lot more. It is really the make or break time. It is the period in which judgment, good sense and attention are necessary. Not too much attention, not too much kindness, but just enough because it is regrettable fact that over-feeding has killed a very large proportion of healthy hatched chicks. Indeed, I believe that of the difficulties found in poultrydom probably the greatest to overcome is incorrect feeding of the chicks, the incorrectness of which consists in over-feeding.

The same rules in the feeding of chicks are applicable whether rearing by the natural method or artificially. In the former instance a roomy coop must be provided so that the hen will have every chance to look after the youngsters properly. The coop should be situated in a perfectly dry place and be comfortably arranged and always kept clean. In feeding, select a spot where a run will be provided, because chicks like all young animals are active and need exercise. Chicks are particularly so, and will follow the mother hen almost any distance and anywhere. This peculiarity has no doubt often forced itself on the reader's notice. However, too much of a good thing will spoil it, and very often the old hen seems quite thoughtful of her young and will trail them through wet grass or grain. This dampness is detrimental to the welfare of the chicks and it is therefore absolutely essential to success that the yard over which the hen and her brood may range be limited to dry soil. Young chicks should never be permitted to run on moist land.

When ARTIFICIAL BROODING, and in this method is offered the greatest opportunity to start the chicks on a healthy career free from disease, the first step is to make certain that the brooder and everything about it is working satisfactorily. Brooders vary in size and design, but the main requisite we must look for in them is the maintaining of proper temperature, the securing of ample ventilation, that the machine be dry and easily cleaned, that the chicks may be always seen from outside, and finally that it be staunchly constructed and safe. The brooder, like the coop for the mother hen, must be located where the chicks will have a playground and be unobstructed in their frolicsome gambols. During the cold early spring weather I would advise having the brooder—whether it be an out or indoor machine—protected by a shed or other building, and thus avoid all danger of damp ground, sudden showers and stormy weather. As soon as the chicks are hatched the quarters must be ready for them. If they are to be placed in a brooder the temperature should be at

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SILVER GRAY DORKING EGGS—Best of table food; \$1.25 per 12. "Free range."—Gordon Burns, Ayr, Ont.

EGGS—High-class Rose Comb Brown and Single Comb White Leghorns; \$1.50 per 12.—J. H. Rutherford, Caldon East, Ont.

ROUEN DICK EGGS at \$1 for six, or \$2 per 12. These chicks are the best I have ever ported eggs.—J. H. Rutherford, Caldon East, Ont.

WHITE WYANDOTTES—Bests. Pullets and Cockerels for sale from noted winning strain of H. Lamb. Will make winners.—Robert Maitland, Fowlers Corners, Ont.

least 90 degrees, so that the change from one machine to the other will not injuriously affect them. Let me impress the necessity of being very particular about this. Remember the tenderness of the little teats, otherwise chill and subsequent disease will thin out their ranks with surprising rapidity. The brooder should be littered with fine chaff, which will require frequent renovating during the rearing because thrifty chicks require clean housing.

(To be continued next week.)

Peterboro Spring Stallion Show

The inaugural spring stallion show held by the West Peterboro Agricultural Society on Saturday last was a distinct success. The market square was thronged with a large

PROTEIN AND FAT

Protein and fat are the important and valuable parts of feeding stuffs. The object in using Herbageum is to enable the animal to extract the maximum amount of value from the feeding stuff. If herbageum were pure protein and fat, it would be useless for this purpose. An even distribution of Herbageum fed twice daily ensures the thorough assimilation and digestion of ordinary feed. This means that more rough feed can be utilized; that horses can be kept in good heart while doing the heavy spring work; that calves can be raised on skim milk without danger of scours; and all this at a cost which is very small.

number of farmers and others interested in horse breeding. Great interest was manifested in the 21 horses exhibited. The number and the quality of the exhibits were a surprise to on-lookers. Many of the exhibits would have done themselves proud at the leading horse fairs; in fact some of them have in the past carried off high honors at Toronto and elsewhere.

Prizes were awarded as follows: Imported Clydes, R. D. Dundas, Springfield; J. F. Staples, Ida; Wm. Kearns, Frankhill. The Canadian-bred Clydesdale, Merriman, owned by Nicholls & McIlmoyle, Lakefield, and which was illustrated in Farm and Dairy last week carried off first honors in his class. James Collins, Otonabee, captured first in the three year old imp. Clydesdale class. John Young, of Ennismore, took first in three year old Canadian Clydes, S. F. Redmond, of Otonabee, and McIntyre & Whittington took first and second respectively in two year old imported Clydes. Other noteworthy winners were Jacob Brown, of Peterboro, first in the Percheron class; Dr. Hassard, Markman first in Hackneys; and Ira Natkan, Millbrook, first in Standard breds.

The annual meeting of the National Record Board will be held at the Queen's Hotel, Toronto, on Friday, May 7th, at 2 p. m. for the election of Chairman and Record Committee 1909-10 and for the transaction of such other business as may come before the meeting.

Jersey Breeders Favor Points

At a meeting of a special committee of the directors of the Canadian Jersey Cattle Club, held in Toronto April 24th, it was decided to recommend to the members of the Club, at their annual meeting next winter, that the Dominion Minister of Agriculture be asked to change the present basis of figuring the milk and butter production of cows entered in the Record of Performance test. At present all cows entered in the test must exceed both the records specified below:

	Lbs.	Lbs.
	fat.	fat.
Two-year-old class	5,500	218
Three-year-old class	6,500	257
Four-year-old class	7,500	297
Mature Class	8,500	357

Mr. D. Drummond, of the Dominion Dept. Agriculture, was present by request. He pointed out that as yet, the Jersey breeders have not been entering animals in the test, and suggested that the standard should be lowered as it was possible that breeders did not care to enter animals for fear that they might not equal the reason animals had not been entered was because the test had not been sufficiently advertised among the Jersey breeders. It was pointed out that the standard for milk and butter production in the States is higher than it is in Canada.

It was also pointed out, that at pre-

sent a cow may not give the amount of milk required to enable her to pass the test but may give considerably more than the required amount of butter fat. It was suggested that the rules should be so amended that a cow that gives enough milk or butter to equal the standard should be allowed to pass.

After considerable discussion it was decided to recommend that the rules be so amended hereinafter, so that a win a certain number of points should be allowed to pass the test. It was suggested that the points should be figured as follows: that for every 20 lbs. of milk given a cow be credited with one point, and for every pound of butter fat she be credited with one point. This will make 20 lbs. of milk equal to one pound of butter fat. On this basis a two-year-old would have to win 495 points; a three-year-old 582; and a four-year-old 672, and a mature cow 762 points. If this recommendation is approved by the members of the Ayrshire and Holstein Friesian Cattle Breeders' Associations will be asked to consider the advisability of adopting the same system.

Mr. Reid, of Berlin, stated that Messrs. R. J. Fleming, W. P. Bull, and D. Duncan, had each offered to contribute to the Jersey prize list at the Toronto Exhibition for \$25. He claimed that here are a large number of small Jersey herds throughout the country splendidly thronged with cows, which enter them at Toronto owing to the belief that they cannot compete successfully against the bulls shown by such exhibitors as Bull & Son, William McKenna, D. Duncan and one or two others. Mr. Reid suggested that a clause be established for breeders who have not won a prize at Toronto, during the past several years. Mr. Thompson Porter, suggested that classes be established, instead, for imported and for Canadian bred stock. This suggestion not meeting with approval, Mr. Porter then advised the addition of five and six prizes to the present prize list. Mr. Fleming thought that the big breeders would take these additional prizes as well as the regular ones. It was finally decided, on motion, to ask the Toronto Fair Board to increase the present prize list where there is the best and to add a fifth prize to the prize list where considered advisable.

The action of Farm and Dairy in arranging for the holding of a dairy farms competition, this year in Ontario, was heartily endorsed. The opinion was expressed that the competition will be productive of great good and it was decided to urge Jersey breeders and others to enter their farms in the competition. The present were Messrs. R. J. Fleming, Toronto; R. Reid, Berlin; D. Duncan, Don; L. J. C. Bull, Brampton; Thompson Porter, Toronto; H. A. Dolson, Alton; H. G. Clark, Georgetown; and A. H. Tufts, Tweed.

"Three Foes of Quebec Dairying," in Farm and Dairy April 22nd issue page 15, is from the pen of J. C. Chappin, Assistant Dairy Commissioner, St. Denis, Que. Through a printer's error the credit was omitted from this article when published.

In 1899 Denmark exported 10,000,000 pounds of butter. In 1907 the total annual exports had increased to 165,000,000 pounds, an increase of 90 per cent in eight years.

The salaries of makers is a live question in Denmark. More liberal pay of their employees is being urged upon the creameries.

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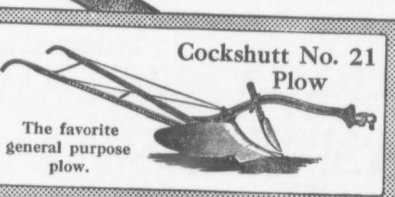
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Pea Bran vs. Wheat Bran

Would pea bran be as good to feed to milking cows as wheat bran? Which is the cheaper to feed, pea bran at \$20 a ton or wheat bran at \$24 a ton?—N. S. B., Oxford Co., Ont.

Analyses made in this laboratory give the following results for pea bran and wheat bran:

Pea hulls, 13 analyses.—Crude protein, 10.84 per cent.; moisture, 7.51 per cent.; ether extract, 1.45 per cent.; crude fibre, 42.07 per cent.; ash, 2.72 per cent.; soluble carbohydrates, 36.01 per cent.

Wheat bran, 10 analyses.—Crude protein, 14.59 per cent.; moisture, 10.40 per cent.; ether extract, 3.74 per cent.; crude fibre, 8.74 per cent.; ash, 5.14 per cent.; soluble carbohydrates, 55.99 per cent.

It will be noticed that the amount of protein in the pea bran is less than that in the wheat bran and that the amount of crude fibre is very much more in the former than in the latter, 42.07 per cent. against 8.74 per cent. Experiments have demonstrated that the crude fibre in legumes is harder to digest than that in cereals, so that there is no doubt whatever that pea bran is very much inferior as a food for milch cows to wheat bran. I think that the wheat bran ought to be worth at least four dollars a ton more than the pea bran.—Prof. R. Harcourt, Ontario Agricultural College.

Proportion of Sand and Cement for Silo

What proportion of sand and cement should be used in building a silo? How much would it cost to build a silo 10 feet in diameter, 25 feet high, according to the strength you advise.—J. H.

Concrete silos are usually built of a proportion one part cement to 10 parts very coarse gravel, or what is commonly known as a proportion 1 to 10, however, as we do not know the kind of material which your correspondent intends to use, we would advise a proportion 1 part cement to 8 parts sand.

For a silo 10 ft. in diameter and 25 feet high it would require at a proportion 1 to 8, 25 yards of sand and 22 barrels of cement. This figure includes the floor of silo which would be about 3 inches thick. The walls of the silo should average about 9 feet in diameter. The usual method is to furnish foundations 12 ft. wide. The walls gradually taper on the outside and become thinner toward the top, being at the point about six feet thick.—London Concrete Machinery Co., Limited, W. Pockock, Machinery.

Sound Advice for the Milker

The Connecticut Agricultural Experiment Station has been giving some attention to the milker as a source of bacterial infection in milk. In a recent bulletin gives some information on this subject, based upon practical observation and experiments conducted at the station, that every dairyman should ponder over. Among other things it says:

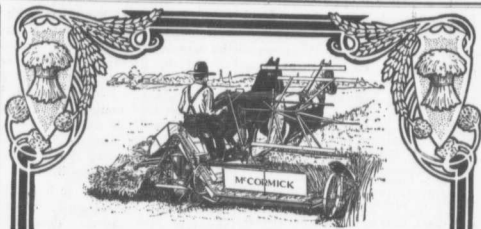
The kinds of bacteria that the milker is likely to introduce into the milk include nearly the whole list of those found in milk. It seldom occurs in the average milker that it is as necessary to wash the hands before milking as before eating a meal of victuals. The number that come from soiled clothes and dirty hands which get into milk are large. The hands of a milker working around the farm during the afternoon were tested, just before milking time, for the number of bacteria that could be washed off in a quart of sterile water. The number was found to be 45,000,000. This washing did not remove all the bacteria, but it did remove all those that would have dropped off during the milking. Another experiment was tried to determine how many bacteria were left on the hands after thorough washing with soap and water. The number that could be washed off them in sterile water was found to be 900,

000. These two experiments show that 98 per cent. of bacteria can be washed from the hands.

The clothes of the ordinary dairyman carry immense numbers of organisms with dust from all sorts of contamination. The milker has a much wider range for this collection of a larger number and greater variety of organisms than the cow. The only proper attire for a milker is a white suit and cap to be worn only at milking time. A white suit shows dirt very readily, and when made of white duck will last a long time and can be sterilized almost indefinitely.

The milker may not only be the source of a very large number of harmless bacteria, but the largest source of disease germs that get into milk. The milker may be the immediate source of disease germs or may transmit them to another person. The disease germs that get into milk are largely from human origin, infectious diseases that pass from individual to individual. A grave mistake has been made in the past by allowing persons ill with contagious diseases to enter a cow stable or dairy where milk is handled. Many an epidemic of diphtheria, scarlet fever and typhoid has been traced to a case of illness on a dairy farm, which was not properly quarantined and cared for. One high grade milk handling concern requires that if a case of contagious disease arises in the dairy of one of its patrons, that the milk supply be withheld till the patient has passed the danger limit of conveying the disease germs. The milk produced, however, is paid for during the quarantine. It is very difficult to make the average individual understand or even believe that our worst diseases are caused by special kinds of bacteria, and that these bacteria can be transmitted to a healthy individual, who is likely to contract the same disease.

When milk is properly cured with ice it takes less milk to make a pound of cheese and it improves the quality of the milk. This is why it pays farmers to put ice in for summer use.—Senator D. Derbyshire, Brockville, Ont.



WILL THE HARVEST FIND YOU READY?

YOU owe it to yourself to be ready to take care of your grain after it is grown. It may ripen all at once—you will need to cut it quickly.

When you start in, you hope to have the work go right along. You will have neither the time nor disposition to tinker with poor working machines, when you go into the field. Be wise in time. Give some thought to the machines you will use in the harvest, and do it now. A McCormick binder will give you a sense of readiness for the harvest that you can get in no other way.

If you purchase a McCormick you know that when you go into the field with your hired help, you will not be annoyed with breakdowns and delays—you will be able to harvest your grain in the shortest possible time—you will do it with the least labor on your part, and the least worry to your horses—you will be able to save all your grain.

The McCormick binder has stood the test of time. Its capacity to handle tangled down grain, the simplicity and reliable work of its knoter, its strength, its light draft, easy handling, uniform good work and durability mark it as one of the greatest triumphs in harvesting machine manufacture.

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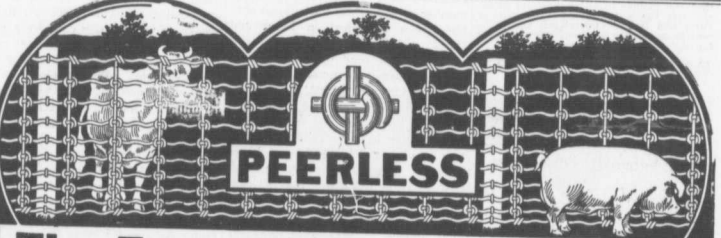
Grain and Corn Harvesting Machines, Binder-Twin, Mowers, Tedders, Hay Rakes and Side Tools and Disk Harrows, Land Rollers and Scufflers, McCormick dealers also handle Gasoline Engines, Cream Separators, Hay Presses, Wagons, Sleighs and Manure Spreaders.

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AND RURAL HOME

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FARM AND DAIRY

PETERBORO, ONT.

TORONTO OFFICE:
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THE PROPOSED COMMISSION

In view of the critical condition of the Canadian bacon trade, no sound argument can be advanced against the proposal to send a commission of Canadian farmers to Ireland and Denmark to study the methods that are followed in those countries. These methods, whatever they are, are enabling their farmers to take the British bacon trade from us.

It has taken us many years, and the expenditure of millions of dollars, to develop our bacon trade with Great Britain. We are letting this trade slip through our fingers. Should it be lost, its importance will not be fully appreciated until the time comes—as it will—when grains fall in value and we will again need a market for our by-products.

For the most part we know very well why our farmers have been going out of the raising of hogs. We know that the price of feed has advanced, that the farm labor has been scarce, that the

price of hogs has not been as high as conditions seemed to warrant, and that prejudice has been created against the packers. On the other hand, we know, also, that the cost of feed is higher in Denmark than it is here, that land there is much more valuable than it is here, and yet we see the Danish farmers increasing their exports of bacon rapidly, while ours have decreased steadily.

It is not likely that such a commission as proposed would discover any very great secrets. It is altogether likely that it would find that there are ways in which the Danes are better breeders and feeders than we are and that they are far ahead of us in the matter of co-operation. The infinitesimal cost of sending a commission to Denmark would be repaid to this country many times over were such a commission to merely show us the importance of more careful breeding and feeding. No person believes that the sending of a commission to Denmark is going to end our difficulties. It will be but a preliminary step towards improvement. The difficult task of possibly revolutionizing some of our methods will follow.

It has been intimated that the swine breeders are not in earnest in this matter. This is not the case. The project was first discussed carefully by the directors of the Dominion Swine Breeders' Association, and endorsed by them unanimously. Later, when brought before the members of the Association at their annual convention, it met with instant approval. The members of the Association proved their earnestness when they voted unanimously to send three of their members to Ottawa to urge Hon. Sydney Fisher to send such a commission to Denmark. The interest taken in the proposal by farmers generally has been shown by the large number of letters on the subject that have been published in Farm and Dairy.

The cost of sending a commission of our farmers to Denmark should not exceed \$4,000 to \$5,000. The commission might have an important influence in placing our export bacon trade, which is worth millions of dollars to us, on a better basis. If we have got to the stage where we think that we know it all, and that we cannot learn anything from our competitors, our position is a dangerous one, indeed.

STIMULATING INTEREST IN FARMERS' CLUBS

Far reaching benefits have arisen out of the organization of farmers' clubs over Ontario during the past year. The ideas of organization that they have engendered amongst their members, and the feeling of good fellowship that is being developed, to say nothing of the actual benefits in the way of the members acquiring information helpful to them in their calling, the ability gained by many in the art of expressing themselves before their fellows, and the countless advantages of such intercourse, have more than justified the effort and expense in connection with the organization of these clubs. So far they

have been a success. The work in future must be directed towards keeping up interest in the clubs.

There are various ways of attaining this end. A noteworthy departure from the regular procedure of the Institute Club, was a banquet held recently by the Central Dumfries Farmers' Club in Waterloo Co., Ont. This club was organized under the direction of Mr. F. C. Hart, District Representative of the Department of Agriculture at Galt. The menu card of the banquet in itself is of much interest. It had throughout a real and an agricultural flavor that would appeal especially to all who were agriculturally inclined. It is reproduced elsewhere in this issue.

This banquet is an example of the social work of many of the farmers' clubs. The club idea is a good one, and it is clear that the Central Dumfries Club, at any rate, has been a benefit to the community. Such was in evidence at this banquet by the general good feeling that existed, and by the quality of the speeches.

GROW CORN AND MORE OF IT

The possibilities of the dairy farm, in respect to the live stock that it may carry and the animal products it may turn off, are measured only by the quantity of corn and clover which the land will produce. Under good management, this seems almost unlimited. For the last few years there has been a growing interest in corn and silos. Those enterprising farmers that have erected silos and have grown corn wherewith to fill them, have exercised a great influence on their neighbors. They have shown that more stock can be grown per acre where corn is grown, and that seasons of short feed supply have no terrors for those who grow corn.

There is little danger of over-estimating the value of corn. It is not appreciated enough. Were a reliable seedsman to advertise corn by a new name, recounting only its actual merits, while ingeniously concealing its identity, his advertisement would either be discredited or he would have an unlimited number of purchasers for this seed novelty. Let us show our appreciation of the merits of corn this coming year by growing an increased acreage of it. Those who have not grown corn before should start this year. Where cattle are kept one can make no mistake in growing this crop. An acre for every five cows will not be too much to start with. More will be grown after you become familiar with it.

COVERED MILK STANDS

The condition in which milk is delivered at the cheese factory depends for the most part on its proper handling at the farm. Whether or not it is cooled, and the location of the milk stand, are the factors that govern the situation.

Many farmers in Peterboro Co., Ont., have convined themselves of the importance of well placed and well constructed milk stands. Poor milk stands are the exception. More often one sees stands that are well constructed and sheltered with covers, and the whole tastefully painted. While

such milk stands have a direct beneficial effect upon the quality of the milk sent from them, they have also a wholesome effect in other ways as well, and are particularly noticeable and attractive. They advertise their owner's ideals of how things should be.

The scheme recently launched in connection with the newly formed Poultry Producers' Association of Eastern Ontario, is a commendable one. The matter of co-operation, especially in the poultry industry, has been far behind the times in Canada. Certain societies in the Old Country and in Denmark have set us a lesson along this line in a way that we can well afford to follow. The great work that this new association has set itself for the present is to get producers and purchasers into touch, to their mutual benefit, and buyers will be assured good eggs and poultry. Producers will be able to produce better eggs, in addition to securing information as to where to place their goods.

Among the salary increases provided this year by the Ontario Government, is one of \$250.00 for the Deputy Minister of Agriculture. This makes the salary of the Deputy Minister \$3,250 a year. The increase should have been much larger. Deputy Ministers in some other Departments are receiving \$4,000 a year, although it is probable that none of them have accomplished as much valuable work for the Province as the Deputy Minister of Agriculture, Mr. C. C. James, who has held his present position for about eighteen years and who has received numerous offers of other positions. The farmers of Ontario expect Hon. Mr. Duff to see that his Department receives proper recognition at the hands of the Government. He will not prove to be the man that he has already given indications of being, since assuming his new duties, if he allows his Department to be kept in the background.

Standardizing Poultry Products

(Montreal Daily Witness.)

The Poultry Producers' Association recently organized at Macdonald College has set objects before it that will commend it not only to the serious producers of eggs and poultry, but also to those who eat them, and who have had recent experience of paying sixty cents a dozen for new laid eggs that were stale, and for spring chicken that was very old hen. These should welcome an association which has before it the purpose of securing the inspection and proper grading of articles offered for sale. The Government inspection of fruit has considerably helped that industry, particularly in the export trade, and there does not appear to be any reason why the same beneficial results should not follow the application of the principle to eggs and poultry. There would, indeed, seem to be more need of it. One can usually tell whether fruit is fresh or not before it is bought, but eggs have frequently to be opened on the breakfast table before their condition is known.

The organ of counter prices will be well pleased that by prices obtained the house to their should tend the export

Farmers

The Club in most success of April 13th readers were men and tating:

Extra Potatoes

Plymouth Rock

Pigs' Feet

Pickles

Escalloped Potatoes

Pulped Turnips

Hot Scopes and

Iran Mash on

President,

Solo, God

Month organ

OT

John Lee, Solo

Joseph Taylor, AG

Reading

Alex. Slater, AG

Solo, Min

Albert Gillespie, Solo

THE

Miss S. Moore, J. Recitation

THE

Albert Taylor, Solo

Mrs. F. McPhee

Instrumental, M

Mrs. Wm. Elliott

Mrs. Wm. Milroy

Ada

Instrumental,

Dairy Out

P. C. Duboyce,

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The organizers of the movement are, of course, aiming at securing better prices for their output, but they will be welcome to that if they accomplish it by giving certain value for the prices obtained and possibly by reducing the distance from the poultry house to the table. This standardizing of our poultry and egg products should tend very greatly to develop the export business.

Farmers' Club Banquet

The Central Dumfries Farmers' Club in Waterloo Co., Ont., held a most successful banquet on the night of April 13th. For the benefit of our readers we herewith reproduce this menu and toast list which are interesting:

THE MENU

- SUP**
- Extract of Alpha Hay
- BOILED**
- Potted-Head and Oxtail
- (This is to make ends meet)
- COLD MEATS**
- Plymouth Rock Wings, Shorthorn Ribs, Yorkshire Hams
- ROASTS**
- Pigs' Feet with nice Brown Gravy
- Pickled Heart Stuffed
- VEGETABLES**
- Escaloped Sliced Cream de Mangels
- Potatoes a la Empire State
- SALAD**
- Pulped Turnips and Ensalade with Mayonaise Dressing
- Flaxseed Jolly
- PASTRY**
- Hot Scones and Limburger, and some Pies, Perhaps
- DESSERT**
- Iran Mash on Toast with Whipped Cream
- FRUIT**
- Lemons
- DRINKS**
- Swallows

THE TOASTS

THE KING

- President, W. J. Douglas
- God Save the King
- Solo, Albert Taylor
- Mouth organ solo, Floyd Douglas

OUR COUNTRY

- John Lee, John Taylor, Jr.
- Solo, Mrs. Wm. Elliott

OUR TOWNSHIP

- Joseph Taylor Arch Hall Richard Douglas
- Reading Books, Caram de Mangels

AGRICULTURE

- Alex. Slater, William Elliott
- Solo, Miss Jennie Sherwood

OUR CLUB

- Albert Gillespie, Wm. Slater, F. C. Hart
- Solo, Wm. Elliott

THE YOUNG MEN

- Miss S. Moore, Jared Taylor, B. S. Duncan
- Recreation, Edgewood Bowman

THE LADIES

- Albert Taylor, Mrs. John Taylor, Jr.
- Miss F. McPherson, Miss Joan Taylor
- Wm. Harris

THE MARRIED MEN

- Instrumental, Mr. and Miss McPherson
- Mrs. Wm. Elliott, James Lake
- Mrs. Wm. Milroy, Wm. Milroy
- Adam Dykeman
- Instrumental, Mr. and Miss Milroy

Dairy Outlook in Quebec

P. C. Duboyce, Missisquoi Co., Que. The dairy outlook in this section of the Province of Quebec as regards price for produce is not so bright as it was a year ago. At that time butter was bringing from 20 to 23 cents a pound, whereas now the wholesale price is 20 to 21. As regards loss of milk the cows will give probably more than last season except in cases where farmers have been caught short of hay. Some are unwise enough to stint their cattle rather than purchase although the price is not very high—\$5.00 to \$10.00 being the ruling price. The cause of the low price is found in the fact that many farmers in the French country have been feeding straw and saving their hay, hoping to obtain for this latter the high prices of last year. So many did this that to-day no straw is for sale at any price, one man reporting that he found only five tons for a day's drive and that was not for sale.

We have had a good winter, and there is a prospect of good pasture, and cows that have been well fed will do better than last year. However, an animal which has not been fed during the winter cannot be expected to render a good account of herself during the following summer. Consequently, there will be instances of herds coming out on grass "spring poor" in spite of the actual plenty of hay. Still, the hay is beginning to be very active on the market and anyone driving in the edge of the flat level country will meet as many loads of hay as of any other commodity, each farmer taking two to 20 tons from the "wise virgins" who fed straw.

A new feature of dairying in this country is the shipping of milk and cream to Montreal. For years, this was done by a limited number of dairies. Now, however, it is being practised by several creameries and cheese factories who have installed pasteurizers and are shipping cream in Montreal in large quantities. The farmers who continue to ship milk say that the Cream and Milk Shippers' Association are maintaining the price of milk at the old level, but they fear that it will not be for long on account of the creamery men having discovered the good returns from shipping the unmanufactured article to the milk and cream dealers in the city.

The creamery men say that the price of cream in Montreal is lower than last year by just about the express charges. That is, whereas the express charges last year were paid by the Montreal dealers this year the prices are no higher and the price of cheese is fully as high this year as last and the visible supply of old cheese on hand is so small that probably the cheese manufacturers will do better this season than those who make butter.

Public Stock Sales Advocated

"I believe that breeders of pure-bred stock can secure better results by public sales than by selling privately," said Mr. G. A. Gilroy, of Glen Buell, to a representative of Farm and Dairy, who visited his place recently. Mr. Gilroy is a well-known breeder of Holstein-Friesian cattle and is the President of the Canadian Holstein-Friesian Association.

"If a breeder," said Mr. Gilroy, "can once secure the confidence of the people that his sales will be conducted on honest lines, he is almost certain to obtain higher prices for his stock. Sometimes a cow when sold in the best possible condition, but she goes wrong after the sale. When such an animal is sold privately, the purchaser often kicks and claims that there was something wrong with her when he purchased her. Such complaints are not made when the animal is sold by public sales.

LETTER WRITING TROUBLESHOOTER

"I find that it is a great task to try and answer all the letters that I receive from farmers who claim that they want to purchase stock. They ask for pedigrees of animals and each of them expect a long reply. This letter-writing is a difficult matter for the average breeder to attend to. When the stock is sold by auction, the pedigrees of the animals can be given in the sale catalogue and the correspondence can be avoided.

"At a sale, eight or ten men are likely to get interested in an animal. When this happens, the seller is much more likely to obtain a high price for that animal than he would have had he sold it privately.

"Fifteen or 20 times a year, I have to drive to Brockville to ship stock. It is a distance of 10 miles. In this way, I lose a great deal of time. If my stock was sold at a public sale,



WARNING TO DAIRYMEN

De Laval Cream Separators

Are largely imitated but never equalled

THE DE LAVAL SEPARATOR CO.

173-177 William St. WINNIPEG MONTREAL VANCOUVER

the work would all be done at one time. I think that breeders should co-operate more in holding these sales. If breeders in different sections would hold joint sales, they could advertise their sections and could save expense in advertising their sales.

there are a number of breeders living near together. I feel that if one or two of the breeders have not got the kind of animal that I want, some of the others will be likely to have them and I can thus save considerable money in travelling expenses. In Canada, where there are several breeders of one class of stock, they will find that they will all be benefited if they will co-operate in arranging sales and in attracting buyers to their sections."



Are yours, Mr. Reader? Sometimes your whole fortune is stored in those buildings. Fire and lightning are no respecters of persons. "Galt" Galvanized Steel Roofing and Siding are the best Fire Insurance Policy ever issued. A preventer is better than a cure—don't forget that.

The handsome Gothic like pattern warrants their use on the best buildings. "Galt" Corrugated Steel Sheets are the best made. Straight, true, close-fitting corrugations make a weather-tight roof—fire and lightning proof at the cost of a wood roof.

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"Galt" Shingles

It is desirable to mention the name of this publication when writing to advertisers

Creamery Department

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

Managing a Successful Creamery

Good buildings and equipment while necessary and important do not in themselves constitute a successful creamery. Its success depends in a large measure upon how it is managed. The following from the pen of a creamery manager in the United States is to the point:

"First of all, you must have the raw material or cream as it is called. There are many creameries started that do not have enough cream, and they will probably run a season or three or four months and then say the creamery is a failure. You cannot buy milk or cream by guess work or how many pounds of butterfat the can contains. You must know how many pounds of butter you ship to the commission house. It should not be guessed at or their word taken for it, but weigh every tub and see for yourself. Tubs should be paraffined or soaked in brine water to prevent shrinkage from the creamery to the butter buyer, a pound or two counts up in a year. Weigh what you sell as well as what you buy, and that is business if we expect to succeed. You must teach your patrons to bring the best grade of cream and bring it often, and it is the buttermaker's duty to do his best. What the buttermaker wants is a first-class piece of butter, and good butter always demands a good price on the market.

You must put the butter in clean tubs or packages, for the outer ap-

pearance is seen first, and a dirty tub is generally passed up to the last because the outside is dirty and the butter of a poor grade. A clean package is half the sale of butter, and the buttermaker should not forget the part he plays in the dairy business. It is his duty to make the best butter possible from the cream he receives, and he should always try to set an example of cleanliness. When considering the success of a creamery, there are a great many details to take into consideration, the greatest of them all is that it is necessary to receive enough raw material to keep the cost of raw material well below 2c. per pound, of butter.

Why does a creamery that has an assurance of success when starting out fail to make good? There is only one logical answer to this question, and that is, the failure of incompetency of management, or buttermaker. One of the main items about a creamery is to be economical with the coal and oil, and taking good care of all the machinery.

Starters in Butter Making

The value of starters in butter-making, the kind and amount to use, and the substitution of other materials for milk in making starters, are questions that are of great interest to buttermakers. The principle on which the use of starters is based is the influence which certain bacteria have on the quality and flavor of the butter. By pasteurizing the cream and adding a starter which contains the desired form of bacteria, the character of bacterial growth in the ripening cream can be readily controlled.

To determine just which starters are best, and whether it pays to use any at all or not, a series of extensive experiments were carried on by the Dairy Section of the Iowa Experiment

Station, under the direction of Professor F. W. Bouska, Dairy Bacteriologist. The results of these experiments have been published in bulletin form, and may be obtained from Director C. F. Curtiss, Ames, Iowa. Ask for Bulletin No. 103, "The Use of Starters in Butter-Making."

Why Dairying is Popular

L. Tennant, Brant Co., Ont.

There has been a decided increase of late years in the number of those farmers who are making dairying the main feature of their farm work. Some reasons must exist for the increased interest in this line of farm-

Valuable to Creameries

I would not like to be without Farm and Dairy as I find some very useful and instructive articles relative to the creamery business in it. Every dairymen should become a subscriber to Farm and Dairy.—H. B. Lowe, Waterloo Co., Ont.

ing. Let us consider a few of them. Prices for dairy products within the last few years have been much higher than they were 15 years ago. This advance in prices has been due to the increased export demand for butter and cheese and also to the increase in population of our own towns and cities. This increase in price means a considerably larger profit to those engaged in producing butter, or cheese, or supplying the cities with milk, and is one cause of the larger number of dairy farmers.

DRIVEN OUT OF BEEP.

But there are other reasons. The opening up of the great plains of Western Canada and the development of ranching has given the Ontario

farmer a rival in beef production. In these cheap lands beef of the best quality can be produced so cheaply that the Eastern feeder of beef cattle is very nearly put out of business. Seeing his profit nearly reduced to zero he naturally turns to some other line and finds in the dairy cow an animal which will give him a large return for the feed consumed and the care given to her.

On the high priced lands of Eastern Canada we are beginning to find that we will have to largely increase the returns from each acre farmed, if we are going to make any progress. The dairy cow is going to help us accomplish this task. We have examples of men who maintain a milking herd of 20 cows on 50 acres of land and buy very little outside feed. By means of alfalfa, clover, silage and summer soiling crops, milk can be produced very cheaply and farmers are beginning to realize this fact and are going into dairying.

VALUABLE BY-PRODUCTS.

The by-products of dairy farming skim milk and whey, are valuable. Fed judiciously to hogs in combination with meal they produce rapid gains and enable the feeder to produce bacon at a low cost. The manure from a dairy herd is also valuable and when properly cared for and applied to the soil will maintain and increase the fertility. In nearly every community there are some men who have settled upon poor farms and by keeping dairy cattle have built up the soil until its productivity has been nearly doubled.

These facts have led many thinking farmers to take up dairying and by keeping dairy cattle have built up the soil until its productivity has been nearly doubled. These facts have led many thinking farmers to take up dairying and by keeping dairy cattle have built up the soil until its productivity has been nearly doubled.

29 yrs
Sharple's

Confession of a "Bucket Bowl" Maker

This is an extract from a article written by a prominent manufacturer of "bucket bowl" cream separators. He frankly admits that "bucket bowl" cream separators cause trouble. Remember, that when he says "cream separator," he means the "bucket bowl" sort. Here is the extract:

"Everybody who has ever used a Cream Separator for any length of time knows that it is a difficult thing to keep the bowl in perfect balance. When a separator bowl gets out of balance in use, the machine runs rough, making a peculiar buzz or roaring noise. When in this condition, it does not make as clean a separation as when it is running in good balance. There is, therefore, a loss of fat in the skim milk, due to its running out of balance; besides this, the rough running of the bowl multiplies the wear on the bearings many times, and if the bowl is not sent back to the factory for rebalancing, it will keep getting worse, and soon wear out the whole separator. Every separator manufacturer, and most separator dealers, have realized, years ago, that if a separator could be made self balancing it would be the greatest single improvement that could be made in separation."

That's the whole story. "Bucket bowls" are wrongly built, cannot be kept in balance, begin to rattle, shake, create friction,



The Dairy Tubular. The most efficient, most durable, easiest operated, best cream separator money can buy. The supply can be low, steady and need not be removed to take the machine apart.

lose cream, rack the separator to pieces, and must be sent back to the factory for repairs. Why? Because "bucket bowls" are set on top of the spindle, have all the weight above the point of support, are held upright by several bearings, are always trying to tip sidewise, and eventually will get into the condition this "bucket bowl" maker describes.

Avoid "bucket bowl" troubles by getting a Sharple's Dairy Tubular Cream Separator. Different from all others. Tubulars are, and always have been, self-balancing. Why? Because Tubular bowls hang below a single frictionless ball bearing that supports them—the only bearing they have or need. Tubular bowls hang just like a plumb bob, and hang just as true, and for exactly the same reason. Sharple's bowls are the only self-balancing bowls made. If you want a self-balancing bowl, get a Sharple's Dairy Tubular.

The manufacture of Tubulars is one of Canada's leading industries. Backed by 29 years experience. 1908 sales way ahead of 1907—out of sight of most, if not all, others combined. 1909 is proving better yet. Write for catalog—No. 253, describing the Tubular.

The Sharple's Separator Co.
Toronto, Ont. Winnipeg, Man.

Cheese

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

Work of In-

The Dairy year, as usual, opens auspiciously in Kingston, in work of the men met at Gt profitable week of action of Prof. Hems, Chief Western Ontario had a somewhat Kingston under Mr. G. Z. Pustor for instructor who is now at the Dairy School

The instructor's prospective than ever to the makers in and creameries and assistance to occupy most of been directed by effort to improve receive from the past the Instru impossible to call producers, and have confined to place from which reached the factu tion. While ar on the part of visit as many a material, if they will find t to the improveme rial to the extent In those case material shown care, the effect suitable feed, or tion, which result of the milk, endeavor to im the premises of factorymen will b in an endeavor improve the quali tal.

A full census of creameries will be season, with a v from the Departm a complete list for The Instructors' not only of the factories, but also assistants. This of value when permits at the be those who have be tory work during and 1910. It will be best interests of their helpers to ke in hand at all tim cleanliness is obser It is the intentio ment to call together instructors and Pro to deciding upon t cates or permit to nouncement will of course, so that fact the requirements certificates or per the certificate or p give due recogniti experienced factory have not had the Dairy School traini The names of th gether with their gator for 1910 are s

Western Chief Instructor, London CHEESE FA Listowel syndicate

Cheese Department

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

Work of Instructors for 1909

The Dairy Instructors have this year, as usual, been required to take special instructions to the Dairy School Kingston, in preparation for the work of the season. The western men met at Guelph, and had a very profitable week's work under the direction of Prof. Dean and Mr. Frank Hems, Chief Dairy Instructor for Western Ontario. The Eastern men had a somewhat longer course at Kingston under the supervision of Mr. G. G. Publow, Chief Dairy Instructor for Eastern Ontario, and who is now also Superintendent of the Dairy School.

The instructors will go to their respective districts before the season than ever to render valuable service to the makers in the cheese factories and creameries. While instruction and assistance to the factorymen will occupy most of their time, they have been directed by the Department to give as much time as possible in an effort to improve the raw material as furnished by the producer. In the past the Instructor has been impossible to call upon many of the producers, and for the most part, have confined their visits to those from which the milk had not reached the factory in a class condition. While an effort will be made on the part of the instructors to visit as many farmers as possible this season, it is hardly likely that they will find time to give attention to the improvement of the raw material to the extent that we would hope for. In those cases where the raw material shows evidence of lack of care, the effect of poor water, unsuitable feed, or some other condition, which resulted in a deterioration of the milk, the instructors will endeavor to make a personal visit to the premises of the producer. The factorymen will be urged to co-operate in an endeavor to still further improve the quality of the raw material.

A full census of the factories and creameries will be secured early in the season, with a view to publishing from the Department of Agriculture a complete list for the season of 1909.

The Instructors will observe the work not only of the chief makers in the factories, but also those who act as assistants. This information will be of value when issuing certificates or permits at the beginning of 1911 to those who have been employed in factory work during the season of 1909 and 1910. It will be, therefore, be in the best interests of the chief makers and their helpers to keep their work well in hand at all times, and to see that cleanliness is observed in all details. It is the intention of the Department to call together the two chief instructors and Prof. Dean with a view to deciding upon the form of certificates or permit to be issued. Announcements will be made in due course, so that factorymen will know the requirements entitling them to certificates or permits. In any case the certificate or permit issued will give due recognition to the ability of experienced factorymen, even if they have not had the advantage of a Dairy School training.

The names of the Instructors together with their respective syndicates for 1909 are given below:

Western Ontario

Chief Instructor, Frank Hems, London.

CHEESE FACTORIES.

Listowel syndicate, James R. Bur-

gess, instructor, Listowel; London syndicate, Arthur E. Gracey, Dorchester; Brantford syndicate, R. H. Green, instructor, Cayuga; Ingersoll and Woodstock syndicate, E. N. Hart, instructor, Ingersoll and Woodstock; Stratford syndicate, Alex. McKay, instructor, St. Marys; Simcoe syndicate, Geo. Travis, instructor, Tilsonburg.

CREAMERIES.

Prof. Dean, instructor, Guelph; Mack Robertson, instructor, St. Marys.

Eastern Ontario

Chief Instructor, G. G. Publow, Kingston.

CHEESE FACTORIES.

Napanee syndicate, Geo. Bensley, instructor, Napanee; Kingston syndicate, H. Brintnell, instructor, 133 Alfred St., Kingston; Cornwall syndicate, M. J. Burro, instructor, Millie Roches; Lindsay syndicate, D. J. Cameron, instructor, Campbellcroft; Plantagenet syndicate, Jos. Charbonneau, instructor, Plantagenet; Brockville, W. syndicate, S. S. Cheetham, instructor, Gananoque; S. H. Elliott, instructor, W. W. Dool, 177 Cooper St., Ottawa; Porth syndicate, J. H. Echard, instructor, Balderson; Chesterville syndicate, T. J. Ellis, instructor, Chesterville; Ottawa, W. R. E. Elliott, instructor, Carp; Kemptville syndicate, W. G. Gardiner, instructor, Kemptville; Vanhook Hill syndicate, W. G. Graham, instructor, Vanhook Hill; Campbellford syndicate, R. T. Gray, instructor, Campbellford; Belleville syndicate, H. Howie, instructor, Belleville; Finch syndicate, C. B. Larry, instructor, Finch; Madoc syndicate, J. B. Lavery, instructor, Frankford; Alexandria syndicate, A. McDonald, instructor, Box 30, Alexandria; Brockville, N. P. Nolan, instructor, Philippsville; N. Nolan syndicate, C. W. Norval, instructor, N. Williamsburg; Pleton syndicate, T. E. Whitsam, instructor, Pleton; Almonte syndicate, W. J. Ragsdale, Smith Falls; Ottawa, W. J. syndicate, I. Villeneuve, instructor, Casselman; Peterboro syndicate, R. W. Ward, instructor, 590 George St., Peterboro; Brockville E. syndicate, A. H. Wilson, instructor, Athens.

CREAMERIES.

Instructor in some of the creameries in Eastern Ontario, and Assistant to the Chief Instructor, J. H. Singleton, Kingston.

Experiments with Whey Butter

Geo. A. Putnam, Supt. of Dairy Instruction.

(Concluded from last week)

There is one other factor in connection with the cost of this whey-butter which must be taken into consideration in addition to the actual cost of extracting the butter-fat and making the butter at the factory, and that is the loss in the food value of the whey. From experiments carried out by Prof. Geo. E. Day at Guelph in 1907, it was found that 1,000 lbs. of whey as it comes fresh from the vats is worth, when fed to hogs, about 12½ cents more than 1,000 pounds of whey from which the fat has been separated. This would add five cents to the cost of each pound of butter manufactured at those factories where the whey is pasteurized, when yielding two and one-half lbs. of butter per 1,000 lbs. of whey, placing the total cost at 14 cents a lb. It must be borne in mind that the whey as used by Prof. Day in the above experiments contained all its fat, whereas under ordinary factory conditions the farmer rarely gets a just proportion of the fat with his whey, the fat rising to the top of the whey in the tank. Under these circumstances it would make very little difference to the feeding value of the whey which the farmer gets, whether it were skimmed by gravity in the vat or skimmed by separator in the factory.

The quality of the product which it would be possible to make from this market price. The conclusion of the three experiments shows that whey-butter is slightly inferior in quality to that of butter made from whole milk, and average creamery butter is a high price and scarce the whey-butter will bring very nearly as high a price, within a cent or two, but when good creamery butter is plentiful there is a wider margin of difference between the two products. The price which the butter would bring under market conditions of 1907 and 1908 was placed at an average of 20 cents a lb. This will show a net profit of six cents a lb. on whey-butter manufactured, or fifteen cents per 1,000 lbs. of profit. It must be borne in mind, however, that if the factory is co-operative all of this increase would go to the patrons, but if the factory be a Joint Stock Co., then this profit would, no doubt, be divided between the shareholders and the patrons.

The general conclusion is that, unless a factory is a large one, or conditions are favorable to centralizing the whey cream, it would not be profitable to manufacture whey-butter but we are safe in concluding that the real source of profit from whey is a Kemptville, with an average loss of fat in the whey the net revenue would be reduced accordingly, possibly in some cases to the vanishing point. Each individual concerned will have to estimate for himself what is the minimum supply from which it is profitable under his conditions to manufacture whey-butter.

If our eastern Ontario farmers are ever going to make much profit out of dairying they must grow more feed on their farms.—Senator D. Derbyshire, Brockville, Ont.

I am much pleased with the marked improvement in Farm and Dairy.—Geo. J. Northcott, Durham Co.

Simplest and Best Milk Cooler

THE CHAMPION MILK COOLER-AERATOR COOLS, STRAINS AND SEPARATES IN 15 MINUTES TO 48 HOURS LONGER THAN ANY OTHER METHOD. Either running water, ice water, or cold water can be used, and it will cool the milk to within two degrees of the medium used.

IMPROVED CHAMPION MILK COOLER-AERATOR

Requires but attention. Simple construction and easily cleaned. No moving parts. Will fit for milk cans, or 1½ gal. cans. Secure one on trial. Write for catalogue. Price, \$1.75. Corlies, N. Y.



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Director of Colonization, Toronto

HON. JAMES S. DUFF,

Minister of Agriculture.

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Write Circulation Dept., FARM & DAIRY PETERBORO, ONT.

Sample copies sent free on application






LET not future things disturb thee, for thou wilt come to them if it shall be necessary, having with thee the same reason which thou ushest for present things.

Marcus Aurelius.

Sowing Seeds in Danny

By Nellie L. McClung.
(Continued from last week.)

MARY Barner took up the burden of caring for her father without question, for she loved him with great and pitying love to which he responded in his best moments. In the winter she went with him on his drives night and day, for the fear of what might happen was always in her heart. She was his housekeeper, his office-girl, his bookkeeper; she endured all things, loneliness, poverty, disgrace, without complaining or bitterness.

One day shortly after Mrs. Barner's death big John Robertson from "the hills" drove furiously down the street to the doctor's house, and rushed into the office without ringing the bell. His little boy had been cut with the mower-knives, and he implored the doctor to come at once. The doctor sat at his desk, just drunk enough to be ugly-tempered, and curtly told Mr. Robertson to go straight to perdition, and as the poor man, wild with excitement, begged him to come and offered him money, he yawned nonchalantly and with some slight variations repeated the injunction.

Mary, hearing the conversation, came in hurriedly.

"Mary, my dear," the doctor said, "please leave us. This gentleman is quite forgetting himself and his language is shocking." Mary did not even look at her father's. She was packing his little satchel with all that would be needed.

"Now pick him up and take him," she said firmly to big John. "He'll be all right when he sees your little boy, never mind what he says now."

Big John seized the doctor and bore him struggling and protesting to the wagon.

The doctor made an effort to get out.

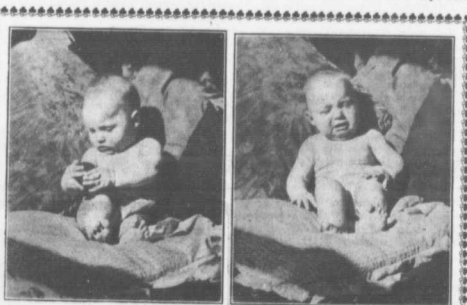
"Put him down in the bottom with this under his head"—handing Big John a cushion—and put your feet on him." Mary commanded.

Big John did as she bid him, none too gently, for he could still hear his little boy's cries and see that cruel jagged wound.

"Oh, don't hurt him," she cried piteously and ran sobbing into the house. Upstairs, in what had been her mother's room, she pressed her face against her mother's kimono that still hung behind the door. "I am not crying for you to come back, mother," she sobbed bitterly. "I am just crying for your little girl!" The doctor was asleep when John reached his little shanty in the hills. The child still lived, his Highland mother having stopped the blood with rude bandaging and ashes, a remedy learned in her far-off island home.

John shook the doctor roughly and cursed him soundly in both English and Gaelic, without avail, but the child's cry so full of pain and weakness roused him with a start. In a minute Dr. Frederick Barner was himself. He took the child gently from his mother and laid him on the bed.

For two days the doctor stayed in John's dirty little shanty, caring for



Master Harold Orr Hewison, fourth generation of fruit growers at Fruitland, Ont.—a grandson of Mr. W. M. Orr, one of Ontario's best known and most successful fruit growers. The photos were taken by Mr. J. E. Orr.

little Murdock as tenderly as a mother. He cooked for the child, he sang to him, he carried him in his arms for hours, and soothed him with a hundred quaint fancies. He superintended the cleaning of the house and scolded John's wife soundly on her shiftless ways; he showed her how to bake bread and cook little dishes to tempt the child's appetite, winning thereby her undying gratitude. She understood but little of the scolding, but she saw his kindness to her little boy, for kindness is the same in all languages.

On the third day, the little fellow's fever went down, and, peeping over the doctor's shoulder, he smiled and chatted and asked for his "daddy" and his "mather."

Then Big John broke down utterly and tried to speak his gratitude, but the doctor abruptly told him to quit his blabbering and hitch up, for little Murdock would be chasing the hens again in a week or two.

The doctor went faithfully every day and dressed little Murdock's wound until it no longer needed his care, remaining perfectly sober

meanwhile. Hope sprang up in Mary's heart—for love believeth all things.

At night when he went to bed and she carefully locked the doors and took the keys to her room, she breathed a sigh of relief. One more day won!

But alas for Mary's hopes! They were built upon the shifting, sliding sands of human desire. One night she found him in the office of the hotel; a red-faced, senseless, gibbering old man, arguing theology with a brother Scotsman, who was in the same condition of mellow exhilaration.

Mary's white face as she guided her father through the door had an effect upon the man who sat around the office. Kind-hearted fellows they were, and they felt sorry for the poor little motherless girl, sorry for "old Doc" too. One after another they went home, feeling just a little ashamed.

The bartender, a new one from across the line, a dapper chap with diamonds, was indignant. "I'll give and give you a straight pointer," he said, "that his girl has to stay out of here. This is no place for women, anyhow"—which is true, God knows.

Five years went by and Mary Barner lived on in the lonely house and did all that human power could do to stay her father's evil course. But the years told heavily upon him. He had made some fatal mistakes in his prescribing and the people had been compelled to get in another doctor, though a great many of those who had known him in his best days still

When little Danny's arms were thrown around her neck and he called her his dear, sweet, pink lady, her pseudo-intellectuality broke down before a power which had lain dormant. She had always talked a great deal of the joys of motherhood and the rapturous delights of mother-love. Not many of the mothers knew as much of the proper care of an infant during the period of detention as she. She had read papers, mother meetings, and was as full of health talks as a school physiology.

But it was the touch of Danny's soft cheek and clinging arms that brought to her the rapture that is so sweet it hurts, and she realized that she had missed the sweetest thing in life. A tiny flame of real love began to glimmer in her heart and shed its beams among the debris of cold theories and second-hand sensations that had filled it hitherto.

She worried Danny with her attentions although he tried not to put up with them. She was the lady of his dreams, for Pearl's imagination had clothed her with all the virtues and graces of a saint.

Here was a strangely inconsistent character, spiritually minded, but selfish; loving humanity when it is spelled with a capital, but knowing nothing of the individual. The flower of holiness in her heart, the maker of the haughty orchid that blooms in the hot house, untouched by wind or cold, beautiful to behold but rugged and unlovely in its beauty.

Pearl Watson was like the common little anemone, the wind flower that lifts its head from the cheerless prairie. No kind hand softens the heat or the cold, nor tempest wind, and it yet the very winds that blow upon it and the hot sun that beats upon it brings to it a grace, a hardness, a fragrance of good cheer, that gladdens the hearts of all who pass that way.

Mrs. Francis found herself strongly attracted to Pearl, Pearl, the housekeeper, the homemaker, a child with a woman's responsibility, appealed to Mrs. Francis. She thought about Pearl very often.

Noticing one day that Pearl was thin and pale, she decided at once that she needed a health talk. Pearl sat like a graven image while Mrs. Francis conscientiously tried to stir up in her the seeds of right living.

"Oh, ma!" Pearl said to her Mother that night, when the children had gone to bed and they were sewing by the fire. "Oh, ma! she told me more to-day about me insides that I would care to remember. Mind ye, ma, there's a string down yer back no bigger'n a knittin' needle, and if ye ever broke it ye'd snuff out before ye know'd what ye was doin'."

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receive a letter from the cemetery association. Ont. This town-to-date worthy which is a village. The officer of the below.

"The Cemetery Company incorporated in Ontario, Rutherford, I.

A

Alberta. Was a barrister in active interest into proper work lately after the legal status, a appointed a Board at one by-laws and reg sites, and sub general meeting of the proposed plate information suitable purchases. The by-laws adopted, the directors with the preparation for use.

The cemetery in the being the length, and right across, and surface is level, enough to sustain productive coarse grasses.

There are three wide, one on either the centre, running



Neat and W

of the grounds, and ways this dividing large plots and around each and entire grounds. Plots is divided into lots 20 x 12 ft, and space 6 feet wide all lots.

RULES GOVERN

Lots are sold subject of the company and by an owner with the directors. It is provision that the disposal of lots, erect planting of trees, and decoration and decoration kept under clarity, order, symmetry preserved.

WITHIN A

The cemetery is a any part of the wish may visit necessity of a long d

CHAPTER III

THE PINK LADY

When Mrs. Francis decided to play Lady Bountiful to the Watson family she was not only ministered to their physical necessity but she conscientiously set about to do them good, if they would be done good to. Mrs. Francis's heart was kind when you could get it; but it was deeply crusted over with theories and reflections and abstract truths that not very many people knew she had one.

An Ontario Cemetery Association

Following our article in the April 15 issue of Farm and Dairy, entitled, "What Some Women Have Done," in which we showed what the women of a little town in one of the northern states have done to beautify their village cemetery, we were pleased to

receive a letter from an enterprising cemetery association in Grenville Co. Ont. This town has now a live and up-to-date working Cemetery Association, which is a credit to any town or village. The letter received from an officer of the Association is given below.

"The Kempville, Ont., Public Cemetery Company was organized and incorporated in 1895. The Hon. A. C. Rutherford, the present premier of



A Model Drive

Alberta, was at that time a leading harrister in the town, and took an active interest in getting the company into proper working order. Immediately after the charter was granted, and the company thereby received legal status, the members met and appointed a Board of Directors. This Board at once met, organized, drafted by-laws and regulations, selected two sites, and submitted the whole to a general meeting with full explanation of the proposed by-laws, and as complete information as possible regarding the suitability, sanitary requirements, purchase price, etc., of the site.

The by-laws were discussed and adopted, the present site selected and the directors instructed to proceed with the preparation of the grounds for use.

The cemetery is rectangular in form, the width being about three-fifths of the length, and the whole containing eight acres, properly drained, enclosed and surrounded by shade trees. The surface is level, soil sandy, but fertile enough to sustain vegetation and yet coarse grasses.

There are three driveways, 30 feet wide, one on either side and one in the centre, running the entire length



Neat and Well Kept Lawn

of the grounds, and four cross driveways thus dividing the whole into six large plots and giving a driveway around each and also around the entire grounds. Each of these large plots is divided into alternate rows of lots 20 x 12 ft. and 10 x 12 ft., with a space 6 feet wide for a walk around all lots.

RULES GOVERNING LOTS

Lots are sold subject to the by-laws of the company and cannot be resold by an owner without the consent of the directors. It is through this provision that the opening of graves, enclosure of lots, erection of monuments, planting of trees and shrubs, ornamentation and decoration of lots, etc., is kept under control, and the regularity, order, symmetry of the grounds preserved.

WITHIN EASY ACCESS

The cemetery is easily reached from any part of the town so that those who wish may visit it without the necessity of a long drive or a tiresome

walk. A good well, watering cans, lawn mower, garden rakes, etc., are provided for the use of the public in keeping their lots in proper condition during the summer months.

The committee on grounds, which is elected annually, has complete oversight of the cemetery and looks after all improvements, planting of trees, shrubs, etc., during the year. This committee also gives the superintendent of the grounds such direction and instruction, in his work as is found necessary from time to time.

The above information will be of much use we are sure to any town or village contemplating a similar organization.

Talks with Mothers

Mothers are requested to write the Household Editor, on any matters they would like to see discussed relating to questions of motherhood. This will endeavor to publish short letters or articles on subjects most desired by our Canadian mothers. Contributions for this column are solicited.

Order in The Home

If it be true that "order is heaven's first law" it is surely also true that home is the law of every well-managed home. A really restful, attractive home cannot exist without neatness. How to secure neatness is one of the lessons some housewives have never learned, and, not possessing the secret, they cannot impart it to their families.

Sometimes a big mistake is made in beginning a home. The wife, or the husband, or both, may have lived in one of those cluttered-up houses most of their lives, a home in which things in general are just dropped down in no place in particular.

Perhaps the husband had one of those dear, good, patient, hard-working, mistakenly devoted mothers who tagged after him, picking up his plainings and putting them away uncomplainingly year after year. Even so, he can be trained to better ways—that is, if he is caught in time.

There are homes, with a really elegant exterior and an attractive front entrance, in which the kitchen and living-rooms are in a constant state of clutter. Window-sills are convenient places for small things, and you can find a collection of spoons of thread, crochet-needles, thimbles, tooth-brushes, or boxes of pills on them. The sideboard and kitchen cupboard drawers are stuffed full of wrapping-paper, cord, patterns, writing paper, and envelopes—a miscellaneous lot of stuff for which no place has been provided.

It is true that some houses are sadly lacking in closets, shelves, cupboards and storeroom space, but a

really neat housekeeper will usually manage to provide places for everything, even without such conveniences having been put in when the house was constructed.

Window Boxes

Wm. Hunt, in The Canadian Horticulturist
Any aspect that is best for a direct south aspect, is best for a window box, a north or east aspect being the best. If the windows face the south, the box should be shaded by an awning for a few hours in the hottest part of the day. In a window facing the south and fully exposed to the direct and concentrated heat of the sun against the building the greater part complete success with a window box, even if filled with the hardest sun-resisting decorative plants.

POT PLANTS IN BOXES
Plant lovers, especially in cities and towns, are often at a loss to know what best to do with house and window plants in summer, having no space out-of-doors, perhaps, to stand and rest. By placing the box outside of an east, north or west window, standing the pots in the box (arranging the plants properly for effect) and packing moss around them, almost all house and window plants can be very much improved in appearance, with little care and attention. The moss prevents a too rapid evaporation and keeps the roots of the plants cool and moist. Common moss from the bush or sphagnum moss can be used for this purpose. This is a much better plan than standing the pots on window sills and exposed verandahs, where the sun and wind compels plants oftentimes suffering badly even when attended to regularly, in the matter of watering.

VERANDA BOXES

Veranda boxes are made in a similar manner to window boxes, differing possibly in shape, so as to suit the requirements of the positions they are to occupy. If used on the floor of the large trays or pans made of galvanized iron, to prevent rotting the floor, as well as for cleanliness.

HANGING BASKETS

The ordinary earthenware hanging basket should have the bottom constructed so as to form a saucer, in order to avoid the troublesome, unpleasant, and dangerous operation of either lifting the basket down, or of flooding and damaging the floor of the verandah every time they are watered. Several potteries have adopted the style of having a saucer as part of the basket, but in most specimens that I have seen, the saucer is rather too narrow and shallow to be the best possible use. The holes through

the bottom of the basket into the saucer placed there for drainage purposes, are also often too small and too few in number to fully serve the purpose for which they are intended.

For a lawn and exposed position, I prefer hanging baskets made of wire. As a rule, the ordinary wire baskets sold are not deep enough to be serviceable. The wire basket should be lined at time of filling with thick beds of moss placed around the basket with green side outward. The soil and plants can then be filled in the same as when using an earthenware basket. The moss helps to conserve the moisture in the soil and prevents a too rapid evaporation. Plants succeed better in wire baskets than in earthenware ones and should be even more used than they are if only for this reason.

When putting away woollen clothes it is a good plan to pin each suit or dress carefully in a separate newspaper. If moths should get into the closet or trunk where the clothes are put away, the papers will protect the garments from being eaten.

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Farm House Design

The average farm home should be well-arranged, thoroughly comfortable, moderate in price and of pleasing exterior. In the house illustrated, an endeavor has been made to provide all these requirements. A roomy veranda, supported by brick pillars, has been placed at the side of the house.

From this doorway is a hall 14 1/2 x 10 ft. There is one stairway, which can be reached from the kitchen without passing through rest of the house. Opposite the front door is a large coat-closet. At the right connected by sliding doors, is the living-room, 15 x 12 ft.

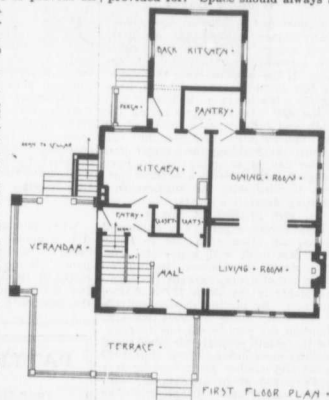
The dining-room is of the same dimensions as the living-room, and also lighted from two sides, opens from the living-room, and has no other entrance, except from the serving-pantry.

The kitchen occupies the balance of the space in the main part of the ground floor. It is 15 x 10 ft. A closet is provided for the storing of pots and pans, which so frequently make an otherwise slightly kitchen the room, and in the pantry there are "built-in" cupboards for china and stores. The stairs to the cellar, under the main stairs, are conveniently close to the kitchen and side entrance. A feature, which the house-wife at least will appreciate, is the placing of a pantry between the kitchen and the dining-room, and an entry between the kitchen and the main-hall, making it almost impossible for culinary smells to permeate through the house. At the rear of the house is a back kitchen which is almost indispensable in a farm home.

SECOND FLOOR PLAN

On the second floor, there are four bedrooms, each with abundance of

light and closet space. The owners' room is 15 x 10 ft., and has a triple window similar to those used in the living and dining-rooms. All the woodwork on this floor is finished in white enamel. A bathroom is also provided for. Space should always be



left for this in building a farm house, as, with the many improvements constantly being made in country house water supply, it is no longer a luxury but a necessity. Economy in plumbing can be considered by the bathroom being placed directly over the kitchen sink.

From the upper hall a hatch-way leads to the attic, and it will be noted that not an inch has been lost in needless hand space.

The average cost of a house of this type if \$3,500, the price varying, naturally, in different localities.

What Arbor Day Means

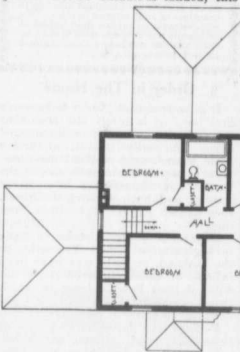
The conviction which Arbor day carries with it is not merely that trees should be planted, but that we should

plant trees ourselves, because our country requires them. There is urgent need that trees be planted not only where trees will grow, but where other crops will not grow at all or will not grow profitably.

This young nation has felt so sure of the boundlessness of that large part of the forest, that for several years we have gone on using it up. Now it is beginning to see that there will soon be an end to it unless it is used wisely.

If we had no timber, our condition would be more dreadful than if we had no coal. We would neither be happy nor healthy, and the great opportunities ahead, for the improvement of our minds and our bodies and our general condition, would be closed to us.

This does not mean that all our country should be covered with trees. We need trees only in their right place. Before Columbus landed, this



we do not take care of those which are left we shall soon be without forests enough to produce what we need. That is where we stand to-day. Many people realize that something must be done, but only a few have begun to do it.

The Handy Oil Can

If the bed springs squeak, try a drop or two of oil at every point where they meet, or wipe the springs all over with an oiled sponge and let them stand for several hours, then wipe with a piece of cloth, and they will not stain the mattress, yet the squeak will have disappeared. A drop or two of oil applied to the extreme edge of the crank where it is screwed into the socket, will make the meat chopper turn more easily; and if an egg beater becomes difficult to use, a drop of oil on the little wheel will overcome the difficulty.

Doctors and runners sometimes make an unpleasant noise when they might easily be taken out, oiled and put back again inside of a few moments, and because there are so many little uses for the oil-can, it should always stand ready filled on a small shelf in the kitchen; if kept always in the same place, even though it be kept in the machine drawer, or in the tool box, it can always be easily found when needed; not the least of its uses will be discovered when a clock becomes refractory, and does not keep time or refuses to run at all.

HOW TO OIL A CLOCK

Such a clock has been waiting on the kitchen shelf until some one had time to take it out to the clock mender's, or until "himself" found time to look it over and find out where the difficulty lay. A piece of absorbent cotton was moistened with kerosene and placed in the bottom of the clock just beneath the pendulum, and the clock was then put back in its customary place and care was used to set it perfectly level on the shelf. In a few days the absorbent cotton was black, and the clock was then wound up, the hands set at the right time, and lo, it has run ever since, with no tinkering at all, and merely the usual winding!

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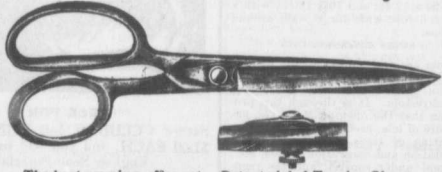
Purity may cost a little more than some flours, but results prove it the cheapest and most economical of all.



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OUR HOUSEW

The farmer works hard his and shamed if that is if at home, and neither grieves her work more does, inside paid for it. As he can't afford woman to do in board and lo what is equal to a week, according never thinks it worth exactly did it better. keep a wife, or pay her. A woman servant in a slave, beautiful and wasteful.

THE FARMER

One of our occasions a recent portion of the he had heard were away being naturally speaking ment he found up-to-date farm of Ontario. S. tried back to O. which he put in farm.

Another case write, that of in Prince Edward never been to young man the on the Island w line of farming, oats and potato be improved on through the situ him that he had that he was on success were to land.

On his return some registered the nucleus of a young man is for is an object less to "go and do The holiday ser that of recuper and education. unity open to information that w practice. Reading

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SHEARS

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THE SHERWIN

is LAMAR PAI MADE IN MONTREAL TO

It is desirable to m

OUR HOME CLUB

HOUSEWIFE'S ALLOWANCE

The farmer or tradesman, who works hard himself, would be grieved and ashamed if his wife "had to work," that is if she worked outside her home, and was paid for it; but he is neither grieved nor ashamed to have her work more hours a day than he does, inside the house, without being paid for it. He is willing, as soon as he can afford it, to hire another woman to do this work, paying her, in board and lodging as well as money, what is equal to from six to ten dollars a week, according to locality, but he never thinks that his wife's labor was paid more exactly that—and more, if she did it better. He can "afford" to keep a wife, only because he does not pay her. A working wife is the cheapest servant in the world, and better than a slave, because slaves are careless and wasteful.—"The Daughter."

THE FARMER AND HOLIDAYS

One of our Ontario farmers, had occasion recently to visit a certain portion of the old province of Quebec. He had heard that the "Quebecs" were away behind the times, agriculturally speaking, but to his amazement he found as fine farms and as up-to-date farming in any part of Ontario. Suffice it to say, he returned back to Ontario some new ideas which he put into practice on his own farm.

Another case comes to my mind as I write, that of a young farmer down in Prince Edward Island, who had never been to the mainland. This young man thought that everything on the Island was perfection and his line of farming, the growing of hay, oats and potatoes for sale, could not be improved on. A two weeks' trip through the sister provinces convinced him that he had something to learn, that he was on the wrong track if he succeeded were to be obtained on the island.

On his return home he purchased some registered dairy stock to form the nucleus of a herd. To-day this young man is forging to the front and is an object lesson to his neighbors, to "go and do likewise."

The holiday serves a double purpose, that of recuperation and recreation and education. There is an opportunity open to the mind with information that will be helpful in farm practice. Reading is all right, do all

you can of it, but often human nature has to "see things" in order "to believe." These are my sentiments.—"Father"

HOLIDAYS AGAIN

While I believe that everybody should have time for rest and recreation, I do not think that the question of vacations for farmers should trouble any person. He has rest enough during the winter months watching the hired man do the chores and chop wood. I know that many farmers do their share of the work, but the old man that I work for is too lazy in winter time to do anything but eat and read *Farm and Dairy*. If that isn't having a vacation, I don't know what is!

Farmers that work hard all winter as well as summer should take a week or so off for a vacation, but these are so few that they can take care of themselves. The fact is that most farmers have plenty of time on their hands during winter, to give them a vacation right at home. If my boss would dig in and help me I would have a chance for a little rest too. That's what is worrying me.—"The Hired Man."

Our Motto Contest

In the January 21 issue of *Farm and Dairy* we asked readers of the Household Department to send us on a post card their best mottoes, for use in *Farm and Dairy*. We announced that the three best mottoes were sent us by Mrs. Frank Webster, of Victoria, Co., Ont. We shall mark up Mrs. Webster's subscription for nine months, as per our offer made in connection with the contest. We shall publish Mrs. Webster's selections at the beginning of the Household Department, in early issues of *Farm and Dairy*.

To Cleanse Bacon Fat

Take as much cold water as fat, put it into a granite pan, let it come to the boil, then set aside, and when cool remove the fat. Repeat this process, using fresh water each time, three or four times or until the water is clear. You will find the fat free from salt or smoke and it can be used the same as lard for cooking.

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

THE COOK'S CORNER

Send in your favorite recipes, for publication in this column. Inquiries pertaining to cooking are solicited, and will be replied to, as soon as possible after receipt of same. Our Cook Book sent free for the new yearly subscriptions at \$1.00 each. Address: Household Editor, this paper.

CREAM SAUCE

Mix one cupful of cream and cupful of powdered sugar. Flavor with one teaspoonful of lemon or vanilla. Beat it until light, and serve it on a pudding eaten with sugar and cream.

NUT BREAD

Into the sponge of two loaves of bread stir one large cupful of chopped walnut meats, mix real hard and treat it as you would ordinary bread dough. When cold, cut in thin slices, butter and press together.

BAKED BANANAS

Remove one-fourth of skin of bananas. Bake in oven till skins are discolored and soft. Remove from skins and pour over them a sauce made of melted currant jelly, to which has been added a piece of butter and a grating of nutmeg.

HARRISON CAKE

One cupful of butter, one cupful of sugar, one cupful of molasses, one cupful of milk, two eggs and three cupfuls of flour, one pound of stoned raisins (or less if desired), one teaspoonful each of cloves, cinnamon and nutmeg, one teaspoonful of soda.

COCONUT BARS

Place in the kettle one cup of maple syrup and a tablespoonful of butter. When it begins to boil, add a grated coconut and stir until the candy will harden when dipped in cold water. Pour out upon a well-buttered slab or platter, and when cool enough, cut in squares and wrap in paraffine paper.

MAKING CREAM FROTHING

Make a lemon jelly. Put a layer of sliced marshmallows in the bottom of the mould, and when the jelly has begun to set, spread a little over it. Continue with jelly and marshmallows until the mould is full and put away to harden. Serve with whipped cream.

BOAST BEEF LEFT-OVERS

Chop the beef somewhat coarsely, put into a baking-dish and pour over it the gravy (seasoned with a bit of onion juice, a dash of Worcestershire sauce), mash potato, season and moisten with milk, stir into it a beaten egg, spread in over beef, put in oven twenty minutes.

BAKED CABBAGE

Soak cabbage one hour in cold water, then boil 10 minutes, after cutting in good-sized pieces. Place in a baking-dish and cover with one tablespoonful of butter, one cupful of milk. Salt and pepper to taste. Cover with breadcrumbs and bake one hour.

HOT CAKES

Very good and quickly made hot cakes are prepared by beating one egg very light, stirring in a cupful of flour, half a cupful of milk and two tablespoonfuls of sugar, beating briskly till light and then stirring in quickly a good teaspoonful of baking powder. Bake in muffin tin for 20 minutes in a quick oven. This will be enough for half a dozen muffins.

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

Should the milk want to curdle when boiling it for frosting or filling, throw in a pinch of soda at once, and it will make it nice and smooth.

FOUNTAIN PEN FREE

A 14 kt. Gold Fountain Pen will be given to any person who agrees only one new subscription for *Farm and Dairy*. These pens are guaranteed to give satisfaction. Try and win one.

The Sewing Room

Patterns 10 each. Order by number and size. If for children, give age; for adults, give bust and waist measurements, and waist measure for skirts. Address all orders to the Pattern Department.

SEMI-FITTED COAT 6259



The cutaway coat is one that is well liked for the spring, and one that is pretty and becoming.

Material required for medium size is 5 1/2 yds 27, 3 yds 44, or 2 1/2 yds 52 in wide to make illustrated, 4 1/2 yds 27, 2 1/2 yds 44 or 2 1/2 yds 52 in wide for shorter length, with 1/2 yd of satin for hands.

The pattern is cut for a 34, 36, 38, 40 and 42 in bust and will be mailed on any address on receipt of 10 cts.

TUCKED BLOUSE 6285



The dressy blouse that can be closed at the neck is a distinctive. But it is adapted to every season—wide to make it illustrative, 4 1/2 yds 27, 2 1/2 yds 44 or 2 1/2 yds 52 in wide for shorter length, with 1/2 yd of satin for hands.

Material required for medium size is 3 1/2 yds 24, 2 1/2 yds 44, or 2 1/2 yds 52 in wide, and 1 1/2 yds of lace insertion and 3 yds of 42 in bust and will be mailed on receipt of 10 cts.

GIRL'S YOKE APRON 6283



The apron that is simple and protective is the one that fills out the important practical need one of this one is full enough to protect the blouse of the frock, as well as over one. The apron can be worn either with or without a belt but that feature is utilized if it is confined at the waist line, giving still more the effect of a frock.

Material required for medium size (10 yds) is 2 1/2 yds 24, 4 yds 27, or 2 1/2 yds 36 in wide.

The pattern is cut for girls of 6, 8, 10 and 12 yrs, and will be mailed on receipt of 10 cts.

MISSIS' HOUSE JACKET



The house jacket loose at the front, and half fitted at the back is a becoming one, and this model suits stitching figures peculiarly well.

Material required for the 14 yr size is 3 1/2 yds 24, 2 1/2 yds 32, or 1 1/2 yds 44 in wide with 1/2 yds of edging and 1/4 yds of banding.

The pattern is cut for girls of 14 and 16 yrs of age, and will be mailed on receipt of 10 cts.

Small iron rings, such as sometimes come off the hub of cart wheels, may be used instead of tripod for slightly raising the preserving kettles from the hot stove or range.

The effectiveness of housecleaning can be materially increased by the use of paints and varnishes. Your work will show results, the house will not only be cleaner but look cleaner.

SHERWIN-WILLIAMS BRIGHTEN-UP FINISHES

Perhaps there is a chair or two that should be varnished, some sliving to be painted, or a floor with worn spots that needs retouching. It's the small things like these that in the aggregate make a house "snick and span and homey."

S-W. Brighten Up Finishes include a paint, varnish, stain and enamel finish for everything inside the house. Tell the Sherwin-Williams dealer what you want to finish and he will give you the Brighten Up Finish particularly adapted for your purpose. Write for booklet, B-60.



THE SHERWIN-WILLIAMS CO. LARGEST PAINT AND VARNISH MAKERS IN THE U.S.A. MONTREAL TORONTO WINNIPEG

Brighten Up

It is desirable to mention the name of this publication when writing to advertisers

What Ayrshires are Doing at Canadian Institutions

W. F. Stephen, Sec.-Treas. C.A.B.A.
A short time ago I wrote the Professors of Animal Husbandry at the three Canadian Agricultural Colleges for records of the Ayrshires kept on the College farms.

At the Guelph College Farm, Prof. G. E. Day reports records in progress and gives the results of test of "Denny 10th, of Auchenbrain" (imp.) 24739 since freshening as follows:

September, 1301 lbs. of milk, testing 5.6 per cent. fat.

October, 1290 lbs. of milk, testing 5.3 per cent. fat.

November, 977 lbs. of milk, testing 5.2 per cent. fat.

December, 917 lbs. of milk, testing 5.4 per cent. fat.

January, 942 lbs. of milk, testing 4.8 per cent. fat.

Totals, 5,337 lbs. milk, and 281.97 lbs. fat.

This cow consumed during this period feed to the value of \$22.53. Estimating the value of this milk at \$1.25 per cwt. would give us \$66.71. Deducting the cost of feed there would be left a net profit of \$44.13 for these five months.

Later, Prof. Day quotes the records available of three Ayrshire cows as follows:

May Queen 2nd -25321-, gave 8,029 lbs. milk testing 3.75 per cent. fat.

Minnie of Elm Shade -18883-, gave 8,515 lbs. milk testing 3.7 per cent. fat.

Lady Nancie 2nd -13330-, gave 9,144 lbs. milk, testing 3.8 per cent. fat.

The other Ayrshire cows in the herd had not completed a full period of lactation since they had been in the possession of the College.

AT TRURO.

At the Truro Agricultural College,

Professor Cumming writes me under date Feb. 27th, '09, "Our herd for last year averaged a little over 10,000 each, but we anticipate a bigger record this year. We have one Ayrshire cow that is giving 57 pounds of milk a day, testing 5.1 per cent. (A week later this cow was giving 65 pounds of milk a day.) Last year this cow gave over 11,000 pounds of milk. I anticipate that she will give about 12,000 pounds this year, so she is likely to make a phenomenal record. From the report of Prof. Cumming just received I notice the following records of Ayrshires for 1908.

Ayrshire No. 1 in one month 1235 lbs. milk, in 11 months 10,214 lbs., testing 4.1 per cent. fat.

Ayrshire No. 2—best month, 1148 lbs. milk, within the year 9831 lbs., testing 4.1 per cent. fat.

Ayrshire No. 3—best month 1482 lbs. milk, within the year 10950 lbs.

Ayrshire No. 4—best month, 1090 lbs. milk, within the year 10051 lbs., testing 3.7 per cent. fat.

Ayrshire No. 6 had a short lactation period there, scarcely 11 months between the freshening periods. In her best month she gave 1263 lbs. milk, within nine months, 7,373 lbs. milk, testing nearly 4 per cent. fat milk, within nine months, 7,373 lbs. milk testing nearly 4 per cent. fat.

AT MACDONALD COLLEGE.

Archie 6th of Hillhouse (imp.) 11 months between the following records of their Ayrshires:

YEARLY RECORDS OF MATURE COWS.

Primrose -11740-, 9,945 lbs. milk, 437 lbs. butter.

Bluebell 1st of Hillhouse (imp.) -12287-, 9,490 lbs. milk, 450 lbs. butter.

White Prim of St. Anne -13145-, 9,750 lbs. milk, 378 lbs. butter.

Favorite of Auchenbrain, (imp.) -16727-, 9,650 lbs. milk, 430 lbs. butter.

Floras Lady (imp.) -12280-, 9,100 lbs. milk, 375 lbs. butter.

White Rose of Fairfield Mains, (imp.) -12285-, 9,037 lbs. milk, 340 lbs. butter.

White Pearl of St. Anne (imp in dam) -25684-, 8,938 lbs. milk, 333 lbs. butter.

White Craig 2nd of Auchenbrain, (imp.) -16717-, 8,789 lbs. milk, 397 lbs. butter.

Hovick Maud S. 2nd (imp.) -16722-, 8,504 lbs. milk, 368 lbs. butter.

Wexford Blood (imp.) -16720-, 8,735 lbs. milk, 445 lbs. butter.

MONTHLY RECORDS OF MATURE COWS

Kirsty Wallace of Auchenbrain (imp.) -8301-, 14 years old, 1,252 lbs. milk, 45 lbs. butter.

Mayflower 4th of Barcheskie (imp.) -12290-, 13 years old, 1,290 lbs. milk, 53 lbs. butter.

Primrose -11740-, 1,762 lbs. milk, 77 lbs. butter.

White Rose of Fairfield Mains (imp.) -12285-, 1,550 lbs. milk, 50 lbs. butter.

Blue Bell 1st of Hillhouse (imp.) -12287-, 1,761 lbs. milk, 75 lbs. butter.

YEARLY RECORDS OF HEIFERS

BEST YEAR IN MILK.

Floras Lady of St. Anne -22299-, 8,461 lbs. milk, 402 lbs. butter.

Auntie Katie of St. Anne -22141-, 8,669 lbs. milk, 448 lbs. butter.

Twin Lady Prim of St. Anne -22148-, 14 months, 9,592 lbs. milk, 455 lbs. butter.

Lady Maud of St. Anne -22,150-, 7,341 lbs. milk, 363 lbs. butter.

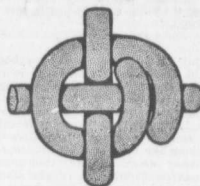
Twin Lady Primrose of St. Anne -22149-, 7,167 lbs. milk, 355 lbs. butter.

Bluebell 3rd of St. Anne -22143-, 7,105 lbs. milk, 383 lbs. butter.

White Rose 2nd of St. Anne -25927-, 6,870 lbs. milk, 309 lbs. butter.

(Continued next week.)

Renew Your Subscription Now.



The Lock that makes "Page Fences Wear Best."

They all have the "Best," the "Guaranteed-to-give satisfaction" kind, etc., so that the only practical guide you have is price. Because one galvanized wire looks just exactly as good as another, you conclude that all fences are alike.

Say, if you had that booklet "How to Prove and Test Wire," which we mail free upon written request, you would not have to take everybody's say-so. Make 'em prove up—Page dealers and all, and, if possible, make the Tests from rolls of fence actually made up for use, not "samples" sent for the purpose. The day for buying fence without proving the quality to be as-good-as-the Page, is past.

That booklet—it is really a practical text-book on the fence question. Every farmer or property owner ought to have it. Formerly had a big sale at ten cents per copy, but as the Page Wire Fence Co., Limited, have acquired the copyright, they mail it free to enquirers. Send for it to-day.

THE PAGE WIRE FENCE COMPANY, Limited

WALKERVILLE TORONTO MONTREAL ST. JOHN

Send for Our FREE CATALOGUE

In other advertisements we have shown you many points wherein the "Bissell" Land Rollers and Disk Harrows are superior to other machines. But we would like to send you our catalogue so that you can study the whole detailed construction of these better-built, better-working, lighter-draft machines.

The "Bissell" Land Rollers, Disk Harrows.

Just send post-Card request by first mail to Elora, and we'll see that this interesting Catalogue journeys to you by return mail. Address: Dept. H

Send us the Names of your friends and neighbors who do not take Farm and Dairy, that we may send them sample copies. If the paper helps you, it will help them. You can thus spread the gospel of good farming, and confer upon us a favor that we will appreciate.

The man who cares for his stock will reap double the profit realized by

the farmer who neglects his animals.

—A. G. McKenzie, Oxford Co., Ont.

Calves suffer more than older animals by being kept in dark or dirty stables.—A. G. McKenzie, Oxford Co., Ont.

I am highly satisfied with Farm and Dairy. It is of great value to me.—John Gordon, Algoma District,



There is now no need to send for the catalogue. Last week we

will feed rule prices. The demand is off somewhat and at Montreal \$22 to \$23 and Toronto in car lots here quote Mani and shorts at \$24 at \$24 and shorts on track Toronto market has been

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78c to 79c in 78c to 79c in 78c to 79c in

SECURE THIS NEW BOOK

ENTITLED

SWINE IN AMERICA

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Secy. Kansas Dept. of Agriculture

It will help you

MAKE MORE MONEY

Out of the Hog Business

This volume is handsomely printed on fine paper from large, clear type, and is profusely illustrated, containing a large number of magnificent half-tone illustrations and drawings, many of them full page plates which are printed on a special plate paper. Another marked feature is the frontispiece, this being an anatomical and physiological model of the hog, which appears in a book of this character for the first time. It is entirely new and original, and should prove of the greatest value to everyone—teacher, student, stockman, farmer, or general reader.

The work contains 704 pages (6 by 9 inches) bound in fine silk cloth, making a very handsome and attractive book. No one can claim to be up to date in swine matters unless he possesses a copy.

Price, prepaid to your address, \$2.50

BOOK DEPARTMENT
THE RURAL PUBLISHING CO., LIMITED
PETERBORO - ONT.

MARKET REVIEW AND FORECAST

Toronto, Monday, April 26, 1909. - General trade shows somewhat slow...

HAY AND STRAW

There is a scarcity of the better grades of hay and prices of the usual grades are higher...

WHEAT

Speculators have had an anxious time of it this week. On Thursday a slump in prices at Chicago...

POTATOES AND BEANS

The potato market is higher than a week ago though the withdrawal of many American buyers...

EGGS AND POULTRY

The egg market shows no material change. The expected drop in prices after the Easter market...

MAPLE PRODUCTS

Maple products of this year's make are now offering freely at Montreal...

DAIRY PRODUCTS

The make of April cheese so far this season is larger than last year. Up to the middle of the week receipts of April cheese...

pected owing to the low prices. The Quebec creameries stick to butter and are turning out large quantities...

HORSE MARKET

The trade in horses continues active, though the bad weather during the week has retarded somewhat...

UNION STOCK YARDS PRICES

West Toronto, Monday, April 26. - There was a light run at the Union Stock Yards...

LIVE STOCK

The live stock markets have ruled steady all week. The market has been well maintained...

You Can't Cut Out A BOB SPATIN, BUFF OR THOROUGHPIN, BUT ABSORBINE

Will clean every oil permanently, and you work the horse clean. Do not beat blister or remove the hair...

VENTILATION For Dwellings, Rural Schools and Stables

This is a new book (issued December 1908), which treats in a concise, practical way, the question of ventilation...

Under light receipts sheep and lamb prices have ruled steady. Ewes sold on Thursday at \$4.75 to \$5...

The hog market has ruled steady all week at prices quoted at the Union Stock Yards on Monday last...

Peterboro, April 26, 1909. - Danish hogs delivered on the English market last week totalled \$5,000...

Montreal, Saturday, April 24. - The market for live hogs this week has been steady with prices well above...

A little better trade in feeders and stock is reported, there has been an inquiry from farmers and country feeders...

Receipts of veal calves have been liberal with the quality of many not of the \$5.50 a cwt. The top prices are considerably lower than that of a few weeks ago...



On a Tag on a Plug of Black Watch Cigarettes Standing For Quality.

OUR FARMERS' CLUB

Contributions Invited.

QUEBEC

SHERBROOKE CO., QUE.
LENNOXVILLE. The sugar season thus far is proving fairly satisfactory. Weather conditions promise another good yield about which will probably bring prices from 20 to 25¢ which is a but-ter situation is not very encouraging. Items on the market last Saturday ran a cwt and hay at \$10 a ton, with the fun all out of the business and makes the only object in feeding to keep the cows in condition for the summer work.
 -J. W.

ONTARIO

HASTINGS CO., ONT.
THE RIDGE. The long looked for spring seems to be here at last. Snow has all gone off the fields; the clover has come through the winter all right. Feed ap-pears to be plentiful; oats are scarce, very scarce and dear. Good oats sell for \$8 a bushel; peas and wheat, \$1 a bush; hay, \$12 to \$15 a ton. Potatoes are scarce and offers of \$1 a bag are being made but there are none for sale.-A. B. C.

SIDNEY CROSSING. Fall wheat, rye and all grasses have wintered splendidly and are now beginning to look green. There is all out of the ground. Vegetation has started and prospects are brighter than now for winter grains. A large number of cheese factories are urging the patrons to get covered stands, and as usual the Sidney farmers take the lead. Timothy hay sells for \$11 to \$14 a ton; mixed hay, \$11 to \$12; oats, \$6 a bush; barley, \$6; clover, \$6; peas, \$6; bran, \$4 a ton; middlings, \$26 a ton; milk cows, 12 to 20¢ a cow; dry cow, 20¢ a lb; potatoes, 75¢ to \$1 a bag; milk cows, \$40 to \$100; beef, 6¢ a lb; hogs, \$7.00 a cwt; dressed hogs, \$9.50 a cwt.-J. K.

PETERBORO CO., ONT.
SPRING is very slow in coming; the weather still keeps cold. We have had one of the finest winters ever experienced in these parts. It has been supposed that there has been a timber sale this past winter than in any other year. Stock has come through in good shape and feed is plentiful. Hay is sell-ing from \$10 to \$11 a ton; oats, 50¢; pota-tos, \$1 a bag; and we have heard no kick coming for want of water just now.-A. B. G.

LANSWAE. The snow is all gone. We have had a lovely rain that has settled on the ground. As soon as it dries, plow-ing and seeding will begin. Cattle have been raised in the winter in good condition. Brood mares have been almost a failure in some cases but mare and foal have scarce as most people are laying it away for summer use. Potatoes are scarce and prices are high, \$1 a bag. Flour is in the hands of the farmers in this part had been raised more when. New laid eggs are 15¢ a dozen; hens are laying well.-H.H.W.

DURHAM CO., ONT.
 BLACKBERRY vines are having plenty of rain and with warm weather are having a very rapid growth. Fall wheat and clover have come through the winter looking pretty well. Feed in general are demand for cattle of all grades are being bought up pretty close to market prices. The horse market seems to be a little quiet; most farmers having got supplied, and there is less demand from outside markets.-E. J.

WATERLOO CO., ONT.
WATERLOO. Seeding will be here. We have had quite a bit of rain lately but we have few days of real warm weather but we will be able to get the land. Some seed has been plowed. There is a demand for all kinds of good seed being bought freely at Clover seed. Farmers are busy pruning orchards, re-mov-ing old crooked trees and building trim substantial wire fences. The

maple syrup season is past and although the outlook is fairly dull the first few weeks it turned out fairly well. Pure on the local market. Fattening cattle are doing well and buyers are offering good prices for May and June delivery.-G. S.

ATK. The spring work is not coming up as quickly was anticipated. How-ever, farmers are busy plowing and some Clover has come through the winter. Wheat is also looking through the winter well. It is killed out in small patches to some extent at the local mill, reached \$1.15 a bush, ponding high. A number of seeds corre-sponding and spring wheat is being sold within a radius of a few miles, giving the farmers a good chance to secure good grains travelling through his district.-G. S.

WELLINGTON CO., ONT.
LIVING SPRINGS. The high wind recently did a lot of harm. The wind later-ly, however, has been soft and warm, and will help to dry up the land. Some maple syrup. People will be busy making good grain by the first of May. Real price but it is likely that there will be some light oats sowed.-A. M.

MIDDLESEX CO., ONT.
TEMPO. The rural telephone is being pushed along, and into many of the aid to business here. This convenience and the occupant's pleasure and much to the during the coming season. The building in the field, and this music is heard peo-ple to cease for work and rest. There is no scarcity of feed-abund-ance of everything for the stock so far-ther. Considerable milk is delivered good cheese factory daily but much more opens.-J. E. O.

ELGIN CO., ONT.
TALBOTVILLE. The wheat looks first-class; very little of it looks wintered by nicely and has already made an excel-lent growth. The young corn is coming along also unburnt and is now forming a good seeding over the fields. Not very few fields sown west of the village where the land is dry and sandy. There has been too much rainy weather for the loamy land, and to-day there has been a downpour. The wild wind storm age to buildings, fences and trees. On-com-pletely upset giving the owner several days labor to place it in position again. The roof of Mr. Charlton's big barn was re-ferred badly making the shingles fly around like a flock of pigeons. It re-quired 18 thousand new shingles to repair the damage. Another farmer had a and is now having it cut in stove wood.-J. E. O.

BRUCE CO., ONT.
CLUNY. Recent wind storms have done considerable damage to buildings and wooded farms. The old settlers are pre-dicting a late spring as most of the crops gone south and feed that went north have stood the winter well. Clover and wheat are looking again. The clover and wheat ter part the light top they had in the lat-ter part of the winter. What that was is yet. The clover seemed to have suf-fered most in the low lying lands. Clover being cheap most of the farmers are tak-ing advantage of it and are sowing in quantities of it. There has been some plowing done but no sowing as yet. A number of farmers are making maple gal-lon.-J. M.

KENT CO., ONT.
CHATHAM. The farmers of Kent Co. have finished seeding. Even in the low lands the early spring crop is all com-pleted. The spring wheat is up six all round crop in the history of the best. A large consignment of sugar beet seed recently arrived from Germany and France in about 5000 acres of best soil in the around Chatham this year. Experi-enced farm help is rather scarce.-T. W.

Farmers wishing to prevent disease in their stables and barns should send for one of the Free booklets to be obtained from Messrs. Wm. Cooper & Nephews, Manning Chambers, Toronto.

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery at our Packing House in Peterborough, we will pay equal to Toronto market prices. If you cannot deliver to our Packing House, kindly write us and we will instruct our buyer at your nearest railroad station, to call on you.

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY
\$7.25 a Cwt.
 FOR HOGS WEIGHING 160 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED
 PETERBOROUGH, - HULL, BRANTFORD

GOSSIP
 A representative of Farm and Dairy who visited a splendid herd of Short-horn owned by Arthur Johnson, of Greenwood, Ont. saw one of the finest three-year-old Shorthorn bulls in Ben-holm buttery that can be found in the country. This bull was shown and was first at the Markham Fair last year. It is of imported as a calf. "He is one of the best individuals I have ever owned," said head of cattle of very choice breeding, including numbers of the Cruickshank Lavender, Cruickshank Buttery, Cruick-shank Duchess of Gloucester, Cruick-shank Buttery, Marr Clarks, Bruce Mayfield, Mrs. Cruickshank Nonpareil, Cruickshank Village, Bruce James, Crimson Flowers, and representatives of other equally good. The cow included a number of North of among which are some of the best mil-ling. Mr. Johnson has ever owned. "I have found these North of England milking strains of Shorthorns," said Mr. produce some of my very best," said Mr. equally well fleshed, and capable of pro-stand-ard, yielding Shorthorns quite up to the Scotch propensities. Included in their milking number of animals that can be obtained at very reasonable prices considering their quality.

HOLSTEIN-FRIESIAN OFFICIAL TESTS FOR FEBRUARY, 1909.
 These tests are all for a period of seven days and are vouched for by Prof. H. E. Deane of the Ontario Agricultural Col-lege, or Mr. J. M. Macdonald of the Nova Scotia Agricultural College.
 age, 19.56 lbs. butter fat equivalent to 22.11 lbs. butter; 502.52 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.
 Ida Rooker 2nd (3234) at 3 yrs. 3 m. 22 d. of age, 18.48 lbs. butter fat equivalent to 21.90 lbs. butter; 523.2 lbs. milk. Owned by Logan Bros., Amherst, N. S.
 20 d. of age, 15.00 lbs. butter (254) at 3 yrs. 2 m. 17.5 lbs. butter; 411 lbs. milk. Owned by Andrew Duns, Hamilton, Ont.
 Queen Artist Melba 2nd (2612) at 3 yrs. 2 m. 22 d. of age, 11.95 lbs. butter fat equivalent to 14.0 lbs. butter; 399.2 lbs. milk. Owned by W. E. Hamby, Rockford, Ont.
 Cora Netherland De Kol (2615) at 3 yrs. 2 m. 2 d. of age, 10.59 lbs. butter fat equivalent to 13.55 lbs. milk. Owned by W. E. Hamby, Rockford, Ont.
 Miss De Kol Kent (7179) at 3 yrs. 5 m. 29 d. of age, 15.30 lbs. butter fat, equivalent to 19.15 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.
 Pauline Foster at 2 yrs. 2 m. 7 d. of age, 11.16 lbs. butter fat equivalent to 14.0 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.
 Calamity Pooch Keyes (7720) at 2 yrs. 10 m. 9 d. of age, 10.23 lbs. butter fat, equivalent to 12.60 lbs. butter; 339.3 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.
 Samantha Favorit Keyes (6472) at 2 yrs. 6 m. 23 d. of age, 10.70 lbs. butter fat, equivalent to 12.45 lbs. butter; 320.0 lbs. milk. Owned by Andrew Duns, Ingersoll, Ont.
 Linka Mercedes Keyes (6426) at 2 yrs. 3 m. 14 d. of age, 10.41 lbs. butter fat, equivalent to 12.15 lbs. butter; 315 lbs. milk. Owned by Andrew Duns, Ingersoll, Ont.
 Helton De Kol 2nd (2611) at 2 yrs. 1 m. 2 d. of age, 8.41 lbs. butter fat equivalent to 10.45 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.
 G. W. CLEMONS, Secretary.

HORSE SALES
 Graham Bros. of Claremont, have been having a very successful season. Within the past two weeks they have shipped six Clyde mares in foal to Len. H. Leman, Dale Hillis, Lake, Iowa, and seven Clydes-dales Mattinson, of South Chatham, Ontario, representative of Farm and Dairy who visited their stables recently, found the stock on hand in excellent breeding condition. These included two Canadian bred stallions, including three years old that Graham Bros claim are they have ever had in their stables.
 Mr. Harry C. Stock, Brampton, Ont., has been known to stock breeders as the Ontario's best Canadian distributor for the Zenolux Veterinary Prepara-tion, with headquarters at Brampton, Ont. Farm and Dairy wishes him success in his new business venture.

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the markets of the world for one that was just right; and we didn't find it. If we had, we'd have bought the patent rights for Canada. Finally, last Spring, we struck the idea. Then we put in some expensive months in making that idea better,—and NOW we've got a culvert that is so far ahead of any other there's no comparison.

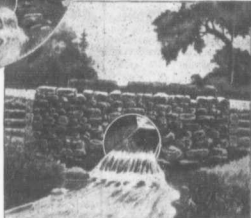
You'll read something about it here; but to KNOW how 'way ahead it really is, you'll want to see the sample (sent free) and read the booklet (free, ditto). With that before you, you will soon see why every reeve, or warden, or town councillor, or anybody who has any use for culverts at all,—will find it pays to get in touch with me right NOW. I am asking you to lay aside your notions of what makes a good culvert, and a cheap culvert, and find out about this NEW culvert. I don't expect you to buy a foot of it until it PROVES to you that Pedlar Culverts are in a class by themselves, and that you can't afford to overlook them. Let us start that proof toward you soon—address place nearest you.

G. N. Pedlar



A few hours' work and a few dollars will put a modern and permanent culvert structure in place of a ramshackle bridge like this.

A structure like this, with Pedlar Culvert, won't wash out nor need repairs.



Learn about the strongest most practical most durable and easiest-laid culvert ever made

PEDLAR PERFECT GALVANIZED CORRUGATED CULVERT

Frost-Proof, Rust-Proof and Wear-Proof

This triple-rib flange-lock principle, found only in Pedlar Culverts, not only adds greatly to the strength of the piping and makes a perfect joint—practically as good as if welded—but it also allows for expansion and contraction under cold or heat. Though a Pedlar Culvert, of any length, be frozen solid full of ice, it will not spring a leak. Send for sample and booklet and you will see why. State your probable needs and we will gladly quote prices.

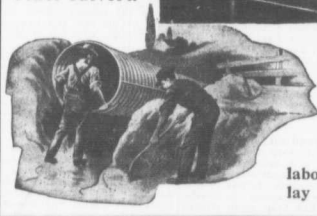
Made of Special Billet Iron, Extra Heavy

In every size of Pedlar Culvert, which comes in all standard diameters from 8 inches to 6 feet, we use nothing but the best grade of Billet Iron, specially made for us, of extra-heavy gauge (14 to 20 gauge according to the diameter). This Billet Iron is curved into semi-cylinders—curved COLD, so there will never be any variation from exact dimensions; and it is then deeply and smoothly corrugated on a special press that puts a pressure of SIXTY TONS on every square inch of the metal. The corrugations, therefore, are uniform and very deep.

Galvanized AFTER Being Pressed Up

When the corrugating process is done, the sections are galvanized by our exclusive process that covers the entire surface with a thick coating of zinc spelter. Every edge, every crevice, is heavily coated with this rust-proof, corrosion-proof galvanizing; not a spot is left unprotected. This is the ONLY culvert galvanized AFTER being shaped. It is ABSOLUTELY RUST-PROOF.

Two men can ditch for, and lay more lineal feet of Pedlar Culvert in a day than four men can with any other culvert.



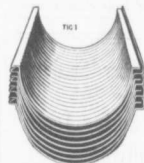
Can be readily laid by unskilled labor. Can't lay it wrong.

Will Stand Incredible Strains

The heavy-gauge Pedlar Billet Iron sections deeply corrugated and locked together without bolts or rivets by our compression triple-rib (this rib is flat, not corrugated), make a culvert that will stand enormous crushing strains and neither give nor spring. A thin cushion of soil on top is all the protection such a culvert needs against traffic; and no special precautions need be observed in laying it,—it will stand what no other culvert can.

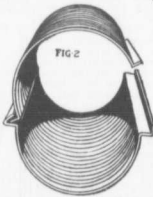
COMPACT—PORTABLE—ENDURING—ECONOMICAL

This Shows How It Is Put Together

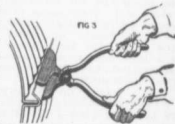


Pedlar Culverts are shipped in half-sections, nested—saving freight and making carriage easy in roughest country. Quickly and easily transported anywhere. Fig. 1 shows the half-sections or semi-cylinders, nested one within the other for shipment. One of the ribs is a radial flange, the other a re-curved flange. Sections are assembled as shown by Fig. 2.

Note that the ribs are flat, and the curved part of the cylinder deeply corrugated. These ribs add vastly to the culvert's strength. Unskilled labor, with a simple



tool, quickly clamps the flanges together, making a triple-fold joint that is tighter and better than any riveted or bolted joint could possibly be. Fig. 3 illustrates the simplicity of the Pedlar Perfect Culvert flange-lock—no bolts, no rivets, no makeshifts. This is the only culvert that is laid with broken joints—the overlap between ends comes in the centre of each length. No chance of leakage.



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