

Issued Each Week—Only One Dollar A Year

VOL. XXXII.

NUMBER 40

FARM AND DAIRY

RURAL HOME

Dairy and Cold Storage—Country Dec 17

PETERBORO, ONT.

OCTOBER 2

1913



THE STOCK THAT STANDS AT THE TOP OF THE MARKET THESE DAYS

Young pigs such as the ones here illustrated are in demand nowadays. So are brood sows. High prices have forced hogs into the lime light. Market quotations now range from \$7.65 to \$9.15 F.O.B. at Toronto and a shade higher at points east and west. Quotations have been up recently to \$10 for choice bacon hogs. And why these high quotations? Because widely fluctuating prices have tended to discourage the producer and demand is now ahead of supply.

These occasional high prices bring a golden return to those shrewd enough to foretell the market. Stable prices would be more encouraging to farmers generally. Can not farmers and packers cooperate to this end?

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Is as Simple as

A. B. C.

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Easy to Run

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WE can't begin to give you the full particulars covering each one of these "Simplex" features, but we'll be glad to send you descriptive matter giving all information you want about this peer amongst cream separators. Drop us a card.

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What's YOUR idea of a GOOD Stanchion?

Isn't it one that will never bulge or sag, one that will last you a lifetime, one that will lock and unlock as easily a year from now or ten years from now as on the day you bought it—and one that holds the cattle surely? The O. K. Canadian Stanchion comes up to all these requirements—because we've been making 'em so long that we're on to every wrinkle in the business and we know just how to make every part and what to make it of.

Frames of the best U-bar or channel-section steel—so strong and rigid that they simply can't bulge or sag, one that will last you a lifetime, one that will lock and unlock as easily a year from now or ten years from now as on the day you bought it—and one that holds the cattle surely? The O. K. Canadian Stanchion comes up to all these requirements—because we've been making 'em so long that we're on to every wrinkle in the business and we know just how to make every part and what to make it of.

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**CANADIAN POTATO
MACHINERY CO.
GALT, ONTARIO**

THAT ASTOR PROPERTY—MR. CURRIE COMES BACK

EDITOR, Farm and Dairy.—In the September 11 issue of Farm and Dairy you again make certain statements about that Astor property which tend to create a wrong impression on the minds of your readers regarding the dealings of the Astor family and the conclusions of one of your old subscribers.

You show that the total increase in value and returns from the Astor Hotel has amounted to not only \$7,436,000, but to \$7,436,000 plus \$2,350,000, or a total of \$9,786,000, and say, "We take no exception to the Astor family obtaining all the returns they can in the form of interest or rent on their original investment. We do take exception to their grabbing; also the \$2,350,000 of increased value which the community at large has created, and not the Astor family. That increased value belongs to the public, and should be claimed by the public through a tax on land values."

You seem to have entirely forgotten the fact that the Astor family have for 80 years been paying a heavy municipal tax on their hotel property. If the annual sums thus paid in taxes on the hotel had been otherwise invested so as to return five per cent. compound interest, it would now amount to over \$6,220,000. In addition to this, had the original cost of the hotel and its site been otherwise invested so as to return five per cent. compound interest, it would now amount to over \$14,572,000. Add to this the amount which could have been secured had the annual tax bills been otherwise invested to bring in five per cent. compound interest, the total sum would now amount to over \$21,000,000. You seem to have entirely forgotten the fact that the Astor family would have honestly earned had they invested the money in general business instead of in the hotel and its site.

Had the site of the Astor Hotel been held vacant until the present time, the annual municipal tax bill on account of it would have amounted in the aggregate to over \$320,000, and had these annual tax bills been otherwise invested so as to yield five per cent. compound interest, the sum would now amount to over \$3,885,000.

After having spent the equivalent of more than \$7,500,000 in taxes, of which were spent for public purposes, some people have the cheek to say that the Astor family did nothing towards increasing the value of their lot to \$150,000, its original cost, to \$2,500,000, its present value.

Farm and Dairy does it to the Astors, and to the general public, and to itself to let these facts be known, in order to correct certain misconceptions which its former article may have raised in the public mind.—David Currie, Lansdowne Avenue, Westmount, Que.

ANOTHER VIEW OF THE CASE

Editorial Note.—The principle of the taxation of land values is of great importance to the farming community. When rightly understood and applied it will lift an immense burden of taxation off the shoulders of the farmer. For this reason, and because the principle involved in this discussion underlies the taxation of all valuable business properties in Canada as well as in the States, Mr. Currie is doing a public service in defending his stand, and we feel justified in giving the subject more space than we otherwise would.

Without attempting to ascertain how our correspondent is able to quote figures so authoritatively, we would like to draw attention to some of the well taken points in his letter. In the first place,—we know that he did not pay them—we consider that it was an injustice that

the Astor family were even expected to pay taxes on their hotel building. By erecting that building they did the public a service. They created work for the people who built it, they provided work for the employees they had to employ, and they furnished accommodations for the travelling public. By catering to the wants of the public they aided to that extent in reducing the cost of living, as the more people there are the lower are the rates charged the public. For all these reasons, therefore, we feel that the Astor family should not have been expected to pay taxes on their hotel buildings.

LAND AND IMPROVEMENTS

When we come to the land occupied by that building, however, it becomes a different matter. The land was made by God, not by the Astor family. It was intended for the use of mankind at large and not for the special benefit of the Astor connection. The best proof of this is the fact that the land was sold long before the Astor family had been heard of and will be there, we may presume, long after the Astor family has passed out of existence. It is only just, therefore, that the privilege of using that piece of ground the Astor family should pay the public in the form of taxes, what its use was worth to them, and that the value of the land itself increased with the influx of population into the city of New York.

Next we would like to point out that the Astor family, as a matter of fact, did not pay the taxes on the hotel building, as our correspondent seems to think. Instead, the long-suffering public had to pay them. At the danger of their own estates, they have previously of this simple principle in taxation we will describe it once more. Before buying the site for the hotel or erecting a building thereon the Astors, like all other business men, made a careful estimate of the investment that would be required and of the operating expenses that would be involved in its management, including the cost of estimating that they were making a conservative estimate of the revenue and profit they might safely expect to derive from the enterprise. When assured that they were estimating that they would receive a fair rate of interest over and above all taxes, they proceeded to erect the hotel. Had they not been assured of this return on their total investment, they would not have put up the building. Thus the taxes were really added to the bills charged the patrons of the hotel and paid by them and not by the Astors.

In addition, therefore, to receiving a profitable return on their investment in the site of the hotel and in the building itself, the Astors also received over \$20,000, or a total of \$21,000,000, in the form of a bonus to the public and not to the Astor family. It is because hundreds of millions of dollars of these public created values are each year passing into the hands of private parties in Canada as well as in the States, that we feel our farmers' organizations are justified in the stand they have taken that these values should be claimed by the public. All such values, our correspondent writes, numerous fortunes have been made through phenomenal increases in land values. Had the public received their share of these and other similar increases in value taxes in Canada would not be so high, and farming generally would be considerably more profitable.—The Editor

Issued

Each Week

Vol. XXXII.

HAND

Rev. Father Leo

How Fruit Is Picked
Keeping

PICKING and packing is a science for from condition of or in storage.

When should we begin to pick the apple is a question to turn brown and the true case from the minute. A man must perceive the appearance of the apple is ready to pick, and only learn from, especially the color is the. For instance, in the Wealthy, Famous-tosh apple, the color mature one. Each picked before it reaches color, if we intend to. But even in this case not recommend at a Duchess too much on side.

An apple is generally pick when it is well and does not mean that should be ripe enough, but to ripe enough, shipped, keep well a good taste. To pick this stage is very important all applies on a tree mature at the same in the case of Duchess really make two or three.

AVOID OVER-RIPEN

With red apples to growing tendency on trees, on account of the color, to avoid apples. Disappointment of such a line of conduct were just glowing hard, when there came a windfall of half of the. But this is only one of.

An apple that is all the tree is beautiful in and as far as causal condition. This is why. Such apples are neither far or to hold up in judge the proper maturity, many complaints from, after a very dry or our McIntosh and Fame and the falling down in

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Only \$1.00
a Year

Vol. XXXII.

FOR WEEK ENDING OCTOBER 2, 1913

No. 40

HANDLING TENDER VARIETIES OF APPLES IN QUEBEC PROVINCE

Rev. Father Leopold, La Trappe, Que., President Quebec Province Fruit Growers' Association

How Fruit is Picked and Packed at the Oka Agricultural Institute. Precautions taken to insure the Keeping Quality of the Fruit. Why Wrapping of Fancy Grades is Practiced

PICKING and packing apples in the right way is a science. Ignorance in a large measure accounts for the serious loss that results from off condition of apples on arrival, in transit or in storage.

When should we begin picking? As a general rule the apple is ready to pick when the seeds turn brown and the stem separates with comparative ease from the spur, but this rule is not definite. A man must know from the general appearance of the apple when it is ready to pick, and this he can only learn from experience. In a way the color is the best guide. For instance, in the case of Wealthy, Fameuse and McIntosh apple, the color must be a mature one. Duchess may be picked before it reaches its full color, if we intend to export it. But even in this case I would not recommend at all picking Duchess too much on the green side.

An apple is generally ready to pick when it is well ripe. This does not mean that the apple should be ripe enough to be eaten, but ripe enough to be shipped, keep well and have a good taste. To pick apples at this stage is very important. As all apples on a tree do not mature at the same time, like in the case of Duchess, we generally make two or three pickings.

AVOID OVER-RIPENESS

With red apples there is a growing tendency on the part of some fruit growers, on account of the beauty of a brilliant red color, to allow apples to hang too long on the tree. Disappointment is many times the result of such a line of conduct. Last fall many growers were just glowing over the nice weather we had, when there came a big wind storm that made windfalls of half of their crop of Fameuse apples. But this is only one side of the matter.

An apple that is allowed to remain too long on the tree is beautiful in color, tempting to taste, and as far as casual observation goes is in perfect condition. This is what fools many a grower. Such apples are neither in a fit condition to carry far or to hold up in cold storage. Inability to judge the proper maturity for picking brings back many complaints from dealers. One year especially, after a very dry and warm summer, we left our McIntosh and Fameuse too long on our trees, and the falling down in our cold storage plant was

very noticeable. An apple will keep just so long under perfect conditions, and we should endeavor to know just when to pick at least the two best varieties that we have in our Province of Quebec—the McIntosh and Fameuse

The picking of our apples is done every year by our Fathers and a few good students of the Oka Agricultural Institute, under the personal supervision and guidance of one of the Fathers. No matter how perfect may be the picking equip-



Apples are Here Handled Like Eggs and Packed With More Care

All products from the monastery at La Trappe, Que., have a reputation for quality and sell at the quality price. Above all things the Monks guard the reputation of their products. They may be here seen sorting apples in the orchard. The table illustrated is used for the barrel pack only. The table for box packing may be seen on page 4.

ment, good results can not be obtained unless the fruit is handled very carefully. There is no doubt at all that a big percentage of the damage done to our tender varieties of apples from broken skins and punctures takes place before the fruit reaches the packing house. So we train our pickers and do not leave every student who is able to climb a ladder or eat an apple in our picking or packing crew.

EXPERT SUPERVISION

The superintendent sees that the fruit is taken from the tree without breaking off the fruit spurs, and that the apples are carefully placed in baskets (made especially for the purpose with osier by one of our old Brothers). These baskets hold about one-half box of loose apples. We think it would be better to line each basket with burlap. Apples should be handled as carefully as eggs for once bruised they do not keep long and have a bad appearance. More apples are bruised in put-

ting them into the baskets, we believe, than in emptying them into the boxes or sorting tables. We always insist that our pickers put their hands clear down into the baskets until the apples can be placed carefully upon the other apples already in the baskets. Care must be exercised in all points. After the picking crew is properly instructed it is absolutely necessary to insist that these instructions are carried out to the letter at all times.

We find that a hook of wire in the form of a letter S is a great help to do work quickly and better, as then one has his two hands with which to work. One end of the hook catches the basket and the other end a limb of the tree or part of the ladder.

They should be strong so that they will last, and give you also the feeling that you can climb them safely, even with a basket full of apples. Avoid ladders that lean up against a tree because they not only break the limbs but the bark. Wherever the bark is broken, an opening is made where some of the many diseases now prevalent will have a chance to enter. We have tried types of ladders advertised in The Canadian Horticulturist, and found them quite satisfactory.

The ladders we use are light but solid. A great many fruit growers think that any old barn ladder that you can lean up against the trees will do all right, but we must to-day adopt modern ways and equipment. Light ladders that are convenient to carry and move around a tree and so compact that they will be easily placed between the limbs instead of against them, should be used.

Sorting and grading the apples should be done with care, all apples being handled one at a time. We used to sort our apples in the orchard and continue to do so in the case of apples going into barrels. But with such varieties as Duchess, Wealthy, McIntosh and Fameuse we think it better to do the sorting and grading in the packing house. We shall mainly dwell here in our remarks upon the grading of apples that are for box packing, as our best tender varieties are all going to be packed in boxes in the near future. It seems really a pity to put up fancy and number one Fameuse and McIntosh apples in barrels, now that we have begun to take to the box. Of course we are hoping only of the best grades as we never put on the market our culls and number three apples. These invariably go to our elder mill or to our canning plant. We still continue to put up in barrels the number two grade. We think it best to sort the apples before they

go to the packing table, as we are not yet trained enough to do good sorting and pecking from the same pile of apples on a table. It is certain that it is less difficult for our young students to pack the apples in boxes after they are carefully graded beforehand. Also it is presumed that a sorter, having only one thing to perform, might be able to do it better than a packer will, having to pack the apples at the same time.

After a basket is full the picker empties very carefully the contents in an orchard box, which is then put in the express wagon, and after a load is ready the apples are brought to the packing house. Here we should insist upon one point. Every grower intending to pack apples in boxes, should be provided with orchard boxes. The only way to deliver clean boxes to our customers is to use orchard boxes. There is nothing that soils the reputation of a grower more than a bad appearance of his barrels or boxes. The orchard box is made a little larger than the ordinary box and has cleats on the top so that the apples may not be bruised when the boxes are piled on top of one another. These boxes will last long if well cared for.

Our sorting table is quite a long one, so that apples may be put on the entire length without piling them up too high upon the canvas covering, thus avoiding bruises.

THE PACKING TABLE

Our packing tables can accommodate two men at a time. The boxes are inclined towards the packer in such a way that he picks up each apple from the table with the right hand and grasps the wrapping paper with the other hand.

We sort the apples in two grades only, fancy and number one ordinary; it will not pay to pack more than two grades, as every time that an extra grade is introduced it adds about five cents extra per box to the cost of packing. Only perfect fruit goes in the fancy grade. Number one grade includes only fruit that is a little below fancy, and not perfect. I believe the standard pays to keep above the Fruit Marks Act; then we never get in trouble with our customers, and our name holds good everywhere.

As to the size of the apples, we first sort them with grading boards which have holes in accordance with the grade size decided upon at the last Dominion Fruit Conference held at Ottawa.

McIntosh generally are graded to 125, 138 and 150 apples in a box, and are all a 2 3 diagonal pack. Fameuse may range from 165, 175 and 188 apples in a box, all 2 3 packs also. These packs all contain five rows of apples and only vary in number of apples lengthwise.

We believe that every package of fruit should be lined with paper. We feel certain that when apples are wrapped they carry better, bruise less, arrive in better condition and keep longer than unwrapped fruit. The packing paper consists of a layer of paper of a spongy nature (don't get glassed or semi-glassed paper) for lining, and a soft tough paper like the "Duplex," for wrapping. We find ten by ten to suit us very well,

though eight by eight would do for the Fameuse. Part of the wrapping paper is stamped with our College motto in red color. This paper is used on the top layer at least, so that when a package is opened and displayed, everyone may know where the box came from, even though the label on the end is invisible.

Don't buy cheap paper. One never saves any-



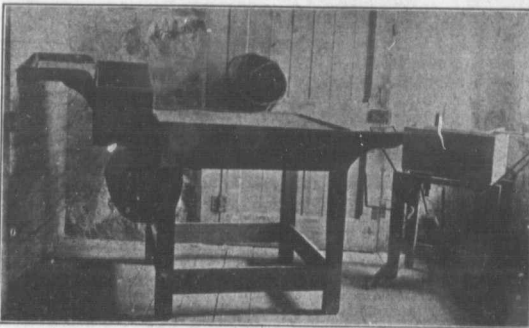
A Wagon such as this is Very Desirable for Transporting Apples

This outfit is in use at the La Trappe Monastery in Quebec. Its principal recommendations are the strong springs which protect the fruit from bruising in transport from the orchard to the packing house.

thing by doing so. Cheap paper will break or tear when wrapping, so that the time lost, let alone the appearance of the pack, will more than offset the difference in price of first and second class material. A tray for holding the wrapping paper is found very convenient. This tray is made so that it can be fixed on the side of the packing box. We avoid in mostly all cases the straight pack, and find that our Duchess, Wealthy, McIntosh and Fameuse can be accommodated with the diagonal 2 3 pack.

PACKING HOUSE ESSENTIAL

A packing house is essential when a fruit grower



A Style of Table used at La Trappe for Packing Apples in Boxes

The method of box packing practiced at La Trappe, Que., is described by Father Leopold in the introductory article this week. Notice the paper holder to the extreme left, the style of baskets used in the orchard and the box press to the right.

wants to put up extra fine fruit. It should be well lighted, of convenient size, and well arranged for carrying on this important part of the fruit problem. In order to put up apples in the most perfect condition it is necessary after picking to get them quickly into a cool place, where they will be protected from the sun. When the grower packs in the orchard the apples absorb heat from the sun. The less heat there is in an apple when

(Continued on page 15)

Educating for Good Citizens

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

The young man is a progressive man. I don't believe there is a young man anywhere who has not ambitions of some kind even though it may be hard to fathom what they are. This desire for improvement is now making itself felt in every department of life where young men have assumed command. As we get older we get better satisfied with things as they are, mainly because they are of our own creating and we lose our desire to strive for higher and higher ideals.

Hence the value of getting a young man embarked on business while his ambitions and ideals are fresh. Those of us who are older may not like to admit it, but it is true that the great proportion of improvement in the world must be the work of the younger man.

In business the world has fully realized this. Everywhere young men are desired. We older men have fitted agricultural colleges, we have established a system of district representatives in two provinces, in the city we have technical schools; all designed to better fit young men for pushing on the industries of the world.

WHERE TRAINING IS LACKING

But how much attention are we giving to the training of good citizens? The state is the biggest business in the world. Take Canada for instance. The Dominion revenues run well over \$1,000,000,000 a year. What private industry is there in our country that begins to compare with the business of the Dominion in just a purely financial sense? And how little the most of us know about this business. What little do we know we learn from a partisan press, from partisan speakers at partisan meetings or from partisan discussions among little groups of neighbors.

As a matter of fact partisanship is not a necessary part of the government of a country. There was government long before there were political parties. What we want our young men to know is something about the great principals that underlie government. How many of our young men for instance, on leaving school, are able to discuss intelligently the relative advantages of protection and free trade? How many are informed on the relative advantages of indirect versus direct taxation? Of government ownership and operation of public utilities versus private ownership and operation? And so I might go on at length.

I think all must agree that our young men get little, if any, training along this line. Before we have learned enough about the principals of government to really cast an intelligent vote we are getting old and set in our views. I believe that our country suffers an incalculable loss because of the lack of intelligent voters among the younger men.

I have heard different suggestions for the

(Continued on page 15)

MANGELS and much above to pests than therefore, to begin practice of pulling must locality. In some days to pull a few days later. The roots and growth as possible, to maturity the grade, and they will winter. If pulled to come soft, and heat; is storage.

The common practice in taking up mangels grow well up out of top them by hand. both hands, then all gether, and with a broken off. It is much the tops off by hand, knife they are more

ARRANGING

For convenience in throw four drills into for both pullers and ground 24 hours after this will improve drying them, and any wash easier before re there are any indications either husked or covered degree of frost will be pulled. Should manage them to remain in the handling them, as the will break the skin and

Sugar beets and celeriac owing to their It is best to run a subsoiler within a month or so of blossoming and cutting should roots, and thus up several roots at once pulled and laid in rows, knife and thrown into bins in loading. The and sugar beets in most be 20 and 30.

Turnips being much the ground longer, as injure them so long as being husked or rotted.

There are several ways which are quite successful to top them with the roots out with a sharp-board removed. By striking together the turnips cut turned inwards on the roots visible for loading in other plan is to top with drag them out of the top by harrowing across the stand up if necessary. This may soil, but in clay is considerably injured, and earth clinging to the roots. With this plan the tops before harrowing.

When help can be seen pulling and topping by hand, knife, is preferable. On root, the second stroke to a slight swing while cut

* This is a portion of the report on "Growing Roots" before the Senate on Agriculture

EXPERT ADVICE ON HARVESTING AND STORING ROOTS*

Jno. Fister, Conservation Commission, Ottawa

MANGELS and sugar mangels, growing so much above ground, are more susceptible to pests than other roots. It is necessary, therefore, to begin pulling about October 15. The date of pulling must be regulated according to locality. In some districts it may be necessary to pull a few days earlier and in other districts later. The roots should have as long a season of growth as possible, for the nearer the roots come to maturity the greater will be their feeding value, and they will keep better and later during winter. If pulled too early they are apt to become soft, and heat; and if frozen they will spoil in storage.

The common practice, and the most advisable is taking up mangels and sugar mangels which grow well up out of the ground is to pull and top them by hand. Each root is pulled, with both hands, then all the tops are gathered together, and with a sudden jerk the tops are broken off. It is much better to break or twist the tops off by hand, for when topped with the knife they are more liable to decay.

ARRANGE FOR THE CART

For convenience in loading into carts or wagons, throw four drills into one row; this is convenient for both pullers and loaders. If there is no danger of frost, allow the roots to remain on the ground 24 hours after being pulled and topped, as this will improve their keeping qualities by drying them, and any soil pulled will shake off much easier before reaching the root cellar. If there are any indications of frost, roots should be either housed or covered with leaves, as a few degrees of frost will injure mangels after they are pulled. Should mangels get frost bitten, allow them to remain in the field to thaw out before handling them, as the least handling when frozen will break the skin and encourage rot.

Sugar beets and carrots are more difficult to harvest owing to their long underground roots. It is best to run a subsoil plow or an ordinary plow in a mouldboard along one side of the row, loosening and cutting off some of the strong fibrous roots, and thus enable the puller to take up several roots at one time. They are usually pulled and laid in rows to be topped with the knife and thrown into baskets or boxes for convenience in loading. The time to harvest carrots and sugar beets in most districts is between October 20 and 30.

Turnips being much harder should be left in the ground longer, as a slight freezing will not injure them so long as they get thawed out before being housed or pitted.

There are several ways of harvesting turnips which are quite successful. One of the easiest is to top them with the ordinary hoe, and turn the roots out with a sharp-edged plow with the mouldboard removed. By striking the tops of two rows together the turnips can be plainly seen, and if turned inwards on the row of tops they are clearly visible for loading into wagons or carts. Another plan is to top with the ordinary hoe and drag them out of the ground with the harrows by harrowing across the drills, letting the harrow lap if necessary. This method answers well in sandy soil, but in clay soil the turnips are considerably injured, and as a rule there is more earth clinging to the roots than is desirable. With this plan the tops have all to be removed before harrowing.

When help can be secured the old method of pulling and topping by hand, using a large heavy knife, is preferable. One stroke to cut the tap root, the second stroke to cut the top off, and by a slight swing while cutting the top four drills

are thrown into one row for convenience in loading. Turnips should be left on the ground a day or two after being pulled, as they are not so easily injured by frost as other roots.

The ordinary low wagon will be found best for drawing to the cellar or pit, as it is advisable to run the roots over a slatted chute so as to sift out the earth. No tops should remain on the roots, as they will soon decay and injure the roots. Where the roots drop into the cellar they are liable to heat unless a ventilating shaft is first put in as close to the opening as possible and running from the bottom to the top of the root cellar.

There are two important matters in connection with the successful storing of roots. The first is to keep them sufficiently cool, the second to prevent them from freezing. Heat will spoil them as quickly as frost.

VENTILATION

The principle of ventilating the root cellar is



The Judging Class, a Feature That Might Well be Incorporated in the Program of Every Fair

Watching the placings of the judge in the regular classes does not teach the young man one-half as much as actually placing the animals himself; hence the value of the judging competition. The illustration herewith is from a photo taken at the Perth (Ont.) Fair. Many fairs already have these competitions. Others would do well to follow in line.

the same as that required to cause a draught in the stove. There should be shafts made down outside the wall to enter at the level of the floor below, with large openings directly through the roof. The outside doors and windows should be kept open every day until there is danger of frost. To keep out the frost have the root cellar at least two-thirds below the surface of the earth. Then about December 15 it may be necessary to bank up to the roof with stable manure.

Where there is no root cellar, or insufficient room, roots may be pitted successfully. Select a high, dry spot convenient to the buildings. Mark out a pit the required length and about five feet wide, and excavate two or three feet deep, but if there is danger of water, excavate only three or four inches. The earth should be laid along the sides for covering. Build the roots up to a point three or four feet high, then cover with straw about four inches and with earth about eight inches. This covering may be sufficient until about the middle of November. Then cover with four to six inches of stable manure and 12 inches of earth. To make provision against excessive frost it is now advisable to cover the pit the last of December with long stable manure.

To ventilate the pit, take two boards one inch by six inches and eight feet long, nail good strong strips of wood crosswise up three feet, the other five feet to be boarded solid, leaving the top open until severe frost comes. Then put a bunch of straw in to keep the frost out. These shafts should be in every eight or 10 feet apart along the pit, the slat work to extend through the roots to the bottom of the pit. It is desirable to keep

an even temperature in the pit. To ascertain the temperature an extra shaft may be put in to allow a thermometer to be raised and lowered, and temperature noted, as heat and frost have to be guarded against.

Big Records or Real Cows

Jos. Voden, Middlesex Co., Ont.

Well done Prof. Barton! It is not often that we find a man with back bone enough to stand up in front of a bunch of breeders of dairy cattle and tell them that it is real cows and not big records that we want. I have just read Prof. Barton's address before The Menie District Ayrshire Breeders' Club in Farm and Dairy, Sept. 25, and think the Professor's ideal about right—a herd of cows with a uniform production of about 10,000 lbs.

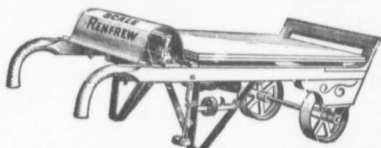
I believe that dairy farmers generally are largely responsible for the craze for big records. We are continually running after cows from high record stock. For instance, the man who goes to

the States and buys a bull from one of their cows with a top-notch record, immediately finds his stock in demand. And yet the dam of that bull even with her great record, may be a very undesirable cow. I have in mind one of those cows over there with a record of over 34 lbs. of butter as a three-year-old that is shallow in the body and poorly constituted. Just how she made her great record I do not know. It must have required a degree of skill or of trickery on the part of the feeder that the rest of us do not possess.

I have all respect for a big yearly record. I have still more respect for a cow that comes back with a big record from one year to another. They indicate the right kind of stock. But what does a big short time record mean? It may mean that the cow has been pampered and fed and fattened to give her the best opportunity for a short-time spurt. It means a degree of feeding that no farmer who has to make his living from the milk that his cows make can afford to give. Even long-time records, where there are no breeding requirements, appeal to me as being of very little value from the standpoint of a practical dairyman. This I consider the strong point of our Record of Performance system as compared with the United States system. The cow has to freshen again within 15 months. If I had my way I would make it 12 or 13 months.

From my observations and experience I would say that farmers would do well to take Prof. Barton's advice to heart and to be rational in their demands for records in order that they may produce real cows, even if they don't get their pictures in the paper as leading breeders.

*This is a portion of the paper read by Mr. Fister on "Growing Roots before the Standing Committee of the Senate on Agriculture and Forestry."



Stop Cheating Yourself Mr. Farmer

A good many farmers cheat themselves out of hundreds of dollars a year without knowing it. Also they get cheated by the other fellow without knowing it. It works both ways.

There is always a chance to lose money on anything you sell or buy by weight if you do not know the exact weight. You are always at the mercy of the other fellow so long as you go on the "guess work" plan. So long as you are without the proper kind of a scale you lose enough money every year to pay the wages of a good hired man.

The proper kind of a scale. What is the proper kind? There is only one scale that is entirely satisfactory for farm use—The Renfrew Handy Two Wheel Truck Scale. This Scale is especially built and designed for every day farm use. It isn't an ordinary scale to be located in the Barn or the Dairy or any one spot. It is a "Handy" scale—convenient for every farm need.

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THE DRESSING AND MARKETING OF VEAL CALVES

By W. H. Tomhane

VEAL calves are shipped both dressed and on foot. Nearly all that are shipped alive go directly to the stockyards where they are sold to large packing houses. The bulk of dressed veal is slaughtered on the farms, or by local butchers. It is then shipped to commission merchants in large cities; or, in some cases, directly to retail butchers and hotels. Complaints are quite often made that the veal calves shipped on foot remain in transit too long without food. There is, no doubt, room for criticism and a chance for improvement along this line.

If shipped on foot, the calves are often feverish when slaughtered. They have been kept from their dams too long and meat of the best quality cannot be expected. The quality of this veal, however, is in most instances better than that of much of the veal which is improperly slaughtered and prepared on the farms before shipment. There is no reason why farmers cannot supply the best quality of veal directly from the farms, and ship it to the market dressed.

FEEDING VEAL CALVES

The best quality of veal can be produced only by feeding whole milk, either from a vessel or by permitting the calves to suckle the dam. A great many of the veal calves marketed are whole milk calves and these whole milk calves make more desirable carcasses. The difference in the cost of feeding by the two methods often warrants the feeding of skim milk rather than whole milk, even though veal of a poorer quality results.

From six to eight weeks is the most desirable age at which to dress veal for market. Many younger calves are marketed but these usually make inferior veal which does not sell as well as that from older calves. On most markets, calves weighing less than 56 pounds are condemned as unfit for feed. Veal that is too heavy or old becomes coarse in flavor and bone, and consequently is in less demand. There is a greater demand for the middle-aged veal, because chops or steaks cut from such carcasses are not too large to meet the demand of the average trade. The small local markets usually make little discrimination so far as the weight is concerned.

GRADING

The size, quality and finish of the veal carcass determines its grade and value. This will range from choice to light, or common and heavy. The following table gives the classification made on most markets:

Grade	Extreme weights	Usual weights
Choice	80-120	75-90
Good	70-110	75-85
Medium	60-100	65-75
Light or common	40-75	35-60
Heavy	120-200	100-120

The veal carcass of choice grade must possess a form that is broad, compact, and well finished, with a large amount of thick flesh over the ribs and loins. Quality is usually indicated by color, firmness, the grain of flesh, and general appearance. The kidney fat should be white and brittle, while the color of the flesh should be light pink, with the fat a lean well mixed. A veal carcass weighing from 80 to 120 pounds usually commands the best price. Weight and quality play an important part in determining its value on the market. There are, however, several other things that must be taken into consideration; as, for instance, proper dressing and shipping.

HANDLING METHODS TO SLAUGHTER

Veal calves, like other classes of animals should be kept off feed from 18 to 24 hours before they are slaughtered. The reason for this is, that the blood vessels are not then

filled with nutrients. It is therefore possible to remove the blood completely and produce meat of better quality. Care should be taken that the calf is not overheated, excited, or feverish in the slaughterhouse. Such an animal invariably produces a carcass that is very difficult to keep from spoiling.

In dressing veal, the first consideration is the selection of a place in which to do the work. It should be clean, in order to get a dry, attractive carcass. The best method is to use a small, stout rope, and hang the calf by its hind legs. This can be done by means of a rope and pulley. This keeps the carcass clean and allows you to stick the eal while it is in a hanging position. The blood will drain out much more quickly than if the calf were bled while lying on the ground.

KILLING

It is always advisable to stun the calf before sticking. This may be done with a hammer as it does not require a heavy blow. Soon after stunning, insert the knife just in front of the brisket, making a long slit down the center of the throat. The incision should be deep enough to reach the arteries and free the wind pipe and gullet. Be sure to make a large clean opening.

After the blood has been drained from the carcass, begin to skin the head. Begin at the muzzle and split the skin through the center of the face to the poll. Skin each cheek to the back of the head and remove the head by cutting a knife just which is about an inch back of the ear. Sever the muscles on both sides, and it will not be necessary to use an axe or saw to remove the head, as the saw does not do any good.

Next skin out the front shank, cutting just across the lower end of the enlargement of the knee joint, so as to strike the "straight joint," which is located by the "working the joint." Split the skin of the front shank well down past the dew claws and remove the shank. This is all the skinning that is done on the fore part of the carcass.

SKINNING HIND QUARTERS

The shank of the hind leg is next removed. This is done by cutting across the "straight joint," which is found in the lower portion of the hock just where it begins to enlarge. Skin out both sides of the shank, as in skinning the fore leg. Make an opening through the hock joint, through which the gambrel is to be placed when hanging the carcass. This is all the skinning that is done on a veal calf before it is shipped. No portion of the hide should be removed, as that would make it much more difficult to locate the c'n. and also cause the carcass to dry out too rapidly.

In removing the viscera or internal organs, make a cut through the midline from the pelvic bone down through to the breastbone. Cut the skin around the vent, so that the reum can be drawn down with the paunch and intestines.

INTERNAL WORK

Expose the inside of the inside as possible; being careful not to remove the liver, as that should always remain in the carcass. Loosen the wind pipe and gullet at the brisket with a knife. Then cut the diaphragm which separates the lungs from the heart and stomach. In doing this cut just outside of the layer of muscle which holds this membrane in place. Loosen it about the spinal column, and there will be little or no difficulty in drawing the best and lungs out through the opening that has been made at the midline. Remove any particles of blood or

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dirt that may be on the inside with a clean cloth. Wipe the neck and brisket thoroughly immediately after slaughtering. It is almost impossible to remove the blood stains or dirt of any kind after they dry. Do not wash the inside of the carcass.

COOLING

A thorough cooling of the veal carcass, before shipment, is very important. This is especially true in warm weather. It is a good plan to spread the opening which is made through the midline, and hang the carcass in some cool place, where it may be thoroughly cooled without exposure to flies, insects, or dust. A cool cellar, with a free circulation of air, is a desirable place to cool the carcass.

After the carcass has been thoroughly cooled, take that portion of the hids which has loosened from the head, and fold back over the neck. This should be securely tied with a stout cord, so that it will not gather dust or become so badly soiled when shipped. Fold the portion that was removed from the shanks back over the legs, and tie them securely. It is a wise plan to take a heavy twine and needle and sew up the midline so that it will keep out the dirt and flies. The veal carcass is then ready for shipment.

SHIPPING

In shipping veal, it is always a good plan to try to ship to some commission firm or meat dealer whose reputation for reliability is known. The shipping tag should state by whom and from what place the calf is shipped, as well as the address of the person or firm to whom it is consigned. Ship comparatively early in the week, and have the carcass reach the market in the morning. Veal that comes on the market during the early part or middle of the week is in the hands of the commission men whom meat dealers buy their supply of meat for their Saturday trade. This is usually done on Thursday or Friday.

Ship by express, as freight service is usually too slow. Never attempt to ship veal by freight, unless the refrigerator service can be had. Always make it a point to write the firm to which the veal is shipped. In case it happens to be misrouted or lost the express company may then be more promptly notified to trace it.

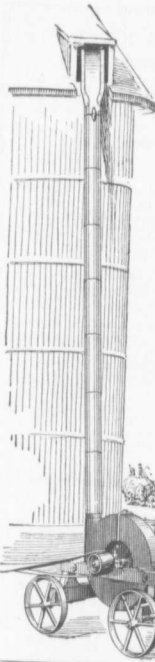
The handling of veal by the express companies is not as well managed as it should be. Too many times it is left lying on the station platform, in the hot sun, when it becomes covered with dirt and is exposed to flies and other insects. An effort should be made to require express companies to keep dressed veal in the shade while at the station. Racks or cross bars should be put in the express cars, so that the carcasses may be hung up when loaded, instead of being piled one on top of the other in the end of the car.

Rotation of Woods

By A. F. Wood.

The accumulation of noxious weeds, diseases, and insects on the farm is one of the most serious sources of loss. This results as a rule from the constant growth of one too long continued culture of the same crop or class of crops on the same land. Wilt in various crops, bacterial diseases, grain rust, and weeds and insects are too numerous to mention all accumulate in the soil under the one-crop system.

These pests often multiply to such an extent that ultimately it becomes impossible to secure profitable returns from land thus infested. Resistant varieties must then be secured or crops cultivated on land not subject to these pests. All these troubles can be avoided and the fertility of the soil greatly improved by intelligent systems of rotation.



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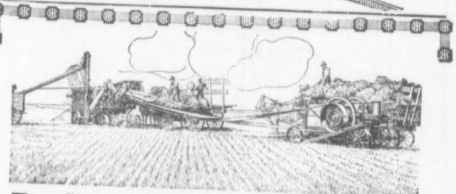
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buys security and safety with it. He banks on the many years of square dealing and the reputation back of all I H C machines. He knows it is the best engine bargain because it gives him efficient service, repair shops, gratulators, cream separator, etc. He knows that I H C responsibility is always back of the engine.

I H C oil and gas engines operate on gas, gasoline, naphtha, kerosene, distillate, and alcohol. Sizes range from 1 to 50-horse power. They are built vertical, horizontal, portable, stationary, skidded, air-cooled and water-cooled. I H C oil tractors range in size from 6-12 to 30-60-horse power for plowing, threshing, etc.

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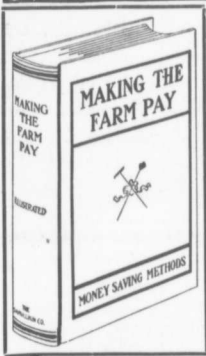
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HORTICULTURE

The Fruit Crop Report

"There has not been for many years such an unsatisfactory state of affairs in Canada as to export the apple crop is concerned," says Mr. A. McNeil, Chief of Fruit Division, Ottawa, in his most recent summary of crop conditions in Canada. "From British Columbia to the Atlantic coast reports, except in a few favored localities, state that the crop is below average and in many sections, particularly from Ontario east, total failures have been recorded. Several causes have brought about this result, the primary one being the extremely dry weather which prevailed during the early part of the season and which caused a very heavy drop of fruit in many localities.

"The very serious infestation of tent caterpillars in June and July also acted to reduce the yield, but this is something that the growers could have controlled. In earlier reports attention has been called so often to the importance of spraying that it is not necessary to dwell further upon it now. It is sufficient to state that the caterpillar situation might have been obviated by a concerted effort on the part of the growers. In many sections, too, severe hail and wind storms further reduced the crop.

NO CHANGE IN MONTH

"There has not been any material change in the situation since last month. Some localities, however, have been favored with showers, which have helped the development of the later varieties, and if no unfavorable conditions set in during the next few weeks it is reasonable to hope that most winter fruits will be of fair quality. Unfortunately there is an almost universal complaint that apples and pears are generally smaller in size than in the ordinary year.

"The average for the whole Dominion is estimated at 48 per cent. of a full crop of fall and winter apples.

The pear crop in Ontario varies from fair to excellent, although the fruit may be smaller than in an average year. In Nova Scotia pears are decidedly short, as they also are in British Columbia. The plum crop has been the largest harvested in Ontario in many years. Nova Scotia and the contrary has a heavy crop. The British Columbia crop is heavy.

There is a heavy crop of peaches in the Niagara district, and of good quality. It is quite possible that there will be a late glut, with low prices to the grower. In Essex, Kent, and Lambton there has been a fair yield. In British Columbia there has been considerable loss from dry weather.

PEACHES FOR THE WEST

"A prominent shipper of Niagara district," writes Mr. McNeil, "has marked car lots of peaches in the North-West. Those responsible for the packing are to be complimented on the care and neatness shown. The report received from Winnipeg, and dated September 10, states that, while some of the fruit arrived in good condition, and would hold up for a few days, yet at least an equal quantity had either to be consumed at once or was over-ripe and showing 25-50 per cent. waste. The fruit was of excellent color and size and had been packed in the best manner. The report received from Winnipeg, dated September 10, states that it would all have reached Winnipeg in prime condition. The packages and packing were excellent, and it is unfortunate that this enterprising shipper did not meet with even greater success."

Fruit Markets Abroad

From Glasgow comes a report that there is a shortage of pears in the British Isles. This means a demand in the Old Country which in an average year could be supplied by Canadian fruit. Rapid strides have been made in the export fruit trade in recent years, not only with Great Britain, but with Germany, South Africa and Australia as well, and Canadians should be quick to grasp every opportunity of widening their markets and supplying them with reputable fruit. Fruit trees are being planted and are rapidly coming into bearing in all the fruit-producing sections of Canada, and it is reasonable to suppose that this production will outpace the concurrent increase in consumption. The importance of developing an over-seas market therefore becomes evident, and our ambitious growers are to be congratulated on the foresight and perspicacity which they have already shown in this connection.

The Old Country market has, of course, been receiving Canadian fruit for many years, but the reports which have been received upon this shipment have not always been of the most favorable nature. Since the formation of a central selling association in Nova Scotia some improvements have been made, and though last year was not a good one, in that province, yet the number of unfavorable reports was not great, and the general impression made upon the consignees in Europe was good. This year, the crop in Nova Scotia is again poor, but so long as the growers are content to pack their bluish apples as No. 3's and do not attempt to include them among the higher grades, they may still retain the market favor.

THE AUSTRALIAN MARKET

The Australian market, for very obvious reasons, has been chiefly supplied by Pacific Coast fruit, and this year with a central association established in British Columbia it is reported that some 30,000 boxes of choice fruit will be exported to the Antipodes in that province. With these two models of cooperation before us, it is reasonable to suppose that success will meet the union of the Ontario associations to central agency and Canada will await with interest the result which will follow the handling of this year's crop which will reach the Old Country in large quantities, and which is extending to hold its own in the prairies.

We hear very little of the South Africa market, and yet it is one of the richest Canadian fruit markets in some reports. It is not a matter which has in any season received so much attention as it has in the past, and the quantity of fruit which would seem adequate for it is closer to Halifax than British Columbia or Australia. The box package is preferred by the South African dealers, and that reason they have looked to British Columbia for their fruit. In a glance at the map of the world, however, will show that Nova Scotia is the natural source from which the supply should come, and even this year in spite of the poor crop, the fruit is in some reports so good from that Province.—Report No. 1.

Enrich the garden plot with 90 poultry droppings.

We had a fine crop of apples last year, some 1,600 barrels, 1,300 of which grew on 14 acres of land and on trees 20 years of age. Much of this crop was of a fine quality and fairly well colored. We had some scale in one part of the orchard due to incessant rains at the time of spraying; and shipped to the British market.—R. R. Sloan, Huron Co., Ont.

PROSPERITY

CONDITIONS
CROPS
ON THIS year
the crop
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of the middle
of the province
and the
quantity be short,
too early to estimate
the crop of the
very unfavorable
of blight and conse-
crop is of good
quality all marketable
are now 75 cts.
identically the same
last year at this time
In such a large pro-
duction may be
greatly. The fore-
an average of all fruit
from Farm and Dairy
correspondents located
provinces. In Eastern
crop will be exaspe-
average, early frost
able damage but it
will be fair. Some
era Ontario, notably
adjoining countries,
from 70 per cent. to
is true of the potato
of Middlesex. From
our correspondents in
the Atlantic provinces,
farmers will have to
their own use and for
the market. The
has been very poor
year.

One of Farm and
podents, Mr. George
linton county, make
new disease, potato
of the area affected
extended. Another
is raised by Mr. Chas.
diesex county, who re-
fired bug as playing a
being growing a mod-
erly than any spray-
sday that "the cheap
work." Similar re-
port by natural enemies
beetle come from other
province as well.

It would seem that
potatoes at Ontario
will be determined by
the abundance of the
set time provinces.
Fruit from
hand Farm and Dairy
that potato prices this
about the same as the
year. Reports of our
respondents follow:

FAIR CROP IN CANADA
"Potatoes will be a
in the season they suffer
drought, but a heavy
crop is expected. The
few.—John A. David-
Co., Ont.

"Late potatoes gath-
erment will not be a quar-
tantage. Some half a
planted three-quarters
blight or rot. Sprayed
for bugs.—J. A. Sey-
Haliburton Co., Ont.

"Many tubers were
before ripe, but the
cases will be fair with
size and quality. Very
seen this season."—H.
Hastings Co., Ont.
"Early potatoes are
a light crop. The late
crop is being hurt by
I cannot say yet. Our
the same as in former
noticed neither bug nor
Judson Kelly, Hastings,
Co., Ont.

PROSPECTS FOR ONTARIO POTATO CROP ONLY FAIR

CONDITIONS affecting the potato crop this year are widely different from conditions ruling last year but so far as monetary returns from the crop are concerned results will be about the same. In 1912 favorable weather conditions led to an immense crop being harvested. Blight, rotted badly and not marketed in the crop half of the crop was marketed in a satisfactory condition. This year in a cold wet spring, which delayed planting, was followed by a long period of drought over large sections of the province and the crop will consequently be short, how short it is yet too early to estimate. The dry weather of the mid-season, however, was very unfavorable to the development of blight and consequently this year's crop is of good quality and practically all marketable. Toronto prices are identical the same as was being paid last year at this time.

In such a large province as Ontario conditions may be expected to vary greatly. The foregoing summary is an average of all reports as received from Farm and Dairy's special crop correspondents located throughout the province. In Eastern Ontario the crop will be considerably larger than average, early frosts doing considerable damage but on the whole returns will be fair. Some portions of Western Ontario, notably in Waterloo and adjoining counties, the crop will vary from 75 per cent. to full. The same is true of the potato growing sections of Middlesex. From Simcoe county our correspondents send very pessimistic reports, even claiming that farmers will have to buy potatoes for their own use and for seed. The same is true in Essex where the drought has been very bad this season.

One of Farm and Dairy's correspondents, Mr. George Wright of Wellington county, makes mention of the new disease, potato canker, but states that the area affected is not widely extended. Another point of interest is raised by Mr. Chas. Macfie, Middlesex county, who refers to the soldier bug as playing havoc with potato beetles, proving a more effective remedy than any spray and as Mr. Macfie says, "the cheapest brand on the market." Similar reports of good work by natural enemies of the potato beetle come from other parts of the province as well.

It would seem that the price of potatoes at Ontario centres this year will be determined largely by the abundance of the yield in the Maritime provinces. From all reports to hand Farm and Dairy would predict that potato prices this year will be about the same as they were last year. The reports of some of our correspondents follow:

FAIR CROP IN CARLETON

"Potatoes will be a fair crop. Early in the season they suffered from the drought, but a heavy rain on July 15th saved the crop. Bugs have been few."—John A. Davidson, Carleton Co., Ont.

"Late potatoes caught with the frost will not be a quarter crop. Early planted ones half a crop, medium planted three-quarters of a crop. No blight or rot. Sprayed three times for bugs."—J. A. Seymour-Taylor, Haliburton Co., Ont.

"Many late tubers were frozen down before ripe, but the yield in most cases will be fair with tubers of good size and quality. Very few beetles seen this season."—H. S. Tucker, Hastings Co., Ont.

"The crop has suffered from drought and the season was shortened little over half a crop. I have heard of canker once or twice. The late crop will be the worst failure."—Geo. Wright, Wellington Co., Ont.

"The potato acreage is about the same as usual with a 75 per cent. crop. Early potatoes were light; late blight, but bugs are numerous on Waterloo Co. Ont."—Addison B. Snyder, Waterloo Co., Ont.

"The acreage of potatoes is about the same as last year and the yield promises to be well up to the average. Bugs were easily kept under control and tubers are free from scab and rot."—C. H. Shuh, Waterloo Co., Ont.

"THREE TO THE HILL. "Potatoes average three medium sized tubers to the hill. They are generally free from scab and blight."—C. Nicholson, Dufferin Co., Ont.

"Potatoes are not grown here to a commercial extent. Late potatoes were fairly free from bugs; blight was noticeable on some patches."—J. C. Syme, Oxford Co., Ont.

"Potatoes are a failure, the very early ones only yielding a fair crop. Other plantings will be the smallest ever gathered. Most farmers will be compelled to buy potatoes for use as well as for seed."—C. S. Burton, Simcoe Co., Ont.

"The potato crop will be short as compared with previous years. I have not heard of anyone with rot."—Wm. Lockheart, Simcoe Co., Ont.

"BELOW THE AVERAGE. "Continued dry weather will result in a potato crop below the average. The acreage is much less than last year. There are no signs of rot."—K. R. Sloan, Huron Co., Ont.

"The acreage is less than last year, but the quality of the crop is better. Tubers are of good size but few in a hill. Bugs were plentiful, but no blight."—Jas. A. Lamb, Bruce Co., Ont.

"Potatoes are about half a crop. Some fields are almost a failure, but in no case are they below the average because of drought."—J. K. Livingston, Bruce Co., Ont.

"Blossoms are above the average and no word of rot. Those late going in suffered from drought."—Jas. MacKenzie, Bruce Co., Ont.

"AN OPTIMISTIC REPORT. "Potatoes are a good average crop, fine and dry when cooked, and free from blight. Darmouth, Delaware and Caradoc townships are famous for potato growing. They all have fine fields and are looking for good yields. Bugs were not bad."—Jas. E. Orr, Middlesex Co., Ont.

"We have had some blight. Late planted potatoes missed the bugs, but were recently caught by frost. They are immature but will harden. Prospects are for a good yield."—Chas. Macfie, Middlesex Co., Ont.

"Prospects for the potato crop this year are much better than last year as we have had no blight or rot. The acreage is not up to former years."—Jas. Laird, Lambton Co., Ont.

"Potatoes are a fairly good crop. The acreage is not increasing; the blight is not as bad as usual."—J. W. Kennedy, Kent Co., Ont.

"DROUGHT IN ESSEX. "The potato crop is very poor, the early ones not half a crop and late ones not near as good as the early. We have not had enough rain since May to thoroughly moisten the ground. The crop will not be one-third of last year. Blight was scarce but bugs were plentiful."—L. C. Palmer, Essex Co., Ont.

"Late potatoes will be almost a failure owing to the long drought. (Continued on page 16)

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POULTRY YARD

Some Difficulties

By F. C. Brown

In asking for information in regard to several details of management, a subscriber raises some points of such general interest that it may prove instructive if I deal with them in this column.

Is it better to keep fowls in small flocks shut up in small runs, or large flocks on free ranges? This is an old problem. Confinement too restricted is not good for any bird, and having a free range a small flock will do much better than in confinement, provided, of course, that where winter eggs are desired the birds have comfortable quarters and good scratching accommodation in which they can shelter in cold and unfavorable weather. Of course, a small flock will always give a relatively better profit than a large one—indeed, it will generally be found that the greater the number of birds run together the lower will be the average return.

The use of a male bird is unnecessary unless the eggs are required for hatching purposes.

As to the desirability of providing grass as well as oyster-shells, some breeds will certainly do well on oyster-shells alone. As a preventive of liver-troubles, however, sharp gravel grit is always advisable, and in the case of some of the heavier breeds it is essential.

There is no best-balanced ration. The most satisfactory results are obtained where a hen is allowed to balance its own ration, especially where the birds are of varying laying capacity. Green stuff cannot be over-supplied, providing, of course, the birds are fed a sufficiency of other materials—a good warm mash in the morning (two parts pollard to one of bran) mixed with skim-milk or meat soup, boiled meat at midday (as much as the birds will readily eat up), and grain at night.

Providing the birds are of a heavy laying strain, give them as much food as they can consume at each meal. No definite amount can be stipulated as to the daily supply for a flock of birds, as their appetites vary much according to the season, the weather, and the laying condition of the birds.

Veterinary Notes

Charles Keane, D. V. S., San Francisco
or Veterinary College.

Disturbance in digestion are by far the most common ailments of cows. On the first signs of indigestion in a cow the feed should be investigated, and at this time if a saline purgative is administered the attack will often be aborted. A draught consisting of one to one and a half pounds of Glauber's or Epsom Salts in solution of water is the best purgative at this time.

Inflammation of udder in cows is often infectious and can be carried from the affected to healthy members of the herd on the hands of the milkers. A good practice to follow is to segregate any animal showing disease of the udder until it has recovered. The milkers should wash and disinfect his hands after milking.

DEPRAVED APPETITE

Depressed appetite (pica), in cows, in which they eat dirt, gravel, etc., is generally the forerunner of a more serious affection of the bones and is due to a deficiency of bone forming elements in the food. Finely ground meal added to the food assists in overcoming this affection. Such cows should also have access to a piece of rock salt where it can be licked at will.

Young calves suffer from a variety

of diseases, such as inflammation of the joints, (joint ill), diarrhoea and pneumonia, that are due to infection taking place through the unhealed umbilical cord (navel string). These affections can be stopped by a thorough cleaning and disinfection of the calf barn, and washing the navel with a three per cent. solution of creolin,

tion of a purgative dose of Glauber's or Epsom Salts is advisable. Milk sometimes becomes red tinged after standing a while. This latter condition is due to the presence of a micro-organism that enters the milk after milking. Thorough attention to cleanliness and sterilization of milk utensils, will prevent the condition.



No Trouble to Dispose of Dressed Poultry Such as This

These are selected, crate fattened chickens packed in two styles as photographed by an editor of Farm and Dairy at the Patterson Cold Storage. The left hand box is a breast pack. To the right the chicks are packed back up. Which pack do you prefer?

after which paint it with tincture of iodine.

Cows lose their calves (abort) from a variety of causes. Infectious abortion is very prevalent in the dairy herds of this country. For this reason, take no chances. Isolate immediately every cow as soon as she shows signs of impending abortion. When she aborts burn the calf and its membranes. Clean up and disinfect all discharges. Wash her hind parts with a three per cent. solution of creolin. Keep her out of the herd until all signs of discharges have disappeared.

Never use force to remove a calf from a cow unless you are sure the calf is in the right position. Undue force used when the calf is in some positions will result in severe laceration and tearing of the cow and might result in her death.

Mastitis (inflammation of udder) may be often induced in a cow by rough milking when the teats are sore or chapped. Chapped teats may be relieved by gentle rubbing with vaseline before and after milking. Several applications of zinc ointment to sore teats, after cleaning them, will relieve most cases.

Bleeding from the navel cord in a calf may be stopped by tying it firmly with a clean piece of string. Before tying always be careful to examine the cord to see that it does not contain a loop of the bowel.

A Time Saver

C. F. Whitley, In Charge of Records, Ottawa.

The favorable weather of June is bringing some good records of milk



The Kind of Cattle in Demand out West Now—Days

This is Aggie Coronoupa Palestine, the champion dairy cow at the Red Deer Fair this fall. She is owned by Mr. G. E. White, who is one of the several that are establishing splendid pure-bred Holstein herds in Alberta. In the two-day public test at the fair this cow produced 10.6 lbs. of milk and 4.97 lbs. of butter.

Flooding (excessive bleeding), which sometimes occurs after calving, can often be controlled by dashing cold water over the loins of the cow.

Bloody milk is caused by injury to or disease of the udder; also by functional derangement of the udder due to excitement in heat, eating of irritant plants, etc. In all cases a reduction in rations and the administra-

tion of a purgative dose of Glauber's or Epsom Salts is advisable. Milk sometimes becomes red tinged after standing a while. This latter condition is due to the presence of a micro-organism that enters the milk after milking. Thorough attention to cleanliness and sterilization of milk utensils, will prevent the condition.

On the other hand some poor records were made during May in several districts, not only in yields of milk but in many instances in pecu-

liarily low percentage of fat; even as low as two per cent. That is one good reason why it pays farmers to take up cow testing, for with the tests ranging as they frequently do in the summer herd from 2.1 to 4.3 with common grade cows giving almost the same yield of milk and handled under similar conditions, there is evidently plenty of room for considerable difference in returns.

As a matter of fact, cow testing was never more needed than at the present time when farmers are complaining that it is hard to get good dried help. The time spent in taking a few weights and samples is saved over and over again, a hundred times over, when it proves to a man that he saves time by milking profitable cows only. Why waste precious time month after month, year after year, on cows that test only two per cent. of fat?

Age to Breed Heifers

A. S. Turner & Son, Wentworth Co., Ont.

From our own experience, we have found it best not to have our heifers freshen before two and a half years of age. We have had them freshen from one and a half to three years old, and those freshening young have been hindered considerably in their growth, sometimes not making, as large cows of those freshening early. We have also seen heifers which dropped their first calf at a year and a half of age, mature very satisfactorily and make splendid cows, but they took one to two years longer in maturing. These cows of course are rare.

In freshening from two and a half to three years of age, the heifer is to milk much better, than if younger. Freshening at this age, will not also make them what they ought to be, if they are not liberally fed an ample cared for. They must have prepared care and feed from the time they are dropped to make large strong heifers. Our best records have been made by heifers freshening when nearly two years of age, namely, Briery 2nd of Springbank, Buttermaid of Craiglea, Spick of Springbank, and many other good ones.

Light and Tuberculosis

Investigations recently completed at one of the state universities showed that the bacilli of tuberculosis will remain alive and virulent outside the body of a living animal for months. In the droppings of tuberculous cattle, they lived for more than two months; in butter in cold storage, for ten months and in the tissues of a dead guinea pig, in water, for nearly a year. It is evident that a tuberculous animal, either alive or dead, is a menace unless intelligently handled and disposed of.

There is one thing, however, that is certain death to these devastating and well-nigh incalculable little germs and that is abundant sunlight, which makes short work of them. Farmers who sneer at scientific agriculture, up-to-date methods and convenient sanitary buildings as mere fads that cannot profitably be followed by the man who depends upon his farm operations for his living, will perhaps be able to see, in the light of these disclosures, why it will pay to have his buildings that shelter his live stock so arranged that direct sunlight may reach to all parts of them.

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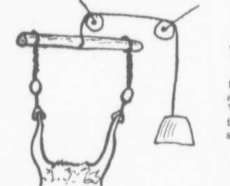
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Training an Ayrshire's Horns
Wm. Stewart, Northumberland Co., Ont.

I have been asked by the editor of Farm and Dairy if there is any way to straighten the horns of an Ayrshire heifer when they show a tendency to grow crooked. The horns of an Ayrshire can be trained to almost any shape when one has the proper apparatus to pull them up or down, in or out.

This apparatus, as will be seen by the diagram herewith, consists of a socket to go on the end of the horn with a thumb screw to hold it on. On the top end of the socket is a ring on which the rope is fastened and the rope in turn passes over a pulley and

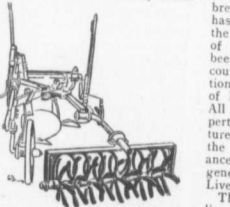


Straightening Horns

then back through another pulley where a small weight is attached. Where both horns are to be trained the diagram herewith shows the method. Short pieces of rope run from the rings to a short, wooden brace. Then a rope runs from the pulleys and is attached to a weight. This brace is used when one wishes to train the horns up. If one wishes to draw the horns in, or to shove them out, one will need a device similar to the tighter on the back of a bucksmen will enable one to apply either an outward or an inward pressure.

New Revolving Harrow

Agricultural authorities in Germany speak favorably of a new revolving harrow which has recently been introduced. The illustration herewith gives an idea of the general arrangement of the implement, one of the merits of which is that it is attachable to an ordinary plow.



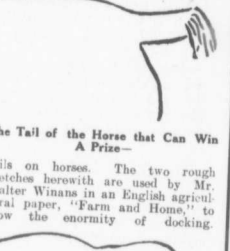
A New Combination Implement

ple claw fixture. Any desired inclination can be given to the implement by the adjustable arm, which connects it with the plow. By the lever, which is easily controlled, deep or shallow plowing can be done at the will of the driver. The harrow is provided with six or nine sets of blades fixed on a square steel axle, and held in position by the frame. Every set or "star" has six or nine blades, which are wing-shaped, and are made of the best steel. Between every star there is a scraper. The implement works for a width of from 18 to 30 inches. No special expenditure in strength is required to draw the harrow. The horses ordinarily attached to the plow,

can also work it with the harrow on behind. The sharp, bent steel blades cut to pieces, break, pulverize and level the land. The blades are described as cleaning themselves at every revolution.—N. Z. Farmer.

Docking

Tastes differ. In nothing do tastes differ more than in the preferences people express for different styles of



The Tail of the Horse that Can Win A Prize—

tails on horses. The two rough sketches herewith are used by Mr. Walter Winans in an English agricultural paper, "Farm and Home," to show the enormity of docking.

And the Tail of the Horse that Cannot

"Which," he asks, "is the most refined style quite apart from any remedy of docking?" Mr. Winans was once directed to choose from the show ring one of his best animals for the avowed reason that the animal still retained its tail!

Government Distribution of Stock

As announced earlier in the season, the Dominion Live Stock Branch has this year undertaken a distribution of pure bred male animals throughout Canada on a somewhat extensive scale. In inaugurating this policy the aim has been to aid sections where pure bred sires were lacking and to encourage new communities in following an intelligent system in breeding. This form of assistance has proven very popular and during the past few months a large number of bulls and several stallions have been placed in the hands of local associations formed specially for the purpose of handling and maintaining them. All animals placed remain the property of the Department of Agriculture, the local associations assuming the responsibility for their maintenance and management under the general supervision of officers of the Live Stock Branch.

The distribution of bulls and stallions having been brought to a close for this year the opportunity is now open to deal with applications for boars and rams. Full information regarding the rules governing the distribution and the procedure to be followed in forming the necessary organization may be had upon application to the Live Stock Commissioner at Ottawa.

As it is the intention to consider only such requests as are forwarded before October 20th, it will be necessary for districts desiring to take advantage of this offer to act promptly.

Farmers in the corn belt turn their sheep into the corn fields after the corn is bearded to eat the weeds. The plan is worthy of experiment in Canada.

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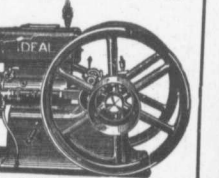
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FARM AND DAIRY

AND RURAL HOME

Published by the Rural Publishing Company, Limited.



FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Eastern and Western Ontario, and the Indian, District, Quebec, Dairyman's Associations, and of the Canadian Hotelier and Restaurant Association.

Subscription Price, \$1.00 a year. Great Britain, \$1.20 a year. For all countries except Canada and Great Britain, add 50c for postage. Notices of the expiration of subscriptions are sent to all subscribers, who then continue to receive the paper until they send notice of discontinuation. No subscription is continued for more than one year after date of expiration. A year's subscription free for a club of two new subscribers.

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UNITED STATES REPRESENTATIVES
STOCKWELL'S SPECIAL AGENCY
Chicago Office—People's Gas Building,
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WE INVITE SUBSCRIBERS to write me on any agricultural topic. We are always pleased to receive practical articles.

CIRCULATION STATEMENT

The paid subscription to *Farm and Dairy* exceed 14,000. The actual circulation of each issue, including copies of papers sent subscribers who are but slightly in arrears, and sample copies, varies from 14,150 to 17,300 copies. No subscriptions are accepted at less than the full subscription rates.

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

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the leading columns of *Farm and Dairy* are so carefully edited as to send no advertising because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within 10 days of its occurrence, and that we find the facts to be as stated. It is a condition of our contract that in writing to advertisers you state: "I saw your advertisement in *Farm and Dairy* and I saw your advertisement shall not put my trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts."

FARM AND DAIRY

PETERBORO, ONT.

POCKET LOYALTY

As noted in *Farm and Dairy* last week, the Canadian Manufacturers' Association when in annual session at Halifax recently received a telegram from the Grain Growers' Guide of Winnipeg, asking them if they were willing to join with the Western Grain Growers in urging the Government to reduce the tariff upon British imports to be followed by free trade with Great Britain in four years. In their reply, through their president, Mr. R. S. Gourlay, the association sidestepped the issue in a manner implying that the Grain Growers' Guide was not in a position to speak for the western grain growers, whose official organ it is, and left the question unanswered.

The Canadian Manufacturers' Association, through the various journals that it controls and public addresses of its members, has been loud in its protestations of loyalty to

Britain and the British connection. The association in its fight to defeat reciprocity with the United States in 1911 sent out a protest "against any measure that would tend to weaken our imperial relations." They then claimed that trade had a vast influence in moulding public sentiment, and that it would be dangerous indeed to enter into closer relationship with the United States, as it might ultimately lead to political union.

If it is true that trade relations will weaken political affiliations, as the manufacturers then claimed, the converse must be equally true, that trade will strengthen political affiliations, and from an imperial standpoint free trade between Great Britain and Canada would be most desirable.

The Grain Growers, through their official organ, have given the manufacturers of Canada a chance to prove their loyalty in a substantial manner. It was very easy for the manufacturers to advise farmers to sacrifice what financial advantage there might have been in reciprocity with the United States for the sake of the British connection. Here is a chance for them, in their turn, to make a sacrifice that will tend to bind closer the ties of Empire.

The Manufacturers have been given a chance to prove whether their loyalty is of the lip or pocket variety. Does the way in which they dodged the issue presented to them by the Grain Growers' Guide indicate that a tariff enclosed market and larger dividends are of more value to them than an Empire strongly united in the bonds of trade?

COOPERATIVE SUCCESS

Farmers in and around the village of Chatsworth in Grey Co., Ont., have organized themselves into a cooperative society for the marketing of their produce. As noted in *Farm and Dairy* last week these farmers, through their organization, hope to do as the Danes have done; to eliminate unnecessary middlemen's profits and get a larger share of the consumer's dollar.

These Grey county farmers have evidently studied the subject of cooperation. They have organized their society on lines that world wide experience has proved to be most advisable. They realize that the first essential to the success of their society is a higher quality of produce to offer the consumer. Hence their first object is to raise their standard of quality.

This improvement of quality lies at the basis of the success of the cooperative fruit growers' associations in Canada. The fact that last year their fruit sold well while other fruit was allowed to rot on the trees was not due to cooperation in selling, but to the initial work of cooperation in growing. Buyers knew that cooperative fruit was grown on sprayed trees and that it would therefore be free from disease. They knew that it would be uniformly well packed and therefore attractive and free from bruises. Hence the fruit of these societies was in demand. Their

is a big advantage in cooperation in production. There is also an advantage in cooperative selling. The ideal farmers' cooperative enterprise is the one that combines both production and selling.

Farm and Dairy has another reason for predicting the success of this Grey county enterprise. It is a non-share company. Many cooperative enterprises have failed in the past because they were cooperative in name only. Really they were joint stock companies. Dividends were paid in proportion to the amount of capital invested and gradually the object of the enterprise came to be dividends for shareholders rather than the greatest good to all who dealt through the association. In the Chatsworth association dividends will be divided among the various members in proportion to the business done by each. Herein lies the true basis of successful cooperative organization.

The Chatsworth association has been in operation only one month, but already a small dividend has been distributed among the members. As the association is one of the first of its kind in Canada its further success will be watched with interest.

THE MANAGER'S SALARY

Cooperation is in the air these days and while all are interested, *Farm and Dairy* would like to drop a friendly suggestion to intending co-operators. Don't expect to get a good manager at a figure not much better than a hired man's wage. A twenty thousand dollar cooperative enterprise needs just as efficient a business man at its head as a twenty thousand dollar private business. And such a man is accustomed to receive a good salary nowadays.

We farmers are so accustomed to pay twenty-five to forty dollars a month to our employees, the latter figure without board, that it goes against the grain to have to pay a manager for our new cooperative enterprise seventy-five to one hundred dollars or more a month. Parsimony in this connection explains the failure of many a cooperative institution well located and organized on the right lines. Canadian cooperative associations have suffered particularly in this regard.

Cooperators are always pointing to Denmark as their example. What salaries are paid in Denmark? There are several managers in the employ of Danish cooperative associations receiving salaries up to \$10,000 a year. The Danes have recognized that they must pay a good man the same salary that he would receive in any other line of enterprise. Even the managers of small local societies are there paid a salary that would be considered generous, even in this country.

One of the most successful cooperative societies in America is that of the California orange growers. From the first this organization has paid more attention to the ability and efficiency of their managers than to the salaries that they demand. Right

WE are not known that way made by capitalists and by certain financiers who manipulate the stock market. War is engineered by them and the poor soldier has to step in and do the work. Col. Hughes, Minister of Militia and Defence.

in our own Norfolk county is one of the most successful cooperative associations in Canada, and co-operators there attribute their success largely to the efficient manager that they have; and his salary is in thousands.

The laborer is worthy of his hire. If a good man cannot get a good salary from the cooperative institution, there are lots of private enterprises ready to recognize his worth and pay for it. Let us not cripple otherwise promising associations with cheap and inefficient managers.

THE FIRST GOOD ROADS PROBLEM

The Toronto Globe has detailed one of its staff writers to collect all available information on the good roads problem. At present their representative is travelling in the Eastern states, and his daily letters tell of the progress that is being made with the roads problem in New York, Massachusetts, and other go-ahead localities.

The figures that are quoted are enough to stagger the most enthusiastic advocate of high-class rural roads. In New York, for instance, we are told that the average price per mile of improved roads to date has been \$13,000. How, we ask, may the farmer be asked to view a problem the solution of which involves an expenditure equal to a mortgage of \$3,000 for the roadway running in front of an ordinary sized farm?

Our contemporary also discusses the necessity of such expensive roads and the therefore of the annual repair bill of \$3,500,000. Both the outlay and the expense for maintenance are made necessary, we are told, by heavy motor traffic. Roads costing only one-quarter as much a mile as they are spending on improved highways in New York state, would be perfectly satisfactory for farm traffic the whole year round. Such roads, however, would be torn to pieces in a season or two by large motor cars travelling at high speed.

All auto associations are strong on good roads. They are perennial good road enthusiasts. It would seem, however, that they are still stronger on tearing good roads to pieces. Are these automobile owners willing to pay the extra price of an automobile road? Are they willing to meet the repair bills that the traffic alone makes necessary?

The relation of the automobile to good roads is the first problem calling for solution. In New York state they are starting to regulate the size and speed of autos on rural highways. More stringent regulations, however, and higher fees from auto owners will be necessary before farmers will feel justified in authorizing great expenditures for better roads in Canada.

Selling Su

What would you do with our largest manure? Have you ceased the advertisement? Would you suspect that so seriously wrong? I infer that the manure products were glutted. You conclude that the manure bankrupt. You infer that something will either with the manure manufacturer, or

Every manufacturer for his products through the paper prospective customer come about in this way we take the measure of factoring concern amount of advertisement products.

Can you think of any consequences of every measure and me with the producing? I cannot. The manufacturer does not advertise his wide reputation, and his hand is of very little value.

How different it is for breeders of pure blood stock for sale. We know they have stock for sale. We there is a big demand all over Canada majority of us seen with the very local wider market what we have for

Elbert Hubbard's man who shouldn't man who has nothing infers therefore that he is in the selling business his prospective customer he is and what he has

A few of our dairy breeders are in the same way.

The success of their depends upon the number of buyers whom they can so we find them telephoning for sale through the farm press. S. H. Ness, Howick, Que., has a Bedford Park, Brockville, H. Bollen, A. C. Hallman, Breeds of other dairy breeders of their advantage in buying public they know so animals they are present. We ask you to note some verities these men in the pages of *Farm and Dairy*. These men use a daily medium realizing that dairy papers understand of pure bred stock and to pay good prices for

Does it pay them to raise? Ask any one of us will be persuaded that a great opportunity in your surplus stock through the columns of *Farm and Dairy*.

"A Paper Farmers

Selling Surplus Stock

What would you think if one of our largest manufacturers suddenly ceased the advertising of his goods? Would you not have a faint suspicion that something was seriously wrong? Possibly you might infer that the markets for his products were glutted. You might conclude that the firm had gone bankrupt. You would at least feel that something was radically wrong either with the markets or with the manufacturer, or with his goods.

Every manufacturer receives publicity for his products largely through the papers that reach his prospective customers, and so it has come about in this busy 1913 that we take the measure of any manufacturing concern largely by the amount of advertising it gives to its products.

Can you think of a single factory of any consequence that is not taking every measure to acquaint you and me with the goods they are producing? I cannot recall a single one. The manufacturer who does not advertise has already gained a wide reputation, or on the other hand is of very little consequence.

How different it is with our breeders of pure bred dairy cattle. We know they have much surplus stock for sale. We know too that there is a big demand for dairy cattle all over Canada. But the great majority of us seem to be satisfied with the very local field, even if the wider market is demanding what we have for sale.

Elbert Hubbard says: "The only man who shouldn't advertise is the man who has nothing to sell." He infers therefore that everyone who is in the selling business should let his prospective customers know who he is and what he has to sell.

A few of our most prominent dairy breeders are looking upon it in the same way. They know that the success of their business depends upon the number of possible buyers whom they can reach. And so we find them telling what they have for sale through the columns of the farm press. Such men as R. Ness, Howick, Que., Gordon Gooderham, Bedford Park, A. C. Hardy, Brockville, H. Bollert, Tavistock, A. C. Hallman, Breslau, and scores of other dairy breeders, know that it is to their advantage to let the buying public know something of the animals they are prepared to sell. We ask you to note some of the advertisements these men are carrying in the pages of Farm and Dairy. These men use a dairy paper as their medium realizing that readers of dairy papers understand the value of pure bred stock and are willing to pay good prices for it.

Does it pay these men to advertise? Ask any one of them and you will be persuaded that you are missing a great opportunity in not having your surplus stock advertised through the columns of Farm and Dairy.

"A Paper Farmers Swear By"

President Gourlay says that the Canadian Manufacturers' Association is well satisfied with the general level of the protection

Want Still More Assistance. tariff in Canada, but that the steel and wool schedules are badly in need of revision. Haven't these manufacturers got enough? We farmers who pay the most of the taxes thought we were doing fairly well by our steel magnates when we gave them over \$17,000,000 in bounties in addition to tariff protection, amounting to several dollars a ton of their products. We have paid them more than all they have paid out in wages and have been about equally generous with the manufacturers of woollen goods. Everyone of us has been paying one-third to one-half more for woollen clothing than would have been necessary under free trade conditions just to give this last-mentioned infant a start; and still it is calling for more.

The truth is the manufacturers have come to look on the tariff as a vested right rather than a measure of temporary assistance. They don't regard it as in any way unreasonable to ask us to impose greater hardships on ourselves in order that our steel and wool magnates may reap the benefit. This is one of the greatest objections to a protective tariff as those who benefit by tariff favors are never satisfied but continually call for more as long as they see any chance of obtaining their demands. Hitherto the common people of Canada have been rather easy on these points. Now, however, that evidence is accumulating rapidly, which shows that the protective system is one of the principal causes of rural depopulation, through its tendency to build up the urban centres at the expense of the country districts, we are beginning to look at these matters in a different light. It is time that we were.

Inspection of Stallions in Ontario

Editor, Farm and Dairy.—After the inspection of stallions had been made last fall, it was found that quite a number of stallion owners, through not having had the information in sufficient time, or because they did not understand the Stallion Enrolment Act sufficiently well to appreciate the benefits which would accrue to them through having their stallion or stallions inspected, were anxious to have their horses inspected before the season of 1913 commenced. This necessitated having the inspectors go over much of the same ground in the spring which had already been gone over the previous fall.

While this made a very thorough inspection, it was felt by the Board, it should not be made a practice of having two inspectors for each stallion enrolment year. It was, therefore, decided at a meeting of the Board which was held in the secretary's office, Parliament Buildings, Toronto, on Monday, Sept. 22, that there would only be one inspection of stallions made during the year ending July 31, 1914, which inspection will begin February 17th, 1914.

The inspectors will visit each stallion owner at his stable, provided that he makes application for inspection to the secretary on or before February 14, 1914.—R. W. Wade, Secretary.

DE LAVAL CREAM SEPARATORS

Make Fall and Winter Dairying More Profitable

THERE are special advantages in using a good cream separator during the fall and winter months.

The milk from cows long in lactation is hardest to cream,—and likewise hardest to separate with an inferior separator.

Moreover, cream and butter prices are highest, so that the waste of gravity setting or a poor separator counts for most.

Then there's the sweet, warm skim-milk for stock feeding, alone worth the cost of a separator in cold weather.

There is surely no reason to delay the purchase of a separator or to continue the use of an inferior one. A De Laval machine will save its cost by spring, and may be bought on such liberal terms if desired as to actually pay for itself meanwhile.

See your local De Laval agent.

De Laval Dairy Supply Co., Limited
Montreal Peterboro Windsor Vancouver

EGGS, BUTTER and POULTRY

For best results, ship your live Poultry to us also your Dressed Poultry, Fresh Dairy Butter and, New Laid Eggs. Egg cases and Poultry crates supplied. Prompt Returns.

The Wm. DAVIES Co. Ltd.

Established 1854 TORONTO, ONT.



The Secret of good butter making is the Salt used

Windsor Dairy Salt

AUCTION SALE
Of 150 Six to Seven Months Old Holstein Heifer Calves



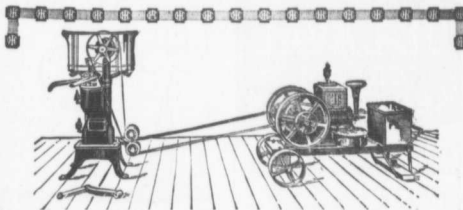
WILL BE HELD AT
LORNEVILLE JUNCTION
Wednesday, Oct. 8th, 1913
SALE COMMENCING AT 1 O'CLOCK P.M.

I HAVE 150 heifer calves which were brought from the cheese districts of Eastern Ontario. They are well selected and well raised, weighing 400 lbs., and are from splendid milking stock. Here is the foundation of a very fine milking herd for anyone desiring such, as you cannot find another lot their equal in Ontario. Lorneville is on the Midland Division of the G.T.R., between Lindsay and Orillia. Train arrives from Blackwater Junction at 11 a.m. and 8 p.m.; from Orillia at 9 a.m. and 6 p.m.

Good shipping accommodation is provided by the G.T.R., also hotel accommodation by two hotels.

Anyone desiring further information may communicate with the undersigned.

WM. NEWMAN - LORNEVILLE, ONT.



Next Door to Perfection

POUR your milk into an IHC cream separator. Out of the cream spout will come close to 9,999 parts of cream for only one part that goes into the skim-milk pail. That's marvelously close separation; it means every possible dollar of dairy profit from your cows.

It takes an IHC separator to do such efficient work. Every detail has its use, every mechanical point its purpose. Shafts and spindles are the strongest made for separators. Bearings all have phosphor bronze bushings. Gears work without back lash, and they are protected from dirt and grit. In short, everything in

IHC Cream Separators

Dairymaid, Bluebell, or Lily

makes for great strength and durability. Perfect adjustment and balance mean smoothness and ease in operating, hence continued satisfaction during long life. All parts are easily accessible for cleaning. There are four convenient sizes of each style.

Then if you have a one-horse power back-gear IHC engine to complete your separator outfit, you will soon find that an indispensable helper on the farm. It will run steadily and at the proper speed to pump water, run washing machine, churn, grindstone, etc.

Study IHC separator outfits at the local agent's. Catalogues may be obtained from him, or, write to

International Harvester Company of Canada, Ltd

EASTERN BRANCH OFFICES
At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;
Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.

BEAVER DAIRY SUPPLIES

Perhaps a few of you is remaining your suggestions would help the DAIRY. We have installed most of the largest plants in Canada, and our long experience in this line is at your service. Write for our book "Dairy Help Suggestions" today. P. E. & H. DEPT. "B"

W.A. DRUMMOND & CO.
214-KING ST. EAST.
TORONTO - CANADA

Wanted--Cream

Delivered at nearest express office. Highest prices paid. Remittance Monthly. Write **PETERBORO CREAMERY** Peterboro, Ont.

FALL AND WINTER Milk or Cream WANTED

You have got to feed your cows in the winter time whether they are milking or not, so why not arrange to have most of them earning the high price we pay for winter milk and cream?

We take all that you can produce. Parnish cans for milk. Pay on the 18th of each month. Winter contracts start November 1st. Make up your mind at once. We are receiving applications now. Write **CITYDAIRY CO., TORONTO, ONT.** Mark the envelope Dept. B.

Creamery Department

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

A Creamery Danger

Under the above heading the North West Farmer discusses a menace to the creamery industry that dairy farmers in all parts of Canada would do well to avoid. Our contemporary says:

"There is a danger just as present in connection with the creamery situation in certain portions of Western Canada. This danger is that creameries shall be foolishly organized in unsuitable situations."

Two factors are more likely than any others to lead to this result. One of these is the ill-directed ambition of local boards of trade, which ambitious leads one to the village to feel that it must have a creamery in its midst simply because there is one in the next village. The other dangerous element is the professional creamery organizer, who makes his business to talk people into creamery building projects simply in order that he may secure a contract to erect a building and equip it.

"There is only one proper basis upon which creamery organization should proceed or be considered. This is the basis of the good to the farmers at large. The town, after all, has never anything more than a secondary interest in a creamery, and town enthusiasm can never be effective in sustaining such an enterprise when there is a death grip farm patronage. And everyone should remember that there should be the cream for at least 400 or 500 average cows available and a creamery in order to enable it to operate."

"It is much better for a few enthusiastic cow owners at any point to ship their cream by rail to a good creamery than is to start a local creamery that will either be a struggling institution of itself or divide the patronage of a neighboring creamery that already is giving good service to part or all of the field. Better be a railway patron of a good creamery elsewhere than be forced to back the bonds of a failing creamery at home."

USE OF STERILIZER

Forster is used in two instances: 1. The flavor of the milk and second, to hasten the maturing of lactic acid. The danger of the part of the milk to use so much starting the cheese making process reduces the yield of milk and likely to cause an acid color is put in.

In general from 5 to 10 minutes is sufficient. If the milk is a small percentage can be added before the rennet is added, not hurry the process. If the milk is slightly thick, it will work slowly, a large may be used. The milk and rennet for the rennet is added will become rather thick. If the case should so much that the curd does not contract naturally, the curd is removed.—Cornell

Weight of Milk

We are selling 100 gal day to the creamery at a price of 10¢ a gallon. I want the exact weight of a gallon of milk. We are gaining or losing weight with every gallon of milk.—H. D. 10,082 lbs.; 100 gallons fore weigh 1,003.2 lbs., of 3.2 lbs. between the

GET THE BEST ADVICE

"We believe that communities of farmers should always consult the provincial dairy departments before embarking upon such enterprises as a cooperative way. We understand that in Montana they have gone much further than this, and has given to the state dairy commissioner the authority to say when a creamery shall be started in the state. No doubt there was a good reason for such a law; otherwise it would not have been passed. The most obvious reason would be to enable the dairy commissioner to see the creamery industry from foolish mistakes, which might be taken by professionally interested persons or unwisely zealous local enthusiasts."

"There is no need in this country to extend to any of our provincial dairy commissioners any authorized authority, but at the same time, the dairy farmer should be organized and would do well to take them into consultation."

DO IT NOW!

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Cheese D

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

The Western

The Western Open Association will hold its convention and exhibition at the Hotel Vancouver, Vancouver, B. C., from Jan. 14th to 18th, 1914. In connection with the convention the usual liberal program will be provided, as well as an interesting contribution to the show. The convention will be held at the Hotel Vancouver, Vancouver, B. C., from Nov. 10th to 13th. They pay the cold storage of shipment to the show. Cheese, which is to be put in cold storage for exhibition, will be shown by Thomas Ballantyne and his wife, and by Mrs. J. D. Ford, Express to be paid for.

Dairymen intending to exhibit in the herd book application 1st Nov. 30th. Sections of patrons of both creameries with herds of 14 cows, in herds of 15 cows and

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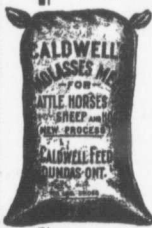
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Show that Animal IN CONDITION

The Caldwell Feed Co., Ltd., are again offering Silver Cups at the Guelph Winter Fair for the best conditioned Horse, Steer, Sheep and Hog, irrespective of conditioner used.

You can take the word of the majority of owners of "blue ribboned" stock that nothing can touch



CALDWELL'S Molasses Meal

for getting animals into the pink of condition in a mighty short space of time.

The Reason isn't hard to find: this feed contains 84% pure cane molasses—all nutriment. 16% edible moss—great aid to digestion. Animals like it from the start.

Use it—it is an economy and an excellent investment and you will see the value of your stock going up.

From your feedman or

The Caldwell Feed Co., Limited
DUNDAS - ONTARIO



This is one of four cups donated for the Best Horse, Beef Animal, Dairy Cow and Pen of Bacon Hogs shown at the Guelph Fat Stock Show this year.

Cheese Department

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

The Western Dairy Meet

The Western Dairyman's Association will hold their annual convention and exhibition of dairy produce Jan. 14th and 15th, 1914. In the usual liberal prize list has been provided, as well as many special. Incoming contributors are asked to note that all October butter must be sent to the London Cold Storage by November 10th. The association will pay the cold storage charges and cost of shipment to the place of exhibition. Cheese, which makers may wish to put in cold storage for the winter exhibition, will be handled by the Thomas Ballantyne and Sons of Stratford, express to be prepaid by exhibitors.

Dairymen intending to enter their herds in the herd competition should make application for entry before Nov. 15th. Sections are provided for patrons of both cheese factories and creameries with herds varying from eight to 14 cows, inclusive, and for herds of 15 cows and over.

Use of Starter

Starter is used in cheese making for two purposes: First, to improve the flavor of the resulting cheese; and second, to hasten the development of lactic acid. There is a tendency on the part of the cheese maker to use too much starter, thus hurrying the cheese making process; which reduces the yield of cheese and is likely to cause an acid cheese.

The starter should be strained into the vat of milk so that there will be no lumps, since lumps cause uneven color and texture. All the starter should be added before the color is put in.

In general from .5 to 2 per cent. of good commercial starter can be safely used. If the milk is overripe a small percentage can be added just before the rennet is added. This will not hurry the process, but will improve the flavor. If the milk is gassy or if it is thought that the starter will work slowly, a larger percentage may be used. This can be put into the milk and left some time before the rennet is added, so that it will become rather active. In no case should so much starter be used that the curd does not have time to contract naturally before the whey is removed.—Cornell Circular.

Weight of Milk

We are selling 100 gallons of milk a day to the creamery at a standard weight of 10 lbs. a gallon. I would like to know the exact weight of a gallon of milk and what we are gaining or losing on 100 gallons. What is the weight of an American gallon of milk?—H. D. Manitoba.

A gallon of milk imperial measure weighs, with very slight variations, 10.032 lbs.; 100 gallons would therefore weigh 1,003.2 lbs., or a difference of 3.2 lbs. between the real weight of

the milk and the weight on which by agreement you determine it at the factory. At average factory prices this milk would be worth between three and four cents. For all practical purposes, therefore, the usually accepted standard of 10 lbs. of milk to the gallon is correct and satisfactory.

The American gallon contains 8.586 lbs. of milk.

Educating for Good Citizens

Continued from page 9

impacting of this knowledge to the youngsters. A school teacher who has made a great success of this occupation told me that his plan was to spend 20 minutes each day from the cussing current events of his pupils in the daily newspapers with his pupils. In the discussion that ensued he had the girls discussing the trade, ideas on taxation, and so forth.

The danger in this method of instruction is that the teacher has a great opportunity of saddling on the young minds in his charge his own ideas, good and bad. My own ideal system would be a literary and debating society in connection with every school in the land. Make it a requisite part of the curriculum and then lay out a schedule of debates covering all subjects of civic interest. My scheme would not work well at first, but as we could improve it with experience, I believe it would be useful to them when they take up the great work of government in this self-governing country.

Handling Tender Varieties of Apples in Quebec Province

Continued from page 4

it is shipped the better it will carry and the longer it will keep in cold storage.

Not only must we have good packing houses to protect the apples from the sun but we must do our packing as soon after picking as possible. There is nothing equally responsible for damages to the crop as allowing the apples to remain unpacked from one to three weeks. The sooner the apples are packed after they are picked the better their condition will be when they are in the hands of the consumer. What we all should try to do is to give satisfaction to the consumer.

Let us hope that the fruit growers all over our province may live up to the best in modern orchard management. They will be well repaid for their trouble in many ways.

Prospects for Ontario Potato Crop Only Fair

(Continued from page 9)

As digging has not commenced, however, I cannot give an accurate account. Early varieties were below average. Acreage same as in former years; very little blight; bugs never so plentiful.—A. L. Arner, Essex Co., Ont.

"Our acreage is the same as usual, but the average yield will not be nearly as large owing particularly to the severe drought of the past summer. Potatoes may be imported."—W. A. Barnett, Essex Co., Ont.

THE TWO-YEAR-OLD RECORD AS AN INDICATION OF PRODUCING ABILITY

CAN a dairy cow be judged by her two-year-old performance? Breeders disagree. Many of our leading breeders of dairy cattle never think of discarding a heifer of milky ancestry if she fails to "make good" in her first lactation period. They give her another trial. To those who are at a loss to know how long a young cow should be kept in the herd before it is safe to conclude whether or not she is a profitable animal, the findings of Prof. C. H. Eckles, Professor of Dairy Husbandry at the University of Missouri, will be of interest. In a recent issue of Hoard's Poultryman, Prof. Eckles makes a comparison of all the records of all the cows in the University herd that have two lactation periods or more. In all data is given of 76 cows having 225 complete lactation periods. In the table the column marked "2-year-old record" means the production of butter-fat during the first lactation period which began when the animal was two years old or in most cases a little older.

Group No.	2-year-old No.	1st lactation Lbs.	2nd lactation Lbs.	Total Lbs.	Average per lactation Lbs.
1	2	100	7	107	107
2	3	100	11	155	155
3	15	150	66	251	251
4	26	200	103	292	292
5	21	250	103	354	354
6	8	300	34	366	366
7	1	350	2	345	345

This table gives the records of these cows grouped according to butter-fat production as two-year-olds. For example, group three includes 15 cows that produced between 150 and 200 pounds butter in the first lactation period. A study of this table will convince the reader that the records of these 76 cows as two-year-olds was a safe basis upon which to judge them when mature.

"One question," writes Prof. Eckles, "cannot be answered from this table, that is, how many of the animals in a certain group come near the average. For example, in group four the 26 cows average 292 pounds fat for all the lactation periods. The question is, were some of those inferior producers as mature cows? In other words, what proportion of those in this medium good group ranked the same when older?"

"In group three for example, the average fat yield was 250 pounds for the entire 65 lactation periods of the 15 animals. In this group one cow averaged 100-150 pounds; three averaged 200-250 pounds, six averaged 250-300 pounds, while two averaged 300-350 pounds. While there is considerable variation in each case, as a rule most of the cows come fairly close to the general average. In group six the poorest of the cows averaged between 250 and 350 pounds.

A SAFE BASIS
"It is clear, therefore, that a two-year-old record is a reasonably safe basis upon which to judge the future value of the animal. Naturally there is considerable variation one way or the other so that it is not safe to assume that all will follow the average. In studying the records of the 76 cows which are included in the above table, it is found that had the cows been culled upon the basis of the two-year-old records, in only one case would a good cow have been sacrificed.

"In this connection it might be well to have in mind the average, variation in production between a two-year-old and a mature cow. On the average a dairy cow as a two-year-old may be expected to produce about 70 per cent., as a three-year-old around 80 per cent., and as a four-year-old around 90 per cent. of the milk and butterfat she will produce under the same treatment when mature.

"It seems reasonably certain from the study which has been made of these 76 cows with their complete records that it is safe in more than nine cases out of ten to divide the profitable from the unprofitable cows after one year in milk."

\$4.00
FOR
6 hours' work

Application should be made immediately to

Farm and Dairy
Peterboro



HARTSHORN SHADE ROLLERS

Wood Rollers Tin Rollers

We expect to make 200 appointments of representatives before November first, to handle our fall subscription work for Farm and Dairy.

These are to come from the ranks of the Cheesemakers throughout Canada.

We will make a definite appointment, paying a liberal commission on all new and renewal subscriptions.

It's a splendid opportunity.

Four dollars for 6 hours' work is conservative.



Lump Rock Salt, \$10 for ton lots, l.o.b. Toronto
Toronto Salt Works, 125 Adelaide St. E.
G. J. CLIFF, Manager Toronto, N





THE habit of viewing things cheerfully, and of thinking about life hopefully, may be made to grow up in us like any other habit.—Smiles

In Defence of Babe

Farm and Home.

By ELIZABETH JEWETT BROWN

(Continued from last week)

She remembered that she had tried to explain about the kitten, and also, that in some unaccountable way she had forgotten them both, but the man would not listen. He ridiculed the idea that she had forgotten the boy; she scoffed at her sympathy for the kitten, and she taunted her with neglecting her duties for the dancing party she had attended that evening. Even her terrified journey to the schoolhouse, alone, at night, did not appeal to him; and with his biting words of condemnation ringing in her ears, she had fled from the schoolroom, with the kitten in her arms, to her boarding place, leaving him to wake his sleeping brother and take him home.

In the morning she had sent in her resignation, and taking the kitten with her, she had left the town and school work for ever. A few days later her mother had rented the little place where she had since lived, and after her mother's death she had continued there, making a comfortable living from the small orchard, the early vegetables, which she grew under glass, and dainty sewing and embroidery. The rent was not large, and she had come to regard the place as her home, until one rude awakening that morning. But as she thought the subject over calmly, she was not so sorry that she had upheld the cat, although he was the cause of all her trouble.

She saw the pompous physician stop his automobile, a little later, at her landlord's door, and before night the friendly gossip brought her word that the scratch was so serious that they feared Mr. Winslow would have blood poisoning. She passed a sleepless night, with Babe curled in her arms, and rose the next morning heavy-eyed and languid with the color faded from her soft cheeks.

Presently, leaving Babe securely locked in the house, she went to the post office for a letter. An envelope bearing the name of John Allen, Attorney-at-Law, frightened her so that she hastily thrust it in her hand bag and hurried back to her home, where she could read it undisturbed. She was not reassured by the sight of the doctor's car in front of Mr. Winslow's house. Probably the man would die from the scratch, and then Babe would have to be killed. She knew that if John Allen was against her again, she might as well make up her mind for the worst.

His letter was brief. It consisted of a legal notice that she must vacate the premises within a specified time; also that she was warned against keeping a dangerous animal and informed that she must either dispose of the cat at once or the proper authorities would see that it was done.

Then Miss Catherine's temper rose. Never! Babe should live in spite of all the Winslows and doctors and

lawyers in Fenway and West Fenway! She would move immediately, but Babe should go with her and go alive! And in order that there should be no doubt about it in the mind of the lawyer, she called up his office on the phone and told him so. His answer was that the law must be obeyed. She answered that it would take

“Gee, I'd Like to be Back There!”
“GEE, but I'd like to be back there, just think, the boys up home have fresh eggs and butter, warm milk and lettuce—why, it just makes my mouth water. You bet I'm moving back.” So urged to rise; the nurse tenderly held him up—and the song of the birds, the call of the farm animals, the scenes about the old farm home were gone from his memory—he was dead. Poor Ernest East, just seventeen years of age. He was the best of the city; he had never been to the city, and he had never seen of men in the city, and he decided to make a start. He found employment in an automobile plant, and his new work and the busy city attracted his attention for a time. He earned his money, but some rent and board took most of it. The big city was lonesome; so lonesome. He met some of the city boys, but they were not those who desired to associate had other city chums; those with whom he toiled during the day, visited the saloon and places of vice at night—how he longed for his old farm home! He had not longed back and have them in his mind, “good,” he said, and so, homesick and weary he toiled on. Used to the invigorated air of the country and the fresh air of the farm, his health began to crumble, and one morning a fever kept him at the boarding house. The physician called, pronounced the trouble pneumonia, and the ambulance took him to St. Miss Catherine's. Poor Ernest went to St. Sodus and the old farm, to his parents and his brothers and sisters—but tears instead of smiles welcomed him. Poor Ernest, who carried him to the hill, the old farm lies in the valley below. If the boys upon the farm could only realize the great existence of the great city, they would hesitate about paying the price. If they only knew that eighty per cent of the city workmen become mere machines. If they only would stop to think that great percent of those who work in the cities spend their life working for others, and have nothing left for their old age. If—why why should he say more. Life is a tragedy, with the cream of life the man-made city, first attracts, then carries its victims round and round with the current, and finally down through to vortex.—The Gleaner.

more than him to make her dispose of her cat.

“You do not know anything about it,” she said forcibly. “The cat is perfectly harmless. That man is putting up a bill to get rid of my cat. I'll never believe that he is dying from that scratch, or has any notion of doing so, either. Anyway, Babe shall not be killed until Winslow is dead, and then I'll get rid of him.”

The lawyer spoke soothingly: “But the doctor's statement that the scratch of the cat is poisonous—” he began.

“You don't know Dr. Carter,” she interrupted. “As long as he can get five dollars a visit he will agree to anything that hypochondriacs want him to. I know both of them, and you don't. One of my neighbors, a year ago, had a pet dog which snapped at Mr. Winslow when he was teasing it. The dog did not even draw blood, but Winslow knew he was going to have typhoid fever. He made such a fuss about it that they had their pet killed, and then Winslow recovered. So go ahead and make all the trouble you wish for me, but Babe is not going to be killed, and that ends it.”

She did not hear the amused chuckle the lawyer gave as he heard her receiver clam into place. “I like

her grit,” he said to his clerk. “I believe I will run out there in a day or so and see her myself. Winslow has the name of brow-beating everyone who crosses him, and Dr. Carter is his tool. I don't like the idea of making war on the woman, but so I'll try to settle this affair without further trouble, if I can.”

Miss Catherine answered his knock the next afternoon and seated him in her dimly lit living room, which, with its fresh white paint, its delicate wall paper, soft harmonizing colors of rugs, furniture and draperies, made it seem an exquisite retreat from the dust and heat outside. Miss Catherine, too, in cool linen, with a deep rose color in her cheeks, and with sparkling eyes, seemed the last person in the world, he, in his capacity as lawyer, could make war upon.

He handed her his card, which she read without comment. After clearing his throat he made some inane remark about the weather, which she answered briefly. Then, feeling helpless, he let his glance wander around the room. It fell upon a framed picture of a group of school children, and he noted with interest the school building, which looked familiar to him. He stepped to examine it, then spoke in surprise:

“This is the picture of the old school building in West Fenway, and

word for myself when I tried to explain this?”
“I will not brute,” he answered. “And I did not recover my senses until after you had left town. Then I woke up, made a few inquiries, and learned that the truth was, as you say, the fact was both mother and I called Billy. He was fifteen years younger than I, and as father was dead and I was away at college, he got the upper hand in the family. He was the only thing he told her. But that night of fright taught him the best lesson he had ever had. He owned up that he had waked up in the early evening, frightened nearly to death, and one of his resolves was that he would never torment any living creature again. And he has kept his word. He is now a chap to be proud of, and he says he owes it to you.”

“To me?” she repeated, doubting her very ears. “But you would not believe that I forgot him,” she cried. “You told me you would not do it. I could not make you listen to me, and it nearly drove me crazy.”

“I know it,” he agreed, humbly. “I tell you I was a brute, and I've learned that the truth is, as you say, that when I have thought how you rushed to the schoolhouse at dead of night, and how you were treated by me, I've wished some great hulk of a fellow would kick me out of the street. I've wished it more than once,” he said, heartily. “But where did you go? I tried to find you and apologize.”

“We went west. I wanted to forget all about it. I felt as if it just disgusted forever, and I have never thought since.” “But I'll accept your apology,” she said, smilingly. “It seems singular that there should be any more of a connection between you. It will show you Babe, the lineal descendant of the cat that made the trouble between Billy and me.”

Babe graciously raised his head and arched his back, as if to conclude him. Then he did an unheard of thing for him—he vacated his chair, and the lawyer sat down in it, he jumped upon his knee and purred loudly, ringing his little bells, and licked her breast. “The little rascal is reading his own case,” he laughed.

Miss Catherine smiled. “And do you think I'll have to be killed?” she asked, anxiously. “Killed! Well, I will have to have to be an authenticated case of rabies pronounced by more than Dr. Carter, before he is, the lawyer smiled sternly. “I made you considerable trouble once, over a cat, Miss Mason, and now, if you will take me as your lawyer, I'll try to save you any more and the cat as well. Think I will do personally for you, Miss Winslow. It may be necessary for me to see you again. If you are my client, you can't object. An old bachelor like me usually has plenty of spare time.”

When he was gone the lawyer's face was unusually smiling. She told Babe in her arms, after decorating him with a wide blue bow, and set her shady piazza in plain view of Mr. Winslow, who was in the hands of the limped in his piazza, leaning heavily on the arm of his wife. He gazed at her, but her face wore a serene expression. Somehow, she did not feel alone any more.

“I was surprised how many old Mr. Allen found it necessary to make. On his next visit he reported having had a heart-to-heart talk with the doctor, who had decided not to attribute the lame knee to anything more than rheumatism and a poor condition of the blood. On the next visit he reported that, in view of the unfavorable record which he had unearched against him, Mr. Winslow was willing to withdraw the charge against the cat being a vicious one. On the next visit Mr. Allen reported that the doctor would object if he bought the place. It just suited him and he was willing to pay the law

Supp will be a day on the first day as the first day in a saucen, but dish and put aside cover the soup, as to sour.

To keep bread to rub them well with then wash in cold in the wind or sun

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Fragment of another page showing text and a large illustration of a person's face.

price for it, on condition that Mr. Winslow was willing to drop all unpleasantness.

Miss Catherine's sunny head bent low over Babe, who was curled in his own chair. Her heart beat rapidly, and she knew what was coming, but she did not look up. Her fingers trembled as she tied and untied the blue ribbon. "It is a beautiful little place," she answered, in a low voice, "and as long as he is going to sell it, I would rather you would buy it than anyone else."

Outside the June roses rioted in their beauty; the white lilies nodded in their pure loveliness, and the humming birds darted in and out of the fragrant bloom of the garden. Inside Babe perched on Mr. Allen's shoulder and purred a perfect benison of happiness upon his two friends, who were looking across the lawn where Mr. Winslow, with scarcely any limp to his walk, was seedling one of his gardeners.

"Bless Billy," said Miss Catherine. "And bless Babe," echoed John

Soup will be as good on the second day as on the first if heated to boiling point. It should never be left in a saucepan, but turned into a dish and put aside to cool. Do not cover the soup, as that may cause it to sour.

To keep bread brown a nice color, rub them well with half a lemon, then wash in cold water and stand in the wind or sun to dry.

The Upward Look

A Cure for Poverty

"Thy kingdom come." So we have prayed for two thousand years. And the kingdom toward which every Christian looks with earnest expectation is not yet here on earth. It never will come on earth while God's will is not obeyed here as it is in Heaven. It certainly will never come while our disobedience or indifference is such that we permit a few to monopolize the bounties of nature and live in luxury while the many, equally God's children and equally entitled to His bounty, live in poverty or near poverty. Last week we promised to discuss the method proposed by the great Henry George to do away with monopolization and the poverty that results, and consequently to really do God's will.

Henry George divided the needs of people into two classes—personal needs and public needs. He saw clearly that God had provided for all personal needs by the richness of nature but that people were not permitted to have free access to it. But how about the public revenues? Had God provided for them? And then came another revelation of just how thoroughly has our Heavenly Father anticipated our every need. Henry George observed that just as population increased and the need for revenue

for community purposes increased so did the value of the land. He found that the increase in earning power of land, due to the centralization of population, was fully equal to the increased needs of the community.

But instead of taking that increased earning power for the good of all, as our Heavenly Father had clearly intended, Henry George found that people were allowing the landlords to take the most of that revenue while public requirements were largely met by taxes on buildings, machinery and even on the food and clothing of the people, thus rendering these necessities more expensive.

Why not, asked Henry George, take all taxes off buildings and other products of labor, stop all protective tariffs which make the necessities of life harder to obtain, and place all taxes on the value of land, as he believed God had intended. Then, said he, the value of land will go into the public treasury and will be used for the good of all. When land increases in value the public revenues will be increased and all will be better off instead of these increases making rich men richer and poor men poorer because of higher rents.

He saw too that his plan which he called the "Single Tax," would cause God's will to be observed in another way. When all taxes are collected from land values, he reasoned, the taxes on unimproved land will be so heavy that the owners will either have to work it themselves or permit oth-

ers to work it. Thus would the people be given access to the land so long denied them.

This is the Single Tax, a cure for involuntary poverty and a method of causing God's will to be done on earth.—I.H.N.

Laugh a Little Bit

Here's a motto just your fit, Laugh a little bit. When you think you're trouble hit, Laugh a little bit. Look misfortune in the face, Brave the bold dame's rude grimace; Ten to one 'twill yield its place; If you have the wit and grit Just to laugh a little bit. Cherish this as sacred writ, Laugh a little bit. Keep it with you, sample it, Laugh a little bit. Little ills will sure betide you, Fortune will not sit beside you, Men may knock and fame deride you, But you'll mind them not a whit If you laugh a little bit.

Tar stains may be removed from dress goods by moistening with olive oil. Let stand a half hour, then wash with tepid lather. Do not wring, but let the water drip as it hangs up.

If a boot or shoe pinches, a cloth wrung out of very hot water and laid over the place while the boot is on the foot, will expand the leather and give instant relief.



Try this Thirsty Flour

A very thirsty flour. Absorbs a lot of water. Because it contains so much gluten. Manitoba wheat is wonderfully rich in sturdy gluten. And, think of it, FIVE ROSES is milled exclusively from the very cream of the Manitoba wheat berries. So FIVE ROSES must be awfully thirsty, don't you see. In your mixing bowl it greedily absorbs more water. So you get more loaves than usual without using more flour. You use less. Your flour lasts longer, doesn't it? Less trips to your dealer. That's how FIVE ROSES saves money. Actually saves YOU money. Use this economical flour.

Five Roses Flour

Not Bleached



Not Blended

SYNOPSIS OF DOMINION LAND REGULATIONS

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

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

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$30 per acre. Duties—Must reside upon the homestead or pre-emption six months in each year including the time required to earn homestead patent and cultivate fifty acres extra.

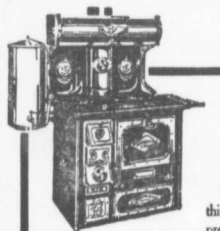
A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price, \$30 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. GORRY, Deputy of the Minister of the Interior. N.B.—Unauthorized publication of this advertisement will not be paid for.

Capable Old Country Domestic

Parties arriving about September 2nd, and weekly thereafter.

Apply Now
The Guild, 71 Drummond St., Montreal and 47 Pembroke St., Toronto



TIME EMPER AND ROUBLE

SAVED ON SCRUBBING DAY WHEN YOU USE

Old Dutch Cleanser

GIRLS An Opening For You

A high-class Temperance Hotel in an urban centre in Eastern Ontario, conducted under Christian management, to promote the cause of temperance, desires the assistance of some young woman to wait on table. Girls accepting these positions will be under the best of surroundings. Wage, \$15 a month, with room and board. Satisfactory references will be furnished applicants on request. This advertisement is sanctioned by the management of Farm and Dairy. Apply

BOX 112, FARM AND DAIRY, PETERBORO, ONT.

WE PAY THE FREIGHT.

At the Factory Price

Buying at the factory will land this range at your station freight prepaid for \$20.00 less than the next best stove on the market. You pocket the dealer's profit—about 30 per cent.—get a beautiful steel and malleable iron range built to last a lifetime. And what's more you save money every month on your fuel bill.

Every Range is unconditionally guaranteed.

Dominion Pride Range



It's as good as seeing the range to read the complete and clear description in our book. The book also contains a history of cooking worth reading. Let us send you a copy.

The Evolution of the Cook Stove

Canada Malleable & Steel Range Mfg. Co., Limited, Oshawa

Please Send Book.

Canada Malleable & Steel Range Mfg. Co., Limited, Oshawa, Ont.

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

Plants for Winter

Now is the time to make preparations for winter plants, before Frost nips our garden flowers.

We sometimes hear women say that they do not bother with flowers in winter, as it is rather difficult to keep them looking healthy and safe from frost. But after all, are they not worth a little trouble and attention when we consider the difference a few flowers make in the home during the cold, dreary days of winter when everything outside is covered with a snowy mantle?

If slips are taken from the flowers that are too large to bring into the house, they should be blooming nicely by winter time. Geraniums and foliage plants grow well in the garden and also in the house if planted in good soil and pots of suitable size. Leaf mould or well rotted manure placed in the bottom of the flower pot with some good soil from the woodlot on top, is splendid for plants.

A novel idea that came to our mind recently was to gather flower seeds after the frost comes. If we push back the leaves and dirt in the flower beds we will find the seeds that have fallen and by planting them in pots will have summer blossoming in our windows in winter. The idea is worth trying out.

Housekeeping Course at Home

Mrs. J. McIntyre, Welland Co., Ont.

We farmers' wives are not all lucky enough to have taken a Domestic Science or Homemakers' Course at one of our colleges; but if we have not had this opportunity, we do not excuse from being good housekeepers just the same. I believe that a course of this nature is very beneficial and that wherever possible our daughters should be allowed to avail themselves of this opportunity as it will prove of untold value to them.

Many of us, however, feel that we cannot afford this training for our girls. Nevertheless, we can give them a thorough training in the arts of housekeeping right in our homes.

In too many instances, we fear, the idea is prevalent that while book-keepers, teachers and so forth, require special instruction along the particular lines they have chosen, a girl can become a successful housewife without any previous special education.

CRUATE INTEREST

It seems to me that every mother should realize that if there is one thing above all things that she owes her daughter it is a good training along household lines. The only way this training can be successfully imparted is by getting our girls interested in all the tasks and allowing them to try each one in turn. Although we may oftentimes think that we could do the work in half the time and much better, yet we should remember that we ourselves had to learn at one time.

I have two daughters and ever since they were old enough to assist me, I have held them responsible for some of the tasks in connection with the household routine, and they grew older and they were allotted more responsibility and now they take turns in running the house. Of course I am general manager and am usually on hand to help them out of any difficulties.

We have tried to plan the work so that each one is treated fairly. One week one girl will look after the buying of the groceries, meat and everything necessary for the meals, as well as the preparation of the same, while the other one will have charge of keeping the house in order and vice versa. In this way there is a friendly rivalry between them as to who will be most successful, with the result that the work is usually performed in good shape.

Deafness

From All Causes, Head Noise and Other Ear Troubles, Lame and Paralyzing Deafness

Thousands who were, formerly deaf, now hear distinctly every sound even whispers do not care for them. They are restless because they are unable to hear. The impediment is the eardrum. The impediment is the eardrum. The impediment is the eardrum. The impediment is the eardrum.



Wilson Common-Sense Ear Drum called "Little Wireless Phones for the Ears" is restoring hearing in every condition of deafness or defective hearing of causes such as Catarrhal Deafness, Relaxed or Stenken Drums, Thickened Drums, Rounding and Popping, Perforated, Wholly or Partially Destroyed Drums, Discharge from Ears, etc. No matter what the case or how long standing it is, testimonials received show marvelous results. **Wilson Common-Sense Ear Drum** is made of the nerves of the ears and concentrates the sound waves on one point of the natural drums, thus successfully restoring perfect hearing. It is made of a soft, sensitive material, comfortable and safe to wear. They are easily adjusted by the wearer and out of sight. It is a success. What has done so much for thousands of others will help you. Don't delay. Write today for our FREE 100 page Booklet in English or French. **Wilson Ear Drum Co., Incorporated** 105 Westchester, Toronto, Ont.

WE WILL PAY YOU \$120.00

to distribute religious literature in your community. Sixty days work. International Bible Society. A new woman. Opportunity for promotion. Space time may be used. International Bible Press, 182 Spadina Ave., Toronto.

THIS WASHER MUST PAY FOR ITSELF.

AMAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but I didn't know how to tell if it was a good horse or a bad horse much. And I didn't know the man who was selling it either.

So I hid him I wanted to try the horse for a month. He said "All right, but you'll have to pay for the horse when you buy it." Well, I didn't like that. I said "I'll pay for the horse when I want to." He said "All right" and that I might have to whistle for my money if I never saw the horse. Well, I don't see the horse. I don't see the horse. I don't see the horse. I don't see the horse.

You see I make Washing Machines—the "100 Gravity" Washers. And I said to myself, lots of people may that about my Washing Machines as I thought about the horse, and about the man who owned it. But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over a million of them. I know it's all right. It is only fair enough to let people try my Washing Machine for a month for free. I don't want to lose a customer who wanted to try the horse.

Now, I know that my "100 Gravity" Washer will do it. I know it will wash the clothes, without wearing or tearing them, in less than half the time that any other washer can do. I know it will wash a tub full of very dirty clothes in six minutes. I know no other machine ever invented. I know no other machine that ever invented. I know no other machine that ever invented. I know no other machine that ever invented.

Let me send you a "100 Gravity" Washer for a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and give you the freight. Surely that is fair enough, isn't it?

Let me send you a "100 Gravity" Washer for a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and give you the freight. Surely that is fair enough, isn't it?

SPEC

We realize that full styles are able to give me at a few weeks, should you wish to meet your own terms kindly price 100. each

YORK BLOUSE

This pattern is cut 36 inches but can be made in any size.



CHILD'S CIRCULAR



GIRLS DRESS WITH

the cap will require 27 1/2 yards 36 wide, with 3 yard lining for the hood. For the pattern is cut for 1 1/2 and 4 years



essentially new features

For the 4 year 27 1/2 yards of material for the trimming is needed 1 1/2 yards 27 This pattern is cut from 4 to 6 years of

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SPECIAL PATTERN SERVICE

We realize the great interest that all of our readers take in the new fall styles, and have therefore made arrangements whereby we will be able to give many more patterns in Farm and Dairy than usual during the next few weeks...

YOKED BLOUSE OR SHIRT, 7948

Undoubtedly the square yoked blouse is the favorite one of the season and this pretty model combines a plain back with full fronts...

For the medium size the blouse will require 2 1/2 yards of material 27, 2 3/4 yards 36, 2 1/2 yards 44 inches wide...

This pattern is cut in sizes 34, 36, 38 and 40 inches bust measure.

CHILD'S CIRCULAR CAPE, 7949

Every little girl should own a cape such as this one. It can be made in Hood style or in Cape style and is finished with a collar and in either case, it is a pretty, becoming little garment...

For the 2 year size the cape will require 2 1/2 yards 27 inches wide with 1 1/2 yards 44 inches wide for the lining for the hood.

This pattern is cut in sizes for children of 1, 2 and 4 years.

GIRLS DRESS WITH BLOOMERS, 7733

No frock seems better adapted to the time and school wear than the one made with bloomers. It dispenses with the need for petticoats, which is a practical advantage...

For the 4 year size the dress will require 2 1/2 yards of material 27, 2 3/4 yards 36 or 3 1/2 yards 44 inches wide with 1 yard for the trimming for the bloomers...

SEMI-PRINCESS GOWN FOR MISSSES AND SMALL WOMEN, 7931

Here is a frock that includes all the newest features. The blouse is closed on a diagonal line and is cut with the elegant draped shoulders. The skirt is slightly draped and there is a deep pleat at the waist line...

For the 16 year size the dress will require 5 1/2 yards of material 27, 4 3/4 yards 36 or 3 1/2 yards 44 inches wide with 1 1/2 yards 19 inch wide for the collar and cuffs...

For the 18 year size the dress will require 5 1/2 yards of material 27, 2 3/4 yards 36 or 1 1/2 yards 44 inches wide with 1 yard 27 inches wide or 1 1/2 yards 44 inches wide for the plaiting to make a full skirt...

BOY'S SUIT, 7939

Little boys are always wearing a great many suits made with loose trousers. This one is closed to the shoulders in a masculine style and gives an eminently masculine effect...

For the 4 year size the suit will require 3 1/2 yards of material 27, 3 1/2 yards 36 or 1 1/2 yards 44 inches wide with 1 yard 27 inches wide for the trousers...

FOUR-PIECE DRAPED SKIRT, 7922

The skirt just like a slight drapey is one of the best liked for daytime use and usually is both unusually simple and unusually smart...

For the medium size the skirt will require 3 1/2 yards of material 27 or 2 3/4 yards 36 inches wide will be sufficient.

PLAIN BLOUSE, 7910

The simple blouse finished with hemmed edges and a finishing collar in Bobeque style is one of our favorites. It can be made with or without an applied yoke. It is very smart in effect and very generous becoming and it can be utilized for both washable material and silk.

For the medium size the blouse will require 3 1/2 yards of material 27, 2 3/4 yards 36, 1 1/2 yards 44 inches wide with 1/2 yard 27 inches wide for the collar and cuffs.

LOOSE DRESSING JACKET, 7933

The loose dressing jacket is always a favorite one. It is easy to slip on and is thoroughly comfortable and convenient. This one can be worn in either of two styles. It is finished at the front and cuffs with a band but this band is never in kimono style.

For the medium size the jacket will require 3 1/2 yards of material 27, 2 3/4 yards 36 or 1 1/2 yards 44 inches wide with 1 yard 27 inches wide or 1 1/2 yards 44 inches wide for the cuffs and waistband.

Advertisement for St. Lawrence Sugar featuring an illustration of a woman with a sugar bowl and the text 'Lawrence Sugar'.

For Preserving - Buy St. Lawrence Extra Granulated by the bag. You get the choicest, pure cane sugar, untouched by any hand from Refinery to your kitchen - and FULL WEIGHT GUARANTEED.

St. Lawrence Sugar Refiners, Limited, Montreal.

Advertisement for THE ARLINGTON CO. of Canada, Ltd. featuring an illustration of a collar and the text 'CHALLENGE COLLARS'.

"ARLINGTON COLLARS" are good, but our CHALLENGE BRAND is the best.

Advertisement titled 'The Call of the North' for H. A. Macdonell, Director of Colonization, Parliament Buildings, Toronto, Ontario.

Advertisement for 'Equip Your Old Lamps with Radia Lamp Burner' featuring an illustration of a lamp burner and text describing its benefits.

Advertisement for 'One Hour a Day' study program, listing subjects like Commercial Code, Arithmetic, Penmanship, Business Correspondence, etc.

Large advertisement for 'E-Z-I SHOE POLISH' featuring the brand name in large letters and text describing the product as 'The EASY polish Makes Shoes Last Longer'.

Advertisement for 'NEW COAL OIL LIGHT BEATS ELECTRIC OR GASOLINE' with a '10 Days FREE - Send No Money' offer and a '\$1000.00 Reward' for information.

MANOR FARM

Senior Herd Sire, Prince Hengerveld of the Pontiacs, a son of King of the Pontiacs and from a daughter of Pieterje Hengerveld Count De Kol. Junior Herd Sire, King Segis Pontiac Posch, a son of King Segis Pontiac Alcarra (the \$10,000 bull), and from a 29 1/2 lb. 2 year old.

We are offering to mail to anyone extended pedigrees of these Sires. We are offering a limited number of cows in calf to them for sale. No Hester Calves for sale at any price

GORDON S. GOODERHAM - BEDFORD PARK, ONT.

FAIRVIEW FARMS HERD

Offers

Some of PONTIAC KORNDYKE, ready for service in the near future or younger, sons and daughter of SIB JOHANNA COLANTHA OLADI, whose three first daughters to be officially tested average better than 30 pounds each as Junior DAIRES with the greatest bred KORNDYKE bull in the world. Write me for anything that you want in Rag-class Holsteins.

E. H. DOLLAR, HEUVELTON, (Near Prescott, Ont.) NEW YORK

15,345 lbs. in 1 Year Lyndale Holsteins

For a Jr. 3-year-old, milked twice per day she is a daughter of Dutchland Colantha SIB Albecker. A pair of his sons 2nd and 3rd lbs. 4-year-olds. Both extra show bulls, old enough for service. Write for pedigree.

We are now offering Bull Calves from 1 month to 7 months old. All are of first record dams and sired by one of the greatest bulls in Canada.

Brown Bros., Lyn, Ont.

Registered Holsteins

- Cows \$100 to \$500
Heifers \$100 to \$350
Bull Calves \$25 to \$125
Mature Bull \$100

Over 30 head to select from. All in good condition. Cows and heifers are bred to King Segis Pontiac Konigen, who is a 3, brother to King Segis Pontiac Alcarra—the \$10,000 bull. Come and look over the herd or write your needs and we will try to fill them.

J. Alex Wallace Lynn River Stock Farm, Simcoe, Ont.

Bulls from High Record Dams

Sired by Canada's Greatest PONTIAC BULL

One 6 months old out of a 29 1/2 lb. three-year-old daughter of King Segis. Two grandsons of Pontiac Korndyke out of 25-lb. daughter.

Several others of lower records. Every one splendid individuals and some ready for service.

AVONDALE FARM A. C. HARDY - BROCKVILLE

HET LOO STOCK FARM

Present offering a son of Minnie Landes. Les Cheneux DeKol Burke and Paul DeKol Jr. Blood. Calf sired by a son of King Segis and out of daughter of Paul Bess. Write for prices.

HET LOO STOCK FARM, VAUDREUIL, QUE.

Dr. L. de L. HARWOOD, Proprietor GORDON H. MANHARD, Manager

Evergreen Stock Farm

High-Class Registered Holsteins

Winners of 20 First Prizes at the Canadian National Exhibition this year—a record unsurpassed by any breeder of Holsteins in Canada.

At present we are offering for immediate sale to makers for our full crop of Calves, ten Head of Females, composed of Young Cows, Yearling Heifers and Heifer Calves. These will be priced very reasonably and should find quick sale.

We are also offering one choice Young Bull, ten months old, winner of 4th prize at Toronto and 1st at London. His dam is a 15-lbs. two-year-old daughter of Madam Posch Pauline, 101. 3 lbs. milk one day, 660 lbs. in seven days and 26.8 lbs. butter seven days at four years of age. His sire is Prince Albecker Mercena, grand champion bull at Toronto and Ottawa this year. This young bull has every chance of having a dam and grand-dam with 30-lb. records. He is mostly white and weighs nearly 800 lbs. Anyone buying will have the privilege of returning him if not suited. First cheque for \$200 takes him.

A. E. HULET - NORWICH, ONT.

BELL PHONE

R. R. 2

MECHANICAL MILKERS RUN BY FOOT POWER.

The phrase, "Mechanical milking," brings to most of us visions of a stable suitably piped, a dairy room filled with unit cans and numerous rubber tubes, and near the stable somewhere a gasoline engine that supplies the power to milk the cows.

To some farmers, however, a milking machine does not mean anything so complicated or expensive. A few farmers in Canada, more in the United States, and a still greater number in New Zealand, think of the milking machine as a light piece of apparatus that any farmer can carry around on one hand, with which no piping is needed, and for which the milker's foot supplies the power. We refer to the foot-power milking machine, of the type illustrated on this page.

THE MACHINE ON TRIAL

This milking machine has been in use a long time, and quite extensively used. It is noticeable also it is not unenthusiastically recommended by any of the United States Experiment Stations that have tried it. Canadian experiment stations have never given the foot-power milker test, but some Canadian dairymen have. Mr. W. F. Sturgeon of Leeds Co., Ont., a breeder of pure bred Holstein cattle, wrote us recently regarding this machine as follows:

"I have used a foot-power milker for three years with perfect satisfaction, milking 10 and 12 cows. I have milked 10 cows in 30 minutes, after the cows had become accustomed to the machine. I can milk two cows with the machine much quicker than a person can milk one by hand. And the more milk the cows give the better the machine seems to work."

"The cows take kindly to the machine. If milked carefully they will seldom lift a foot at the first milking, but do not milk out as well the first few times as they do after. The machine does not injure the cow in any way. In fact, if you do not milk carefully after a machine they will not take kindly to hand-milking. The machine will milk a sore teat and not hurt it as does a hand milker. I have noticed no difference in the flow of milk.

"As for milking dry, the machine will do its part if the man and cow do theirs. The machine is simply an air pump, and it does not take a very large hole to let in air. When some air gets in you will not get milk, and that is where the trouble comes in milking them dry. If one understands his business there is no trouble. It is not much trouble to clean out the wagon with a shovel after you have unloaded a load of manure with the fork. Some men would scrape out the wagon; others would not. Just so with stripping the cows. Of course the machine will have to take the blame if the cows should happen to drop their milk when you do not expect them to, or if they are not doing as well as you think they ought.

WORK FOR THE BOSS

"The only drawback to the machine is that the boss who has to do all the milking himself, as there is not one man out of 26 that would learn to use a machine because the milker has the cow's nature to work against, and no cow is ever alike. If you had a stranger walk into my stable when milking and start to talk. The cows would stop milking. The stable must be quiet.

"I have no hesitation in saying that the milker is O.K. There is no expense except for disks for milk cups at five cents each; two sets will last a season. All the power necessary is a two-legged man.

"I used the milker four years continuously, as long as the cows were

milking," writes Geo. H. Tachabery, Leeds Co., Ont. "During that time I kept from 12 to 18 cows. Conditions being equal on an average I could milk two cows with the milker as quickly as I could milk one by hand. With one exception, my cows no longer liked to the machine; they would stand chewing their cud, as if being milked by hand.

"As to milking dry: at first we practiced stripping after the milker, but it seemed to be establishing a habit, so we quit it and used the machine only, with no ill results, the machine milking as dry as the hand. In my experience I could see no injury to the udders nor a tendency to dry the cows. Having reduced my stock, owing to selling part of my farm, I have not used the milker during the last five years. One should have 10 cows or over to work to good advantage.

WHO SHOULD OWN A MACHINE? "I have no hesitation in recommending the machine to any dairyman."



Foot-Power Milker in New Zealand

man of ordinary mechanical knowledge and patience; the latter is required on the start, and the former all the time. Every joint must be air tight in order to milk. If joints are not tight there will be no milk, and probably some had humor. To an intending purchaser I would say: read and follow the directions carefully, and use your own brains as well, for cows are not like machines. They are not all alike in either disposition, or udder and teats. Put your cows as nearly alike as possible as to size of teats and easiness to milk. Don't put a tough and easy cow together.

"I have had no experience with any other milker but for efficiency I think the foot power milker would be hard to beat. Being worked by foot power the operator can control the suction, regulating it so that it is not too strong or too weak. This is acquired by practice."

Economy of Autos

"If one wishes to go a long distance, you can go much cheaper by auto than by train," says Mr. Marshall, a dairy farmer of Hastings county, Ont. "Last summer I went from Stirling to Toronto and back with six passengers and made the round trip on about 10 gallons of gasoline and half a gallon of cylinder oil."

"I have run a car for three seasons now. I would recommend a light car, as it is easier to keep up. I can run from 20 to 25 miles on one gallon of gasoline according to the road. One set of tires will average 5,000 to 8,000 miles. Any farmer who uses hand-farm machinery can save for a car. My son, 12 years old, drives a car perfectly and my wife is safer with it than she is with a horse."

Early early may be bleached by wrapping paper about each plant and by placing boards along the plants. Dirt is apt to cause decay on celery, although it is desirable to use it for the late crop.

MARKET

Trade Monday, Sept. 22, is opening fairly satisfactory reports of the outside market. Payments, however, from the Canadian banks are slow. Little of the corn has been marketed, and still depends on a market that is not very active. A few days' work or two. The wheat crop is a disappointing one, due to the late start in harvesting, and the market is lower. As still October 2nd, a heavy crop of wheat is expected to come in. The market is quiet, but a few days' work or two. The wheat crop is a disappointing one, due to the late start in harvesting, and the market is lower. As still October 2nd, a heavy crop of wheat is expected to come in. The market is quiet, but a few days' work or two.

There can be no further the plentiful wheat crop of the year. A cabinet of the International Agricultural Association has the official estimate of the wheat crop in Canada as compared with 1912. The Canadian crop is 20,000,000 this year and 1912 was 20,000,000. Such figures and their influence on the market have been covered in the "Market" column of the Ontario crop and have quotations steadily maintained. The market is quiet.

Mr. Gilbert is Alexander G. Gilbert, Poultry Expert and Inspector, Poultry Department at Ottawa, Ontario. He has been away on Sept. 24th at the Ontario Fair. Mr. Gilbert has been in the poultry business for some time, and he is a devotee of his work. He will feel almost some of loss, to be sure, but he knows that his work is important. Mr. Gilbert was born in British Columbia, and he is a member of the Ontario Poultry Association. He is a very successful breeder, and he has won many prizes. He is a very successful breeder, and he has won many prizes. He is a very successful breeder, and he has won many prizes.

Ontario No. 2. 80 outside; 75 inside. COARSE GRAIN: There is a fair trade for local account, otherwise the market is small and prices are tending downwards. There is no small measure to change the market. Foreign grain is generally below Canadian prices as follows: Oats, O. C. 3 and No. 1, 60c; No. 2, 55c; No. 3, 50c; No. 4, 45c; No. 5, 40c; No. 6, 35c; No. 7, 30c; No. 8, 25c; No. 9, 20c; No. 10, 15c; No. 11, 10c; No. 12, 5c.

MILL FEEDS: Millers have disposed of their surplus and prices are firm. The market is quiet, but a few days' work or two. The wheat crop is a disappointing one, due to the late start in harvesting, and the market is lower. As still October 2nd, a heavy crop of wheat is expected to come in. The market is quiet, but a few days' work or two.

HAY AND STRAW: Hay quotations are steady. The market is quiet, but a few days' work or two. The wheat crop is a disappointing one, due to the late start in harvesting, and the market is lower. As still October 2nd, a heavy crop of wheat is expected to come in. The market is quiet, but a few days' work or two.

MARKET REVIEW AND FORECAST

AYRSHIRES

HOLSTEINS

Burnside Ayrshires

RIVERVIEW HERD

Winners in the show ring and dairy... Animals of both sexes. Imported or Canadian bred, for sale.

1 Young Bull, from 1 to 12 months, sired by King Isabella Walker...

SEEDS

Local dealers are paying farmers for... No. 2, 86.50 to 87.50; No. 1, 87.50 to 89.00...

HIDES AND WOOL

Trade breaker, and prices have advanced... 15¢ to 16¢; green, 16¢ to 17¢; white, 17¢ to 18¢...

Wool quotations

Unwashed, coarse, 25¢ to 26¢; fine, 27¢ to 27.50¢.

HOLSTEINS

HOLSTEINS

15 Heifers, rising 3 years. 20 Heifer Calves, from 1 month to 3 months. Bull Calves, 25¢ to 10 months. Also Cows up to 6 years.

Lakeview Holsteins

Bull calves only for sale for the present, sired by Count Henrieveldt...

Registered Holsteins

For Sale One Bull, 9 mos. old; one year old Cow to calve September 24th; one Heifer Calv, 4 mos. 1.

Jesse Looker - Mitchell, Ont.

Livestock Wanted

If you have any Thoroughbred Guernsey or Holstein or Jersey Calves, Brood Sows or Sow Pigs for sale - communicate with...

R. S. DUDLEY P.O. Box 176 - Westmont, P.Q.

LAKEVIEW DAIRY AND STOCK FARM

Present offering, Bull Calves from Record of Performance and also a few females.

W. F. BELL, BRITANNIA HEIGHTS, ONT. Ottawa Bell Phone.

Trade... Monday, Sept. 23 - Fall market is opening fairly well...

Wheat... There can be no further question as to the plentiful wheat crop of the world...

Wheat... There can be no further question as to the plentiful wheat crop of the world...

Mr. Gilbert is Dead

Alexander G. Gilbert, Canadian of the Poultry Expert and Manager of the Poultry Department at the Central Experimental Farm, Ottawa, passed away on Sept. 24th...

Mr. Gilbert was born in Georgetown, British Guiana, coming of good Scotch stock. He was appointed Manager of the Poultry Department...

COARSE GRAINS

There is fair trade in Western oats for local account, otherwise the volume is small and prices as a whole are low...

MILL FEEDS

Millers have disposed of much of their surplus and prices are firmer. Quotations: No. 1, 82.00; No. 2, 81.00...

HAY AND STRAW

Hay dealers estimate that the market is not so tight as it was last year's crop is still in the farmers' hands...

EGGS AND POULTRY

This week's market shows an increase of a few dozen on egg quotations. Hens' eggs are expected to be plentiful...

Prices on live stock have been shaded somewhat during the past week...

LIVE STOCK

Export cattle, choice, \$8.00 to \$7.15; butchers' cattle, choice, \$6.75 to \$6.80; butchers' cattle, \$6.75 to \$6.80; butchers' cattle, \$6.75 to \$6.80...

Information Coupon

THE RENFREW MACHINERY CO., Limited RENFREW, ONT. Gentlemen.

Without obligating us in any way, mail me your catalogue and circulars fully describing the Renfrew-Stand type gasoline engine...

Name Address City State Name Firm and Dairy, Peterboro, Ont.

Scores of Men Will Mail This Coupon

They will be progressive men—men who believe in keeping right-up-to-date—men who have heard about the latest and best type of gasoline engine for sale in Canada...

Show that you are one of these progressive men. Fill in, cut out and mail the coupon now. The wide-awake, get-ahead man does things right away.

Information Coupon

THE RENFREW MACHINERY CO., Limited RENFREW, ONT. Gentlemen.

Without obligating us in any way, mail me your catalogue and circulars fully describing the Renfrew-Stand type gasoline engine...

Name Address City State Name Firm and Dairy, Peterboro, Ont.

Firm and Dairy, Peterboro, Ont.

NOTICE

I wish to announce that I have a large importation of prize winning horses, just arrived from France, Belgium and Scotland... Percheron, Belgians, Shires, Clydesdales, Hackney and French Coach Stallions...

FARMERS ATTENTION

We want a man in every locality in Eastern Canada to sell our big line of Household Necessaries, Medicines, Extracts, Spices, Stock Remedies, Fountrys Supplies, etc., - direct to farmers. Every one a household necessity, sold on Rawleigh's "Pay-After-You-Are-Satisfied Plan."

YOU CAN MAKE

\$100 CLEAR PROFIT PER MONTH TO \$200 above all expenses. If you can furnish team, write at once for our matchless offer.

NO DUTY TO PAY. Good freight service. We are the only Company who sends and inspects its own heavy Co. Canada. This means no extra charges for money sent in the West. Now is the time to secure good Eastern service.

EVERY RAWLEIGH SALESMAN is backed by the service of one of the oldest Buying, Manufacturing and Distributing Organizations in North America. Established 19 years. Capital and Surplus over \$2,000,000. References: Durys, Detroit, Mich., or any bank in New York, Philadelphia, Pa. for full particulars.

THE W.T. RAWLEIGH COMPANY 63 GUNNELL ST., WINNEPEG, MANITOBA



Illustration of a horse-drawn carriage.

Breeder's Directory

Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines nor for less than six months, or 24 insertions during twelve months.

FOR SALE - 2 Bona of King Farms Sexie Clothide, from R. O. P. cows. Also three Olds Fillies and 3 Bullions. Feartlings - R. M. Holtby, Manchester, Ont.

SPACE right here costs you only \$4 a reading line a year. (Make you weekly to 15,000 possible buyers. Can you afford to do it? Then come in! Write Farm and Dairy to-day about it.

WANTED Steady position as buttermaker with competent staff. WA. WYVER - CULLODEN, ONT.

REPORT CHEESE TRADE Montreal, Saturday, Sept. 27.-The easy feeling which developed last week in the market for cheese was continued this week and prices dropped another 1/2c a pound on the average. This week's quotations ranging from 12 1/2% to 13%, the great bulk of the offering selling at 12 1/2%. Even at the lower price, there is no apparent interest taken in the trade by the British importers, and unless there is a decided improvement in this respect, before the markets come on again next week, prices should rule still lower. All this in spite of the fact that make is considerably less than it was at this time last year, the receipts into Montreal for the week of September being about 40,000 less than they were during the corresponding month of last year. The bulk of the make from the make from now until the end of the season being considerably less than it was last year. This fact is of course a strengthening effect upon the market to breed off. It is seldom that one has on the other side; and if there is no improvement in this respect, as stated before, prices are going to go lower, as the dealers here are not prepared to speculate in cheese at the present prices in view of a probably largely increased make of cheese in New Zealand this winter, which is few weeks away.

Market for butter advanced again last week, owing to the speculative demand. The "W" make, the best Eastern Townshires fresh receipts are quoted at 27c to 28c in 10 lb. cans, or 127 to 130c, having been paid at the factories. Even

sold them. Lastly, several Holstein-Friesian breeders have written that they should be expected from Holstein-Friesian bulls in grade or scrub herds, showing that purchasers of bulls from these herds were finding fault so as to come in with all active.

I have referred many times to a color question, and am beginning to think that persistence of our breeders in any such thing will furnish a serious obstacle for the future. It is needless to mention that the great majority of our own cows show dark colors, for all breeds who have looked into the color matter since they were first known as such, with the great majority of the foundation stock imported from Holland had the black and white markings in nearly every generation; for while they looked dark in color, the skin if scraped out would show nearly as much white as black. White is the most persistent of colors, and one difficult to breed off. It is seldom that one has even with the blackest of our own herds are apt to be found, usually at the extremities. The horse will have a white star; or foot; or the pig, a snip; or the cow, feet, throat or belly. It may be only a few hairs, but the white hairs are sure to be there. When a horse is bred off to the extremities, but just does not show; and in some cases it has nearly been bred off. It is hard to see how one knows of one case where a valuable cow

OUR FARMER

Correspondence QUEBEC COMPTON CO. day made Galway Fair horse, and little red springs have gone dry at Galway. A few have been dragging. They are a fine set. Not much finishing yet. Perches are selling better. Set. eggs, 35c-40c. ONTARIO HALIBURTON CO. KINMOUNT, Sept. 27.-I am a success, there being at present, Vegetables, Fruit, and in spite of the dry pool, bread and canned fruit, produce were Archie and useful work was had. The Riverside Stock I am excellent lot of Durhams, Scotch Friesian and numbers. Some fine two-year-old, special train number from Lindsay and boy the day. J. A. B. STAVINGS CO. SHANNONVILLE, Sept. 27. (Glenora and Jerseys were sold at the Shannonville sale of Plainfield had a fine lot of Jerseys. The sale of Plainfield had Archie, W. C. Ketcheson and exhibitors were Archie Wm. Clancy of this place and recently, was graced by C. Malloy had 13 head black and white herd out of all the prizes. R. H. W. Jersey, a fine herd of R. O. Malloy exhibitors were Archie and R. O. Morrow, who are to be getting better all year. All leading breeds well represented. Talk about the horse show space-W.I.

PERTH CO. WILLOW GROVE, Sept. 27. Has been very dry; very big down; a lot of light pig-

"Somebody Took My Farm and Dairy"

is the substance of a good many letters we get asking us to send forward another copy. If you are troubled that way give us "his" name and we will send him a subscription blank, and a gentle hint.

RURAL PUBLISHING CO. Peterboro, Ont.

Sir Lyons Hengerveld Segis

I am offering a young son of this great bull, that sold for \$1500 when a calf. This youngster is a nice individual and out of a grand daughter of Sarah Jewel Hengerveld the 2nd, a \$2,000 cow. Price reasonable. Will meet interested parties in Peterboro by appointment, or write JOS. O'REILLY, ENNISMORE P.O., ONT.

FOR SALE

A First-Class Creamery Business in Western Ontario. Modern equipment. Splendid territory. Conveniently situated. Price reasonable. ADV. 489 - FARM AND DAIRY.

You Can Sell

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Out. 48 bushels of O.A.G. No. 11 barley to the acre this year.

higher prices are looked for next week, as there is keen competition for the offerings in the country just now.

MONTREAL HOV. MARKET Montreal, Saturday, Sept. 27.-A feature of the trade early in the week was the more pronounced weakness in the market for live pigs and prices scored a further decline of 1c to 2c a cwt., which, to some extent, was attributed to the reduction in prices of 25c in the Toronto market, and the indications are that they will go still lower in the near future. There was a good demand from packers for supplies, and the trade was fairly active, with sales of selected lots at \$9.80 to \$10.00, weighed off cars. There was no further change in prices for dressed hogs, but the feeling in the market is easy, and the prospects are that a further decline will be established when the demand is fair for small lots of all actual weights, and sales of abattoir fresh-killed, made at \$13.75 to \$14.

CHEESE MARKETS. Campbellford, Sept. 25.-460 boxes boarded, all sold at 12 1/2%. Woodstock, Sept. 24.-1,645 boxes, 100 being white. Best bid 13c; none sold. Striving, Sept. 24.-625 boxes offered. All sold at 12%.

Brockville, Sept. 25.-The offerings were 2,265 colored and 416 white. The highest offer, 12 1/2%. Kingston, Sept. 25.-479 boxes colored boarded, and sold for 12 1/2%.

HOLSTEIN COLOR PADS. During the past year or two, I have been brought into contact with the color question from an unexpected angle, - that of its relation to pure-bred Holstein-Friesian bulls in grade or scrub herds. Many farmer-dairymen have written me for suggestions in regard to the purchase of a pure-bred bull, and of those mentioning color four-fifths showed a preference for light colors. When I asked them to name a man they answered that they had none, and that they had noticed that Holstein breeders seemed to prefer light colors in buying bulls to head their own herds. Out of a number of letters here came to me from farmers who have bought pure-bred Holstein-Friesian bulls complaining that their calves were half or more red and white, and casting doubts on the purity of blood of the bulls

THE HORSE SHOW AT GUELPHI WINDY FAIR

The Horse Show at the Ontario Provincial Winter Fair to be held at Guelph, Dec. 9th to 12th, promises to be one of the best yet. The Ontario Cattle and Horse Breeders Association having invited the show to be held at Guelph. It is the 37th year of the fair, and is the largest held for three-year-old mare in both open and Canadian-bred departments. There will be no less than 100 entries in the number of entries of Chester mare, both imported and Canadian, and before a three-year-old lot is placed to compete with the mature mares, which is a great thing. In the case of Percheron, which is given a classification for the first time since 1902 when it was first shown and over, were obliged to compete with the best of the breed. The best provided for three-year-olds and over.

In addition, special prizes are to be offered by different county and amateur exhibitors. The Four of the York, Waterloo, Grey, Huron and Kent Counties, and the Ontario Cattle and Horse Breeders Association, are the patrons of the show, which will be held at the Ontario Cattle and Horse Breeders Association Buildings, Toronto.

OUR FARMERS' CLUB

Correspondence Invited

QUEBEC.

COMPTON CO., QUE.

COMPTON, Sept. 25.—We are having fine weather, and little rain. Many wells and springs have gone dry, and rain is needed badly. A few have finished their potato digging. They are a fine crop, but are far in price. Grain was an extra good crop. Not much threshing has been done yet. Potatoes are selling at 50¢ a bush; butter, 35¢; eggs, 25¢.—H. G. C.

ONTARIO

HALIBURTON CO., ONT.

KINMONT, Sept. 22.—A bright, clear day made Galway Fair held at Kinmont a success, there being about 1,200 on the grounds. Vegetables, roots and fruit were good in spite of the dry season. Butter, feed and canned fruit made a most tempting display. The exhibit of fancy and useful work was hard to beat. Live stock was good, mostly every class being filled. Riverside Stock Farm showed an excellent lot of Darhams. Drought and general purpose horses were out in great numbers. Some fine two-year-olds were shown. A special train brought a large number from Lindsay and the south to enjoy the day.—J. A. R. T.

HASTINGS CO., ONT.

SHANNONVILLE, Sept. 25.—Holstein, Ayrshire and Jerseys were all represented at the Shannonville fair. Mr. Geo. Collins of Plainfield had a particularly good lot of Jerseys. T. C. Tiverton of Plainfield had Ayrshires. He also had W. C. Ketcheson & Son, Holstein exhibitors very Archie McDonald and Wm. Clancy of this place.—I. W.

FRANKFORD, Sept. 25.—Our fall fair had recently, was a great success. F. E. Malloy had 12 head of his famous back and white herd and cleaned up all the prizes. E. W. Brooks had some Jerseys, and W. C. Ketcheson & Son, Thurfow, a fine herd of Ayrshires. Other Holstein exhibitors were: Elias Ketcheson and E. O. Morrow. Hinton Sheep seem to be getting better and better every year. All leading breeds of swine were well represented. I would not start to talk about the horse show in this limited space.—W. I.

PERTH CO., ONT.

WILLOW GROVE, Sept. 25.—The weather has been very dry; very little fall plowing done; a lot of light plowing and grass

worked out of the land. We had a good rain on Saturday night, the first rain we have had in six weeks. Fruit is plentiful, but not so much on account of dry weather.—O. W. R.

NORWICH, OXFORD CO., ONT.

NORWICH, Sept. 25.—Our fall fair was held in the rain, but we had a good fruit were very attractive. Flowers and our Holstein show was good as any in Canada, and they were well represented as those of A. E. Hulet, Bettie Bros., C. N. Hillier and George Bros. In the Ayrshire classes John McVee and E. B. Palmer & Sons were the chief exhibitors. Jerseys were represented by P. Porter, Geo. A. and L. M. Meadows, Hatchley. Geo. A. and N. GIBSON placed the awards.—P. A. GIBSON.

WOODSTOCK, Sept. 25.—Our fair is located in what we call the best country, a cultural district in Canada, and the exhibits were worthy of the situation. A. E. Hulet of Norwich showed Holsteins, Melrose Bros. of Beacleville, 13, and T. D. Duff of Inglewood, 15, and the winners of Oxford Centre and the south to enjoy the day.—J. A. R. T.

ESSEX CO., ONT.

ARNER, Sept. 25.—The long drought has been broken by a few light showers, which soving has commenced. The acreage is about the same as former years. Tobacco cutting is general and will be an average crop. The quality will not be up to the standard owing to damage by hail and worms. Corn cutting has just commenced, and the crop will be an A-1 quality, although the yield will be light owing to drought. The cutting of clover seed is about finished, there being more clover out for seed this fall than in many years. Pastures are very short and dry.—A. L. A.

WEST BRITISH COLUMBIA

NW WESTMINSTER DISTRICT, B.C.

NW WESTMINSTER, Sept. 25.—Our effort to improve the quality of cattle in this

province. Yesterday 59 head of young Holstein calves were sold to farmers. The highest price realized was \$159. All this was pedigreed stock.—B. O.

A VISIT TO AVONDALE FARM

A 15 minutes' run from the Grand Trunk Station in the big touring car set the writer down last Thursday afternoon on the dairy farm of A. C. Hardy, Brockville, as Mr. Hardy calls his farm, "Avondale," along the Ottawa River, G. T. R. The location of the farm is quite typical of many of those in this section of Ontario. It lies between the outcropping ridges of limestone that are prevalent in the St. Lawrence region. Its 200 acres is of clay loam of the kind that withstands well the dry summers.

Mr. Manhard, the new manager at Avondale, was over to town when the writer arrived, but the herdman, Mr. Lynn, was found on duty dealing out the evening rations to several cows. It was a pleasant surprise to find every cow on a peak and up at Avondale at this season when the silo filling rush is on. It almost looked as if they were expecting a dairy inspector. The stables were spotlessly clean, and the calf pens particularly were resplendent with a fresh coat of whitewash. Attention is regarded to the attractiveness of the stables the general policy about that it was to have everything neat and tidy.

Knowing that Mr. Hardy was one of the contributors to their coming sale in October, the writer asked to see some of the animals that were to be put up, so with his record book in hand Mr. Lynn led the way to each of Mr. Hardy's consignments.

The Sale Consignment Mutual Friend Canary of Avondale, the first one brought out, is a big type, well marked three-year-old that had just freshened. As a two-year-old she has a second-year butter record of 112 lb. butter and 270 lbs. of milk. Looking over her pedigree we found that every dam in her record had over 20 lbs. of butter a week, and the average of the closest seven was 24.9 lbs. The sire of this heifer is a brother of the world's yearly record milk cow, Creamie Vale, and is also a grand-son of Sadie Vale, 304 lbs. butter in 7 days, and of Canary Mercedes, 25.5 lbs. This latter cow is the foundation animal of their herd.

Another splendid heifer for the sale is the three-year-old, Pontiac Agreya Gothilda. She is not as prettily marked

as one might wish, but is big and growthy, has a lot of constitution and the very richest of breeding. She is a granddaughter of that most popular bull of the present day, King of the Pontiacs. This bull has a list of 15 two-year-olds with records of over 750 lbs. of butter per year. The world's record dairy cow is also one of his daughters, Pontiac Agreya Gothilda is also a granddaughter of Pontiac Korodyke, the bull that has 82 E.C. daughters, 21 above 20 lbs., 53 above 20 lbs., and has also 82 E.C. sons. Her grand-dam is a granddaughter of the great transmitting sire, Mount Echo De Kol.

A High Tester

The only aged cow in his consignment is Senora Queen De Kol. She is 10 years old, nicely marked, deep and long, in her eighth year she gave 22.7 lbs. of butter in a week, the milk averaging 4.6 lbs. butter fat. She too, has all kinds of breeding, but space prohibits giving details.

In the opposite row of the stable stood 10 or 12 heifers coming two and three years. This entire bunch will be put up. They are all big, strong, growthy animals and many of them would be retaining well if not for lack of stable room. Most of them are due to freshen in early winter, thus giving the buyer the benefit of the winter's milking and a chance of testing them. Practically all of them are bred to Mr. Hardy's herd sire, King Pontiac De Kol. Buyers attending the sale on October 21st will do well to keep a line on this bunch.

From the building across the yard Mr. Lynn brought out one of the choicest animals of the whole herd. He is a young bull, King Pontiac Avondale, born July 2nd, 1912. As an individual he is hard to improve. He is strong, vigorous, of high depth, very masculine in fact a bull in every way. He has a combination of breeding hard to improve. His sire is King Pontiac Artis Canada, individually and in breeding one of the very best bulls in Ontario, and a winner at several of our leading exhibitions. This sire of King Pontiac Avondale is a son of the King of the Pontiacs, and from a daughter of Hengerveld De Kol. The dam of King Pontiac Avondale is Fairview-Mabel Korodyke, a 25-lb. three-year-old Pontiac Korodyke, and from a 19-lb. three-year-old daughter of the same, in this way King Pontiac Avondale carries 75 per cent of the blood of Pontiac Korodyke and Hengerveld De Kol. From both his individuality and breeding, this young bull stands to occupy a very important position in the Holstein world. He will go to the highest bidder on Oct. 21.

Holstein Superbs at Brockville

Tuesday, Oct. 2, 1913

(KEEP THIS DATE OPEN)

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- KING PONTIAC AVONDALE (1 year old)—He carries 75% of the blood of Pontiac Korodyke and Hengerveld De Kol.
- SONS AND DAUGHTERS of Rag Apple Korodyke 7th.—The only place in Canada where offspring of this bull can be secured.

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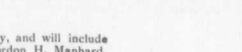
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