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Canadian Bldg

FARM AND DAIRY

AND
&
RURAL HOME



DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE



Peterboro, Ont., Sept. 9, 1916

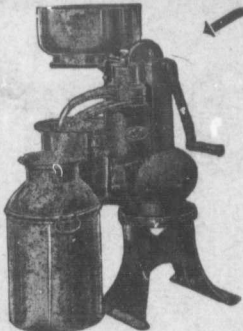


WHEN THE EARS TURN DOWN.

ED EACH WEEK

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Patriotic Year at the Canadian National

The Machinery of War and the Products of Industry Exhibited side by side. Agricultural Displays of a High Order.

It is Patriotic Year at the Canadian National Exhibition. The peaceful industries of Canada are reflected in the exhibits as in days of yore. But alongside of the triumphs of peace are the trophies of war. The visitor who had read day after day of shrapnel and lyddite, seaplanes and aeroplanes, cruisers, submarines and torpedo boat destroyers will go home with a more intelligent appreciation of just what these machines of war look like; for there were not models of them in the Government Building. The life of the soldier in the trenches and in camp found its interpretation in the model camp with its trenches and dug-outs. Exhibitions were given of trench defence and attack. Miniature battle ships were destroyed on the water front. All very interesting and very tragic in their significance. They served to bring home in a realistic way to the people of Canada that we are engaged in one of the most terrible wars in history.

The soldier's eye to time of writing has been ideal, and record crowds thronged the grounds all of the first week. The agricultural crop displays in the Government Buildings are of

Johnston Bros., Croton, and J. M. Guardhouse, Weston.

Percherons were much stronger than anticipated. As in previous years, these classes were largely filled with animals of recent importation. Many of the classes, however, were fuller than corresponding Clyde classes. Among the exhibitors were: J. B. Hogate, Toronto; Hodgkinson & Tisdale, T. H. Hassard, T. H. Elliott, Bolton; R. Hamilton, Simcoe; Wm. Pears, Toronto, and W. G. Hill & Son, Queensville.

Beef Cattle

The beef displays have not come under the judge's eye at the writing, but competition will be kept in. Short horn classes are the two which who have competed all over the West this summer. J. Watt, Sons, Elgin and A. F. & G. Auld, Guelph, in addition to these are such strong herds as those of Kyle Bros., Dresden; Jno. Guardhouse & Sons, Highfield; Jas. Leask & Son, Seagrave, and Geo. Amos & Sons, Moffat, besides many others with smaller entries.

L. O. Clifford, of Oshawa, at some time had Herefords all to himself. This year he will have to fight



Symetry and Uniformity as Exemplified in the Ayrshire Milk Class. In the forefront is the winning cow of Senator Owens. The others are of type, beauty and utility combined. In combining these characteristics, the white breeders excel.

the usual high character, and served to exhibit Canada's great resources in the field, the orchard and the garden. The dairy exhibits are well up to the standard. But it is in the live stock that interest centred for the progressive farmers of Ontario. Here the displays were of a universally high character. It was feared at first that the dearth of importations from Europe during the past 12 months would have a decidedly detrimental effect on live stock exhibits, so far-reaching are the destructive influences of war. In a degree this was realized. Horses particularly were down in numbers, about 10 per cent, and sheep fell off for the same reason. On the whole, however, the exhibit was good enough to satisfy the most exacting.

The Horse Classes

One good effect the war did have,—it served to show the great numbers of high-class horses we already have in this country. Canadian-bred classes were strong. These, with importations of previous years, brought the heavy horse classes almost up to the strength of previous years. In the time of writing live draft horses had been judged. In the Clydesdale classes the chief exhibitors were: Hodgkinson & Tisdale, Beaverton; T. Michael & Sons, Seaford; T. H. Hassard, Markham; Graham Bros., Claremont; H. A. Mason, Scarborough, and W. F. Batts, Brooklyn. Shires were exhibited by Hodgkinson & Tisdale,

the way with Jas. Page, Wallace & G. E. Reynolds, Elora; W. Reade, Milton, and W. H. & J. S. Hill, Orangeville. Aberdeen-Angus rations are filled with such herds as those of Jas. Bowman, Guelph; Butt & Sons, Hillsburg; J. D. Laquerston, and Thomas Brood, Fergus.

In the Sheep Sections

Sheep, in some sections, were disappointment. Lack of importations had much to do with the almost all breeds there was room for improvement, though by no means that the showing was anything but good. Cotswolds were tested by Sam. Dolson & Sons, Man Park, E. F. Park, G. H. & Sons and Jas. A. Campbell, all of whom brought out the well-flocks of Jas. Snell & Son, A. Whitelaw and Jno. Kelly & Shropshire, usually so strong, hardly up to their usual standard. Jno. R. Kelsey of Woodville, the leading winner, with the money divided between Curney & Sons, Mrs. E. L. McAll, J. Lloyd-Jones and J. E. B. & Newbery, Peterborough, the most with Oxford Down with competition from E. Barber, Senator Owens. Southdowns were out J. W. Springstead & Son, McEwan and J. Lloyd-Jones.

Horns were a slim entry from the flock of J. A. Orchard and his (Continued on page 8)



We Welcome Products
Trade increases the w

Vol. XXXIV

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FARM AND DAIRY

& RURAL HOME



We Welcome Practical Progressive Ideas.

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

Vol. XXXIV

PETERBORO, ONT., SEPTEMBER 9, 1915

No. 36

Anson Groh: The Man and His Farm

The Manager of the United Farmers' Cooperative Co., Ltd., is an Unusually Successful Dairy Farmer.—By F. E. Ellis.

ANSON GROH is a man of parts. Those who may be drawn by curiosity or genuine interest to the headquarters of The United Farmers' Cooperative Company Limited, at 100 Church St., Toronto, will there meet Anson Groh, the man of business. The alert looking little man at the desk by the window is the president and manager of this great farmers' cooperative movement. The business that he now superintends amounts to over 1,000 a day. His customers are farmers' clubs in every corner of the province of Ontario. Anson Groh has been a leading spirit in the United Farmers' movement from its inception and is serving an able president and capable manager. But in this capacity, Mr. Groh has not yet served a full year. His reputation was made as an Institute lecturer long before the idea of the United Farmers' Company was conceived in the minds of a few of Ontario's public-spirited farmers. There are few sections of Ontario where from the Institute platform, Mr. Groh has not made plain the mysteries of carbohydrates and protein and why the combination of these two in an economical, home-grown dairy ration of corn silage and alfalfa hay is so desirable. His success in the platform was due to his practical style. He did not elaborate text book theories. He told simply of the methods that had brought him success on his own farm in Waterloo Co., Ont. It was at one of these Institute meetings that I first met the energetic little farmer from Waterloo. But if one would really know Anson Groh, they must visit the old farm in his home county, where for 30 years he toiled to buy and pay for a farm, raised and educated a large family and still found time to devote to every worthy community enterprise.

Few years things had gone so well with the Grohs that the old barns were torn down and new ones built. At the end of another few years, the old house was put on rollers and brought out in line with the barn. So thoroughly had it been renovated and modernized that when I visited the farm the latter part of last May, I took it for granted that the Grohs had built a new house. With these two main building operations complete, the farm began to assume the thrifty and prosperous look for which its proprietor had been striving.

But in the meantime the family had been increasing and 80 acres of workable land is not

half of the remaining hundred is workable. Even with this responsibility taken off their hands, however, the Grohs still have 150 acres of workable land to care for.

To start with little capital and end up in 30 years with 335 acres of land all paid for, is a man-sized job. When the executive of The United Farmers' Cooperative Company Limited, began to look around among their number for a man with the business acumen to care for a growing cooperative enterprise, is it any wonder that Anson Groh was their choice? His acceptance of the position, however, meant that he had to spend practically all of his time in the city of Toronto, and the responsibility for the direction of the farm has fallen upon his son, Herbert, the oldest boy, a graduate of the Ontario Agricultural College, and for some time assistant to the Dominion Entomologist at Ottawa. Herbert now has settled down to the life of a practical farmer, and it was he who showed me over the farm and told me of their farming methods.



Farm Home of the Manager of the United Farmers' Cooperative Co., Ltd. This is the home as it looks to-day. When Anson Groh purchased the farm 30 years ago it was an old frame shack standing some rods from its present site and behind the barn. Like the rest of the farm and farm buildings, the home has been improved past recognition.—Photo by an editor of Farm and Dairy.

From 95 Acres to 335
The original farm purchased by Mr. Groh 30 years ago, consisted of 95 acres. Only 50 were capable of being brought under cultivation. Fifty acres is not a big farm, but it was big enough for one man and his wife. The old frame house back of the barn, almost a quarter of a mile from the public highway? Neither house nor barn are in good repair. In fact the barn was not even a respectable apology for a store, and feed shed. The difficult problem of building up the farm was tackled with all the vigor, accompanied by all the thrift, that are characteristic people of Pennsylvania Dutch extraction. In a

enough to profitably occupy a large and growing family. A 200-acre farm down the road was rented. Then it was put on the market so cheaply that Mr. Groh did not believe he could refuse to buy it. The farm was badly run down through a quarter of a century of renting and cropping, but on it were a fair set of buildings. That was 12 years ago. A small farm of two properties now owned by Mr. Groh, was held by his uncle. It too came on the market and as it lay between the two farms already owned, it was purchased. Thus it was that the holdings of the Groh family to-day total 335 acres. They own all the land along one side of the road for one and one-half miles. A son-in-law has rented the front hundred of the biggest farm of the three and only

The farm could not well be more conveniently situated in regard to markets. There are six cities and towns within easy reach. It is just three miles to Galt, one and one-half to Hespeler, one to Preston, 10 to Guelph and Berlin, and 12 to Waterloo. The soil is mainly a sandy loam with a gravelly sub-soil. Such a soil is not usually rated very high. "Perhaps not," admitted Herbert Groh, "but it is a soil on which we are sure of a crop every year. I would rather work this soil than one running to the other extreme. It is easy to till, as good for corn as any, but not particularly adapted to wheat." The lay-out of the farm is in 17-acre fields, all square and all well fenced. The farms when first purchased, were laid out irregularly and inconveniently. Particularly was this true of the 200 acre farm. The work of rearranging the fields has now been practically completed, however, and the following systematic rotation facilitated. This rotation calls for two years of hay, two years of grain and one of clover crop, the latter of corn, roots and rape. Eighteen acres are in alfalfa, but this is outside the rotation altogether. Thus does Mr. Groh follow in practice what he has so long contended for on the Institute platform, lots of corn and lots of alfalfa for the dairy herd.
The silo accommodation on the various farms

consists of a cement silo, 12 1-2 x 30 feet inside measurement or the home farm, one 12 1-2 x 35 feet on the 900-acre farm and a smaller silo on the farm purchased three years ago. These silos allow of ample provision for winter feeding. Summer feeding is more of a problem on this somewhat light soil. It takes a heavy soil or lots of rainfall to ensure good pastures and in the average year the Groh pastures must be supplemented for a couple of months at least. This year provision was made for pasture shortage with 10 acres of the Zavitz pasture mixture. Better still, when the cows went out to grass, there were a few feet of silage left in each of the three silos. Between the two the cattle would not have suffered even had the summer been a dry one.

The Dairy Herd

The Groh farms are primarily devoted to dairying, but of the dairy herd itself I will say little at this time. The herd is worthy of more extended mention than I can give it here and the feeding and breeding methods followed by Mr. Groh and his son, will be dealt with fully in a later issue of Farm and Dairy. For 15 years they have been endeavoring to improve their herd by means of individual records and the use of the best pure bred sires obtainable. Just lately they have been combining feed records along with production records and are now weeding their herd on the basis of their ability to produce net profits. Half of the milk cows are pure bred Holsteins and the other half, good Holstein grades. The pure breeds will increase only in proportion as they prove themselves more economical producers than the grade animals in the herd. Briefly, the progress that has been made in this 15 years of work may be summed up in the statement that with one exception the poorest cow in the herd to-day is as good a producer as the best cow in the herd 15 years ago. The exception is an old cow with bad teeth, that is kept for breeding. Last year the 21 head milked averaged 8,145 lbs. of milk.

During a part of the year cream is sold to two ice cream parlors in the town of Preston. This cream must test 20 per cent. and be perfectly sweet. The price is \$1 a gallon. During the balance of the year, milk is sold to dealers in neighboring towns at 15 cents a gallon on the farm. Another important source of income is hogs, of which 50 are turned off annually. Practically everything grown on the farm except the wheat and sugar beets, are fed to live stock on the farm and the fertility returned to the soil. Even in the case of the sugar beets the pulp comes back from the factory.

The Buildings

The size of the barns that Mr. Groh erected almost a quarter of a century ago would lead one to suspect that even then he had overdone eyes on the land of his neighbors. This barn is 94 x 54 feet, surely very commodious for a farm with only 50 acres of workable land. An unusual feature of its construction, to me at least, was the covered manure pit occupying a space in the basement, 54 feet long and 40 feet wide. This manure shed, however, serves a double purpose. It makes a well sheltered exercising ground for the cows and the constant tramping back and forth of stock beats the manure down solid and preserves a maximum quantity of the fertilizing ingredients.

The feed room is so arranged that the silo and root cellar empty into it. The granary is just above and the chaff is thrown through a chute into the same room. A large feed cart simplifies the distribution of feed to the herd. Litter carriers have not been installed because the ceilings are too low, but the Grohs have them in another barn and find them most convenient. The concrete cement manglers have been divided off by

(Concluded on page 11)

Feeding Value of Sprouted Wheat

NO reliable statistics have yet been made of the amount of wheat damaged by sprouting this year. Trade estimates have varied all the way from 10 per cent. to 25 per cent. of the Ontario wheat crop. Probably the truth is somewhere between the two. Even if the lower estimate is the correct one, there will be an immense amount of inferior wheat to be disposed of this fall and winter. The question that has to be decided is, can the wheat be disposed of to best advantage by marketing as grain or by feeding to stock and marketing on the hoof or in the milk can? Already grain dealers have established a lower price for smutty or sprouted wheat. Last week, for instance, good Ontario wheat was quoted at \$1



A Good Example of Tree Surgery.

As a tree house can be built in a season; but the venerable old tree that shades it cannot be replaced in 40 seasons if it is allowed to die because of damages sustained at one time or another. Hence the importance of tree surgery. The illustration herewith gives an idea of this new science; the holes in the tree have been properly treated and then filled with cement and its age extended indefinitely.—Photo, courtesy Forestry Branch, Ottawa.

to \$1.02, while sprouted or otherwise inferior wheat was quoted down as low as 70 cents, the latter quotation making the profitable feeding of wheat easily possible. Certainly it looks like "feed" to many farmers.

Wheat damaged by frost has practically the same feeding value as marketable wheat. That that has sprouted, however, loses in feeding value in proportion to the amount of growth, the proteins being changed to the amide form which is inferior for flesh production, and the starches being changed into sugar. The average loss from germination is probably between five and fifteen per cent., but very seldom reach the higher figure.

Its Feeding Value

The average value of wheat is best indicated by its analysis. In 100 lbs. of average wheat there are the following quantities of digestible nutrients: Protein, 10.2 lbs.; carbohydrates, 69.2 lbs.; and ether extract, 1.7 lbs. Compare this with the analysis of Indian corn: Protein, 7.9 lbs.; carbohydrates, 66.7 lbs.; and ether extract, 4.3 lbs. We see that wheat is considerably richer in protein, the flesh forming ingredient, slightly richer in carbohydrates, and decidedly poorer in fat. Wheat, therefore, furnishes a better balanced ra-

tion for farm animals than does corn. Especially is this true in the feeding of young and growing animals, a statement which is corroborated by the experience of feeders. Henry, in his "Feeds and Feeding," summarizes wheat as follows:

"What may be regarded as a satisfactory feed for all kinds of farm stock, in the hands of intelligent feeders. Mixed with corn, oats or bran it is superior to either alone for work horses. For fattening cattle and dairy cows, it not only furnishes abundance of nutrient, but through variety gives edge to the appetite. When on a visit to William Watson, the prince of American feeders, some years since, the writer found him feeding wheat of fine quality to sheep in preparation for a fat stock show. For sheep, this grain alone or mixed with others, may be fed in the entire range of whole condition; for other stock it should receive some form of preparation, either grinding, boiling or soaking. During mastication wheat and wheat flour adhere to the gums forming a pasty mass. This can be prevented by munging bran, corn meal or some such substance with the wheat or flour. Though a feed of great palatability and healthfulness, wheat does not equal corn for fattening purposes, yielding perhaps ten per cent. less nutrients."

Sprouted Wheat For Pigs

It is as a feed for pigs that Ontario farmers will most seriously consider the feeding value of their sprouted wheat. So important is this subject in the United States, that at least five stations have experimented carefully with the value of wheat meal as compared with corn meal. Summarizing the results of these experiments, Henry says: "The difference being so small, we may conclude that wheat meal and corn meal are practically of equal value for fattening swine." If what is of such a grain that it must be sold for 70 cents to 80 cents, it is a more economical feed than corn at its present price of 86 cents, or corn meal at \$2.25 a cwt.

In feeding wheat to dairy cows best results can be obtained by feeding a small quantity of wheat with a larger quantity of other grain, such for instance as oat chop with a small proportion of cottonseed or oil cake. The same is true with horses. In feeding sheep, good results have been obtained by feeding the whole grain.

Many practical feeders assert that wheat is worth \$1 a bushel. Poultry men are willing to pay this much and more for good sound wheat, and probably the hens will pay more per bushel for wheat than any other class of farm stock. Where wheat is sound and in good condition, it will be marketed through the regular channels. Where damaged, it had better be fed at home where fully as much per bushel can be realized on it, and the holding back of damaged wheat will create a better market for the sound wheat that we have to market.

Diameter of the Silo

THE diameter of a silo should be determined by the amount of ensilage to be fed. If less than 1 1/2 inches of ensilage are removed daily, moulding is likely to start. The warmer the weather, the greater the depth of ensilage that should be removed. In winter 12 dairy cows would require 40 pounds a day will use up the right amount for a 14 foot silo, while in summer it would require 18 cows to use up the amount of ensilage that should be removed daily. For the 12 foot silo, cows in winter and 18 in summer; for the 16 foot silo, 17 cows in winter and 25 in summer. In the amount of ensilage fed daily determine the diameter of the silo and let the height determine the capacity.—North Dakota Experiment Station

Diversify Your

THE one-crop system is not dangerous in no region should the crop. The old saying "don't put all your eggs in one basket," is "The Rotation of Crops" farm practice which different food require a definite cycle of crops in order. This, if it is fertility, works for weeds, insect enemies, it also prevents the soil. This latter trouble is growing of the same as a given piece of

Plants feeding at the food elements, absorption of these particular can render them available, there comes a time when these plants naturally fed and harvested. All crop the soil. They manure, or feed on the root depths. When plough the deeper feeding ploughers without serious should they use the eventually, the available, and that soil

The depositor who from the bank with time to time, will, a turned market "Should continued overfits, withdrawals, with no "banks," we will soon Nature marks our check by giving us a "crop" does not pay profitable plant food bringing

What a Rotation

The successful expression general crop farm important facts:

1. The farm rotation cash or money crop.
2. It should also be or hoad crop.
3. It should have a feeder crop.
4. It should have a crop.
5. These crops should be as to most cost labor throughout the
6. The farmer should bulky feeds into milk meat products.
7. Each farmer in a



A Herd Number

Here we see at pasture of Farm and Dairy, 1915

Diversify Your Farm Crops

THE one-crop system in farming is hazardous, if not dangerous, to follow. At no time and in no region should the farmer be tied to just one crop. The old saying, "Put your eggs in more than one basket," is a trite but true one to-day. "The Rotation of Crops" names a system of farm practice which groups field plants with different food requirements so as to give a definite cycle of crops in recurring or successive order. This, if rightly chosen, conserves soil fertility, works for the elimination of certain weeds, insect enemies, and crop diseases, while it also prevents the formation of crop sick soils. This latter trouble is caused by the continuous growing of the same crop for a period of years on a given piece of land.

Plants feeding at the same depth, on the same food elements, absorb the readily available portion of these particular foods faster than Nature can render them available to plant use. Therefore, there comes a time in this single crop practice when these particular crop plants will be satisfactorily fed and return to the farmer lessened harvests. All crops do not feed alike on the soil. They may use different food elements, or feed on the same elements at different depths. When plants feed at different depths, the deeper feeding plants can follow the shallow feeders without serious immediate loss, even should they use the same food elements, but, eventually, the available plant food becomes exhausted, and that soil is said to be impoverished.

The depositor who continues to draw his money from the bank without making deposits from time to time, will, at last, find his cheques returned marked "Short." No bank will permit continued overdrafts. If we practice continued withdrawals, with no food deposits in our soil "banks," we will soon have such a condition that Nature marks our cheques of withdrawal "Short" by giving us a "crop sick" soil—a soil which does not pay profitable crop returns—the available plant food being exhausted.

What a Rotation Should Include

The successful experience of farmers practicing general crop farming teach the following important facts:

1. The farm rotation should have at least one cash or money crop.
2. It should also have at least one cultivated or hoed crop.
3. It should have at least one legume or soil feeder crop.
4. It should have one live stock or feeding crop.
5. These crops should be so grouped or planned as to most economically distribute farm labor throughout the year.
6. The farmer should plan to convert cheap, bulky feeds into milk, poultry, or some kind of meat products.
7. Each farmer in each locality must determine



The Second Crop of the Season.

This corn was grown on a sod turned down as soon as the hay crop was taken off in 1914. The season was unfavorable but even under adverse conditions a considerable amount of feed was taken off the land. A fairly good crop of turnips was grown on another part of the field. W. L. Smith, Durham Co., Ont., appears in the illustration and it was on the farm of one of his neighbors that the crop was grown.

—Photo by an Editor of Farm and Dairy.

the special rotation that markets, transportation facilities, climate and soil conditions would seem to favor and encourage. It can not be done by "rule of thumb," or copied from what someone else is doing. It must be carefully thought over and worked out by each farmer, adapted to his crop capacity and farm environment.

The cultivation crop may, at the same time, be the cash crop. This crop enables the farmer to keep down weeds, and at the same time stirs and aerates the soil. It should be a crop that is certain to give a satisfactory return at the close of the season, either as a feed or a market crop.

Caustic Potash Dehorning

ONE of the crudest jobs that I ever had to do on the farm was dehorning the yearling heifers with a saw. The worst point about this operation as I see it now was that it was absolutely unnecessary. Such a method of dehorning is brutal in the extreme. We now exercise foresight and do not allow the horns to grow. We use the caustic potash method.

When the calf is one to four days old, two of

us go to the stable. The calf is thrown and the attendant holds it securely. I clip away the hair from the tiny button where the horn will be and then rub for a half a minute with caustic potash or until the spot starts to bleed. I wrap the stick of caustic potash in paper as otherwise it might injure the hands. I exercise proper precautions to see that none of the potash runs down over the head, as it would then be very painful. Scabs will form where the potash has been rubbed in. The scabs in time drop off and there will never be a sign of a horn. Our cows look just like moolies.

I have heard this method of dehorning objected to on the ground that the horns will occasionally grow and that it was quite common to see a cow so dehorned with one horn grown out and no horn on the other side of the head. There must have been something wrong with the treatment. We have never had a failure.

Cheaper Automobiles

By C. R. Burns.

THE day when the automobile could be regarded as the vehicle of the rich and prosperous exclusively—or when, if owned by a person of moderate means, and employed, otherwise than in some regular business, its possession was held to indicate spendthrift habits—is rapidly passing away.

The multiplication of great establishments for the manufacture of automobiles has proceeded so rapidly and the number of machines turned out by them annually has become so vast, that the "upper ten" in society can no longer afford a sufficient market for the product; and manufacturers are turning their eyes toward the "middle thousands." There after all, in supplying the needs of the farmers and middleclass townmen, they are to find, hereafter, their largest rewards.

A Moderate Figure

One great multi-millionaire corporation in the United States already announces for sale a "thoroughly capable" guaranteed car, rubber-tired, and "with a power plant that will run 35,000 miles" for \$350—a figure which approximates the cost of a good "horse and buggy" such as almost every farmer has looked upon as entirely within his means. It is practically certain that the rivalry between manufacturers will lead to the immediate offering of even better cars for the same money, or of similar ones for a lower price.

The farmer, then, finds himself now the heir and beneficiary of one of the most beneficial and revolutionary inventions of the age. He is to be the beneficiary of all the experimentation which has been done, at the expense of the rich, in perfecting and developing the "auto." The "devil-wagon," which has been wont to call the swift machine which scared his horses and made the roads so often unsafe for him, is transformed by the progress of manufacturing ingenuity into the vehicle of a good genius, with which—if he cannot like Puck, "put a girle round the earth in 40 minutes,"—he can at least hie to his market town and get home again in minutes where it before took hours.

It will also enable him to do an amount of pleasure-traveling, independently of the railroads, such as was before a practical impossibility. It will also by practically bringing the farm closer to the market—and by giving in many cases a choice of markets—tend greatly to increase the value of outlying farms.

It was entirely natural that manufacturers should first enter to the class having the most money to spend, and that they should bend their energies to the production of vehicles which would from the pockets of that class, for the time being, extract the largest prices. But now that they turn to "the market of the millions," they will find its opportunities incomparably greater than those afforded by "the market of the select few."



A Herd Numbering Three Cows That Have Produced Over 20,000 Lbs. of Milk Each.

Here we see at pasture a part of the herd of Wilbur McElroy, Dundas Co., Ont., as photographed by an editor of Farm and Dairy. This is probably the only herd in Canada with three 20,000 pound cows, and certainly the only herd to make three 20,000 pound records in one year.

More Competition in Ayrshires at Toronto

A Splendid Showing with New Exhibitors in the Field.

THE Ayrshire was well represented at Toronto. Classes were fuller and competition was keener than for some years. Exhibitors who were comparatively new to the showing brought out their animals in good shape, and secured a fair amount of the prize money; in fact, the prize money was more evenly divided than usually the case with this breed. R. E. Ness was not so strong in cows as milk as the Burnside entry usually is, and this contributed in part to the wider distribution of money. Senator Owens, of Westmount, Que., had along a nice string, and secured first in both milk classes. Alex. Hume was a strong competitor in most classes. In fact, this herd seems to be growing stronger every year. The herds of E. D. Hilliker, Burgessville; Laurie Bros., Malvern, and A. S. Turner & Sons, Ryckman's Corners, were all represented in the red ribbon class. W. H. Tran, Cedar

bank, Turner; 3, Burnside Spottle 2nd. Ness; 4, Dawn 2nd of Riverside, Owens. Heifer, junior yearling; 1, Briery of Springfield 3rd, Turner; 2, Betty of Riverside, Owens; 3, Fannie of Gladden Hill, Laurie Bros.; 4, Humeshaugh Nan 2nd, Hume.

Heifer, senior calf; 1, Humeshaugh Perpetua, Ness; 2, Burnside Pearl Lantana, Ness; 3, Springfield Juno, Turner; 4, Sprightly's Bolly of Menie, Stewart.

57, Hilliker; 2, Springfield Jeannette, Turner; 3, White Heather of Riverside, Owens; 4, Jesse Drummond 3rd, Ness; 5, Bona of Dale 2nd, Hilliker; 6, Azreth Mary of Menie, Stewart.

Senior and grand champion: Auchenrain Hattie 6th, Ness.

Junior female champion: Burnside Maggie Finlayston 4th, Ness.

Group Awards.

Graded herd; 1, Ness; 2, Owens; 3, Hume; 4, Turner.

Junior herd; 1, Ness; 2, Turner; 3, Owens; 4, Laurie Bros.

Get of herd; 1, Ness; 2, Turner; 3, Laurie Bros.; 4, Hume.

Progeny of cow; 1, Ness; 2, Turner; 3, Laurie Bros.; 4, Owens.

All classes were worthy of fuller mention than we can give them. On the whole, Ayrshire breeders should be well pleased with the showing made by their favorites. The success of comparatively new exhibitors should

encourage them to others who would like to exhibit but have heretofore held back. Judge McKee placed his awards consistently and gave general satisfaction.

Ayrshire Awards—Male.

Bull, 3 yrs. and over; 1, Hobland Masterpiece, Ness; 2, Hillside Put, Pan; 3, Dan O'Menie, Laurie Bros.; 4, Springfield Cashier, Stewart.

Bull, 2 yrs.; 1, Netherston Lochinar, Owens; 2, Junior calf 1, Riverside 15th, Owens; 3, McCowan.

Bull, 1 yr.; 1, Fairview Milkman, Laurie Bros.; 2, Prizes Fortune of Burnside Brook, Hilliker; 3, Dutches Heir of Hickory Hill, Tran; 4, Gay Lad of Ayrmount, Hume; 5, Vaudrill Prize 19th, Owens.

Bull, senior calf; 1, Burnside Invincible Masterpiece, Ness; 2, Springfield Scottie, Turner; 3, Champion of Riverside 15th, Owens; 4, Snow King, Hilliker.

Bull, junior calf; 1, Heather King of Riverside 3rd, Owens; 2, White Sam, Tran; 3, Burnside Zonoidal, Ness.

Bull, senior and grand champion, Masterpiece, Ness.

Bull, junior champion: White Invincible Masterpiece, Ness.

Cow, mature in milk.

Montebello, Owens; 2, Turner; 3, Mountain Lass of Scotch Royal Rose, Ness; 4, Barrow 3 yrs., 15 milk; 5, The Violet of Riverside 2nd, Owens; 6, Snowball, Owens; 7, Queen Floss of Springfield, Turner; 8, Torrey of Gladden Hill, Laurie Bros.

Cow, 3 yrs. and over, in calf, not milking.

Auchenrain Hattie 6th, Ness; 2, Snowdrop, Turner; 3, Mrs. W. Hill 3rd, Ness; 4, Spicy Lass, Hume.

Cow, 2 yrs.; 1, Dalldible Junnie Jane 2nd, Ness; 2, Bessie of Maplebrook, Hilliker; 3, Dorcas of Springfield, Turner; 4, Humeshaugh Fairy Kate, Hume.

Heifer, senior yearling; 1, Burnside Maggie Finlayston 3rd, Ness; 2, Lola of Spring-

Breeder's herd, 1 bull, 4 females under 2 yrs.; 1, Dominion Govt. Special, 5 animals get of sire; 1, Ness (Masterpiece); 2, Turner, (Auchenrain Hercules); 3, Hume, (Sam O'Menie).

Like an Hour Glass

Nellie—Is that flow of yours ever going to get up courage to propose? Belle—I guess not. He's like an hour-glass.

Nellie—An hour-glass? Belle—Yes—the more time he gets the less sand he has.—Philadelphia Times.

An elderly farmer drove into town one day and hitched his team to a telegraph post. "Here!" exclaimed a purely policeman, "you can't hitch here!" "Can't hitch?" shouted the irate farmer. "Well, why have you got a sign up, 'Fine for hitchin'?'—Australasian.



Auchenrain Hattie 6th, a Dry Cow but Selected for Champion Nevertheless. The really sensational Ayrshire exhibited at Toronto, was the senior and grand champion female, here illustrated. A lioness's dry cow she showed to splendid advantage, with all kinds of substance and breed quality. Owned by R. E. Ness.

glove, made his appearance at Toronto for the first time, and did well, and Wm. Stewart, of Menie, the patriarch of Ayrshire breeders, was still along with his herd. He surely has had a wonderful career as an exhibitor of Ayrshires. Mr. McCowan, of Campbellford, had a single entry. The aged bull class was the largest of some years, there being six entries and all good ones. Masterpiece again won first and championship, but had a good second in Hume's Hillside Pan, a good bull that is getting better all the time. Laurie Bros. in third place, has a very milky looking animal. Two-year-olds, as usual, were not a particularly strong class, Owens getting first on Netherston Lochinar. Laurie Bros. had first yearlings with a growthy, milky animal. The senior calf award was a surprise to some, the Ness entry, Burnside Invincible Masterpiece, being younger and therefore much smaller than some of the other entries. He was quality all over, however, and John McKee, of Norwich, placed the awards, could not well be passed him over, either for first in class of junior champion. The younger classes all had 10 or 11 entries.

The Milk Cows

In the writer's mind, the most useful feature of the cattle judging Toronto, or any fair for that matter, is the wonderfully uniform and interesting classes of mature Ayrshires. The milk class brought out

be encouraging to others who would like to exhibit but have heretofore held back. Judge McKee placed his awards consistently and gave general satisfaction.

Ayrshire Awards—Male.

Bull, 3 yrs. and over; 1, Hobland Masterpiece, Ness; 2, Hillside Put, Pan; 3, Dan O'Menie, Laurie Bros.; 4, Springfield Cashier, Stewart.

Bull, 2 yrs.; 1, Netherston Lochinar, Owens; 2, Junior calf 1, Riverside 15th, Owens; 3, McCowan.

Bull, 1 yr.; 1, Fairview Milkman, Laurie Bros.; 2, Prizes Fortune of Burnside Brook, Hilliker; 3, Dutches Heir of Hickory Hill, Tran; 4, Gay Lad of Ayrmount, Hume; 5, Vaudrill Prize 19th, Owens.

Bull, senior calf; 1, Burnside Invincible Masterpiece, Ness; 2, Springfield Scottie, Turner; 3, Champion of Riverside 15th, Owens; 4, Snow King, Hilliker.

Bull, junior calf; 1, Heather King of Riverside 3rd, Owens; 2, White Sam, Tran; 3, Burnside Zonoidal, Ness.

Bull, senior and grand champion, Masterpiece, Ness.

Bull, junior champion: White Invincible Masterpiece, Ness.

Cow, mature in milk.

Montebello, Owens; 2, Turner; 3, Mountain Lass of Scotch Royal Rose, Ness; 4, Barrow 3 yrs., 15 milk; 5, The Violet of Riverside 2nd, Owens; 6, Snowball, Owens; 7, Queen Floss of Springfield, Turner; 8, Torrey of Gladden Hill, Laurie Bros.

Cow, 3 yrs. and over, in calf, not milking.

Auchenrain Hattie 6th, Ness; 2, Snowdrop, Turner; 3, Mrs. W. Hill 3rd, Ness; 4, Spicy Lass, Hume.

Cow, 2 yrs.; 1, Dalldible Junnie Jane 2nd, Ness; 2, Bessie of Maplebrook, Hilliker; 3, Dorcas of Springfield, Turner; 4, Humeshaugh Fairy Kate, Hume.

Heifer, senior yearling; 1, Burnside Maggie Finlayston 3rd, Ness; 2, Lola of Spring-

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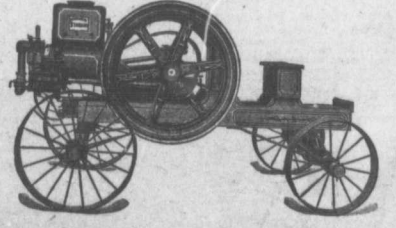
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9, 1915

Rowland Cow De Kol Lady, exhibited by Brethen, a cow that has produced 26,000 lbs. of milk in the past 10 months, but yet showed well with fresh cows. This cow had hardly reached the scale of the first placings, that both of these cows can so high is a proof of a corollation of show ring standards and producing type.

Three-year-olds were a breeder lot. The first place again went to Robins, but in this case she was not so much admired, his entry having almost abnormal under development, but appearing to lack in depth. In two-year-olds in milk Hicks won on a matter that showed lots of scale, a little better in the lines, but hardly so good as either the second or third placings. And so we might go on indefinitely making mention of great animals here and there, but space forbids. They constituted the finest entry ever seen at Toronto, and proved that Holstein breeders are alive and doing for their breed as energetically as ever before.

The championship of the show fell to the Holstein Flower, exhibited by Hulet. This cow was first in the dry class and, including before the championships were shown, showed to splendid advantage. She won over Belle Tyson on quality and quantity. In the yearlings class, and with her excellent lines, should be heard from again in other years.

- Holstein Awards, Male.**
- Bull, 2 yrs. and over: 1. Sir Belle Payne, Haley Bros.; 2. Hillcrest Ormsby De Kol, Haley Bros.; 3. Prince Abbebeck, Merona, Ber; 4. Homestead Colanthe's Prince Cavan, Watson; 5. Segis De Kol, Pellatt; 6. Madame King May Payne, Lapid.
 - Bull, 3 yrs.: 1. Lakeview Dutchland Hermsdorf, 2d. Bailey; 2. King Segis Pontiac Parry, Manor Farm; 3. Prince Merona Ormsby, Clarkson; 4. Prince Colantha Abbebeck, Hulet.
 - Heifer, 1 yr.: 1. Woodlawn Court Canary, Hulet; 2. Colantha Payne Butner, Hanson; 3. Queen Margaret Ormsby, Clarkson; 4. Mendowine King Abbebeck, Ber; 5. Sir Calamity Merona Scott, Bohms; 6. Sir Ponce De Leon, Robins.
 - Bull, senior calf: 1. Prince Payne Harold, Haley; 2. Korndyke Paul, Hulet; 3. Prince Merona Alfredda, Ber; 4. King Pointe Lad, Kelly; 5. Shadelawn Merona Poeh, Hulet; 6. Segis Schilling Prince, Pellatt.
 - Bull, junior calf: 1. Kitchener Gaze, Hanson; 2. Rose, Bonheur Fern King, Hulet; 3. Mendowine Dot Abbebeck, Prone; 4. Forest Ridge Payne Artie, Lapid; 5. Queen Belle De Kol Segis, Haley; 6. Belle De Kol Segis, Haley.
 - Bull, senior and grand champion: Sir Belle Payne, Haley Bros.
 - Bull, junior champion: Prince Payne Harold, Haley.

Holstein Female Awards.

- Cow, 2 yrs. and over, in milk: 1. Bell Tyson, Robins; 2. Rawwood Court De Kol, Haley Bros.; 3. Queenie Abbebeck, Hulet; 4. Queen Wilhelmina, Robins; 5. Lady Segis Schilling, Haley; 6. Bonny Gladys, Dymond.
- Cow, 3 yrs. and over, in milk: 1. Winstead Ormsby, Clarkson; 2. Pines Colantha Merona, Hulet; 3. Ethel Merona Poeh, Haley Bros.; 4. Manor P. H. Fennell, Manor Farm; 5. Lady Merona Scott, Bohms; 6. Echo Patrice De Kol, Dymond.
- Heifer, 2 yrs. in milk: 1. Favorit Verena, Hanson; 2. Aargle Portello, Payne and Nettie Payne, 2d. Haley Bros.; 3. Lady Pauline, Colantha, Hulet; 4. Colantha, Hanson; 5. Mademoiselle, Haley Bros.; 6. Baby Poeh De Kol, Boehk.
- Heifer, 1 yr. not in milk: 1. Lucy Pietri, Pellatt; 2. Floriet Netherland Lyons, Hike; 3. Hillcrest King Pontiac Counts, 2d. Haley Bros.; 4. Lady Key Merona, Hulet; 5. Lady Key Merona, Hulet; 6. Echo Patrice De Kol, Dymond.

Heifer, junior calf: 1. Rosal Bonheur Flower, Hulet; 2. Colantha De Rose, Haley Bros.; 3. Queenie Abbebeck, Hulet; 4. Grace Payne Homewood, Haley Bros.; 5. Princess Howard Lassie, Lyden; 6. Lily M. De Kol, Hikes.

Heifer, senior yearling, not in milk: 1. Lady Key Merona, Hulet; 2. Paragon Tracy Segis, Holey; 3. Ludogean Verena, 2d. Hulet; 4. Manor P. H. Arkh, Manor Farm; 5. Lady Newton Faford, Hike; 6. Forest Ridge Segis Artie, Lapid.

Heifer, junior yearling: 1. Countess Lassie Ormsby, Hulet; 2. Nettie Arnis Bell, Cooper; 3. Queen Arnis Bell, Cooper; 4. Grace Payne Calamity, Lapid; 5. Queen Colantha Gaze, Haley Bros.; 6. Pauline Galamity Homestead, Hulet.

Heifer, 2 yrs. and over: 1. Lapid; 2. H. Lee Bros.; 3. Brethen, 4. Chambers; 5. Dymond; 6. Hicks.

Senior and grand champion: Rosa Bonheur Flower, Hulet. (This cow calved after the judging in her class, and was given the championship.)
Junior champion: Miss Aargle Payne, Haley Bros.

Calves in First Summer

By R. M. Washburn
THE first year of a calf's life is the most important with respect to its growth. Unless animals are kept growing during this period their final development will be much retarded, and the chances are they never

develop strong bodies, the calf need not have pasture the first summer. In fact, for calves born after the first of the year, pasturing may be a disadvantage. Most young calves in this country are better off chewing tender hay in the quiet and half-dark stable than fighting flies, panting from the heat, and cropping tough grass in the pasture.

Nuggets of Jersey Lore

Geo. Luthman, Huron Co., Ont.
IF we would to develop our Jersey breed we should be very careful when we sell a young bull to head a herd. We should not sell to others what we would not use ourselves. In fact, I believe all young bulls should be inspected by a good inspector as to breeding, health and individuality before allowing them to be sold to head a herd and then pass from one herd to another.

It would be a great help to breeders if our experimental farms and our

dairy breed cows. They milk her so thin you can see through her, then they expect her to stand the cold weather and milk without feed. The result is the contract, some disease and dies; actually from starvation and neglect. These men will say the Jersey is no good; but in reality she is too good for them and that is the reason she dies.

Jerseys at Toronto

JERSEY entries at Toronto lacked just two of making 100. B. H. Johnson and Son, were the predominant in numbers and winnings, getting both male championship and the senior and grand champion female championship. Their stock came out in fine shape, and numbered many choice specimens of Island and Canadian breeding. This herd had one disappointment when their old and well known sire, Sultan's Raleigh, was given second place to Fleming's Clypha's Majesty. The Fleming herd, however, was not as strong as last year, the pick of the herd being still at Chicago, as a result of the quarantine against foot-and-mouth disease, following the National Dairy Show, Herbert Colton, of Humber, entered the lists for the first time and got in the money on several occasions. Ira Nichols, of Woodstock, made just one entry, and with it won the junior female championship. Wm. J. Adams, of Grimsby, placed the awards, which follow in full:

- Jersey Awards, Male.**
- Bull, mature: 1. Clypha's Majesty, Fleming; 2. Sultan's Raleigh, Bull; 3. Brampton Herd, Colton; 4. Colton's King, Adams.
 - Bull, 2 yrs.: 1. 1st Ad. Burma Knight, B. Golden Noble and B. Royal Favor, Bull; 2. Clypha's Knight.
 - Bull, yearling: 1. 2. B. Rockette's Heir and B. Bright Dan, Bull; 3. Gumbo Prince, Colton.
 - Bull, senior calf: 1. 2. Bull; 3. Fleming.
 - Bull, junior calf: 1. Bull; 2. Fleming; 4. Colton.
 - Senior and grand champion: B. Burma Knight, Bull.
 - Junior champion: B. Rockette's Heir, Bull.

Jersey Awards, Female.

- Cow, 2 yrs. and over, in milk: 1. 2. and 4. B. Bright Dutchess, B. Patricia and B. Marcia, Bull; 3. Belle of Jersey, Fleming.
- Cow, 3 yrs. in milk: 1. and 5. B. Lady's Sultan and Lady Bear, Bull; 6. Carnation Boss, Fleming; 4. B. Wold Queen, Colton.
- Cow, 3 yrs. and over, in calf, not milking: 1. and 4. B. Lady Alice and B. Patricia, Bull; 2. and 3. Eryone and Combination's Dark Buttermilk, Fleming.
- Heifer, 2 yrs.: 1. Aurora's Pride, Fleming; 2. B. Bright Dutchess, B. Patricia and B. Bookwell Rose, Bull; 4. B. Lady Keen, Bull.
- Heifer, senior yearling: 1. Mabel's Poet's Snowdrop, B. Bull; 2. Canadian Rose and 4. Canadian Rose and B. Athlete Girl, Bull.
- Heifer, junior yearling: 1. and 4. Bull; 2. and 4. Fleming.
- Heifer, senior calf: 1. and 2. Bull; 3. and 4. Fleming.
- Heifer, junior calf: 1. and 3. Fleming; 2. Bull.
- Senior and grand champion: Brampton Bright Dutchess, Bull.
- Junior champion: Mabel's Poet's Snowdrop, Nichols.

Group Awards.

- Three animals, get of sire: 1. Fleming; 2. 3. and 4. Dutchess, B. Patricia and B. Bookwell Rose; 5. Belle of Jersey, Fleming; 6. 4. Bull.
- Best herd: 1. and 3. Bull; 2. and 4. Fleming.
- Junior herd: 1. and 3. Bull; 2. and 4. Fleming.
- Junior herd: 1. and 3. Bull; 2. and 4. Fleming.
- Best 5 animals, get of sire: 1. 2. and 3. Bull.

One Failure at Least

"It's funny our minister never got married," remarked the young husband who had just refused his wife a new dress in his endeavor to change the subject. "I think he'd make a good husband."

"I don't," replied the wife warmly, "he didn't seem to make a very good one when he married us."

A One Time Toronto Grand Champion in Her British Columbia Home.

The cow is Madame Poeh, grand champion at Toronto in 1912. A. E. Hulet, who exhibited her, then, sold her to the Colony Farm, and from there she was sold for \$1,275 to H. Allister Thompson, Dewdney, B. C., who was now sending her, Leona Poeh, Madame Poeh and her daughter, Madame Bessie Poeh, were sold back to the Colony Farm for a price running close to \$2,000 for the two.

professors would spend some of their time investigating breeding work. A great deal of their time is spent in producing new grains, fruits, etc., but the work I have suggested is more important. A knowledge of pedigrees and the crosses practiced by our predecessors would show us how to keep clear of failure.

We often hear the question asked, "Why are the American bred Jersey cattle larger and coarser than the Island bred cattle?" The climate of this country, the exercise of hunting dogs, the rough food consumed and the rough usage, all tend to make the second and third generation larger. I have heard it stated by a prominent breeder that mixing with other large cattle would tend to produce coarseness. Whether this be so or not, I am not prepared to say. The record of the American cattle proves their size a good feature as no Island record can come near them.

When we consider the great work we expect our Jerseys to do, they must possess strong bodies and great brain and nervous force. To raise a cow of this kind is a bigger undertaking than most farmers think. I have seen several dairy farmers buy a dairy bred young animal, let her take pot luck the same as their grade cows, and they expect a lot more of the milk-holding tank.

While it is very important that these cows have free access to pasture during the second summer, to

will reach the scale which their inheritance would give them.

On the best regulated dairy farms calves are born in the autumn and early winter, and they should receive milk in moderate quantities through much or all of the summer following birth. On farms having hand separators there is no difficulty in providing the sweet milk for calves, morning and evening—but farmers who patronize whole-milk creameries or who still skim by hand should remember that after the first few weeks' milk for calves should either be thorough sweet or fully sour, that the most dangerous condition is the half-sour stage. If milk is fed to calves when it is in this changing condition it is almost certain to cause indigestion. It should not be half sour, nor sour one day and sweet the next, but always one or the other.

Clean feeding pails must be used, otherwise the germs of fermentation and diarrhoea will be brought to the infant cow from the slime of the dirty drinking dish, and with young calves it is important that the temperature of the milk fed be nearly that of the body. Older animals may receive milk of the temperature of the milk-holding tank.

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AND RURAL HOME
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The Rural Publishing Company, Limited
PETERBORO, ONT.

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

Graduated Fire Insurance

THE farm of G. C. Bruner, on the 3rd concession of Mersea, near Ruthven, was the scene of a very destructive fire this afternoon. The cause of the fire is attributed to spontaneous combustion in a bin containing 1,200 bushels of freshly-threshed oats. Three large barns and five smaller structures were consumed, with the contents, consisting of this season's crop. The loss is estimated by Mr. Bruner at nearly \$7,000, partly covered by insurance.

The foregoing tells its own tale. Mr. Bruner has the sympathy of everyone of Our Folks. We know of no more disheartening experience that a farmer ever has to face than to be burned out. The loss in this case will be particularly heavy in that the fire occurred when the contents of the barn were of maximum value and the insurance, we suppose, no more than sufficient to cover the value of the buildings alone. This incident, and all others like it, bring forcibly to our attention the value of the graduated insurance plan. Had Mr. Bruner been following this system, he would have had his insurance policy so arranged that it would cover both crops and buildings, the insurance being at a maximum in the fall when the crops are all in the barn and gradually decreasing from month to month as the crops are sold off or fed off, until in June the insurance policy would be at its minimum. This system gives a maximum of insurance at a minimum of cost and it is particularly well adapted to the farm.

Money for Machine Guns

DURING the past few weeks it has become quite the custom to pass the hat at rural picnics, garden parties and other gatherings of a social nature, the proceeds to be devoted to the purchase of machine guns for the Canadian over-

seas forces. Private individuals and firms have made similar donations and gun cheques have been accumulating at Ottawa at such a rate that they are now in excess of the actual need for guns.

As an example of patriotic fervor, this is fine. The advisability of encouraging this method of equipping our forces is questionable. If the supplying of a sufficient number of machine guns is merely a matter of money, then let our federal government use part of the \$150,000,000 appropriated for war purposes to purchase the guns. If the amount already voted is insufficient, let more be voted. But let us not follow the policy of depending on public generosity for the furnishing of necessary military equipment. This war is too serious a project to be conducted in such a hit and miss fashion. There are many ways in which citizens can show their generosity besides subscribing for machine guns. Agents of the Red Cross and patriotic funds of one kind and another are always ready to receive money subscriptions. And let us not forget to lend a helping hand to those indirect sufferers of the war who because of unemployment find it difficult to keep the soul and body together.

Opportunity

EVEN those of us who take no active interest in yachting, followed with interest the dramatic efforts made by Sir Thomas Lipton a few years ago, to capture for Britain the American yachting trophy. For years the best ship architects of Britain schemed to produce faster and faster sailing craft, but always the United States boat proved the faster, and for some years now the ownership of the cup has been undisputed. We mention these races because John B. Hareescoff is dead. He was the American Edison of masts and spars and sails. He it was who designed the boats that outlasted the finest products of British shipyards. And John B. Hareescoff was blind. He lived in darkness from his fifteenth year and yet he became the greatest architect of his kind in the world.

Some of us offer lack of opportunity as an explanation of our lack of success in life. What if the weather is not always made to order or we get a touch of rheumatism when our assistance in the fields is needed most! What are the reverses that sometimes seem so great to us, compared with the darkness in which John B. Hareescoff lived so triumphantly!

Let us then be up and doing

With a heart for any fate,
Still achieving, still pursuing,
Learn to labor and to wait.

Bank Mergers

FINANCE MINISTER WHITE is to be congratulated on his refusal to allow an amalgamation of the Bank of Hamilton with the Royal Bank of Canada. Neither bank was in financial difficulty, and so far as we can see, there was no good reason for their amalgamation. The refusal involves no hardship to depositors or to shareholders. The fact that amalgamation was attempted, however, should put Canadian people on their guard against the further centralization of the money power in Canada.

Next to land monopoly, no greater calamity could overtake any country than the control of its money resources by a small ring of financiers. Such centralization of money control would inevitably mean the crushing out of small business, allowing the monopoly of the field to big corporations whose directors are also found on the directorates of the financial institutions of the country. Even more serious is the menace of centralized money control to democratic institutions. We Canadians have been kept fairly well informed as

to the corrupting influence that is exerted by the Morgans and Rockefeller on municipal, state and federal legislation in the United States. We know our would-be Morgans and Rockefellers in Canada who would be no more scrupulous, did they only get control of Canada's financial resources than are their brethren of the same ilk to the south of the border. For years, these moneyed magnates have been centralizing their power, and the proposed bank merger was just one more step toward the realization of their ambitions. One defeat will not discourage them by any means. The Canadian public must be on the watch to see that further attempts, for they will surely be made, are frustrated.

What Will the Market Be?

WHAT will we get for our crops? No question is asked more frequently nowadays, and the answer is more difficult to answer correctly, in times of peace the forecasting of the market is beset with difficulty. At the present time we have all the hazards of peace intensified and a war hazard, which is the greatest of all, added. We have to consider that the world this year is harvesting its greatest wheat crop and that millions of bushels of last year's crop may be released from British storehouses once the Dardanelles have been forced. It is probable, however, that the importance of this factor has been over-estimated.

Another factor, in Ontario at least, has been the adverse weather, which has had its effect on the quality of wheat. In some sections twenty per cent of the wheat that will be offered on the market has sprouted. In other grains, oats have been badly smutted and barley discolored. We all of these factors before him, the best crop expert would not care to predict price movements. It is fairly certain, however, that grain prices this year will not approach last year's level, while all European powers were buying feverishly. It is safe to add also, that if farmers are in a position to hold, they will realize a better average price on their grain than if it were all to be rushed to the markets within a few weeks of harvest. Further than this, no one can safely say so at this time.

Perhaps Lime is Needed

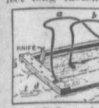
ONE of Our Folks tried persistently for years to grow alfalfa, but without success. Neither did root clover seem to be particularly adapted to the soil of his farm and he was in despair of ever being able to grow the feeds that are best suited to the dairy cow. We suggested that he be liming his land. He applied fifteen hundred pounds of lime to one acre as an experiment. The year he has on that acre as fine a crop of alfalfa as one could desire. Lime was all that was needed.

Lime is one of the essentials to successful dairy culture and it is an element in which many soils are lacking. Other soils, naturally fitted for dairy crops, have been made acid by plowing down manure or by the excessive use of barnyard manure. The decay of the organic matter so incorporated into the soil forming acids which neutralize the lime already there. These soils need lime more than they need manure. The form in which the lime may be applied depends on local conditions. Ground limestone, slaked lime, wood ash or basic slag are all good, the wood ashes being the additional advantage of a large protein content and the basic slag being a rich phosphorus fertilizer. We would not advise liming as a cure-all for clover failures but its use might be experimented with on an acre or two.

If you would do something worth while, let us realize that you must be something. You must be able to think, plan and create.—Lloyd.

A Sled

THIS sled does not mean for it is and through which is easily hauled to where he reaches horse, pick up up. The bottom of inch boards is set long fasters.



and a 2x3 at the 10 inches long, the rear piece is 6 feet long.

The curved iron about 2 feet high in front of the sled, the end of the sled, while another curly bolted in the These rods should hold up the corner of the knife which is single. When the D. M. Jerks, in F.

Anson Groh:

(Continued)
plank partitions feeding place dirty.

The watering of the most important dairy farm, is over-er seen and most of the is pumped by a into a tank in flow then runs down served up in inches of water. The ram has been cleaned in simple water and farm stock. "admitted wrong," admitted then we go down with three poles with and it starts up.

The Man

the home of i's biggest coop not be described comfortable farm modern conveni frame constructi

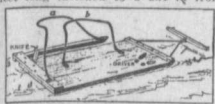
its new site has attractive with more still by t beautiful lawns. Here comparative tractiveness of creases from year and straw deve

Another line of mention is th banks on the fa for easy cultiva the buildings th steep bank, ref a hedge of locu delicity. This led shelter B when it attaini Tree planting h several years on

Just before I at Galt, Mr. Ho led me to the f see his experim There were five was needed to developed by Dr. stand was good. other Ottawa st The third plot, the fourth plot had been wintered The fifth plot of

A Sled Corn Cutter

THIS sled does the work of four men for it cuts the corn, catches it and throws it down in a pile which is easily hauled. All the driver has to do is to drive his horse, and when he reaches the shock stop the horse, pick up the fodder and set it up. The bottom of the sled is made of inch boards 36 inches wide and 7 feet long fastened to a 2x4 iron frame



and a 2x3 at the rear, which is 3 feet 10 inches long. To the outer edge of the rear piece is bolted a 2x4 which is 6 feet long.

The curved iron rod a, which stands about 2 feet high is fastened to the front end of this piece and to the rear end of the sled, as shown in the cut, while another curved rod, b, is strongly bolted in the middle of the sled. These rods should be so adjusted as to hold up the corn until it is cut by the knife which is bolted on at an angle. When the knife cuts the corn the arm jerks it down on the sled.—D. Welch, in Farm and Home.

Anson Groh: The Man and His Farm

(Continued from page 4)

plank partitions as the continuous feeding place did not prove satisfactory.

The watering system, admittedly one of the most important features on any dairy farm, is one of the best I have ever seen and the operating cost is almost nil. The purest of spring water is pumped by a hydraulic ram, first into a tank in the house and the overflow then runs to the barn where it is served up in individual basins in front of each cow. For 35 years the hydraulic ram has been chugging away, supplying ample water for household and farm stock. "Occasionally it goes wrong," admitted Mr. Groh, "and then we go down and give it two or three pokes with a good heavy stick, and it starts up again."

The Manager at Home

The home of the manager of Ontario's biggest cooperative enterprise, can not be described as palatial. It is a comfortable farm home fitted with all modern conveniences. Originally of farm construction, the old house on its new site has been made wonderfully comfortable with a little more, but more still by the well planned and beautiful lawns. This planting has been comparatively recent and the attractiveness of the setting will increase from year to year as the trees and shrubs develop.

Another line of improvement worthy of mention is the reforestation of all banks on the farm which are too steep for easy cultivation. To the west of the buildings there is a particularly steep bank, reforested to pine, with a hedge of locust at the brow of the declivity. This will afford an excellent shelter belt for the buildings when it attains a little more size. Tree planting has been going on for several years on the Groh farms.

Just before I left to catch the train at Galt, Mr. Herbert Groh accompanied me to the end of the farm to see his experimental plot of alfalfa. There were five plots in all. The first was seeded to a strain of alfalfa developed by Dr. Malte at Ottawa. The stand was good. The second plot, another Ottawa strain, was not so good. The third plot, a German variety and the fourth plot of Ontario Variegated, had been winter killed in two strips. The fifth plot of Grimm made me even

more certain that this is the variety ideally fitted for Ontario conditions. The stand was perfect and the crop more luxuriant than in any of the other four plots. I then made for Galt with all possible speed to catch the C. P. R. train east.

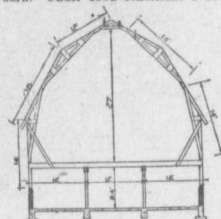
[Note.—This is the second of a series of articles by Mr. Ellis, dealing with the farms of men closely connected with The United Farmers' movement in Ontario.] The first of the series, describing the farm of W. C. Good, appeared some weeks ago. The object of the series is to make our folks better acquainted with leading spirits in this great cooperative undertaking. They have been called fanatics and socialists. We wish to show that they are level-headed, successful farmers. They are the kind of men who well deserve the confidence and support of their brother farmers.—Editors.]

The Iowa Plank Frame

IN the days of our fathers the building of a barn involved the cutting of the timber in our own bush, hauling the logs to the mill and drawing back the sawn lumber. Nowadays the building of a barn on most farms involves the purchase of practically all of the lumber in the structure and more economical forms of construction than in the old timber frames are desirable.

The diagram shown herewith is of a plank frame designed by the Iowa Experiment Station. This barn is designed to be built at the least possible cost, commensurate with greatest efficiency. There are no heavy or long timbers in this design. The rafters are of 2x6 material, the wall studs

the same. The joists are 2x12, supported by heavy built timbers as shown in the diagram. The whole is well braced to overcome every possible pressure. Rafters, studding and joist are placed two feet apart, centre to centre, throughout the length of the barn. Under Iowa conditions a barn



built under this plan would cost about \$1 per square foot of floor space.

British Columbia News

EDITION, Farm and Dairy.—Crops this year in this valley are exceptionally good; there has been more growth on account of the wet spring and early summer than I have ever seen in Canada. Grain and hay are exceptionally heavy and in places badly lodged. The first part of haying was done in "catchy" weather, but the end of July and beginning of August were dry and hot and a lot of hay was put up in good condition. Most of the grain is ripened and cut. Now, however, thunder showers are starting up again, but I hope there will be enough sunshine

for grain stacking. We are raising corn this year and have a grand crop of Compton's Early and N. W. Dent. Next we must have silos. A few have been in use for a few years now, but I have not seen any mention in Farm and Dairy of the fact that Salmon Arm has a creamery in operation now. It was built during the spring and early summer and equipped with the most modern machinery available. Mr. Magee, of Carleton, took charge for a week or two, then Mr. McLellan came from Chilliwack and is now in charge. The weekly output is at present about 1,200 lbs. of very fine butter, and we are hoping to see this grow tremendously. The creamery has been built with money from shares sold to farmers, and a government loan; is run and managed by farmers for the farmers who are to get every cent there is in the business after expenses are paid: Two cents per pound is kept for this purpose, and the over-run which will also pay interest and sinking fund.

We consider ourselves very fortunate in having secured the services of Mr. Magar, a neighbor, as manager. He is a man of much experience, keen business capacity and tremendous energy, and with a country as eminently adapted to dairying as our valley, I can't see what is going to prevent him making his enterprise exceed the expectations of the most sanguine.

The most popular breed of cows here is the Holstein. There are two or three head of pure bred cattle beside mine, which are headed by Pontiac Gem, a son of the famous Delta Gem, a 30,000-lb. cow, owned by Mr. T. Owens, of Salmon Arm.—Arthur A. Brooke, Cariboo Dist., B.C.



I saved \$34.00 on this Roofing

I saw an advertisement of the Holiday Company a few weeks ago offering Pure Asphalt Ready Roofing under a plain label 3 ply for only \$1.85 per square, freight paid to my station with nails and lap cement free. The advertisement said this Roofing was as good as regular trademarked Roofing of the same quality at upward of \$3.00 per roll. This appeared to me a pretty broad statement but as the firm is a reliable one (I did business with them nearly 25 years ago) and as they asked for no money in advance I thought it too good a chance to miss. To my satisfaction I found the Roofing fully as good as advertised.

THESE MEN DID AS I DID, READ WHAT THEY SAY

Mr. R. B. Black, Nova Scotia. "Roofing arrived O. K. and was decidedly better than I expected. Send me ten rolls more of the same." Mr. J. Herbert Cohen, Ont. "The six rolls of 3 ply Roofing was delivered and well pleased with it. Want you to send me more rolls of the same."

Mr. Andrew Calder, Saskatchewan. "The Roofing arrived in good condition and an more than satisfied with the quality." Mr. Harold Deyna, New Brunswick. "My father received shipment of your Roofing and was pleased to receive such good quality."

HERE IS YOUR OPPORTUNITY---RISK FREE

You how so many have dealt with satisfaction and profit you cannot fail.

Here read the statements of men who accepted our remarkable offer on Roofing. We sold them, as we now tell you, that we will ship this Roofing on approval to any R. C. Station where there is an agent. If the Roofing is found to be as represented you pay for it. If not return it and tell the agent to write us for instructions.

Hundreds of men all over Canada have accepted our Risk Free offer and in one shipment after another have written us saying how much better the Roofing is than they expected it to be. It is all pure asphalt felt roofing, government standard saturation. Contains no tar or paper and has no sand or gravel added to make weight.

FREE SAMPLE BY MAIL IF YOU WISH--ADDRESS DEPT. 17 RISK FREE COUPON

Ship to me in your name and at your risk.....roll 3 ply pure asphalt roofing, each roll 108 square feet complete with covers, nails and directions for laying. If I find this roofing equal to similar roofing I will pay for it at my risk. If not I will pay for it at your risk of \$1.85. If I let you take it back and I pay nothing.

If no agent at station send cash with order, money back if not satisfactory. FREIGHT PAID ON SIX ROLLS OR MORE ONTARIO AND EAST. To Western Canada we pay freight as far as Winnipeg.

My Name..... P. O..... Station..... Nearest Bank.....



The HOLIDAY COMPANY Limited

HAMILTON Factory Distributors Established 1888 CANADA



EVERYTHING great is not always good, but all good things are great.—Demosthenes.

When to Lock the Stable

By HOMER CROY

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(Continued from last week)

"WHEN my boy had the fever he set up with him three nights straight," said a hoarse voice in the crowd. "That's what he did—three nights straight." "Last spring when I had the rheumatism," came another thick voice out of the darkness, "and couldn't go around damp places, he baled the water out of my cellar every day during the wet season."

No names were mentioned; it was always he. Whether the reference was to Clem or to the prisoner, no name was used.

"I never liked him from the first time I had my eyes on him," snapped a bitter voice. "But I never dreamed he had this in him."

The men knotted closer together, and a distinct rumble of anticipation ran over them.

Outlined in the distance was the brick jail; near the top of the rear wall a lamp glimmered and even at that distance it could be seen that bars measured off the light. A shadow came slipping down the road from the back of the brick structure, came hurrying down the dusty street, and paused at the edge of the crowd. Heads beat forward, silently and questioning, and hands crept unconsciously to hip pockets.

"It's all right, boys," guaranteed the man with the coonskin cap. Then he turned to the black figures, and shot an arm out in a commanding gesture. "They don't suspicion anything up there, and that's his light burnin'! It's all that was needed. All most as if with one foot they stepped off, keeping to the middle of the street. Massed, they moved to the dairy building, crossed the walk without more than touching a toe to it, some leaping. Hats came down over eyes, hands went to hip pockets and brought out bits of shining metal; the well none clinked and one or two figures lurched perceptibly.

The man with the coonskin cap held up a hand, tiptoed on to the steps and was reaching out for the door knob when the red door pulled back before his face and Marshal Lupes stood before him. The lamp, hanging on the wall behind him, shined into a squat figure in whose hands was gripped a short repeating rifle. His hair was tossed and tumbled and one suspender dangled, showing a hasty toilet.

"Boys," rose a high wavering voice, "I know what you came for. But you can't have him, you can't have him." The voice was not certain, and ever in the shadow the face whitened. "We don't want no trouble, boys, but I'm going to do my duty."

If he's guilty the law'll be enforced." "He's guilty all right," cut in a voice, "and we want him. You better not make trouble."

"Now, boys, you don't know," dropped from an assertion, to argument.

"You don't know for sure, and you'll be sorry if you do anything hasty."

A hand circled above the crowd unseen by the figure in the door, a noose swished through the air and dropped on Lupes' shoulder. Someone had tried to lariat him. He ducked back and slammed the door behind him. Scarcely had the door locked before a shot sputtered into the wood. Another shot flattened against the bricks. A return shot from the inside whistled over the heads of the crowd. The men parted around either corner. A rock went crashing through a window. A heavy log was swung around the corner, two men on each side. The men swung it back and forth a couple of times to get the rhythm of their bodies, and the figure in the coonskin cap grated his breath out harshly as a signal and the battering-ram crashed against the door. The door flew open, swinging limply on one hinge, the end of the log sticking through the splintered panel, like a camel's nose.

"Now, men," yelled the man in the coonskin cap defiantly, "all together. He's our man!"

The men surged forward with a chorus of yells, shouts, and curses in all keys.

But there was one figure quicker than all the rest. Pushing his way through the crowd he leaped through the door, darted inside, called a sentence to Lupes and was back in the door with the officer's gun.

"Stop where you are," he commanded with so much authority that the men poised on their toes, ready to release their muscles and finish the action. "Stand where you are till I tell you one thing!"

Outlined against the light, his shoulders squared, his head up, the repeating rifle in his hands, stood Rick Oody.

"In reality I've got two things to tell you." His voice was high and clear. There was a commanding something about him that no one had ever dreamed of before, a power that made even the man in the coonskin cap drop his shoulders and settle back. "The first thing is this: The first man that moves toward the door is a dead man, and the second and the third, just as long as I last. You may be able to get me, but some of you'll never go home. Hen Riley, if you swing that lariat at me I'll shoot you cold. D—n it, there's nothing I'd rather do.

"The second thing is this: Don't you raise that gun, Bill Smith, or I'll plug you through the eye. I know positively that Doctor Fordyce didn't kill Clem Pointer. I know it. I hate the doctor just as much as any of you—more, I guess. Didn't my little girl die and him waitin' on her?—but I ain't going to see you string him up when he ain't guilty. I know positively that he didn't kill Clem and that's all I can tell you about it." "Who did then?" demanded a heavy voice.

"I ain't saying that anybody did—no I ain't ever found his body. You don't know anything about what happened except findin' some things. I can't tell you any more; but one thing I do know, and that's Doctor Fordyce didn't kill him."

There was authority in the way Rick Oody lifted his head, and in the way his shoulders held themselves stiff and rigid in the panel of light. Never before in the whole history of Curryville had any one paid the slightest attention to him; but now they realized that a power stood before them. Rick had seen Clem and knew that he was still in the flesh. If he could have said this the crowd would have melted away, but he had promised Clem that not one word should pass his lips as to what had happened to him, and by that promise Rick's lips were sealed.

"Who are you to be talking this way?" came the demand.

"That's right. I'm just Rick Oody, the town drunkard, the man who does your dirty work and buries your horses, but I know what I am talking about."

Slowly he turned his back full open to the crowd, stepped across the log and disappeared behind the red door. From the barricade came Rick's voice, the same measured assurance in it as before. "Boys, I'm goin' to keep that lamp lit so that you'll know who is the first one down."

The mob stood hesitating, breathing heavily.

"Go on back to the trestle, boys—with your well rope—and think it over."

The attitude of the men, their necks out, their lips set, relaxed, their

eyes left the red door, and each looked at the other. The man with the coonskin cap reached one foot behind him and the crowd edged back, without turning their faces. Silently they followed around the corner of the little brick building, crossed the board walk, and gathered in the dusty street.

Then two figures turned back and walked without hesitation up to the edge of the porch. Hen Riley and the man with the grassy moth-eaten cap dragged the log out of the splintered panel of the red door, carried it down the middle of the street and funged it shamefully in the gully underneath the trestle.

The mob had been quelled, and the prisoner was safe.

CHAPTER XVI. BRASSY'S IDEA.

Clem found another boarding-place in Kansas City where he was quite sure that spilled milk would not leak clear through to the ceiling below, and worked harder than ever preparing to save thoughtless humanity from the devouring flames by means of the Rayley Fire-Escape Belt.

The city ground rabin harder and harder. After the glamor and whirl of the first few days had worn off it became a millstone around his neck.

One evening he was standing in front of the bulletin-board, one of a wild mass of ground rabin humans, wild man, wild man, wild man. Somebody somewhere had just died in home and hats went up in the air and men pounded one another on the shoulders as if some brave fireman had leaped to save some woman in his arms. And there was nothing to see except a diamond-shaped thing about as big as a checker-board—wouldn't he like to have another game with Judge Wallowidge?—nailed on the side of a building.

Above the miniature baseball diamond a bulletin was posted. Clem's eyes leaped to it:

Dr. Fordyce, Almost Lynched, Now to Own City. Last Week Curryville Was Ready to Hang Doctor—This Week Willing to Give Him Valuable Opinion.

Clem brushed the back of his hand across his eyes with a motion peculiar to him and with parted lips stared at the bulletin.

"Look, look!" he exclaimed, a nod behind him to Clem Fordyce—that's our man!"

The man addressed turned his eyes from the miniature diamond to the news bulletin. "Well, I'll be d—d! Sure that's Doctor Fordyce, but what does all this mean—almost lynched?"

"Hush—you don't know who's around," warned the other, pushing up his Panama. "He hasn't reported for a week and his orders are to send in word every day. All right, we'd better send him a cipher."

The other nodded, and the two men hurried away.



"I'm Just Rick Oody, the Town Drunkard."

(To be continued)

The Upward

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The Upward Look

Cultivating Contentment

AMONG the many fables Tolstoy wrote embodying economic and moral truths, one is that about a Russian peasant who sold his soul to the devil for land. This peasant had never owned a foot of land. He thought that if he could only possess a certain field he had rented for years, he would be the happiest man in the world. So he made a bargain with the devil and got that field. After a while he coveted the field next to it, and got that. Then he wanted another piece to round out his holdings, and got it. Then he wanted a farm, and then a country estate, and got both. But still he was not satisfied.

One day he heard that far over in the Tartar country, a man might buy for a little money, as much virgin land as he could run around between sunrise and sunset. So he sold out his rise and journeyed there. His bargain was quickly struck with the Tartar chief and next morning the whole tribe gathered on a hilltop to see him start. He was stripped for running, and darted off in a straight line the moment the sun showed over the horizon. All day he ran and ran. He would come to a fertile valley and say, "I must have that," and ran around it, or hurry out of his course to take it in a piece of fine woods or meadow land. He ran and ran. By sunset he had to speed desperately to beat the speeding sun, but succeeded in reaching the hilltop and the waiting tribe just as it disappeared, completing his course. And then he fell dead with exhaustion, and the Tartar chief chuckled mockingly—he was the devil.

Conditions to-day are identical to those in the days when this fable was written. In the present-day struggle for wealth, power and greatness of all degrees, the spirit of contentment seems to have been lost. How often we set our hearts on something which we are fully convinced will bring us happiness, and we feel that we cannot rest until we have attained it. If we were to carefully weigh in the balance our fancied desires of this "hurry up" age, however, and find how little real happiness these desires create for others, would we not strive more earnestly to cultivate a spirit of contentment in the things we now have?

—M.R.

On the Way to the Exposition

THE majority of us enjoy reading descriptions of various places of interest which we may hope some day to see for ourselves, or at least to have a longing to see them. One of the most interesting "travel talks" we have read for some time has recently come to our office from our Upward Look writer, who contributes to the signature of "H. H. N." While on her way to the Panama Exposition our contributor visited many places of beauty and has written to us in such an interesting manner about some of the places she has seen, that we believe our folks will enjoy reading her experiences quite as much as we have done. The first installment of this travel talk appears herewith, and will be continued in our next week's issue. Our contributor writes:

My visit to Yellowstone far surpassed my expectations. I was not in the

least prepared for the wonderful variety and would have been glad to spend all summer enjoying the hot springs and the geysers. A story one guide told us is illustrative: A colored preacher said to his congregation, "Ladies and gentlemen, I am going to describe the undescribable, expounded the unexpoundable and unswore the unswearable."

One can have no idea of the coloring of the different springs; one deepest blue, the next darkest green, capped lavender, turquoise and so on. Cream; lavender, turquoise and so on. Steam fars go 150 feet high and the steam far, far higher, by sunlight, in sunset glow and by searchlight. I heard a lady say of the last one, "Is it not beautiful?" Her husband answered in a hushed voice, "You cannot find an adjective for it."

One night my tent was on the edge of Lake Yellowstone, altitude is almost 8,000 feet, with long ranges of snow-capped peaks. Another night it was on the edge of the Yellowstone canyon, from which I could hear the roar of the Falls, over 500 feet high. The walls were surpassingly beautiful with their wonderful coloring, deepest red to softest yellow. The camp fires were a great delight.

Golden Gate in Yellowstone, was the climax of all, with its massive tower, its stupendous cliff rising sheer up one side and down on the other. "Hoodoo" was as if Nature in a mighty rage at one time had thrown great boulders and rocks in the wildest confusion and turmoil.

The time spent in Salt Lake City was very interesting. I had never before heard a representation of the human voice on the organ. It was wonderful, like a whole invisible choir. I enjoyed an invigorating dip in Salt Lake.

In the Desert

In coming through the desert to Grand Canyon, the temperature was 120 degrees, but it was not uncomfortable in the cars, owing to shade chiefly to the electric fans. The desert is so different to what I had pictured. In place of a flat, vast, level plain, the hills and mounds so varied in shape and size and color, were of great interest. I do not think any mortal teret. I do not think any mortal teret. I do not think any mortal teret. I do not think any mortal teret. I do not think any mortal teret.

It is one vast mountain, plateau, canyon and valley after another, unfolding and stretching farther than the eye can see or the mind grasp. Just one corner (although one cannot think of it as small) would be marvellous, and think of all those portions. In the bright sunlight, the coloring was so vivid and glaring, so bizarre, that I hated it. In the afternoon I drove with an interesting party of Texans to Grand View. For the first time I began to lose my fear and enjoy the beauty, as the colors softened and toned. I watched the sunset for two hours, the shadows creeping up and up, to the myriad gleaming and glistening peaks. By that time I was on the very edge, trying to imprint the whole on my memory, so that it would never fade away.

On a Mule's Back; and Off

The next morning the sunrise was as grand as the sunset. By nine I was to be ready for the Trail. There were two ladies besides myself, one a doc-

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20 "	18.00	9.60

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TORONTO

THE HEARST PAPER

THE CANADIAN GOVERNMENT offers suggestions for fruit preserving

In an advice circulated throughout Canada, the Fruit Branch Dept. at Ottawa, suggests as being best for preserving purposes, certain brands of peaches: St. Johns, Silbertas, Craven and Smocks, and for plums Bradford and Gages, Lombards, Helne Glanade.

It is well known that the slightest organic impurity in sugar will start fermentation in the jam, and St. Lawrence Sugar which tests over 99% pure has never failed to buy itself. Grocers everywhere can find orders for this original refinery sealed packages of 5 lb. cartons, 10, 20, 30 and 100 lb. bags.

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for, four gentlemen and two guides. After mounting I soon became accustomed to the motion and the position. From the first my mule was troublesome; he was such a hungry animal. He would start up the cliff on one side after something green, or strove out over the chasm on the other. That descent was thrilling. For a long time I could not look down, just steadfastly up. Gradually I became accustomed to it and could look quite fearlessly into the depths. The turnings were the diastial places. Again and again, one would wonder how those animals could keep their footing.

Just before reaching Hermit's camp, where we camped for the night, the donkey in front of the party with its provisions, suddenly knocked his load off and went galloping off down the trail. My guide stopped his pony and attempted to put the load on him. He got to a pack mule and ran away to a pack with a guide. Mine followed suit. I was sitting back resting, holding neither reins nor saddle. Naturally I was ignorant of what was going on. When the guide returned after getting his own mule and mine under control, he found a demoralized, but thankful party that no one was seriously hurt, as it might have been a terrible catastrophe at so many of the steep places. (Continued in next issue.)

OUR HOME CLUB

A Breeze from the West
It has been my good fortune this summer to take advantage of a trip through Western Canada. I have not forgotten the Home Club while on my tour, and while it would be difficult to satisfactorily describe the many enjoyable features of such a trip, it has occurred to me that I might give the circle a few of my impressions along the way.

A summer holiday spent in western Canada is certainly a delight to one who has never before crossed the boundary of Ontario. Of course, travelling by train during July and August is of necessity both hot and dusty. A pleasing variation, however, is the lake trip from Port McNichol to Fort Williams. The scenery along this route is delightful. Many pretty islands with their crowns of trees rise from the clear water, making an enchanting picture. Even the gulls are a source of delight. It seems a shame to spend the time sleeping, but the gentle swish of the water is an excellent soporific. It is an utter

impossibility, though, to remain in bed after the first consciousness steals over one of the scenery speeding by outside.

The prairie provinces are vast, are fertile, but the easterner sadly misses the trees. To stand looking west, north and south on the level plain stretching to the horizon, gives one a sense of utter freedom, mingled, nevertheless, with a subtle within easy view of each other, and are, as a rule, small and unpainted. "The little grey home in the West," is a typical phrase.

The soil about Regina is quite heavy. In wet weather it will roll up on the wheels eight or nine inches in width. It dries quickly, and on the surface looks to be caked like Ontario clay. It pulverizes in the hand, however, very fine and soft.

"Another Hired Man"

My presence at the Home Club circle is requested. "Aunt Molly" wants to know why "Another Hired Man" has not had something to say on this question of the hired man's room; which our members, new and old, have been debating recently. If "Aunt Molly" lives on a farm she will know that the explanation I am about to offer is valid.—I have been too busy. Haying, wheat harvest and in through the clovering and as a kept the boss and I fairly on the run for the last month or two. We have around long hours both rain and shine, and years in spite of other work.

I do not know as there is much left to say on the subject, except to express my own opinion, except to say that it depends on the man. Some men will show their appreciation of the boss's loss in this case—while others are not fit to occupy a decent weight room and cannot be taught to behave themselves in a civilized way. These latter are the exception. I suppose I ran a hose from a tap at the bottom class of hired men, those that have a fairly good public school education and were brought up in respectable homes, foot to give me some of the bedrooms that I have described in our Home Club, for instance the kind mentioned day in the June 17th issue, would be the same as to give me notice to quit. In the place where I stayed longest ever housekeeper. I had a best, I had as good a room as the best kind of comfortable, airy career I stopped only one month. There I was asked to live above the back kitchen, with a couple of for-

OFFICIAL FRUIT BULLETIN
FRUIT BRANCH—DEPT. OF AGRICULTURE

Lombards and Gages Plums are now in this prime. Canning and preserving should not be postponed. The quality of this year is high in both peaches and plums. To the fact that the plums are not over-ripe, and are sweet. They are the best products of our Ontario orchards, and are Crawford, and for eating and preserving. Plenty of plums means good health all winter. Storing the bottles and fruit—no sugar is necessary for health, economy and luxury for you, your grocer, and have him look you order in advance.

signers occupying the room adjoining no sheets on the bed, the room cleaned twice annually and not a saving nature anywhere. The mistake that the hired man made was in forgetting that his sensibilities like to suit his own. The relationship between a hired man and boss on the farm is a human relationship and that must not be forgotten.

A Farm Shower Bath

The boss has recently pulled off a stunt that I want to share with Home Club readers about; it bears such a close relationship to this room question, I have often wondered that the women folk do not get discouraged trying to keep clean, fresh beds in the hired men but for their own husbands and brothers. Farming at this time of year is a dusty job. Haying, wheat harvest and in through the clovering and as a general rule baths are not easily secured for the last month or two. We have around long hours both rain and shine, and years in spite of other work.

We selected a corner of the woodshed about five feet square, put a partition up around it, cemented the floor that is, with a gradual slope to one side with a leading away. On the rafters above the boss and I, we placed an old mattress, and a couple of extra rods to support the extra weight. A pipe was connected with the eaves trough and rain water ran into the puncheon. We then may be called a hose from a tap at the bottom of the puncheon and connected with a rosette from an ordinary water sprayer over the centre of our five foot room. A valve just above the rosette checked the flow of water. Now in a rainy day, I'll guarantee that the cost was a little cement and one half hour of a rainy day. I'll guarantee that the Home Club can see the relationship between this shower bath of ours and the rooming question. The boss's wife had no trouble in seeing the relationship. I believe she inspired the idea.—"Another Hired Man."

September 9, 1913
Electric C. Mrs. Wm. Steen Co. WE have used our electric system. There are no more of them just switch on the all there is to it. Electricity con- in removed from summer ironing away from home. It is a great thing that has been in the meat. We also have a toasting bread, eggs or a piece of meat in a very short or worry. In the barn they motor of running the cream separator washing the dairy in the separator.

THE BEST
you get at first. Keep to-day the best but for the whole that has ever been. There is no other their season. always winning. play cards, phone, the most be satisfied with

does the work and of it has to be. The power is of bellford. We pay for three H.P. of running a concrete high. Just vice for elimination. gery, it is well w

"Hints for A"
NOW that the thrifty housewife is getting advantages, making dishes from. Probably apple pie, but apples are ways of preparing table. Below are may suggest vari-

Birds
Fill a pie tin with lar size with apple into lengths or six little water, cover and bake 25 min. apples are tender. The crust side of sprinkle with sugar and serve with cream.

Apple Sauce
Cream one-quarter half cup of broken egg, two one-half teaspoon and enough flour to ter. Bake in two-ther with apple sauce serve with custard.
Apple D
Fill well-buttered of rather thick apple tablespoons of butter of flour, two teaspoon, and one teaspoon enough milk to m and drop one large of each part in twenty minutes in

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Electric Conveniences

Mrs. Wm. Stewart, Northumberland Co., Ont.

WE have used electricity for lighting our house and barn for three years. You couldn't persuade me to go back to the coal oil system. There are no lamps to fill just with oil and using a connecting wire, we can prepare a simple meal in a very short time without heat or worry.

In the barn we use a one-half H.P. motor for running the roof pulper and the cream separator. The water for washing the dairy utensils is heated in the separator house. Electricity

Serve hot with lemon sauce or maple syrup.

Date and Apple Pie

Line a plate with a rather rich crust; fill it with a mixture of chopped dates and apples, sprinkle over half a cup of sugar and one teaspoon of cinnamon; add two tablespoons of water; cover with crust and bake in a moderate oven.

A "Pin Money" Suggestion

WAYS of earning money on the farm is a subject that is of considerable interest to most country girls. Especially does it interest those who feel they have a certain amount of time each day or each week, in which they might follow up some work that would augment their income. Here is a novel method of making "pin money" advocated by a young lady who has made a success of it. She writes:

"My home is on a small farm two miles from town. I have found a practical way of increasing my none too plentiful income. We keep several cows and so have large quantities

THE BEST DAY

THE BEST day you ever lived is to-day. Say it over to yourself as you get out of bed in the morning. Keep saying it as you eat breakfast and do the chores. Never mind if you don't believe it at first. Keep saying it just the same. The believing will come. For to-day is the best. There is no getting around it. Not only for you, but for the whole world, collectively and individually, there is no time that has ever been quite so good as now.

There is much talk of the "good old times." They were good—in their season. But who would go back if he could? The man who is always whining about them ought to be deprived for awhile of his present-day comforts, the daily paper, the rural newspaper, the telephone, the modern tools for work of every kind. How long would he be satisfied with the "good old times," do you think?—Selected.

does the work and does away with a lot of pain in the kitchen. The power is obtained from Campbellford. We pay a flat rate of \$75 for three H.P. That makes the cost of running a one-half H.P. comparatively high. Just the same, as a device for eliminating household drudgery, it is well worth the money.

Hints for Apple Eaters

NOW that the apple season is on, thrifty housewives will be taking advantage of their apple orchards, and making all sorts of tempting dishes from this luscious fruit. Probably apple pie, apple sauce, and baked apples are the most common ways of preparing the fruit for the table. Below are a few dishes which may suggest variation in the menu:

Bird's Nest

Fill a pie tin which has perpendicular sides with sugar corned and cut into lengths or sliced. Add a very little water, cover with a biscuit crust and bake 25 minutes, or until the apples are tender. When baked, turn the crust side down on a platter, sprinkle with sugar and cinnamon, and serve with cream.

Apple Sauce Pudding

Cream one-quarter cup butter with one-half cup of brown sugar; add one beaten egg, two tablespoons of milk, one-half teaspoon baking powder, and enough flour to make a stiff batter. Bake in two layers. Put together with apple sauce while hot, and serve with custard.

Apple Dumplings

Fill well-buttered muffin pans full of rather thick apple sauce. Rub two tablespoons of butter into two cups of flour, two teaspoons baking powder, and one teaspoon of salt. Add enough milk to make a soft dough, and drop one large tablespoon on top of each pan of apple sauce. Bake for twenty minutes in a rather hot oven.

of sour milk which we formerly fed to the pigs. Now with very little effort and time I make this sour milk up into cottage cheese and sell it in town. It is made in pound bricks which sell for cents a brick. Customers are hard to obtain at first, but as soon as people learned about my cheese, I had all the customers I could supply. I make the cheese twice a week and deliver it every day it is made. In this way the cheese is fresh when it gets to the customer."

MOA Plea for Quality

Miss Eulalia Whaley.

THERE may boom the stalwart Holsteins, But I like a Jersey cow; Though I liked her when I bought her, But I like her better now.

Quality should be our motto In selecting things of earth; Quantity don't count for much, sir, If it's of but little worth.

When you milk a Holstein heifer. True it is you get enough, But I think you will admit, sir, That it is cheap-looking stuff.

And those men who claim the Holsteins.

All the other strains will beat, Often ask for Jersey butter, When they're buying some to eat.

Now I want no spotted Holsteins, Only Jerseys shining fat, And I think our friend McCullough Was but talking through his hat.

Holsteins figure in reduction When the truth is fully told Of the cow and her production That is highly tinged with gold. Athens, July 29, 1915.

Hints for Early Autumn Frocks

Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy's Women Folk. They can be varied upon to the latest modes, and include the most modern features of the proper patterns. When sending, Farm and Dairy will be pleased to advise that for adults, age for children and the number of patterns desired. Price of patterns is One dollar, per set. Address all orders to Pattern Dept., Farm and Dairy, Petersburg, Ont.



NOW that we are fairly launched into September, we begin to think of fall clothes and are wondering what colors will be most in vogue during the fall and winter months. Fine serges and gabardines in tweed and cheviot, tulle, and in the shades of green, marie green, and in the tweeds and other cloths, browns and grays with a slight tinge of red in the weave, will be shown for serviceable wear. Velvet trimmings are shown in profusion.

Skirts are to be slightly longer than the stylish still of good width they will undoubtedly be made up a little narrower from the heavier materials than from the flimsy summer fabrics.

1374—Girl's Dress—While we are talking of fall clothes and heavier materials, we still hope to have much warm weather this season, and trust that wash dresses will be worn for several weeks yet. In fact, wash dresses are being utilized quite considerably even in winter nowadays and are quite satisfactory with heavy under-wear beneath them. This little dress has a body lining, which should make it fit better and would also add to the warmth. Long or short sleeves and low or high neck may be used. Four sizes: 4, 6, 8, 10.

1385—Lady's Dress—This dress shows the new-belled effect which seems to be coming into more popularity again for the young girl. The yoke effect in this dress also adds to the attractiveness. This style would be quite suitable for a heavier material than wash, if preferred, and might be trimmed with a belt and collar of contrasting material. Four sizes: 6, 10 and 12 years.

as shown in the small view, or with the vest and little yoke set in and the low flat collar. The skirt and blouse are trimmed with lace insertion and trims. The skirt measures about three yards around the bottom. Six sizes: 36, 38, 40, 42, and 44 inch bust measure.

1386—Costume for Misses and Small Women—The style here shown reminds one of the styles of several years ago. The blouse is trimmed with a couple of inches running crosswise of the blouse and outside of that is perfectly plain. The skirt is made with a yoke effect, the lower portion being fall and attached to the yoke under a tuck. For the 16 year size this costume requires 6½ yards of 36 inch material. Three sizes: 15, 16 and 20 years.

1386—Lady's House Dress—Specially plain in this costume for house wear, but very practical. The pocket will be found useful when picking up things. It may be made with or without a collar and either long or short sleeves. The cap, too, adds an attractive touch to the outfit. This cap is cut in one piece, and requires 1/4 of a yard of 17 inch material. Six sizes: 34 to 44 inch bust measure.

1385—Lady's Skirt—A new fall skirt design that would make up nicely in some of the new materials, such as cheviot, tweed or serge, is herewith illustrated. It is cut with a bustle, two side gores, and two back gores, with a seam down the centre back. The fold at the bottom is a bustle. Six sizes: 28, 30, 32, 34, 36 and 38 inches waist measure.

1040—Lady's Apron—This all-over apron requires 1 yard of 36 inch material for making for a medium size. The belt across the back takes in the long effect and makes it fit neatly. Three sizes: small, medium and large.

When sending in your pattern order don't forget that our Fall and Winter Catalogue is now ready for distribution. An extra 10c enclosed with your order will bring a copy of this catalogue to you

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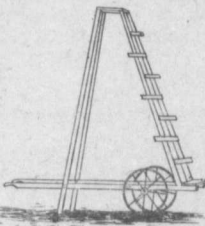
Wheeled Ladder for Apple Pickers

S. W. Tripp, Prince Edward Co., Ont.

It is a very easy matter to pick the apples in the centre of the tree and at the top. It is more difficult, however, to pick the apples from the outside of the tree. Care must be taken that the small twigs which represent the year's growth are not broken off, and to do this the picker must be so placed as to have easy access to the fruit. An ordinary ladder is awkward to move, and is more or less unsteady.

We solved the problem by making a wheeled ladder. We took the wheels and axle of a discarded spring tooth cultivator and fastened on the pieces of scantling 2 inches by 4 inches for sills. For uprights we took a 2 inch by 6 inch scantling 12 feet long and ripped it at an angle so that it gave us two pieces 4 inches wide at one end and 2 inches wide at the other. These placed on the sills, small and upward, form the sides of the ladder. At the top is a small platform supported by the ladder and by the legs as shown in the drawing. The cross pieces for steps project alternately, on either side to hold the basket while picking. On the sills at the bottom of the ladder is a narrow platform. The wheels should be placed so that the device will not tip when a man is standing on this lower platform. There is then no danger of it tipping when he is up the ladder.

The ladder is easily moved around, this tree or from one part of the



chard to another. It is very easily made and costs but a trifle. A wet day during the summer could not be spent to better advantage by the fruit grower than by making this provision for the busy picking season in the fall.

The Fertile Garden

BARNYARD manure of itself is not a complete fertilizer. An analysis shows that it is rich in nitrogen, but somewhat deficient in both phosphoric acid and potash. This is a serious deficiency. Phosphoric acid and potash are the two fertilizing elements which mature the crop and form the fruit or seed. A garden liberally fertilized with manure goes too strongly to stalk and foliage. Particularly is this a detriment where early frosts are to be feared.

The deficiencies in barnyard manure should be made good with commercial fertilizers. Where there is plenty of manure on hand I question the economy of applying a ready mixed complete fertilizer. I would rather use moderate applications of phosphoric acid and potash and most soils are more in need of the former.

ORCHARD AND GARDEN

In fact in a great majority of gardens, super-phosphate, bone meal or basic slag will give the most economic results. I myself prefer basic slag on account of its large content of lime, although it will not give as quick results as the super-phosphate. An application of 300 to 500 lbs. to the acre will generally be sufficient. Some gardens are actually so over-fertilized with manure that it would be well to do altogether with manure for two or three years and use phosphates and potash only.—F. E. E.



Selecting the Layers

Frank Marcellus, O.A.C., Guelph, Ont.

WHAT is the best breed of poultry? My answer to this question always is that it is not so much a question of breed as of strain. There is no best breed. Select the breed that appeals to you and then get a good laying strain of that breed and go to it. I would not select a breed because someone else had done well with it. One cannot make the best success with any breed unless the type and color appeal.

It is vitally important to get a strain bred for winter egg production. If we have a strain that will produce winter eggs, we need not worry whether they will lay at other seasons or not. To get winter eggs we must have a bird that will mature quickly. If a bird is not matured by cold weather, its development from then on will be slow and it may be many months before we will get an egg from it. I would suggest, too, that heavier breeds must be hatched earlier in the spring than light breeds. The laying stock should all be hatched in April or early in May, and then given good care right to maturity. Leghorns may be hatched three weeks later than most other breeds and then start to lay at the same time.

In breeding for egg production, it is always well to remember that it is the male that imparts egg producing ability to his offspring, rather than the female. I would always aim to secure the male birds from flocks that are known to be heavy winter layers.

Constitutional vigor is a very important point in heavy winter egg production. Without the system of the bird will break down. In our work at Guelph, 25 to 30 pullets collapse every fall due to the strain of heavy egg production. Generally, I may say, that a bird with a broad head development will have the same deficiencies in the body and a bird of constitution always has a broad, deep body, broad considered, with room for the vital organs.

Red Mites and Lice

GEO. W. PAERL, WELLINGTON CO., ONT.

WE read a lot at this time of other paper's giving advice on how best to get rid of mites and lice, which infest breeding pens and young stock alike. Thousands of dollars are lost annually by farmers with small flocks, as vermin not only curtails the

egg supply to a great many, many young cannot understand death. Here is the for getting rid of that has worked to faction.

First, we do not on the farm, and need to employ a get rid of them. are all equipped which are clean. T without fail and lime spread around roosts.

Spraying Every two weeks and the pen spray floor in every case a solution of kerosene is applied by a sprayer and mounted on your hands attach operate, easily move, and with t and different nozzles trouble for force the farthest corners. The job, and can be a little expense. Ora for nests and shavings shavings.

Every Saturday the one-horse truck sprayer, a box of wide shovel, and houses, not forget year these buildings with roosts, brooded moved.

First everything scraped, then with the door, is sprayed two or three times a day, every other day. This healthy odor, but tirely against the mite.

In keeping poultry

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Calendar P on Application.

E. A. A. GRANGE, V.S., M.S.

Principal

To the Women Folk On Our Farms

We want your help and suggestions in making "Farm and Dairy" more helpful and interesting to the good wives on our dairy farms. We need your suggestions particularly with our annual

Women and Household Number

to be published OCT. 7. Let us know what particular subjects you would like discussed. We realize that our women folks are entirely responsible in the equipping of the home. Our advertising section, editorials, etc., will assist you in buying for the winter season. We'll appreciate your suggestions—we want you to go carefully over our advertisements in that number. They will be largely directed to you.

Farm and Dairy, Peterborough, Ont.

When writing to advertisers mention Farm and Dairy.

In U.S.A.

A Potato

THE road to civilization often a thorny one. In the case of the Ontario Veterinary College, Ont., has had a stony turn in the started out with 12 ed its first season retiring members ample opportunity were absolutely dete tive spirit. The n with 16 members, hatched eight car 4,300 bags, at a \$192 profit, or \$11 this profit the mon in the United Fat Company, Limited, serve and the 810 the shippers in business done. divided after payi ket price for potato or three cents more tion 10 cents extra bers.

The secretary, says: "On the wh been a howling s that's my view there are plenty of "Wait, oh wait, t sale and then who loss?" Even our talks that way. I is rather to the th will prove whether

egg supply to a great extent, but kills many, many young chicks; and people cannot understand the cause of their death. Here is the best recipe I know for getting rid of these pests, and one that has worked to our entire satisfaction.

First, we do not allow these pests on the farm, and, of course, do not need to employ drastic measures to get rid of them. Our breeding pens are all equipped with drop boards, which are cleaned of every morning without fail and plenty of fine slacked lime spread around on this and on the roosts.

Spraying the Pens

Every two weeks the Hiter is changed and the pen sprayed from roof to floor in every crack and crevice with a solution of monomel and water. This is applied by a spray pump on a barrel and mounted on two bicycle wheels, with handle attached. This is easy to operate, easily moved from place to place, and with twelve feet of hose and different nozzles we have no trouble to force the solution into the farthest corners. This is not a lengthy job, and can be done thoroughly for little expense. Orange boxes are used for nests and baddled with cedar shingle shavings.

Every Saturday afternoon we take the one-horse truck equipped with the sprayer, a box of lime, a scraper, a wide shovel, and visit the colony houses, not forgetting to cut straw for bedding. At this season of the year these buildings are equipped with roosts, brooders having been removed.

First everything is cleaned out and scraped, then with the hose through the door, is sprayed from top to bottom, after which lime is applied everywhere. This not only gives a healthy odor, but guarantees you entirely against the intruders of the red mite.

In keeping poultry, half the victory

is cleanliness. Keep good stock, give close attention, "be on the job." These are essentials to success.

Why Remain Poor

GET-RICH-QUICK men of every class should get a few pointers from the following prospectus of a goose farm, which is taken from the New York World:

Incorporate with two years only, with capital 1,000 reese—\$1,000. Each goose lays an average of three eggs per week, or 156 per year. Do not sell any eggs, but incubate them, thus raising in the first year 156,000 reese.

Statistics show that of this number 77,000 will be genders, which will be sold, leaving with the original capital a total of 80,000 reese. These will lay 156 eggs each, which will be incubated, giving at the end of the second year 12,568,000 reese. plus genders sold first year, 77,000; total, 12,568,000.

Each goose will produce 2 lbs. feathers, 25,116,000 lbs. feathers at \$15 per lb. 376,740,000 By-products

12,568,000 prs. goose livers at 60¢ per pair..... 7,534,800

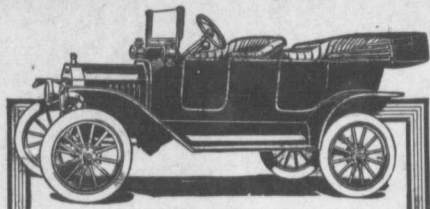
10,046,400 dozen upper bills for buttons at 1 1/4¢, 12,568,000 lower bills for buttons at 1¢ upper bills bring the higher price because they already have two holes punched, 25,116,000 bills at an average of 1 1/4¢ each..... 283,555

10,046,400 dozen goose quills for toothpicks, at 10¢ per dozen..... 1,004,640

Less original capital, \$1,000..... \$404,399,965

Less expense..... 74,000

Leaving profit for two years..... \$404,324,965



"MADE IN CANADA"

Ford Touring Car
Price \$530

Ford Runabout
Price \$480

Ford Town Car
Price \$780

The above prices f.o.b. Ford, Ont., effective Aug. 5, 1915. No speedometer included in this year's equipment, other wise cars fully equipped. Cars on display and sale at any Branch Manager—or write Ford Motor Company, Ltd., Ford, Ont., for catalog.



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the most econo-
I prefer basic
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Layers
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In Union There is Strength
A Department Devoted to Cooperative Agriculture

A Potato Club
THE road to cooperative success is often a thorny one and the Club at Hillsburg, Wellington Co., Ont., has had experience of the stone turns in the road. This club started out with 12 members and ended its first season with nine, the three straggling members having taken ample opportunity to prove that they were absolutely devoid of the cooperative spirit. The new year was begun with 16 members. So far the club has had fifty eight car loads of potatoes, 4200 bags, at a cost of \$87, netting \$192 profit, or \$16.50 a car. From this profit the money paid for a share in the United Farmers' Cooperative Company, Limited, was held in reserve and the \$107 divided—amongst the shippers in proportion to the business done. This dividend was divided after paying the local market price for potatoes, sometimes two or three cents more, and on one occasion ten cents extra, to the club members.

The secretary, R. D. Nodwell, says: "On the whole, the season has been a howling success. Of course that's my view. On the other side, there are plenty of men who say 'Wait, oh wait, till you make a bad sale and then who will stand for the loss?' Even our local bank manager talks that way. I think that the wish is father to the thought. Time alone will prove whether our board has en-

ough business judgment to steer clear of unreliable buyers. Anyway, who stands for the loss of our business men in any case? In the long run, We, Us and Company, of course."

News from New Ontario

EDITOR, Farm and Dairy.—Just to let our friends of the cooperative fraternity know that away up in Algoma there are live people who like to keep in touch with their live and progressive neighbors of the older province, I am writing a short letter which you are at liberty to publish if you are so good.

A short time ago Mr. Morrison, secretary of the Association at Toronto, visited us and gave our club a splendid start. You will know it as Bar River Farmers' Club. We have a live president in Mr. S. Ruddell, and some very energetic workers.

We meet the first and third Wednesdays in the month, have rented the hall in our neighborhood, and taken one share, which is about all subscribed and paid in. Of course, we are only feeling our way so far, but we expect to get down to business in a short time. We have a fine rich country, capable of producing splendid crops, and our people are progressive. We purpose letting our friends know how we are getting along from time to time through your valuable paper.—W. H. Evoy, Bar River, Ont.

Peck, Kerr & McElderry
Barristers, Solicitors, etc.
415 Water St., Peterborough
E. A. Peck F. D. Kerr V. J. McElderry

RIDER AGENTS WANTED
Wishes to obtain exhibits a bicycle and flying bicycle, with all latest improvements. We will sell you a bicycle at any address in Canada, without any money down, and with a 10% REFUND. It will not cost you one cent, if you are satisfied after using it for 30 days. **DO NOT BUY** a bicycle, until you see this bicycle. For particulars of any price you see, you need only send your name and address to the advertiser, and we will send you a postal note and catalogue with full particulars will be sent to you free of charge, by return mail. Do not wait. Write at once.

WHEAT AND COLUMBIA WYANDOTTES, LIGHT BRAMMAS, E.C. WHITE ENGLISH.
Over 25 years a breeder. Stock and Eggs for Sale.
Michael K. Boyer, Box 12, Hamonton, N.J.

WYSELPO BROTHERS, Limited
Dept. 6 TORONTO, Canada

SAFETY for CROPS

PRESTON SAFE - LOCK SHINGLES

Put a solid roof of metal on your barns. The Preston Safe-Lock Shingles hold tight on four sides, give sure protection from weather, fire and lightning. All questions about Metal Farm Buildings are answered in our book "Better Buildings." Farmers should write for FREE copy.

The Metal Shingle & Siding Co., Limited - - - Preston

OK CANADIAN POTATO DIGGER

SAVE HALF
Digs clean and thorough. Saves half the cost of digging with plow. The lightest draft. New stone wheel. Side delivery of vines. In sizes and styles to suit every need.

Farmers mentioning this paper may have a FREE copy of our 44-page book, "Money in Potatoes."

CANADIAN POTATO MACHINERY Co., Limited - - - GALT, ONT.

MARKET REVIEW AND FORECAST

TORONTO, September 4.—Trade circles generally report a stronger feeling, prompted by the assurance of a record grain crop...

631 cases as compared with 236,339 last year. The market is firm, the more active demand for export being a feature...

HIDES AND WOOL

Hides, fat cured, 1c to 1 1/2; port cured, 1c to 1 1/2; calf skins, cured, 1c to 1 1/2...

FRUIT AND VEGETABLES

Thimbleberries, box, 60 to 80; black currants, bushel, 10 to 12; raspberries, box, 15 to 18...

DAIRY PRODUCE

England has hitherto bought large quantities of cream butter from Denmark, and Germany has bought butter from Russia...

LIVE STOCK

The market opened firmly but towards the close it was rather dropped from 50 to 41 cwt. Stecker trade was dull...

com. to good, 845 to 875; springers, 850 to 890. Prices for veal were rather changeable...

OUR FARMERS' CLUB

Correspondence Invited

QUEBEC

MISSISSAUGUI CO. QUE. FARMING IN THIS SECTION and some farms yielded an extra large crop...

ONTARIO

MIDDLESEX CO. ONT.

APPIN, Sept. 2.—Fall wheat seedling is again here and finds poor preparation...

WATERLOO, Ont.

Harvesting is proceeding a few days ahead of last year's but the heavy rains have made the ground too soft for the binder...

GREY CO. ONT.

THORNBERY, Aug. 30.—We are having very little grain as yet ready to cut for the farmers. Some of the grain is growing in the sheaves...

HALIBURTON CO. ONT.

KINMOUNT, Aug. 30.—The frost on the 26th did a great deal of damage, completely killing potatoes and corn in places...

BRITISH COLUMBIA

NEW WESTMINSTER DIST., B.C.

CHILLIWACK, Aug. 24.—The weather very much gloomy and dry. Harvesting is almost over for another year...

Colleges to show some pretty shiftings farmers. Hence I don't believe that the placing of a demonstration farm here and east...

GREAT DISPERSION SALE

It is seldom that we see such a herd offered at auction as the one here by Mr. Neil Sangster, Ormatow, Que...

THE EXCESS

In the production of food is identically true system in production of different foods...

ANOTHER RECORD BROKEN

I am pleased to be able to report that the cow Angie Segin 10925 has broken the record for the production of milk in the three year class of the division...

ONTARIO COW STATISTICS

The following statistics of the principal dairies in Ontario for the year 1914 show the average as compiled from individual returns made by farmers to the provincial government...

1914: 611,138 acres, will produce 63,645 bush, or 23.8 per acre, as against 62,239 acres, 14,233 bush, and 23.1 per acre in 1913...

1915: 613,816 acres, 18,583 bush, or 33.5 per acre, as against 57,473 acres, 14,257 bush, and 31.2 in 1914. Average 2014-1915: 617,756 acres, 19,151,907 bush, or 31.1 per acre...

The averages in 1915 would have been made up as follows: Buckharts, 126,000 bush, or 27.5 per acre, as against 170,000 bush, or 31.7 per acre, as against 1,097,673 bush, or 27.5 per acre as against 514,169 bush, or 27.5 per acre...

The further crop in wheat this week it reports to be on account of the freer movement in the West and the larger supplies of both spring and winter wheat...

WHEAT

Quotations: Ontario oats, No. 2, 65c to 55c; No. 3, 50c to 45c; new oats, 50c to 45c...

MILL FEEDS

Prices on bran and feed four dropped slightly during the week. Bran, 62c to 63c; middlings, 50c; feed flour, \$1.85...

HAY AND STRAW

A steady business is in progress in new hay. Owing to the decline in the price of hay in the United States, very few cars are now going in that direction...

EGGS AND POULTRY

Receipts of eggs at Montreal during the week were 10,726 cases, against 5,336 cases in the same week last year. The total receipts from May 1, 1915, to date were 288,000 cases...

GUERNSEY EULLS

A few choice young animals for sale. Buff Orpington Eggs for hatching Write for prices.

Highland View Dairy, Amherst, N.S.

ARSHIRES

Imported and Home-Bred. Are of the choicest breeding of good type and ancestry. Write for prices.

SUNNYSIDE AYRSHIRES

The market opened firmly but towards the close it was rather dropped from 50 to 41 cwt. Stecker trade was dull...

TANGLEWYLD AYRSHIRES

The Leading R. O. F. Herd Large Cows. Large and Large Records. High Testers. Choice Young Bulls and Bull Calves, and a few Cows for sale.

WINDSOR SALES, WINDSOR, ONT.

Having purchased BRIDGDALE STOCK FARM, St. Thomas, Ont. I have transferred my 60 head of dairy shorthorns to this farm. I am still offering 3 yr-old and yearling heifer and young bulls for sale.

W. BEATTY, GUELPH, ONT.

KORNGOLD IMPROVED ENGLISH YORKPIRES

Bears and Sows of breeding age. A choice lot of Young Pigs, just ready to wean. F. J. McCallpin, Korngold Stock Farm, GANANOGUE, ONT.

SUMMER HILL OXFORDS

Flock established many years ago. Choice of pure bred animals. Strictly no grades handled except by order. PETER ARRELL & Co., Proprietors, TEESWATER, ONT.

Winter or Summer, Oil Cake Will Increase the Milk Flow

The Experience of Prominent Dairy Farmers

On these days of high prices for every bush of feeding stuff the dairyman who fails to study his results from the feed he uses, has a losing proposition on his hands. It is possible to waste a great deal of feed and to decrease the profits from the dairy herd by under-feeding. It is also possible to minimize the loss from the amount of feed fed by having the ration properly balanced. This latter loss is probably the most common of the three.

It is well known that one kind of food influences the amount of another that an animal can use to the best advantage. A stunted pig can be produced by over-feeding with corn and other starchy food. His system has not received sufficient of the ash and blood-making materials to build up a big frame. Mix properly his feeds and you produce a animal that is as easy on food to produce a runt in his system as over-feeding with one class of food as it is to produce one by under-feeding. Neither is a paying proposition on which to waste time and money.

The Excess Not Used

In the production of milk, the same is identically true. The dairy cow system in producing milk can use the different foods only in certain proportions. If there is an excess of one, it is cast aside and goes to the manure pile. The cow makes a ration for her system from the food she takes. You pay for the loss of all of any one kind that may be in excess, because, as stated above, the cow discards all the excess. This is not the greatest economical reason why we as dairymen should provide a ration for our herds as nearly as possible to what the cow requires for milk production.

The starchy foods are invariably in excess in all the feeds grown on a farm. Thus they are the cheapest of the feeds; harder to digest, and largely tend to produce fat. Protein largely tend to produce fat. Protein on the other hand is contained in much smaller quantities in the grains. It is expensive but absolutely essential in the ration. In fact the amount of roughage, starchy foods, etc., that a cow's system can use in converting food into milk depends very largely on the amount of protein foods she is given to balance her feed.

Alfalfa is the cheapest form in which the dairyman can secure protein. Hence its great milk producing qualities. The oil clovers are good, but contain over 12 per cent of digestible protein. Linsed cake is also rich in protein (about 20 per cent), and is thus fed almost universally. It has all the virtue of being very readily digestible, palatable and the oil it contains acts as a mild laxative, keeping the digestive organs healthy and vigorous. There isn't a farmer in Ontario but knows that when he wants to hold the milk flow up to "lick" up the coats of his cows, horses, etc., that a little oil cake will do it the quickest of any thing.

In the production of long-distance records (500 lbs. or over), we find that every single dairymen includes oil cake in his ration. Scores of dairymen who have fed it for years are finding it in smaller quantities right through the summer in keeping the milk flow steady.

Some Practical Experiences

"With the exception of bran, I believe oil cake is fed in larger quantities on dairy farms than possibly any of the other commercial feeds. The reason for this, is in the fact that

it is invariably used as a flesh former when the cows are dry in addition to forming a part of nearly every milk-producing ration.

"We use oil meal quite liberally in our cow feed as it is one of the most palatable as well as the safest feed we can use."

This experience from Mr. G. A. Brethen, who has won a number of world records with his Holsteins, should be convincing as to the value of oil meal in every ration where heavy milk production is desired.

Another prominent dairy form of Ontario, S. Lemon & Son, of Lymburk, find it invaluable as a part of their ration throughout the year: "We have fed oil cake meal for the last five years. We feed from two to three pounds a day all winter long with the ensilage. We also feed from one to two pounds a day in the summer to keep in R.O.P. work. We would not like to be without oil cake unless it went exceedingly high in price."

Now it is the oil cake used in Canada is manufactured here. It is so universally used that our readers will be interested in the process of manufacture as the writer was privileged to see it a few days ago at the plant of the Canadi Linsed Oil Mills at West Toronto.

Saskatchewan, Alberta and Manitoba are the great flax producing sections of Canada. Practically all the seed used in the mills comes from the West. It is larger, plumper and heavier than the Ontario grown, the latter of which is called for the flour before the seed is fully mature.

The flax as taken from the car to the elevator, carries about one per cent of dirt, chaff, etc. The cleaning process consists in being passed near a revolving fan which kicks off all the dust, light chaff, etc. A screen then removes the coarser particles not taken up by the conveyer and fed into the rollers out the corn, oats, wheat, grit, etc., that may be mixed with it.

The Next Step in the Process

From the cleaners it is transferred through conveyers and fed into the grinders or crushers. These consist of alternating, smooth and corrugated rollers. The flax is thus crushed three times in the process and comes out as the pure linsed meal. It thus has all the oil in it and is the richest feed the dairymen can buy. A considerable amount of this is used in finishing beef cattle and in dairy test work.

Some dairy feeders also use it in mixing with the oil cake. The pure linsed meal as it comes from the crushers is quite rather very oily and not unpleasant to the taste.

"From the grinders it is again automatically conveyed to a large tank, where it is heated by steam, which is being constantly kept in motion by the arms of a mixer. From the heater, it is automatically measured off into pans, and the two compressed into cakes, which are lin or camel's hair press-clothes. In these clothes the cakes are placed in boiling, being fastened by a screw hydraulic presses and the oil is slowly rendered out by the pressure of the water in the square inch. The oil runs from the presses to the tanks and there is filtered and aged. This is the raw linsed oil.

The hard cakes of meal from the presses are then removed and trimmed to about 31 inches long, a foot wide and a half inch thick. Each weighs about 70 lbs. and it is in this slab form that it is exported. The nutted oil cake, such as we know it, is made from these slabs by putting through

a breaking machine. In the nutted form it is used to a considerable extent for feeding sheep and in fact for all animals. In making the oil cake meal, the nutted cake is ground fine or coarse, as desired.

The value that the British farmer places upon oil cake for feeding purposes is indicated by the fact that to-day he is paying \$10 and \$12 more per ton for it than our Canadian dairy farmers. If the British farmer can afford to pay a much higher price and still make a margin on the stock he produces, it is quite evident that there is still a tremendous field for this rich protein product on our dairy farms—as is shown by the fact that said the other day: "A handful of oil meal once a day throughout the year will not only keep your cows healthier but will insure a more uniform flow of milk—and that at a profit. Linsed oil cake is an expensive concentrate. It must be fed judiciously. But in balancing a ration, assisting in the ease of motion of the digestive foods, there is nothing we have yet discovered that is quite so healthful and palatable for the dairy cow."

to believe that all the advertisements in this issue are genuine, and we feel justified in calling the attention of our readers to them. Note particularly the advertisement of the Hallday Dairy Company of Hamilton. This firm is the successor of the Mail Order Department of Stanley Mills & Co., and has been favorably known for many years. The information we have received regarding this roofing leads us to believe that the offer is an unusual one. It is not possible to mention the name of the firm that makes this roofing for the Hallday Dairy Company for obvious reasons, but we may say that the makers are well known and thoroughly reliable. In mentioning Farm and Dairy when you write our advertisers, you share our confidence in the good service we will guarantee you honest treatment as a reader from every firm that uses our columns. Put "Farm & D." at the foot of each letter when you write.

Smarter Folks

Father—"Robert, why is it that the little Smith boy, who is so much younger than you is, is ahead of you in school?"

Robert—"I dunno. I 'spose his folks is smarter than mine."

You Share our Confidence

It is the duty of a newspaper to protect its readers. Where it is possible we endeavor to investigate the merits of everything advertised in our columns. We have every reason

HET LOO FARMS VAUDREUIL, QUE. HOLSTEINS

Let us quote you prices on Heifer Calves from 4 to 6 months old, also high bred good individual Bull Calves. Dams with records from 25 lbs. to 30 lbs. in 7 days. We are short of stock and will price low to you if taken soon. Write or call - see ad card.

GORDON J. MANHARD, Mgr.

AVONDALE FARM

We have a dozen young bulls from high record dams up to 32 lbs. sired by our King Pontiac and Woodrest Platte bulls; several extra good ones fit for service.

Prices low to make room.

H. LYNN, HERDSMAN, R. R. No. 3, BROCKVILLE, ONT.

LAKVIEW STOCK FARMS, BRANT, ONT.

Breeders of high-class Holstein-Friesian Cattle, also for sale, a choice young Bull, born May 7th, 1915, for farm and dairy testing. He is a full brother to Sir Mona, herd sire No. 2. Milk is a full brother to the World's champion 57-0 milk cow. Priced and particular applications.

E. F. OSLER, Prop., T. A. DAWSON, Mgr.

HOLSTEINS 19 Bulls, 50 Females.

One yearling bull (a dandy), by King Segis Pontiac (Canadian, whose first tested daughter held 71, 30 and 60-day milk records for Canada, for a senior 3-year-old. His dam is a Grand-daughter of King Segis. Another by a son of Pontiac Korndyke from a 29 lb. dam.

R. M. HOLTRY, R. R. 4, PORT PERRY, ONT.

CLOVERLEAF HOLSTEIN FOR SALE

A grandson of King Segis, 21 months old by Sir Segis Consul Duke (cap.) with 31 tested daughters, one of the best sons of King Segis. Dam, Cloverleaf Korndyke 30 lbs.; offspring 1-year-old, 7-day record, 16.20 lbs. butter, made 9 months after 100 lbs. milk and 12.80 lbs. milk in 30 months. Price, \$100.

A. E. SMITH & SON, MILLGROVE, WENTWORTH CO., ONT.

HOLSTENS AT AUCTION

"100-lbs. a-day-Bred." "No better bred alicoo."

AT REGIS VILLA FARM

Five miles from Stirling, G.T.R.; two miles from West Huntington, Belleville-Madoc branch G.T.R.; five miles from Ivanhoe, J.P.R.

TUESDAY, SEPTEMBER 21st, 1915

23 HEAD CHOICE ANIMALS

17 FEMALES, 6 MALES

Two daughters, one grand-daughter, one grandson of Princess Helene of Karland, the hundred pound cow that sold for \$1,000. These three females are bred to King Segis Alberta Redford, a son of the SHADE BULL, KING SEGIS PONY TIAC ALCARBIA.

Seventeen animals of the herd have same blood as Princess Helene of Karland, comprising that of such cows as May Echo, May Echo Verhelle, May Echo Sylvia, May Echo Keyes, Lily Keyes, Alita Pasch.

Three other heifers are bred to Hillcrest Royal, the 100 lb. cow that sold for \$1,000. These three heifers are bred to King Segis Alberta Redford, a son of the SHADE BULL, KING SEGIS PONY TIAC ALCARBIA.

Three other heifers are bred to a young bull with excellent breeding. Terms cash or by Ivanhoe, Stirling and West Huntington.

Trucks met, or six months credit on bankable paper. Sale of Holstein cows and calves by catalogue to

G. A. KINGSTON, CAMPBELLFORD, ONT. NORMAN MONTGOMERY, Auctioneer

*It's so
Handy*



Compare the paper bag that tears and spills with the tidy, convenient

Redpath Sugar Cartons

These do more than keep the sugar clean and handy—they ensure your getting the genuine REDPATH — Canada's favorite sugar for three generations.

2 and 5 lb. Cartons—
10, 20, 50 and 100 lb. Cloth Bags.

144

"Let Redpath Sweeten it"

CANADA SUGAR REFINING CO., LIMITED, MONTREAL.



REMINGTON
JMC

Two Old Favorites and a New One

EVERY expert knows NITRO CLUB—the celebrated Speed Shell. Its steel lining and extra speed add many a bird to the bag. The swiftest—straightest—hardest-hitting shell in the world.

NEW CLUB has been the favorite Black Powder Shell for more than 30 years. World-famed as an all-round black-powder field shell.

REMINGTON—The new, high-grade, low-priced smokeless shell. Loaded with Standard Powders—primed with No. 33 primer—unusual value at moderate cost.

Your dealer carries REMINGTON-UMC shells to meet your needs. Ask him about them to-day.

Remington Arms-Union Metallic Cartridge Company
(Contractors to the British, Imperial and Colonial Governments)
London, Eng. WINDSOR, ONT. New York, U.S.A.

A Household Premium



OUR 40 PIECE TEA SETS ARE STILL IN DEMAND

Many of our Women readers, realizing the exceptional nature of this offer, are securing their tea set before the supply is exhausted. We have still a number of the sets left and those who desire them, should act promptly. The opportunity for securing such a dainty, attractive and serviceable tea set on such easy terms may not last long.

Remember, we are offering them on the same terms as before the war. There has been a sharp advance in porcelain wares and they cost us considerably more than they did formerly. However, we have decided to pay the difference and to offer them on the same terms which have proved to be so attractive in the past. The only way to avoid paying the increased price, is to

Secure the Set According to Our Plan

The set consists of 40 pieces, is in semi-porcelain and nicely decorated with Rosas. It is made up of 12 cups and saucers, 12 tea plates, 2 cake plates, 1 cream jug, and a slop bowl.

If you ever feel, when entertaining your friends, that your table does not look as well as it should, that your tea service is out of date, you should secure this set without delay. It is a set that any woman should be proud to have on her table when her friends drop in for tea.

Hundreds of "Our Women Folk" are now the proud possessors of this valuable premium which has cost them nothing but a little effort. We know that there are still a great many who would like to have this set. They are still available on the old terms. All you have to do is to call up over the telephone four of your neighbors who are not subscribers of Farm and Dairy, and ask them to become subscribers. They will be glad to do it. Send in the four new subscriptions to us with \$4.00 to pay for them and we shall have your tea set shipped to you without delay.

Circulation Department

FARM AND DAIRY, PETERBORO, ONT.