

FARM AND DAIRY & RURAL HOME

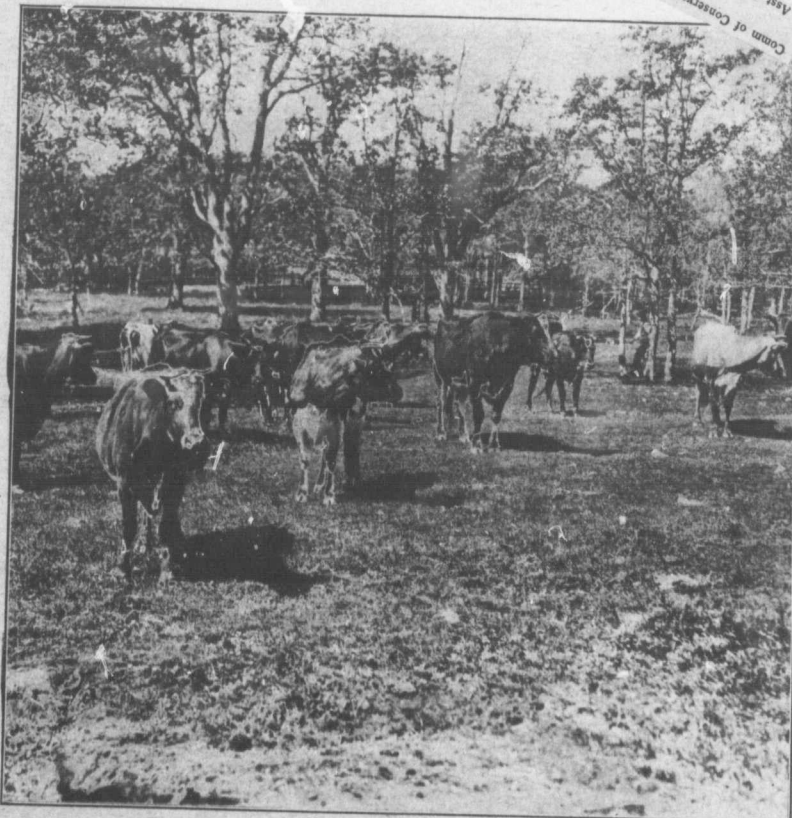


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Toronto, Ont., May 24, 1917

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In Union There is Strength

Farmers Lay Their Views Before the Government

A DELEGATION composed of representatives of the Canadian Council of Agriculture and representing the four great farmers' organizations of Western Canada and of Ontario spent several days in Ottawa last week interviewing Sir Robert Borden and Hon. George E. Foster in reference to matters affecting the interests of agriculturists in Canada. The delegation also attended two sessions of the Railway Committee of the House of Commons in order to make known the views of the farmers in reference to pending legislation concerning amendments to the Dominion Railway Act. The delegation consisted of Messrs. MacKenzie, Secretary of the Canadian Council of Agriculture, Winnipeg; H. W. Wood, President of the United Farmers of Alberta; J. B. Musselman, Secretary of the Saskatchewan Grain Growers' Association; R. G. Henderson, President of the Manitoba Grain Growers' Association and C. J. Z. Fraser, of Burford, and H. B. Cowan, of Farm and Dairy, Peterboro, Ont., representing The United Farmers of Ontario.

An interview was held with Sir Robert Borden Wednesday evening, when members of the delegation laid before Sir Robert fully the farmers' platform as it was drafted last November by the Canadian Council of Agriculture and later endorsed by the four provincial organizations as well as by many district and local conventions. Premier Borden had just returned from his trip to Great Britain and was crowded with work, but willingly took time to hear the delegation present its case. This platform has been published in Farm and Dairy on previous occasions and therefore, is not repeated here. It asked for an increase in the British preference until we have complete free trade with Great Britain in five years; a reduction in the tariff on many articles presently used by farmers, including agricultural implements, the nationalization of the railroads of Canada, the granting of the initiative and referendum, greater control by dry provinces of importations of liquor from outside points, and expressed a willingness, in order to enable the Government to make up the revenue that would be lost by reducing the tariff to submit to a tax on land values, including all natural resources. The farmers also favored inheritance taxes, taxes on excess profits by corporations and an income tax on incomes exceeding \$4,000 a year.

Sir Borden said that he recognized that the recommendations of the farmers of Canada were radical in a number of respects and stated that while his colleagues and he would consider them seriously, he would not hold out much hope that some of them would be granted as they affected many interests and would involve greater issues than might at first be supposed. He was not altogether in favor of the Dominion Government adopting systems of taxation which might clash with the methods of raising revenue already being followed by several of the provinces such as inheritance taxes, income taxes, and the taxation of land values. These forms of taxation he thought might better be left to the provinces to apply, in reply to suggestions which had been extended to him by the delegation in the past he had taken in the councils of the empire while in England, he expressed his thanks and mentioned that many important matters had been considered, some of which he purposed making public

shortly and others of which would have to be treated confidentially.

Sir Robert was very courteous in his reception of the delegation. He gave the impression that he was a man anxious to do what he believes to be in the best interests of the country, but the delegation came away feeling that before the farmers of Canada can obtain what they want from the Government, it is going to be necessary to bring more pressure to bear on the individual members of Parliament, through the local farmers' organizations now becoming numerous in Ontario as well as in the west.

Railway Legislation.

Several hours was spent by the delegates Tuesday morning attending a sitting of the Railway Committee of the House of Commons at which legislation relating to proper cattle guards was under consideration. Both at this session of the committee as well as at one held the following day when matters relating to rural telephone lines and of special interest to the farmers of Ontario, were under consideration, it was noticed that the railroad companies and the Bell Telephone Company had plenty of lawyers present to safeguard their interests. The farmers were without a lawyer to plead their case, but made such a strong case, more particularly in reference to the railway legislation, that Mr. MacKenzie, who was the chief speaker, was asked if he was a lawyer because of the knowledge of the situation that he showed. When he replied that he was a farmer, he was complimented by a number of the committee upon his handling of the case for the farmers.

Un satisfactory Legislation.

For years the legislation relating to cattle killed by the railroads on their railroad rights of way has been most unsatisfactory in character. Time and again when cattle have been killed, the railroads have escaped the payment of claims to the farmers through the farmers being unable to prove that they had not left some gate open or some fence down. The proof of any neglect on the part of the farmer was sufficient to put his case out of court, although it might be perfectly apparent that the live stock would not have been killed but for negligence on the part of the railroads. This was because

(Continued on page 13.)

Read and Discuss

at your club this week

"The Farm Tractor,"
By Louis A. Simpson.

"Corn Ensilage,"
and the relative merits of
different varieties.

By Geo. E. Day.

"Feeding the Dairy Cow,"
By E. S. Archibald.

"In Union There is
Strength"

This department will
prove particularly interesting
this week. Farmers'
representatives have been to
Ottawa.

All in this issue of Farm and
Dairy.



We Welcome

Trade inc

VOL. XX

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FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas.

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. XXXVI

TORONTO, ONT., MAY 24, 1917

No. 21

The Oil-Gas Farm Tractor, Its Advantages and Possibilities

By LOUIS SIMPSON.

THE possible impending crisis in the world's supply of foodstuffs, compels every good citizen to a serious consideration of the numerous problems, the solution of which have material influence upon the world's future supplies. Amongst these, the question of an adequate supply of labor is for the moment predominant. If an adequate supply be not forthcoming, then the only possible solution would appear to be the employment of such machinery as will give the desired results, with a less expenditure of the labor at present available. Hence it is that the possibilities attending the intelligent use of the small oil or gas farm tractor has become of economic interest and importance.

Up to within the last few years, the aim of the manufacturer of farm implements has been the production of horse-drawn implements, requiring the attendance of one man, which would in one day do more work than could be done by the man using only manual labor. Implements such as mowing machines have replaced the scythes, harvesters have replaced the sickles, raking machines the hand rakes, hay loaders the pitch forks, etc., etc. The saving in man power thus made was large, and as time passed, was greatly increased through the perfecting and through the increase in the size and capacity of the machines, until the limits of horse power traction in each case, would seem to have been reached. At one time it was usual not to hitch up more than a pair of horses to a machine. Later on three horses to a machine became common. Lately to certain machines, four horses have been hitched. These, for Canadian conditions, seem to be the limit, although in the veteran states of the United States, teams of six horses, driven by one man, are used for plowing.

The long winters of Canada are a handicap to horse traction, through the impossibility of providing remunerative or useful work for all the horses during the winter months. Even with this handicap, much may be said in favor of horse traction. Yet certain disabilities that cannot be removed, because they are caused by the "nature of the beast," limit its profitable employment. As the binder harvester is the perfected successor to the reaping hook, so will the oil-gas farm tractor be, within certain easily defined limitations, the successor to the horse in agricultural work.

A Practical Machine.

It is not claimed that the oil-gas farm tractor now being produced is a perfected machine, but the best examples, although not perfected, have become of economic importance, and if they could be purchased at a reasonable cost, would become of immense industrial consequence. Hence it is that the action of the Dominion Minister of Finance, in refusing to remove the tariff on farm tractors, is so unexplicable. Nearly one-third of the present selling price of a tractor in Canada is duty paid to the Dominion Government. It would

appear as if the Minister of Finance thought less of the possible starvation of the human race than of squeezing out of Canadian farmers an extravagant import duty.

No wise man will adopt a new method or replace a method long in use by a new one, unless he be entirely satisfied that the new method is preferable or that its adoption will conduce to his profit or well being. To be so satisfied, it is necessary to compare the merits and demerits of the two. Certain conditions peculiar to the practice of agriculture, make an intelligent yet correct comparison of the comparative costs of horse and motor traction for agricultural purposes a matter of considerable difficulty. The quality and depth of soil vary so greatly, the methods now practiced of plowing and cultivating are often so widely different, the character of the country farmed is so various, that it is impossible to make comparisons that apply to all the several possible conditions. Therefore, the comparison herein made, will be confined to the plowing and cultivation of land composed of heavy loam with

a good depth of soil, free from stumps and rocks, fairly well drained and not hilly, such land to be worked for crops of four-year rotation, the labor used being that of the farmer and of his family. There is no reason why an intelligent farmer, and a farmer intelligent enough to acquire a tractor will probably be intelligent enough to learn how to use it properly, should not arrive his own tractor.

Horse Traction.

It is assumed that the farmer, first thing in the morning, feeds, waters and cleans his horses, also that he cleans the stable, all being done before breakfast. It is assumed that he plows with a team of four horses. The above mentioned chores will require at least one hour. To harness the four horses, drive them to the field to be plowed and hitch them to the plow, will consume the better part of half an hour, so that it is safe to assume that the farmer works one and one-half hours before plowing commences. After plowing four hours, the horses are driven back to the stable, and are given hay and water, and afterwards a feed of oats. The horses are then driven back to the field, are re-hitched to the plow and draw the plow for four hours more. The time occupied in going from field to stable, from stable to field—in feeding and in re-hitching, will exceed half an hour. At night the teams are unhitched, are driven to the stable, are unharnessed, are rubbed down, fed and watered, the whole occupying more than one and a half hours, so that for eight hours of plowing the farmer works from 11½ to 12 hours, eight hours of which is work of a most arduous description. But the horses do not work the whole eight hours, because, whilst plowing, it is usual to give the horses a rest at the end of each half hour. If this rest be five minutes, then from the eight hours apparently spent in plowing, no less than over one hour will have to be deducted for rests, leaving the actual plowing done in a full day's work less than seven hours. Yet the farmer works 12 hours.

It is true that when only three horses are used instead of four horses, the time lost in feeding, watering, cleaning, harnessing and hitching up will be lessened, but it has been advanced that an average three-horse team cannot plow sod, as it should be plowed, for eight hours per day, even with rest stops, and keep in condition. Either the quality of the plowing suffers or else the horses suffer. Corroborating this statement, the following extract from a publication of the Dominion Department of Agriculture is quoted: "More horse power is necessary for the use of larger machinery, which in turn does farm work more thoroughly and at a lower cost per acre or per ton crop. More horses, heavier horses and horses in better condition, all through the working season, will lower cost production."

Farmers appreciate the difference in the time

(Continued on page 6.)



In the Hands of the Farmer.

IF the war lasts beyond this summer, it will be the American farmer who will win or lose the war, who will overcome militarism and autocracy, or who will be them to spread and control the world, ourselves included.

This is no fanciful picture, but sober fact. Many a man will make light of it until he comes to think it over, but I venture to say that few will treat it lightly after careful thought. It is no more impossible than the great war itself appeared to be, only a few days before it began.

It is true that we can greatly increase the available food supply out of grain now used in making liquors, and by reducing household waste. But when these two things are done, and done thoroughly, they will not be enough. The final decision will still rest in the hands of the men who raise our food in the first place.

The clear duty of the Nation is to guarantee the farmers a fair price for their crops when grown, and a reasonable supply of labor at harvest. The clear duty of the farmer is to raise food enough to win the war for democracy against Kaiserism.

No such responsibility has ever rested on any class of men since the world began as rests to-day on the farmers of America.—Gifford Pinchot.

Corn as a Forage Crop With a Comparison of Varieties

Prof. Geo. E. Day, O.A.C., Guelph, Ont.

In only a very restricted area of this country can corn be grown satisfactorily as a grain crop, but in most parts of Ontario, and in large areas of other provinces, corn is one of the most highly valued of forage crops. Its large yield of feed, the palatability of the fodder it provides, and the opportunity it affords for checking the growth of weeds, through cultivation, all tend to give it a most important place in our agriculture.

It is as a silage crop that corn especially commends itself to the farmers of this country, and even in the corn belt of the United States we find numerous silos coming into use. For years it has been a disputed point whether it is more profitable to put the whole corn plant into the silo or to first remove the ears, in districts where corn will mature sufficiently for husking, and feed the stalks separately. This matter was fed the stalks separately. This matter was tested at both the Wisconsin and Vermont Experiment Stations, and at both stations results were decidedly in favor of putting the whole crop into the silo instead of first removing the ears and putting only the stalks in the silo. At the Vermont Station it was found that one acre of green corn fodder, including ears, reduced to silage, was equal in feeding value to 1.26 acres of silage from stalks stripped of their ears and fed with the meal made by grinding the dry ear corn which was produced by the crop. So far, therefore, as the part of the crop which has to be fed at home is concerned, it would evidently be the part of wisdom to put the whole crop, ears and all, in to the silo instead of going to the trouble of first removing the ears.

Quality of Silage.

In our northern latitude the selection of suitable varieties of corn for silage becomes very important. We all know that the large, late maturing varieties of corn will give us a very much larger yield, per acre, than the early maturing varieties, and the question is just where we should draw the line. That is to say, should we select a very early maturing variety, regardless of the fact that it is a light yielder, or should we sacrifice quality and take a very heavy yielding variety, which will not mature in our locality, or should we follow an intermediate course and secure a moderately large yield with a moderate degree of maturity. During the summer of 1915, we started some work along this line, and Mammoth Southern Sweet, White Cap Yellow Dent, and Longfellow varieties of corn were put in our silos, and their effect upon the milk yield of cows was tested. The summer of 1915 was wet and the corn was, in consequence, rather late in maturing. On the Mammoth Southern Sweet the ears were barely formed. White Cap was in the medium milk stage, and the Longfellow had reached the dough stage. The silage from the Mammoth Southern Sweet was very sour, and it took several days, as a rule, to get the cows to eat it satisfactorily after being fed other silage. The silage from both the other varieties was quite satisfactory.

Two tests were made to compare Longfellow silage with that from the Mammoth Southern Sweet. In one of these tests Longfellow silage proved worth \$1.43 a ton more than that from Southern Sweet.

Two tests were also made with White Cap silage against Southern Sweet silage. In one of these tests White Cap silage proved to be worth \$1.11 per ton more than the silage from the Southern Sweet, and in the other experiment the White Cap silage was worth \$1.64 per ton more than the silage from the Southern Sweet.

Both these comparisons were made on the basis of \$1.60 per hundred for milk, which is a reasonable valuation under prevailing circumstances.

So far as these tests are concerned, the evidence is strongly in favor of the intermediate variety, which gives a good quality of silage combined with a large yield. Apparently there is no advantage obtained by having the corn nearly mature at the time it is put in the silo. On the other hand, the very late variety produced such sour silage that it was entirely unsatisfactory, and the difference in yield did not compensate for the difference in quality.



A pure bred Clyde mare and her foal; both of a type always in demand.

This mare is owned on The Colony Farm, Essendale, B.C. Note the combination of quality and substance, most marked in the mare and passed on to the foal. Stock from mares such as this, when properly mated, need never beg for a market no matter how slack may be the demand for "just horses."

Supplementary Feeding on Pasture

Corn Silage Proves Its Worth

MANY of our best dairymen in Eastern as well as in Western Canada, have reached the conclusion that, especially on valuable and expensive land, it is unprofitable to follow the old practice of depending on pastures alone for the summer feeding of their dairy cows. The hot, dry summers and consequent burnt-up grass, the hordes of flies, and the realization of the fact that much more feed can be grown from the same land if cultivated, have all been factors forcing the above conclusion. The question then is, how to overcome these obstacles to the profitability of our dairy industry.

During the past two summers, the experimental dairy herd at the Central Experimental Farm, Ottawa, has been working to solve just such a problem. This herd is stabled during the entire summer, making it possible to carry on a fairly conclusive test of the comparative value of corn

ensilage, green clover, and green peas and oats, for the purpose above mentioned. Ensilage 30 pounds, and hay six pounds, form the daily roughage ration for this herd at all times. For a period in 1915, ensilage and hay were replaced by 60 pounds of green peas and oats, and for one period in 1916, all the hay and part of the ensilage were replaced by 20 pounds of green alfalfa, while during a second period a repetition of the 1915 experiment was carried on. The results are given in the following table:

Year	1915	1916 A.	1916 B.
Succulent Ration Fed	Ensil- age & hay	Ensil- age & hay & oats	Ensil- age & hay & oats
Milk produced per c. o. w. per day, lb.	31.5	30.7	26.7
Cost to produce 100 lb. milk cents	67.8	68.2	63.3
Cost to produce 1 lb. of fat, cents	17.	17.3	16.2
			17.1
			17.8
			25.3

The above figures serve to show that in almost every case the cost of production of milk and butterfat was considerably higher when ensilage formed the sole ration. This is one point made in favor of ensilage. However, we have not taken into consideration the cost of putting these

feeds before the cows. In the case of ensilage the silo is filled the fall before at a comparatively low cost per ton, and the matter of throwing out the day's feed and giving it to the cows is a small item. On the other hand the preparation of a suitable rotation of green feeds costs to ensure having such at all times, and the cutting and hauling of the same to the barn or feeding paddock, take much valuable time at busy seasons of the year, making another point in favor of the ensilage. Still another point in its favor is that it is always uniform in quality, whereas the quality of a green feed crop is uncertain, particularly in a season such as we have just experienced.

All the evidence then would seem to prove that the most profitable form for dairy cattle is corn ensilage of the previous year's growth. Now is the time, therefore, to begin to prepare by all the means at your disposal, for a large crop of corn next year, and either fill your present silo to its utmost capacity or build another small one especially for summer feeding.

Sometimes we determine in our own minds that a certain cow or cows in our herd are giving very rich milk. We may be right, but by testing the milk we can have no doubt about it. A dairyman with a herd of 20 cows recently decided to put each cow in his herd to a test to determine which were not so profitable as the others. To his surprise he found that six out of the 20 cows were rubber cows. He sold the rubbers, reduced his feeding just that much, and after deducting the price of the feed saved, found that he was making a greater profit than ever before, with less work. The value of cow's milk varies so as to butter fat content, that the only way to be absolutely sure is to test.



Red Deer, Albino pure bred

Some Principles

IT has been claimed that a dairy cow is worth more than any other animal on the farm because she actually yields more milk than any other animal. The amount of feed, cost and greatest profit are the factors that determine the value of a cow. Notwithstanding the fact that a cow yields more milk and fat from a smaller area of land than any other animal, she is not necessarily the most profitable animal on the farm. The amount of feed, cost and greatest profit are the factors that determine the value of a cow. The amount of feed, cost and greatest profit are the factors that determine the value of a cow.

Feeding

The milk production of a cow is in proportion to the reserve of feed and flesh. As has been shown that maintenance ration days yet produce a profit with, however, a profit and flesh. Again, the amount of proper type of calves will not only more persistently during the period. It is clear that type will be drawn from either given off of feeds consumed in a larger proportion for milk production. The dry cow receives majority of dairy calves in proportion to the amount of feed and flesh that she can carry. Allow the cow four or five months of fattening. A pound of feed per day during the period is worth as much as a pound of meat fed after the pasture, feed the dry cow roots and a grain ra-



A Dairy Farmer's Home in the Young Province of Alberta. Red Deer, Alberta, is fast becoming a thriving dairy district. Around it are located several of the best pure bred dairy herds of Western Canada. A. H. Trimble, whose home is here illustrated, is one of the pioneer Ayrshire breeders of the West.

The Feeding of the Dairy Cow

Some Principles and Explicit Directions—E. S. Archibald, B.A., B.S.A., Dom. Animal Husbandman

It has been clearly demonstrated that the good dairy cow is a more economical producer than any other farm animal. Not only does she actually yield more product from a given amount of feed, but she does this at the least cost and greatest profit.

Notwithstanding these facts the production of milk and fat from the average cow is exceedingly low, being approximately 3,800 pounds milk and 130 pounds fat per annum which in value is less than the total cost of production. Nevertheless it has been clearly demonstrated that by better feeding and management this average may be easily increased from 30 to 80 per cent. with an increased cost in feed and labor of only 10 to 20 per cent.; the margin would be largely profit. Such an increase is not only a financial necessity but the patriotic duty of every dairy farmer.

Feeding the Dairy Cow.

The milk produced by a dairy cow of proper type is in proportion to feeds consumed plus the reserve of feed stored in the body as fat and flesh. As an example of the latter it has been shown that fresh cows may be fed on a maintenance ration or even starved for several days yet produce milk in fairly large quantities with, however, a proportional decrease of weight and flesh. Again it has been proven that cows of proper type having a store of flesh before calving will not only milk more heavily, but also more persistently during the succeeding milking period. It is clear, therefore, that this supply of fat and flesh stored on the dry cow of dairy type will be drawn upon when most needed, and be either given off as milk or so take the place of feeds consumed in supplying bodily needs that a larger proportion of these feeds may be utilized for milk production.

The dry cow receives little attention from the majority of dairy farmers. The thin cow at calving is in poor condition to make milk profitably, and cannot produce the rugged, healthy calf fitted to withstand the many calf ailments. Allow the cow four to ten weeks before freshening. A pound of meal a day during this dry period is worth as much as two or three pounds of meal fed after the cow has freshened. On poor pasture, feed the dry cow green feed, silage or roots and a grain ration, composed of two parts

of any two of the following meals: bran, ground oats, ground corn, ground barley, plus one part ground oil cake. To the thin cow feed 4 to 7 pounds daily! If the cow is in good flesh, give roughage as needed and 1 to 2 pounds daily of the above-mentioned grain mixture; if the cow is fat withhold the grain, but on the other hand do not sacrifice flesh or lose a thrifty condition.

Feeding at Calving.

Feeding the cow at calving requires special care, varying with the individuality of the animal. Be sure that the condition of the bowels is normal. Constipation at this time is apt to induce many troubles such as milk fever, caked udder, etc. After calving give a tepid drink containing a handful of linseed oil meal per pail of water, allow to rest quietly for twelve hours, after which give a warm bran mash, with two bran mashes on the second day after calving. Feed a limited supply—6 to 8 pounds—of clean hay, preferably clover. Draw a little milk three or four times daily for the first three days; do not milk dry until after the third day, as such a procedure

frequently brings on milk fever. On the fourth day start the dry meal ration consisting of four pounds equal parts bran and ground oats. Increase the quantity of grain and strength of the grain mixture to a full grain ration on or about the sixteenth day after calving.

Feeding the Fresh Cow.

The feeds consumed by a dairy cow in milk are utilized for two purposes, viz., the manufacture of milk and the maintenance of the body. The cow weighing 1,000 pounds requires the equivalent of 10 pounds clover hay and 10 pounds oat straw or 35 to 40 pounds of mixed pasture grass for maintenance alone. To this must be added the feed to supply energy necessary to manufacture milk. Hence it is evident that the meagre feeding of cows in milk induce little, if any, milk flow after the surplus body tissue has been used, while liberal feeding with practically the same maintenance requirements will induce heavy milk production.

It is evident that milk produced under the latter conditions will cost much less per gallon.

Rations for the Milk Cow in Stable.

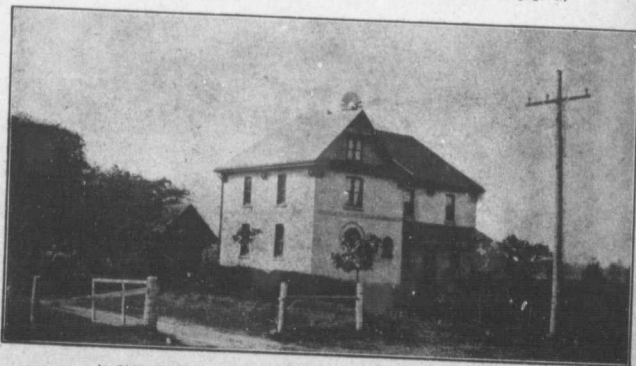
The foundation principles of the successful selection of feeds and the feeding of dairy cattle depend upon the palatability, variety, nutrition and ease of digestion, and succulence of the ration given. All these essentials of a well balanced ration for economic production must be considered when raising or purchasing foodstuffs.

The most economical ration must have as a basis cheap but rich nutritious farm grown roughages, such as clover or alfalfa hay, ensilage and roots. The liberal feeding of meals is advisable to balance the roughage ration, and in addition, to provide the heavy milking cow with an extra supply of nutrients in a less bulky form.

A pound of grain when the cow is fresh is equivalent to several pounds of grain after the cow has decreased materially in her milk flow. Feed one pound of meal for every three and a half pounds milk produced; as the lactation period progresses decrease the meal gradually to one pound for every five pounds of milk produced. A fair average is one to four. Following are a number of well-balanced daily rations for the 1,000 pound dry cow suitable to the individual needs of farmers throughout different parts of Canada.

No. 1.—Mixed hay 16 pounds, turnips or mangels 40 pounds, meal mixture composed of bran 4 parts, ground oats 2 parts, ground barley 2 parts, oil cake 1 part, cottonseed meal 1 part. This meal fed at the rate of one pound per 3½

(Continued on page 8.)



In Older Ontario the Farm Homes Reflect Permanence and Solidarity. This photo, showing the home of Wm. Bell, an extensive dairyman, was secured by an editor of Farm and Dairy near London, Ont. Homes such as this one are most numerous in the dairy sections of Eastern Canada and reflect the permanence and solidarity of the dairy industry.

Plenty of Water—Everywhere

Think what it would mean to you in the saving of time and labor to have plenty of water everywhere—in the barn—the field—the house—for the stock—the house-work—and irrigation.

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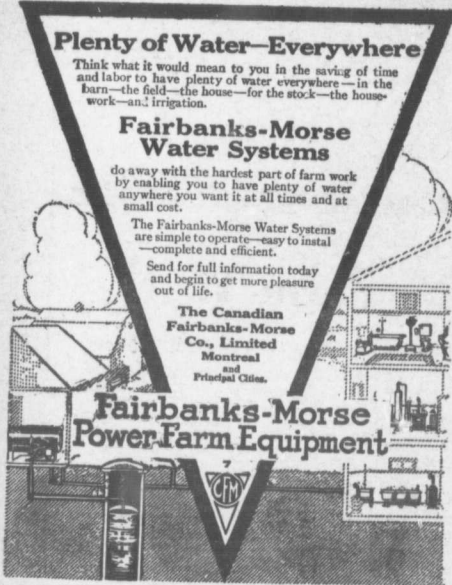
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CLEAN CULTIVATION PAYS

To keep corn free from weeds, and to keep the soil in condition to give the corn a chance to make a good crop, use an Oliver cultivator. It does first-class work, and it is besides an easy machine to handle and guide. The shovels are held to even depth and steady movement, by the rainish slant at which they are set. The machine works in hard or soft ground, sand, or clay, and cultivates always to an even depth, which is regulated by handy levers. The Oliver is a pivot frame cultivator with a patented seat bar guide, an automatic frame balance and gangs that move parallel to each other.

The parallel gang movement is a great feature. It keeps the shovels square with the soil so that all the ground is cultivated to the full width of the gangs as they are moved from side to side. It makes it easy for the operator to dodge irregular hills without damaging them.

Oliver cultivators are made in two styles. The No. 1 is for rows 30 inches apart or wider, the No. 4 can be set to cultivate rows as narrow as 24 inches. Special attachments for cultivating other crops and for cutting thistles will be furnished on order.

International Harvester Company of Canada, Limited

BRANCH HOUSES

WEST—Brandon, Man.; Calgary, Alta.; Edmonton, Alta.;
Saskatoon, Sask.; Lethbridge, Alta.; N. Battleford,
Sask.; Regina, Sask.; Saskatoon, Sask.; Winnipeg,
Man.; Toronto, Ont.
EAST—Hamilton, Ont.; London, Ont.; Montreal, Que.;
Ottawa, Ont.; Quebec, Que.; St. John, N. B.

Oil Gas Farm Tractor Its Advantages, etc.

(Continued from page 3.)

and labor required when plowing lands of different qualities of soil or which possess different physical conditions. Farmers, however, have been content to recognize that a certain quality of land is hard to plow, whilst another quality is easily plowed. The employment of oil and gas tractors has compelled a more particular study of this most important question, and certain data has been formulated. This data may not only be of practical use to farmers, but may become of great educational value. When plowing, the power required is governed by the following factors: Physical condition of the soil; width of cut taken; depth of cut taken; speed at which plow operates; whether ground plowed is level or otherwise. The influence of the physical condition of the soil is well indicated by the following table:

Draft per square inch of Cross Section of Furrow.

Sandy soil and corn stubble 3 lbs.
Wheat stubble 4 lbs.
Grass sod 6 lbs.
Clover sod 7 lbs.
Clay sod 8 lbs.

This shows that all other conditions being the same, it takes twice the power to plow grass sod as it does clover sod, and twice the power to plow clay sod as it does wheat stubble,

Number of 14 Inch Bottoms.

Kind of soil.	Draft per sq. inch	4" cut.	5" cut.	6" cut.	7" cut.	8" cut.
Corn stubble	3	168	210	252	294	336
Wheat stubble	4	224	280	336	392	448
Grass sod	6	336	420	504	588	672
Clover sod	7	392	490	588	686	784
Clay sod	8	448	560	672	784	896

which takes 33 1/3 per cent. more to plow than corn stubble.

The cross section of furrow is governed by the width and depth of the cut, and is ascertained by multiplying the width of the bottom by the depth of the cut. In old days it was usual to use an eight-inch bottom and to plow four inches deep. The section, therefore, would be 8 x 4, which equals 32 square inches. A 14-inch bottom, plowing eight inches deep, would be 112 square inches, requiring over three times the power called for by old-time plowing. It is easily understood how, when farmers had to plow a hard field, such a field was almost certain to be plowed shallow. The width of the bottom in the past with horse traction was largely governed by the strength of the horses available. If the quality of plowing was the governing factor, the width of the bottom used would be reduced to that at which the team could plow the desired depth upon the most difficult soil and conditions. Thus the horses might be overworked when operating under arduous conditions, and yet very much underworked when operating under more favorable conditions, and this even when some judgment was used as to the speed at which the plow would be operated under the more favorable conditions.

Depth of Plowing.

By tractor plowing—when well understood and arranged, it is possible to plow eight inches or more deep and yet when the plowing is completed, to leave the sod and the manure not more than four inches below the surface of the ground. The sod and manure may be caused to be like mud, lying between two thicknesses of bread in a sandwich, with a three or four-inch thickness of plowed earth above and also below. With tractor plowing, the power required is available, the extra power per bottom required being provided by decreasing the number of bottoms used. Each farmer must of necessity determine for himself the depth of cut his land will stand. The following tables will enable him to

calculate the cost of each operation: Draft Pull of Different Sizes of Tractors.

8-16 tractor	1,440 lbs.
10-20 "	1,800 lbs.
12-25 "	2,160 lbs.
20-40 "	3,600 lbs.

Acres Plowed per Day of 10 Hours by a One-Bottom Plow Operating at Speeds Stated.

1.87 miles per hour	2.64 acres.
2.00 "	2.82 acres.
2.18 "	3.07 acres.
2.40 "	3.28 acres.

If plow has more than one bottom, multiply the acres by the number of bottoms.

The next table shows the divisions to find number of 14-inch bottoms any size of tractor can draw operating at two miles per hour on the level:

To ascertain the number of 14-inch bottoms any tractor will draw on a two mile per hour upon the level, plowing a certain depth, divide the total pounds given as the draw pull of the tractor used, as shown in first table, by the divisor given in square at intersection of "kind of ground" and "depth of cut." Example: An 8-16 tractor has a draw pull of 1,440. Clover sod plowed four inches deep gives a divisor of 392. Therefore, 1,440

Number of 14 Inch Bottoms.

Kind of soil.	Draft per sq. inch	4" cut.	5" cut.	6" cut.	7" cut.	8" cut.
Corn stubble	3	168	210	252	294	336
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Clay sod	8	448	560	672	784	896

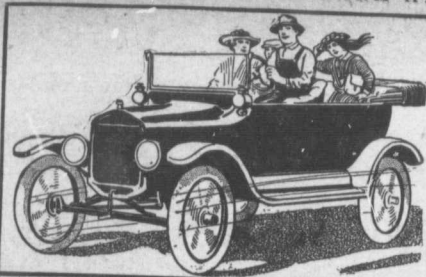
divided by 392 equals 3.67. Therefore, an 8-16 tractor will easily operate a gang of three 14-inch bottoms. For each per cent. of incline in the ground, add 10 per cent. to the divisor, so that if the ground inclines one per cent. (one foot in 100), 1,440 will be divided by 392 plus 39, or 431, giving 3.3 14-inch bottoms. With a two per cent. incline, 1,440 will be divided by 476, giving three 14-inch bottoms. But when the incline exceeds two per cent., only two 14-inch bottoms could be used.

8.46 Acres a Day.

By referring to the second table it will be seen that the 8-16 tractor will plow per day of 10 hours, drawing three 14-inch bottoms, 8.46 acres, and it should be noted that the man driving could plow these nearly eight and one-half acres for less bodily fatigue than would be experienced were he to plow two acres walking behind a walking plow. As it has been said, the farmer would have to work 12 hours to accomplish such a day's work. In the same time, working with a tractor, and with far less fatigue, he could have plowed 10 1/2 acres. Nor must it be forgotten that, whilst it requires a man of good bodily strength to follow a walking plow for a full day's plowing, it is possible for a youth or an aged man to drive a tractor.

Were the Dominion Government to place the farm tractor upon the free list, as has been asked, a farm tractor, 8-16 size, would not cost more than the present value of a four-horse team. The interest charge upon the outlay would, therefore, be the same. The depreciation charge is less easy to compare. Some farmers claim that by raising coils and by horse dealing their investment in horse flesh suffers no depreciation. This may be the case in rare instances, but certainly is not the case generally. Even in the rare instances, were the time, cost and expenses incurred taken into consideration, it is probable a very different result would be shown. It is probable that at fair rates the cost of the food consumed by a team of four horses

(Concluded on page 10.)



Save the Horses for Farm Work



HE average farmer has enough work for his horses right on the farm. He can ill spare them to pull a buggy or a phaeton. And his own time is valuable, too. With farm labor so scarce, he cannot afford to spend half a day or a day to drive a horse to town and back, when he can do it in an hour or two in a Ford.

Costs Less

A Ford car soon pays for itself in the time it saves the busy farmer, costs less to run than a horse. It doesn't eat its head off when idle.

Mr. S. M. Smith, of Holstein, Ont., says: "I can run my Ford car more miles with less expense than a horse." His experience is typical of thousands of others.

Mr. W. A. Fallin, of Vermillion, Alberta, states that he has driven his Ford more than 13,000 miles over muddy roads, prairies and fields in every kind of weather. His entire maintenance expense for three years, outside of one set of rear tires has been only \$3.35.

With the cost of running a Ford less than driving a horse, it doesn't seem good business to drive a horse to town and tire him out so that he is not fit for work on the farm the next day, now does it?

Never Tired

That's the great beauty of a Ford! It never gets tired. It whirls you to town and back, or takes the children to school, or your wife to visit a friend, 15 miles down the line, without any slowing up for breath or any urging with a whip. You

don't have to say "gid-dap" to a Ford. And as for hills, well, it scurries over them like a squirrel climbs a tree.

Easy to Drive

It is as easy to drive a Ford as to drive a horse. It is just the car for country service. Narrow roads or sharp turns do not bother it. It can turn completely around in a very little larger space than a horse and buggy. It is not afraid of a traction engine, a street car, a train or another motor car. It never "shies." It stands without hitching.

The initial cost of a Ford is small—\$495 for the touring car. If you care to sell it at the end of one year, you will find many buyers who will offer you the first price, less \$125. Consider, therefore, how much pleasure you can have in a year for \$125; how many hours of tedious travel, and how much horseflesh you can save. Don't you think it is a good "buy"?

No progressive farmer can afford not to own a Ford. The more you look into this, and think it over, the more you will realize that it is so.

The Ford

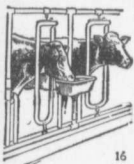
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Runabout - - \$475

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Ford Motor Company of Canada, Limited

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Toronto Stable Equipment

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THE stable fitted with TORONTO Stalls, Stanchions, Water Bowls and Litter Carriers is bright and airy—easy to keep in clean, sanitary condition—and so healthy and comfortable that the same animals will produce decidedly more milk and beef from the same amount of feed. Our Illustrated Catalogue on Stable Equipment tells all about the advantages of modern fittings. Write for it.

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The man who has one of these wonderful little 1 1/2 H.P. TORONTO Engines doesn't have to waste any time or do any worrying about his water supply. Simple, sturdy, always on the job, it's ready to start with a turn and pump away as long as you like without any fussing or bother. Connect it with the TORONTO Pump best suited to your conditions, with a TORONTO Pressure or Overhead Tank and Water Bowls, and you have an ideal water system. Write for Booklet and full information.

Ontario Wind Engine and Pump Co. Limited

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TORONTO and MONTREAL.

PEERLESS PERFECTION

The Fence For Real Protection

gives life time service. Is made of the best Open Hearted steel fence wire, all splices buried out, all the strength and toughness left in. Makes the fence elastic and springy. Will not snap or break under sudden shocks or quick starts. No sharp corners. Galvanized. Will not rust. Will not fade, peel or chip off. Prevents rust and the building up of dirt. Can be stretched over the road. Every joint is locked together with the well known "locking" bolts and covers. Guaranteed. No one else makes this kind of fence. It is the only fence that will last for many years. It is the only fence that is so strong and so easy to handle. It is the only fence that is so safe and so beautiful. It is the only fence that is so well known and so trusted everywhere. It is the only fence that is so well known and so trusted everywhere.

THE BANWELL-HOXE WIRE FENCE Co., Ltd.
Windsor, Manitoba Hamilton, Ontario

War Prices

are being quoted our Dairymen for their Dairy Products.

And with the increased demand and the higher prices you will all keep your "Milk Factories" working right up to the limit.

This, of course, doesn't necessarily mean that you, too, need be kept "on the jump" all the time.

Here's the point—Let a

B-L-K

Mechanical Milker and a Simplex Cream Separator

help you take advantage of your opportunity.

A 1,100-lb. SIMPLEX will separate your milk with less work than 500-lb. machines of other makes, and one of the many big things in favor of the B-L-K is that the dairymen can easily produce clean and Sanitary Milk in the ordinary dairy barn.

CLEAN MILK MEANS A CONSTANT DEMAND.

We'll gladly give you an estimate of just what it will cost you to put in a B-L-K Milking Machine to save you all the old-time hard work of milking your cows. Send us rough plan of your stable and tell us how many cows you want to milk.

D. Derbyshire Co., Ltd. Brockville, Ont.

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DEAL WITH
Farm & Dairy's Advertisers

FEEDERS CORNER

Conducted by E. S. Archibald.

Feeding Before Calving

THE proper time to begin feeding a dairy cow is six or eight weeks before calving, and practical dairymen agree that this preparation has more to do with the amount of milk and butter fat which a cow produces during the lactation period than does the feeding during any other period.

For cows calving during the summer or early fall most dairymen like to have a small pasture away from the herd but with an abundance of grass, and, in addition, they like to feed a suitable grain mixture. Corn silage, with clover or alfalfa hay and a limited grain ration of three parts ground oats, two parts of bran and one part of oil meal is especially good for cows calving during winter or early spring. After calving the cows should be brought slowly up to full feed and thereby steadily to a higher production.—H. H. Kildee, University Farm, St. Paul, Minn.

A Summer Grain Ration

WE will be milking twelve cows this summer. They are grade Holsteins and weigh about 1,500 lbs. each. Some of them will go over 50 lbs. of milk a day. Will you recommend a grain ration to be fed on grass with bran at \$40 a ton, and clover or higher corn at \$1.50 a bushel and other feeds in proportion? The pastures are usually fair in a good season, and we will have green sary.—P. J. Oxford Co.

Whether or not it is profitable to feed grains or meal feeds to cows on pasture depends largely on the price of the grains and the character of pasture. Many most successful dairymen find it profitable to feed a light supply of grain when cows are first put on pasture, and this grain, composed of a mixture of crushed oats and cottonseed meal, or crushed oats, crushed barley and peas. These feeds have a tendency to counterbalance the laxative character of early grass. Generally speaking, it pays the farmer to feed some meals during the whole pasture season, even though it amounts to only one pound per day, for the cows may be brought to the barns for milking with very much less labor and trouble. As the pasture season advances and pasture becomes of poorer quality, grain feeding up to five or six pounds of meal a day may be found profitable unless the green feed used for supplementing pasture is of very good quality. At the present prices of meals I would not advise feeding grain during the early pasture season. As in an average year it is likely that before the pastures become poor, meal values, particularly of such concentrates as cottonseed meal, may be materially reduced, hence grain feeding during the months of July and August may yet be profitable.—E.S.A.

Silo for Six Cows

WILL it pay to build a silo for a herd of six cows? We would like to but with our small herd we will hardly feed off one inch a day. During the cold weather this would be all right, but how about summer? It has been suggested to me that if I built the silo on the bank side of the barn when feeding would be from the bottom of the silo and being underground it would be cool, and in each a day would be sufficient. Is this right? Could I put a false roof across the silo at the ground level and keep the silage cooler, or would the heat from the ensilage defeat the purpose of the roof?—Farmer, Hamilton Co., Ont.

I would strongly advise the farmer from Halton County to erect a silo, even for such a small herd as six

cows. A silo 10 feet in diameter and 20 feet in height will contain approximately 30 tons of corn ensilage. This would be sufficient for six cows fed at the rate of 30 lbs. a day throughout the year. Building this silo on the bank side of the barn and excavating the foundation of this silo to the level of the stable floor would undoubtedly keep the ensilage cooler than summer feeding considerably cooler though the silo were all above ground levels. At the same time, other things being equal, this arrangement will be found more convenient. Whether on the bank side or not it is preferable that the silo be placed on the north exposure of the barn. It will be unnecessary to put in a false roof to keep the ensilage cool, for with this diameter of silo sufficient will be taken off each day to keep the ensilage fresh.—E.S.A.

The Feeding of Dairy Cows

(Continued from page 5.)

pounds of milk produced.

No. 2.—Clover or alfalfa hay 10 pounds, mangel or turnips 20 pounds, oat straw 10 pounds, meal mixture composed of bran five parts, ground oats two parts, linseed oil three parts, fed at the rate of one pound per three and one-half pounds of milk produced.

No. 3.—Clover hay 12 pounds, corn ensilage 30 pounds, meal mixture composed of bran seven parts, ground oats seven parts, dried brewers' grains four parts, cottonseed meal two parts, fed at the rate of one pound per three pounds of milk produced.

No. 4.—Mixed grass hay 10 pounds, oat straw or chaff 10 pounds, mangels or turnips 40 pounds, meal mixture composed of bran three parts, ground oats three parts, ground flax two parts, ground wheat two parts, fed at the rate of one pound per three pounds of milk produced.

No. 5.—Brome hay 10 pounds, clover hay five pounds, oat straw or chaff 10 pounds, mangels or turnips 30 pounds, grain mixture composed of ground oats, barley and wheat, equal parts, fed at the rate of one pound per three pounds of milk produced.

A plentiful supply of clean drinking water and salt is essential for greatest health and production.

Feeding on Pasture.

Over large areas of Canada the milk produced on grass will always be the cheapest. Hence the proper care of pasture is most essential. If cattle are allowed on the pasture only after the grass is from six to eight inches in height, such pasture will yield most feed during the summer and will be best prepared to withstand drought.

Natural pasture may be supplemented in the spring and fall by sowing a patch of fall ryegrass, or during the summer months by seeding an annual pasture mixture composed of oats and barley or a mixture of oats and clover. The most successful dairymen as a rule feed a limited grain ration even when the cows are on pasture. A grain three parts, cottonseed one part, or bran two parts, ground oats two parts, and gluten or ground peas, one part, will give excellent results.

Supplementing Pastures.

In the shortage of grass provides good soiling crops. Supplements to pasture are peas and oats seeded at different dates, second cut clover, corn and all turnips fed with tops as pull-out. Summer silage, if available, is both superior to and cheaper than peas and oats.

"I enjoy Farm and Dairy. I think it stands among the all papers. I trust that this year your business exceeds your greatest hopes."—Mahlon E. Teckstedt, R.R. No. 1, Chelsterville, Ont.

HOR

Orchard

THEE ing. It is that command ferior force of City people astic garden disease that A good garden either city or astonishing! There are wite Berry patch son did not crops will be care is given Hoana, pen should be planted to insure whole season. Cucumbers, be started in window, then off and the preferred to the of frost is past

Potato

Prof. C. A. Zav

IN normal year good sized crop from one acre. In the average at Guelph in five average annual obtained from into pieces of three parts, ground here indicated from bushels; one of half ounce, 100 ounce, 98 bush 79 bush 27 bushels. Subsequently produced diseased tubers. duced in Ont were exceptio were usually growing being at weather condition thoroughly un immature potatoe table use, but in this particular toes, the size of smaller, might good advantage. These could be as small as one and could be pl eight inches ap we to fit into the rows. They the same day Where good seed whole potatoes a quarter to one-h planted receiving moderate be an advantage small potatoes in for two or three to sprout before the usual time. For best results the 25th of May, so land. If it is land ready before the sod might be every four inch planted in about which the land, which the land immediately and the soil around conserve moisture. According to the actual of p than usual this y

A rather sandy growing potatoes, in available plant

HORTICULTURE

Orchard and Garden Notes

THE apple market is not promising. But in any year of plenty it is the well-grown, clean fruit that commands the market, while inferior fruit goes begging.

City people are becoming enthusiastic gardeners this spring. It is a disease that should prove contagious. A good garden is a valuable asset in either a city or country. And isn't it astonishing how many farm homes there are without a garden.

Berry patches planted out last season did not do well. Too dry. Fair crops will be picked, however, if good care is given this spring.

Beans, peas, radish and lettuce should be planted at successive periods to insure a supply through the whole season.

Cucumbers, squash and melons may be started in berry boxes in a sunny window, then the berry box broken off and the plants and earth transferred to the garden when all danger of frost is past.

Potato Production

Prof. C. A. Zavitz, O.A.C., Guelph, Ont.

IN normal years, it is economy to cut good sized potatoes in sets varying from one ounce to two ounces each. In the average of ten tests conducted at Guelph in five years the following average annual yields per acre were obtained from good sized potatoes cut into pieces of different weights as here indicated: two ounces, 150 bushels; one ounce, 120 bushels; one-half ounce, 109 bushels; one-quarter ounce, 98 bushels; one-eighth ounce, 79 bushels; and one-sixteenth ounce, 37 bushels. Small potatoes are frequently produced from scrubs or from diseased tubers. The potatoes produced in Ontario in 1916, however, were exceptionally free from rot and were unusually small, owing to the growth being arrested by unfavorable weather conditions. Potatoes did not thoroughly mature last autumn and immature potatoes are inferior for table use, but make excellent seed. At this particular time, therefore, potatoes, the size of hens' eggs or even smaller, might be used for seed to good advantage.

These could be cut into pieces even as small as one-quarter ounce each and could be planted in rows twenty-eight inches apart, with the pieces twelve to fifteen inches apart in the rows. They should be planted the same day that they are cut. Where good seed is unobtainable, whole potatoes not more than one-quarter to one-half ounce in size might be planted with the prospect of receiving moderate returns. It would be an advantage to spread out the small potatoes in a warm light room for two or three weeks to allow them to sprout before planting.

The usual time for planting potatoes for best results is from the 15th to the 25th of May. Potatoes do well on sod land. If it is impossible to get the land ready before the time mentioned, the sod might be plowed to a depth of about four inches and the potatoes planted in every third furrow; after which the land could be rolled immediately and then harrowed to press the soil around the potatoes and to conserve moisture.

According to present indications, the acreage of potatoes will be less than usual this year.

A rather sandy soil is preferable for growing potatoes, and it must be rich in available plant food.



Don't Worry

About the future Size of your herd

The capacity of the Standard cream separator is interchangeable. You take no chances on your future separator requirements. If later on you find that you need more cream separator capacity to take care of your larger herd, all you have to do is to replace the bowl and fittings—not the whole machine if you have the

Standard

This important, exclusive feature is certainly a money saver to dairymen and farmers. It costs a great deal less to interchange bowls with the Standard than to exchange the entire machine for a new one. Putting in the new bowl means no loss of efficiency, for the bowl is changed complete. The gearings of all Standard machines are made for 1,000 pound capacity. Think of the over-capacity advantages you have in 350 to 800 pound Standards!

All you have to do in order to change a 350 pound capacity machine into a 450, 600, 800 or 1,000 pound machine is to substitute your bowl for the different capacity bowl and attachments that you require. We accept the used bowl in exchange, less reasonable allowance for wear and tear. As you see you need not worry a minute about the size of machine you buy now.



Interchangeable Bowl. This bowl and casing lift right out—easy to replace with a larger size.

Other features of the Standard are its low supply can, splash oiling system requiring attention only every three months instead of daily oiling, and its close skimming capacity; the Standard gets all but one-tenth of a pound of cream per 1,000 pounds of milk skimmed, while other separators lose from half to a whole pound of cream. Write for free literature.



The Renfrew Machinery Co., Limited

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EASTERN OFFICE, SUSSEX, N.B.

FLEET FOOT
for Summer Wear
at Work and Play

Don't work in heavy, leather boots this summer. Wear "Fleet Foot" Shoes. They are honest and sturdy enough to stand the farm work.

Easy and comfortable—light—sensible—and so much cheaper than leather.

When you go out in the evening, wear "Fleet Foot" White Shoes. There are plenty of different styles and shapes, for every occasion, day as well as evening—and they are far less expensive than leather boots.

Next time you go to town, be sure to see the "Fleet Foot" Shoes for summer wear.



EVERYDAY



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WARNING!

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ITS popularity all over Canada has made "Paroid" a household word. Do not accept inferior grades of roofing as "the same thing as Paroid!"



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The surface is GREY. We also make it with an extra wearing surface of crushed slate, RED and GREEN—all permanent colors.

When you use the genuine Paroid, you can forget about your roof for many, many years. Paroid roofs in service now for over 19 years are still giving excellent satisfaction.

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Hardware and lumber dealers who sell Neponset products will give you good satisfaction.

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The largest manufacturers of Roofings, Wall Boards and Roofing Felts in Canada.

S.C. White Leghorn Day-Old Chicks

Order now from our well known laying strain. Pens mated to Barron cockerels. Satisfaction guaranteed. Write for our booklet re Care and Feeding of Day Old Chicks.

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HALLIDAY COMPANY, HAMILTON, CANADA

A Tool-Kit in Your Hip Pocket

That is what you have in the Hawkeye Wrench. It combines six handy tools in one, viz.: a monkey wrench, a pipe wrench, a screw driver, and three steel dies for threading or re-threading bolts, 8-16, 2-8 and 1-3 inch.

This useful little outfit, given away absolutely free to any subscriber of Farm and Dairy who sends us one—only one paid in advance subscription. Send more than one, and you will get your choice of other premiums or a cash commission if desired.

CIRCULATION DEPARTMENT, FARM AND DAIRY, PETERBORO.



Fencing in the Leghorns

WE give the growing chickens the free range of the corn field. The laying flock, however, we would like to keep within bounds, especially at this time of the year when spring grains are being seeded. We appealed to one experienced poultryman for advice, and we were told that the only way to keep Leghorns in the yard was to fence it over the top as well as at the sides. Then it occurred to us that down at Storrs, Conn., where they conducted that big egg-laying competition, with scores of pens of breeds that must have had some means of keeping the various pens separate and the Leghorns within bounds. Accordingly we wrote to Storrs, and for the benefit of Farm and Dairy readers who may be trying to solve the same problem, we publish the letter which we received from Mr. Leslie E. Card, of the Poultry Department. He writes as follows: "I am glad to reply to your letter of the 1st inst. with regard to the yarding of Leghorns. Our yards in the contest are 20 x 50 feet, one yard to each ten hens. This gives them considerable room, and they make very little trouble. The fences are six feet high, or nearly that, but the yards are not covered. When a bird persists in flying over the fence, we clip the secondary feathers of one wing. If that is not sufficient, we clip the primary also. Sometimes we reverse the process and cut the primaries only. The clipped primaries do not show when the wing is folded in a natural position. As to actual fencing methods that will hold Leghorns without clipping their wings, I am afraid we cannot help you."

"The Principles of Poultry House Construction, with General and Detailed Plans," is the title of a new bulletin issued by the Dominion Department of Agriculture. Mr. F. C. Elford, Dominion Poultry Husbandman, is the author, and in the 55 pages of which this publication consists, he has told with abundant illustrations how poultry can best be housed to make the birds good producers. The publication can be had free on application to the Publications Branch, Department of Agriculture, Ottawa.

The Oil-Gas Farm Tractor

(Continued from page 6.)

will last a year. As a horse on the average works 2,000 hours per year, we can get 35 days of eight hours, the food charge for a team of four horses per working day is \$2.40. The cost per day for oil and gasoline should not exceed \$3, so that, eliminating all charges such as interest and depreciation, the cost per working day with a team of four horses would be \$2.40, and the result would be the plowing of less than four acres, with the 8-16 tractor, the cost would be from \$3 to \$4 per day of 12 hours, depending upon cost of oil and gasoline, and the result would be the plowing of over 10 acres. In both cases the labor of one man is expended, but the labor gives a result two and one-half times as great. It must not be forgotten that land properly cultivated will yield from 50 to 100 per cent. larger crops. What reasonable defence, therefore, can the Minister of Finance make for his refusal to make Finance make for the farmer to do that which he has urged them to do, viz., increase the production of foodstuffs?

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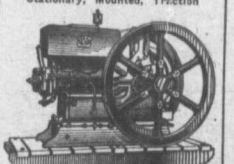
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Ways

TWO days then it thing looking feeding time silage would Some people, claim that it whereas, in the one through passed, the v to \$6. But M is often said never truly m dry," and we so much as w We have que in the barn, a liberally, but that we consi still have that anxious for as I have been used the last managed to f zone by, bef common use of maving the stalk, was and yet we see not much con already laid f acreage used p fodder crop, a cutting time th client quantity ing of a second at the season other one beco One thing im in feeding the of the silo this silage seemed corn at it will to be m m knd than for bay. The silo dairymans' best

The s Very few glan than that of ch ple do not place his work as they reason is the one being this work showing just w plished by caref ing to the plan. We have been man with us c has proven hme one for this pe of how he has i ing, let me tel done, along with of feeding, cleani men driving the go up into the their horses. T kept filled with is placed in a cor to be loaded into the stone-bod, of the field. By keepi program followe ferent implement position to be the trouble. The h and horses is alv and numerous oth count so much it making the most of

We tried a ma some posts for a hard digging, and much brain work, responsibility plac he charged \$3 for matical problem w sideration would time was worti much per hour is time worth, if h machinery all run our man has done seedling?

Wayside Gleanings

By "Burnbrae"

The Empty Silo

TWO days ago we scraped the bottom of our silo clean, and since then there seems to be something lacking around the stables at feeding time. The true value of ensilage would be hard to estimate. Some people, in ordinary seasons, claim that it is only worth \$3 a ton, whereas, in seasons of high prices like the one through which we have just passed, the value is stated at from \$5 to \$6. But it is something like what is often said regarding water, "it is never truly missed until the well goes dry," and we never miss the ensilage so much as when we have none.

We have quite a quantity of hay still in the barn, and are feeding the cows liberally, but when they have eaten all that we consider good for them, they still have that hungry look, and seem anxious for something more.

I have been wondering since we used the last of the ensilage how we managed to feed the cows in years gone by, before the silo came into common use. The old-fashioned way of saving the corn, and feeding it in the stalk, was a very poor substitute, and yet we seemed to get along without much complaint. We have plans already laid for almost double the acreage used previously in this great fodder crop, and we hope by curtailing time this year to have a sufficient quantity to warrant the building of a second silo, that can be opened at the season of the year when the other one becomes empty.

One thing impressed us very much in feeding the corn from the bottom of the silo this year: Although the ensilage seemed to be very sour, the cows ate it with a relish, and seemed to have more desire for food of this kind than for even first-class clover hay. The silo can truly be called the dairyman's best friend.

The Chore Man.

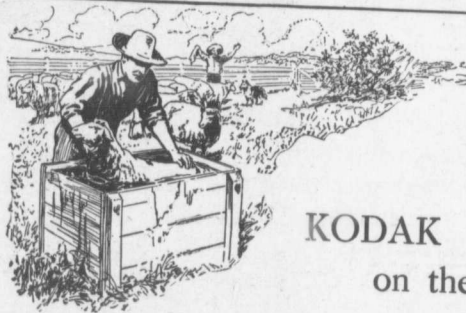
Very few chores are harder to fill than that of chore man. Most people do not place as great a value upon his work as they should. The spring season is the one when, whoever is doing this work, has an opportunity of showing just what can be accomplished by careful planning and working to the plan.

We have been privileged to have a man with us for the last month who has proven himself to be an ideal one for this position. As an example of how he has kept everything moving, let me tell of a few of the jobs done, along with the general routine of feeding, cleaning stables, etc. The men driving the teams have never to go up into the loft to get hay for their horses. The out-box is always kept filled with oats; the seed grain is placed in a convenient place, ready to be loaded into the wagon, or on the stone-board, to be taken into the field. By keeping in touch with the program followed in the field, the different implements are placed in a position to be hitched on with little trouble. The leading for the cattle, and horses is always in a handy place, and numerous other little things that could so much in rounding out and making the most of busy hours.

We hired a man for a day, to set some posts for a fence. It was not hard digging, and it did not require much brain work, nor was there much responsibility placed upon him. Yet he charged \$3 for this work. A mathematical problem worthy of some consideration would be, "if this man's time was worth \$50 an hour, how much per hour is a good chore man's time worth, if he will keep the farm machinery all running smoothly, like our man has done during the spring season?"

"BURNBRAE"

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

Land Values the Leveller

THE united farmers of Canada, in endorsing those planks in their farmers' platform that call for tariff reduction on articles of farm production, were probably actuated most largely by the conviction that they are quite capable of successfully meeting the competition of the world. Such an actuating force, speaking as it does for the sturdy independence of the Canadian farmer, is commendable. As a matter of cold economics, however, the cost of production of staple farm products varies but little in one country, as compared with another, and foreign competition is scarcely to be feared. The price of land is the great leveller that puts farmers in all countries on a parity.

The operation of this basic law is well illustrated in the results of farm surveys conducted by the United States Department of Agriculture. In that one country are found as diverse conditions of production as can very well be imagined. In the east farms that are rough and hilly are producing grain crops in competition with the wonderfully fertile prairie states of the West. And yet the labor incomes of the farmers are about the same in both cases. The equalizing factor is the price of land, the first being purchasable for \$25 an acre or less, and the latter running in many cases to \$300 an acre.

A few years ago the cheap lands and the splendid climate of the Argentine Republic were being constantly held up as a booby to the grain and beef farmers of both the United States and of Canada. The competition then threatened, if the tariff barriers were lowered, as they already have been in the United States, has not material-

ized. If land is cheap in the Argentine, it is because transportation is so difficult and expensive. If the transportation problem were to be solved, the land would increase in value to absorb to itself the seeming benefits of better transportation facilities, and Argentine farmers would be on the same competitive basis as before. In taking their stand for freer trade, our farmers are safe from destructive foreign competition—safer perhaps than they know.

What About These Titles?

ARE we to have a titled aristocracy in Canada? The question is already before the public for discussion. A few weeks ago Mr. Joseph Martin, one of the few Canadian-born members of the British House of Commons, moved that no more titles should be conferred on Canadians, stating his belief that the Canadian people do not want an hereditary aristocracy saddled on them. The same question came up for discussion in the House only last week in connection with the debate on Senate reform. Mr. German started the discussion, and member after member, who followed him, condemned the conferring of titles of a hereditary character on Canadian citizens. Practically every farm and labor organization in Canada has taken a similar stand.

The men who made Canada were not men with titles. Rather were they men who fled from aristocracy ridden countries to establish free homes for themselves in a new world where democracy could find full play and men would be valued only because of their manly worth. It is the same spirit in their descendants to-day that is leading Canadians from one ocean to the other to protest against the importation of old world distinctions into our new world democracy. Canadians as a whole view with alarm the increasing number of hereditary titles held in Canada.

The True Basis of Prosperity

WHAT is the true basis of prosperity in agriculture? The renter with a short term lease looks on his farm as a machine from which to squeeze the largest possible immediate profit. The farm owner, with the viewpoint of the true farmer, regards his farm as a precious heritage for himself and his children. He will not willingly destroy its productiveness by cropping systems that take all and return nothing. With him live stock will always be popular. A couple of days ago we were chatting along this line with a farmer who is also a drover, and has, therefore, unusual chances to observe the farms of his neighbors. In our conversation we mentioned a young man who a few years ago purchased a run-down farm in Wellington Co., Ont., and proceeded to stock it to its capacity with dairy cows. "I can see an improvement in Archie's crops every year since he has taken the farm," remarked our drover friend. "Archie" is laying the foundation for permanent prosperity, which in agriculture is always based on fertile soil; and in no way can soil fertility be increased and maintained so efficiently and profitably as with dairy cows.

The Cost of Milk Production

WHAT does it cost to produce one hundred pounds of milk? The question cannot be answered with exactitude. Extensive investigations, taking the form of a milk survey, might establish a general average which would be valuable in establishing the price of city milk, but such an average would be of little value to the individual dairyman in determining the profits from his own herd. The factors affecting production vary too greatly; and of these the most vary-

ing factor of all is the differing productions of different cows.

Results obtained in a recent investigation by the (Ohio Experiment Station illustrate the importance of good cows for an economical milk production. At that station it was found that with cows yielding 3,000 lbs. of milk a year it costs 6.2 cents to produce a quart of milk, four cents from 4,000 pound cows; 3.3 cents from 5,000 pound cows, and 3.2 cents from 6,000 pound cows. The difference in costs between the 3,000 and 6,000 pound cows was three cents, or about 48 per cent. These figures would seem to indicate that the most important step in reducing the cost of milk production, lies in improving the dairy herd. And here again we are back to the old, old question of cow testing and using only the best sires obtainable.

Why We Farm

A DAY or two ago in the barber shop we heard of a farmer friend of ours confiding to one of his brethren of the soil just how much his farm had made for him the previous year. We do not remember the exact statement, but at the time it struck us as a satisfactory showing. When the barber heard the figures, however, he looked around his little shop with new appreciation. "Why," he exclaimed, "I make as much as that here, and I don't get up at five in the morning, either. Tell me, Mr. —, why do you farm?"

The hearty laugh of the farmer was good to hear. "It's just the danged independence of the life," he said. "I am my own boss. I don't have to knuckle and bow to everyone who comes around the place, and there is no two by four limit to my workshop. In fact, I do pretty much as I please." With a whimsical smile he added, "That is, so long as I keep on the good side of the misuses."

Yes, farming has its advantages in spite of the disabilities under which we labor. After all, where is there a better place to live than out in the open country, and where is there a more independent man than the home owning farmer?

Suppose

SUPPOSE you got on a street car and hung on by the side bar with one foot dangling in the air as we often see men doing in Chicago and New York.

Suppose that when you wedged yourself in between the bodies of women and tramped on other people's feet, you saw that nearly all the other seats were vacant.

Suppose that you learned that the man who got off at the last corner was holding all the seats vacant "for a rise in value." Wouldn't you think all the people were idiots to stand it?

But when you jigged off the car you would find the people jammed together in their homes in just the same way, because most of the sites were held vacant for a rise in value by some absentees.

Then suppose someone told you that that was an evidence of prosperity and enterprise—who would be the idiot?—Bolton Hall.

In the last generation a brilliant American orator gained great fame by his lecture on "The Loet Arts." It is undoubtedly true that so many arts known to the ancients and lost in the destruction of empires have been rediscovered, that most moderns are ready to say, "There is nothing new under the sun." There have been many new adaptations of old ideas, however, until they have been quite made over. Agriculture has not fallen behind in this regard, and we should endeavor to try out every scheme that promises greater efficiency.

Farmers La

cause the law was onus of proving the no neglect rested

At a meeting of the Ontario Farmers of Ontario by three delegates was discussed an appeal to the Government in the law so as to proving that they on the railroad coast of this kind had been the late Chief Justice his death. Recently has been consolidated Act and this suggestion has been under proposed new act of farmers' request necessary for the railway, establish that the damage of neglect live stock from the road track before it claims for stock than by its trains.

One feature of the which exception was farmers' delegation which, were it enacted, men that if a transportation men's gate operated on the railroad and the farmer would have no redress company. The farmers this should be changed that farmers were responsible for damage own negligence, but the passing of others. That the railroad had been passing up and down should be able to see open leading into the closed.

On behalf of the rail claimed that farmers stely leave their gates their cattle might str tracks and then claim tramp had been responsible mischief, in reply pointed out that as far receive the full value of when killed by trains, chance that farmers who members of the railr seemed distinctly favoro gestion of the farmers man asked that the fr re-word the clause of th that would be attached This the farmers agr matter was left to be later sitting of the com

The Telephone Si

At the last convention Farmers of Ontario a passed protesting agai of the Bell Telephone making an extra charge bers of independent phone lines above its who use its long distance. This matter came up for before the railway comm House of Commons on morning of last week. Re of the Canadian Conve and of the United Far ando were present to r farmers' interests but di necessary to take part in stion, owing to the fact th the Independent Telepho were present in forceo very strong case for the lines, not only on this o other points affected by situation as it exists in C. F. D. McKay, of Torol others made a particularly for the Independent Telepho The Independent Telepho as the Ontario Railway a

Farmers Lay Their Views Before Government

(Continued from page 2.)

cause the law was so worded that the onus of proving that there had been no neglect rested on the farmer.

At a meeting of the Canadian Council of Agriculture held in Winnipeg, Farmers of Ontario were represented by three delegates, this legislation was discussed and it was decided to appeal to the Government for a change in the law so as to place the onus of proving that there had been neglect on the railroad company. Legislation of this kind had been recommended by the late Chief Justice Maybee before his death. Recently the Government has been consolidating the Railway Act and this suggested amendment has been under consideration. The proposed new act complies with the farmers' request and makes it necessary for the railway company to establish that the damage was caused by reason of neglect by the farmer to take proper precautions to keep his live stock from getting on the railroad track before it can escape paying claims for stock that may be killed by its trains.

One feature of the amended Bill to which exception was taken by the farmers' delegation was a clause which, were it enacted into law, would mean that if a tramp or other irresponsible party were to leave a farmer's gate open and let his stock get on the railroad and be killed, the farmer would have no redress against the company. The farmers asked that this should be changed. They said that farmers were willing to be responsible for damage caused by their own negligence, but not by the negligence of others. They pointed out that the railroads have section men passing up and down all the time who should be able to see that gates left open leading onto the tracks were closed.

On behalf of the railroads it was claimed that farmers might deliberately leave their gates open so that their cattle might stray onto the tracks and then claim that some tramp had been responsible for the mischief. In reply to this it was pointed out that as farmers never receive the full value of their animals when killed by trains, there was no chance that farmers would so act. The members of the railroad committee seemed distinctly favorable to the suggestion of the farmers and the chairman asked that the farmers should re-word the clause of the Act in a way that would be satisfactory to them. This the farmers agreed to do. The matter was left to be settled at a later sitting of the committee.

The Telephone Situation.

At the last convention of the United Farmers of Ontario a resolution was passed protesting against the action of the Bell Telephone Company in making an extra charge against members of independent farmers' telephone lines, above its regular rates who use its long distance connections. This matter came up for consideration before the railway committee at the House of Commons on Wednesday morning of last week. Representatives of the Canadian Council of Agriculture and of The United Farmers of Ontario were present to represent the farmers' interests but did not find it necessary to take part in the discussion, owing to the fact that officers of the Independent Telephone Association were present in force and made a very strong case for the independent lines, not only on this point, but on other points affecting the telephone situation as it exists in Ontario. Mr. F. D. McKay, of Toronto, among others made a particularly strong case for the independent telephone lines. The Independent showed that whereas the Ontario Railway and Municipal

Board has power to compel local telephone systems in Ontario to connect up with each other on terms to be adjusted by themselves and if necessary by the Board it has not the power to compel the Bell Telephone Company, which has a Dominion charter, to give connections to the Independents. While the Bell Company is giving good service to many independent lines, the Independents have no assurance that when their present agreements expire with the Bell Company will continue the agreements on equally satisfactory terms. In some cases the Bell Company refused to give the Independents any connections, and in other cases it has imposed terms that are considered onerous. The Independents asked that Parliament should give the Board of Dominion Railway Commissioners and the Ontario Railway and Municipal Board power to appoint a commission to be composed of members of their respective Boards to adjudicate all such matters and with power to enforce their rulings.

The Independents also pointed out that the present law enables the Bell Telephone Company to make a heavy charge for "compensation" when independent companies are linked up with its lines. In addition to which it makes a sur-charge for long distance connections in spite of the fact that the locals carry much business to the Bell lines and greatly increase its revenue thereby. The matter was discussed for several hours and ended by the Chairman of the Railway Committee, Mr. J. E. Armstrong, M.P., of Lambton county, asking the representative of the Bell Telephone Company and of the Independents to appoint three members each and see if they could not come to some agreement. This was done. Later, the Bell Telephone Company had consented to the suggestion to have a commission appointed as proposed by the Independents to pass upon matters in dispute between the Bell Company and the Independents and that it was being that the matter of compensation for long distance connections should be left for the Commission to deal with. The committee agreed to report to the effect to the members of the Railway Committee at a session of the Railway Committee, to be held this week. It seems likely, therefore, that these points that have been at issue for years between the Independent lines and the Bell Telephone Company will be solved in a fair way to be soon.

Grain Questions Discussed.

On Friday morning of last week members of the delegation from the western provinces had an interview with Sir George E. Foster in reference to provisions of the Grain Act and the change in conditions in the west that has been brought about through the removal of the duty on grain passing between Canada and the United States. At the time of going to press we had not heard what the result of the interview was, but will announce anything important relating to it in a later issue.

The several days spent by the committee in Ottawa showed how important it is that the farmers of Canada shall be better represented at the Capital when Parliament is in session. All manner of legislation affecting the interests of farmers is often dealt with there without any one representing the farmers' organizations being present to watch the farmers' interests. The business interests seem others made a particularly strong case for the independent telephone lines. The Independent showed that whereas the Ontario Railway and Municipal



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—Læretius.

Winning the Wilderness

(Continued from last week.)

"SIT down, madam. I'm pleased to meet you. Can it be of any service to you to-day?" he said with bluff cordiality.

"Yes, sir. I want to buy the quarter section lying southeast of us. It was the old Cloverdale Ranch once. It belongs to Champers & Co. now, the records show, and I want to get it. It was my Uncle Jim Shirley's first claim."

Darley Champers stared at the girl and said nothing.

"What do you ask for it?" Leigh inquired.

"Still the real estate dealer was silent.

"Isn't it for sale? It is all weed-grown and hasn't been cultivated for years."

The trespass in the girl's voice reached the best spot in Darley Champers' trade-hardened heart.

"Lord, yes, it's for sale!" he broke out.

A sense of relief at this sudden opportunity, combined with the intense satisfaction of getting even with Thomas Smith, overwhelmed him. Smith would rave at the sale to a Shirley, yet this sale had been demanded. Champers had written Smith's name into too many documents to need the owner's handwriting in this transaction. Smith would leave town in the evening. The whole thing was easy enough. While Leigh waited, the real humanness of which Champers so often boasted found its voice within him.

"I'll sell it for sixteen hundred dollars if I can get two hundred down to-day and the rest in cash inside of two weeks. But I must close the bargain to-day, you understand."

He had fully meant to make it seventeen hundred and fifty dollars. It was the unknown humane thing in him that cut off his own commission.

"It's worth it," he said to himself. "Won't Thomas Smith, who's got no name to sign to a piece of paper, won't he just cuss when it's all did? It's worth my little loss just to get something dead on him. The tricky thief!"

"I'll take it," Leigh said, a strange light glowing in her eyes and a firm line settling about her red lips.

Champers couldn't realize an hour later how it was all done, nor why with such a poor bargain for himself he should feel such satisfaction as he saw Leigh Shirley and Thaine Aydelot driving down the road toward Little Wolf together. Neither could he understand why the perfume of white lilac blossoms from the bush in the back yard of his office should seem so sweet this morning. He was not a flower lover. But he felt the two hundred dollars of good money in his pocket and chuckled as he forecasted the hour of Thomas Smith's discovery.

"This is a shadier road than the one I came over this morning," Leigh

said as she and Thaine followed the old trail toward Little Wolf Creek.

"It's a little nearer, too, and you'll see by casting a glimpse westward that things are doing over Grass River way," Thaine replied.

Leigh saw that a million black cloud bank was heaving above the western horizon and felt the heated air of the May afternoon.

"I don't like storms when I'm away from home," she said.

"Are you afraid, like Jo Bennington? She has the terrors over them. We were out once when she nearly bankrupted everything, she was so scared."

Thaine recalled a stormy night when Jo had clung to his arm to the danger of both of them and the frightened horse he could hardly control.

"No, I'm not afraid. I just don't like being blown away. I am glad I

happened to find you, to be blown about, too, if it's necessary," Leigh replied.

"Happened? Is a good word, Leigh. You happened on what I managed you should, else that long circus performance with Mademoiselle Rosella Gimpkello, famous bareback rider, had not been put on the sawdust this hot day."

"What are you saying, Thaine Aydelot?" Leigh asked.

"You said last night you were coming over here to-day and that after you had come you might need my advice. Me for the place where my advice is needed ever, on land or water. Rome's hand isn't fit to use yet. I knew that was a nasty glass cut, so I met her in the hall upstairs early this morning and persuaded her to come over to-day. It gave me the excuse I wanted—to get here by mere happening."

"And leave Mrs. Aydelot all the cleaning up to do. Humane son!" Leigh exclaimed.

"Oh, Jo stayed all night, and I stopped at Todd Stewart's place and persuaded him to go down to help mother and Jo. It wasn't hard work to get him persuaded, either."

"Aren't you jealous of Todd?" Leigh asked, with a demure curve of her lip.

"Ought I be? He hasn't anything I want," Thaine retorted.

"No, he's a farmer. Some folks don't like farmers," Thaine said thoughtlessly. "I haven't much use for a farm myself. But Leigh, am I an unnecessary evil? I really turned 'Rory Trumpus' and 'rode a raw-boned racer' clear over here just to be ready to help you. I wish now I'd stayed home and dried the knives and forks and spoons for my mammae."

"Oh, Thaine, you are as good as—as

alfalfa hay, and I need you more to-day than I ever did in my life before."

"And I want to help you more than anything. Don't be a still cat, Leigh. Tell me what you are up to."

They had reached the steep hill beyond the Jacobs sheep range where the narrow road with what John Jacobs called "the scary little twist" wound down between high banks to a shadowy hollow leading out to the open trail to the willows along Big Wolf. At the break in the bank, opening a rough way down to the deep waters of Little Wolf, a draught of cool air swept up refreshingly against their faces. Thaine flattened the buggy top under the shade of overmen hangers trees and held the horse to the spot to enjoy the delightful coolness. They had no such eerie picture to prejudice them against the place as the picture that haunted John Jacobs' mind here.

"I've bought a ranch, Thaine; the quarter section that Uncle Jim entered in 1870," Leigh said calmly.

"Alice Leigh Shirley, are you crazy?" Thaine exclaimed.

"No, I'm sane and sane. But that's why I need your advice," Leigh answered.

"Something in the girl's appealing and perfect confidence of friendship, so that Jo Bennington's pointing demands and petty coquetry, came as a revelation and a sense of loss to Thaine. For he loved Jo. He was sure of that, cock-sure."

"It's this way," Leigh went on. "You know how Uncle Jim lost everything in the boom except his honor. He's helped everybody who needed help, and everybody likes him, I guess."

"I never knew anybody who didn't," Thaine agreed.

"So many things, I needn't name them all, but had crops, bad faith on the part of others, bad luck and bad judgment and bad health, for all his size, have helped till he is ready to go hopeless, and Uncle Jim's only fifty-one. It's no time to quit till you're eighty, in such a good old state as Kansas," Leigh asserted. "Only, big as he is, he's not a real strong man, and crumples down, where small nervous men stand up."

"Well, lady landlord, how can I advise you? You are past advising. You have already bought," Thaine said.

"You can tell me how to pay for the ranch," Leigh declared calmly. "I bought of Darley Champers for sixteen hundred dollars. I paid two hundred down just now. I've been saving it two years; since I left the high school at Careyville. Butter and eggs and chickens and some other things."

She hesitated, and a dainty pink tint swept her cheek.

"Why should a girl be so delicately fair with the bloom of summer on her cheeks and with little rings curling in baby-gold hair about her temples and at her neck, and with such red lips sweet to kiss, and then put about herself a faint inhibitory something that should make the young man beside her blush that he would even think of being so rude as to try to kiss her?"

"And you paid how much?" Thaine asked gravely.

"Two hundred dollars. I want to borrow fourteen hundred more and get it clear away from Darley Champers. I'm sure with a ranch again, Uncle Jim will be able to win out," Leigh insisted.

"What's on it now?" Thaine asked.

"Just weeds and a million snowflakes. Enough to send Prince Quigley such a message he'd have to write back a real love letter to me," Leigh replied.

"Leishie, you can't do it. You might pay interest maybe, year in and year out, the gnawing, wearing interest. That's all you'd do even with."

(Continued on page 17.)



Youthful Devotees of the Piscatorial Art.

The Up

The Fall

WELL, as the dwelling place sinned, and will shall they be by their God.—Ezekiel. For years I have been in the Bowery Mission but not until I was one of the meeting conception of the work accomplished.

One evening, lady city missionary through China TV stopped to say there were so many that we had to go middle of the street, the sidewalk door opened in which tumbled out a gro fighting, cursing men our centre and kept in, and soon were lean, sneaking, shoe came creeping out of garbage.

But most haunting memory of the young girls, sitting there, of midnight.

Earlier in the day I realization of a real door opened in which ordinary wall, through alley was seen, and out a poorly-dressed foreigner, and soon were in the court. It was no good sized room, store rising on all four sides was alive with lines of men, not a single woman. In one corner of about seven, chopping a hammer. In another, a lot down at arms. There was another child, a piping with an axe. The only way of obtaining light for the people, I conjecture, must be by

It was for those such surroundings and there and in China TV services are held, every midnight, by those who Christ and His Gospel to —I. H. N.

AMUSEMENT

Conducted by MARION

Playing the Old-F Games

A LL serious minded feeling that this work rather than such a feeling is well view of the seriousness and the necessity effort in every direction, however, to bear in mind laws of nature are not even when the nations are at war. In war-time of peace, all work and are it affect the mind as the day follows the night.

There is a homely of which says: "You can't hide of sadness from prevention, but you can prevent stopping to build your hair." As a people we cheerful. There is plenty work to be done, including the farms and in the badens, and some of our must be sacrificed. But young people must try to without their accustomed be a mistake.

The Upward Look

The Father of All

I WILL save them out of all their dwelling places, wherein they have sinned, and will cleanse them: so shall they be my hope, and I will be their God.—Ezekiel: 37:23.

For years I have had a deep interest in the Bowery Missions in New York, but not until I was there and attended one of the meetings did I have any conception of the work that was being accomplished.

One evening, about ten, a young lady city missionary took me down through China Town, where we stopped at one particular mission. There were so many drunken men that we had to walk in the very middle of the street. Once we attempted the sidewalk, but suddenly a door opened beside us from which tumbled out a group of drunks, who, fighting, cursing men. We rushed to our centre and kept it. One of the nightmarish memories of the oata, lean, sneaking, sleetly ones, that came creeping out to the great piles of garbage.

But most haunting of all is the memory of the young women and girls, sitting there, on those steps at midnight.

Earlier in the day I had had my first realization of a real slum court. A door opened in what seemed an ordinary wall, through which a long alley was seen, and out of which issued a poorly-dressed foreigner. We went in, and soon were in the centre of the court. It was no larger than a good sized room, storey after storey, rising on all four sides. The space was alive with lines of tattered garments, not a single white one among them. In one corner was a small boy of about seven, chopping wood with a hammer. In another, where steps led down to an arched below ground, was another child, a little girl, chopping with an axe. That space was the only way of obtaining air and light for the people, one could but conjecture, for those who lived under such surroundings and conditions, as were in and China Town, that those services are held, every night, until midnight, by those who long to bring Christ and His Gospel to these people.—I. H. N.

AMUSEMENTS

Conducted by MARION DALLAS

Playing the Old-Fashioned Games

ALL serious minded people have a feeling that this is a time for work rather than play—and such a feeling is well warranted, in view of the seriousness of the situation and the necessity for patriotic effort in every direction. It is well, however, to bear in mind, that the laws of nature are not suspended, even when the nations of the world are at war. In war-time as in times of peace, all work and worry, will as surely affect the mind and nerves, as the day follows the night.

There is a homely old proverb which says: "You can't prevent the birds of sadness from flying over your head, but you can prevent them from stopping to build their nests in your hair." As a people we must keep cheerful. There is plenty of patriotic work to be done, including work on the farms and in the backyard gardens, and some of our leisure time must be sacrificed. But to say that young people must try to get along with their accustomed play, would be a mistake.

Play aids young and old in many ways. Never can men or women who would achieve real success, afford to dispense with play. The more our young people resort to play as a help in the performance of duty, patriotic or otherwise, the better will their tasks be performed.

Novelty Race.

There is an amusing game, the novelty race, which goes very well with music. Boys and girls alternate in stand behind one another, with hands placed on the shoulders of the player ahead. Then caps are made of their handkerchiefs, knotting the four ends. A tiny bell attached to a ribbon badge and fastened on with a small safety pin is given to each player.

A leader walks ahead of the line carefully. First of all he must walk very slowly, then a little faster, then run, and finally a full gallop. If there is music, the players should follow the time of the playing; if without, they must watch the leader. At the word "Start" or a sudden crash of the music, all stop instantly. Then at a signal from the leader each boy takes the girl ahead as his partner, or taking arms, they trip back to the starting point, which finishes the first round. The ringing of the tiny bells and the fluttering of the white caps will be lots of fun. Every one must try to keep the caps on. Those losing them in the race are "out."

Silent Church.

Perhaps of all games this is the best, to break the ice at a party, especially if there are a few strangers among the crowd. The game is played in pantomime, there being some chosen as ushers, some as choir members, the leader and a minister—the rest being members of the congregation. When everything is ready the congregation begins to go into the church, the ushers silently showing persons to their seats, doing it in as funny a manner as they can without laughing. The choir renders an anthem, going through all sorts of contortions to do so, and then the minister gives an address. As soon as anyone laughs an usher takes him out; and few there will be who remain in the church throughout the whole service. One is often surprised to see how full of fun some of the quiet ones are, and what things they can do to incite laughter while remaining sober themselves.

Aunt Eliza's Lost Her Hatchet. For this nonsense game, the more the merrier. It takes at least six or eight to get much fun out of it.

Seat the company in a row or a circle about the room and the first player at the end of the row remarks to his nearest neighbor "Aunt Eliza's lost her hatchet." The neighbor in feligned surprise asks "Her hatchet?" "Her hatchet" again repeats the first player.

The second player then turns to the next in line and announces that Aunt Eliza has lost her hatchet and the neighbor asks "her hatchet?" he in turn repeats the question to the first and so on, and then the answer goes back "her hatchet," till it reaches the last questioner. The surprise and wonder that the players manage to get into their voices as they ask and answer the question and receive the answer also makes it so amusing, and what makes it so amusing, is the making of Canada flag.

This is a patriotic little play which is most interesting and instructive, and is distinctly Canadian. For any of our readers who are preparing a concert for Dominion Day—this is just a suggestion.

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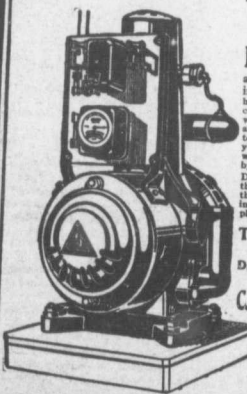
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HOME CLUB

"Tam O'Shanter" Pays Us a Visit

WE are privileged in having in our Club, members of a poetic turn. Not long ago a poem appeared in the Home Club by "May Bairs," entitled "An Heritage from God." Fortune has again favored us and below appears a splendid poem on "My Mither" from one of our Scotch Home Clubs. This poem was written on Mothers' Day, the second Sunday in May, and expresses fittingly the sentiment which is predominant in many hearts on that day. We hope "Tam O'Shanter" will drop into our Home Club meetings frequently and "bide a wee."

Wha was it when I was a bairnie wee,
Wad greet in my sorrow and lauch in my glee,
Sae patient, sae tender, sae loving taem me?

—My Mither

Wha was it when I was a laddie at schule
Wad help me my wee bits o' trokes
tae fulfil,
Taught me the lo'e virtue and aye taeshun ill?

—My Mither

Frien's they hae come and frien's they hae gaen,
And sunn they've forgotten and left me alane;
But the luve that through life and through daith's aye the same,
—Is Mither's.

O! there's nae luve on earth unto mortals that's given,
That sheds on life's pathway sae much o' heaven,
Sae leal and sae true when at' else is riven,
—Like Mither's.

And when by His grace ayont the bricht sun,
The race is here feenished, the victory won,
Not mine be the mead of the Maister's "Weed Done,"
—But Mither's.
—"Tam O'Shanter."

A Patriotic Garden

CAN you find a small corner in the Home Club for a new member? For a long time I have been on the outside looking in, but being struck with what I consider a good idea, I have decided to pass it on. During the winter months, we spent much of our spare time knitting for the soldier boys. Now that spring has come, who doesn't wish to spend every sunny minute out of doors? Perhaps we can be patriotic too. In planning my garden plot I've decided to have a "Red Cross Patch." In it I shall plant vegetables or fruits especially marketed at a good price, the total proceeds to be devoted to patriotic purposes. I wonder how many of our Home Club girls can find space and time for a Red Cross patch in the garden; and what about a corner in the boys' potato plot?—"Smiler."

Sometimes our clothes become badly spattered with mud and we find that they will not vanish with washing. If there is a large mud stain on the clothes, wash first in cold water, then soak for five minutes or so in an oxalic acid solution. Oxalic acid is very useful for taking fruit stains out of table linen and will also remove fruit stain from the hands.

Winning the Wilderness

(Continued from page 14.)

your hens and butter. Don't undertake the burden."

"I've already done it," Leigh declared.

"Throw it up. You can't make it," Thaine urged.

"I know I can," Leigh maintained stoutly.

"You can't."

"I can."

"How?" Thaine queried hopelessly.

"If I can get the loan—"

"Which you can't."

"Any man on Grass River broke in the same, if you don't want to believe the word of a nineteen-year-old boy."

"Thaine, I must do something. Even our home is mortgaged. Everything is slipping out from under us. You don't know what that means."

"My father and mother knew it over and over." Thaine's face was full of sympathy.

"And they won out. I'm not so foolish after all. When they came out here, they took us the prairie as Nature had left them, grass-covered and waiting. I'm taking them as the boom has left them, weed covered and waiting. I'll earn the interest myself and make the land pay the principal and I know exactly how to do it, too."

"Tell me how," Thaine demanded.

"It's no dream. I got the idea out of a Coburn book last winter," Leigh replied.

"You mean the State Agricultural Report of Secretary Coburn? Funny place to hunt for inspiration; queer gospel, I'd say," Thaine declared.

"Why didn't you go to the census report of 1890, or Radway's Ready Relief Almanac, or the Unabridged Dictionary?"

"All right, you despiser of small things. It was just an agricultural report full of tables and statistics and comparative values and things that I happened on one day when things were looking blackest, and right in the middle I found a page that Foster Dwight Coburn must have put in just for me, I guess. There was a little sketch of an alfalfa plant with its long good roots, and just one paragraph beside it with the title, 'The Silent Subsoiler.'"

"That sounds well," Thaine observed. He was listening eagerly in spite of his joking, and his mind was alert to the girl's project.

"Mr. Coburn said," Leigh went on, "that there are some silent subsoilers that do their work with ease and as effectually as any plow ever hitched, and the great one of these is alfalfa; that it is a reservoir of wealth that takes away the fear of protest and overdraft."

"Well, and what if Coburn is right?" Thaine queried.

"Listen, now. I planned how I'd get back that old claim of Uncle Jim's; how I'd pay some money down and borrow the rest, and begin seeding it to alfalfa. Then I'll churn and feed chickens and make little sketches of water lilies, maybe, and pay the interest and let the alfalfa pay off the principal. I haven't any father or mother, Thaine; Uncle Jim is all I have. He hasn't always been successful in business ventures, but he's always been honest. He has nothing to blush for, nothing to keep hidden. I know we'll win now, for that writing of Foster Dwight Coburn's is true. Don't try to discourage me, Thaine."

She looked up with shining eyes. "You are a silent little subsoiler yourself, Leigh, doing your work effectually. Of course you'll win, you brave girl. I wish it was a different kind of work, though."

A low peal of thunder rolled up from the darkening horizon, and the

(Continued on page 20.)

The Uncertainty of Life

"Die we certainly must and that, too, without being certain whether it may not be on this very day."—CURBORN.

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Farm and Dairy patterns shown in these columns are especially prepared for Our Women Folk. They can be relied upon to be the latest models and include the most modern features of the paper pattern. When sending your order please be careful to state bust or waist measure for adults, age for children, and the number of the pattern described. Orders are filled within one week to 10 days after receipt of all papers sent to Our Women Folk, 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



THESE are three striking characteristics about the spring and summer costumes this year, which might briefly be stated as color, pockets and embroidery. The colors are most dazzling and more extreme than ever; pockets are not strictly up to the minute unless they are quite large and the embroidery work should show a sharp contrast to the material on which it is worked.

Separate skirts show stripes, checks, and large spots of color on a plain ground, and come in various materials, such as serge, gabardine and silk. Silk skirts are especially popular and are fashioned from both plain and colored materials. Very pretty ones are shown in striped silks. Many of these are pleated or gathered or some are draped on the hips. Large pockets are shown in some fancy form on most of these. Sport coats, too, take a large place, and are a very serviceable addition to the wardrobe. The most popular shades are mustard, brown, green, and gray. Large collars and pockets are the style features most noticeable.

In taking a census of headgear, one comes to the conclusion that hats are of all sizes and shapes. Much of the trimming is flat in character and often shows the popular bead work or brilliant embroidery.

2088—One-Piece Model — One-piece dresses are still the thing in vogue, and here is a smart outfit. It is loose fitting and would be specially suited to the slender figure. The belt takes away from the appearance of long lines, and is the latest at the time of its trimming. Six sizes: 34 to 44 inches bust measure.

2073—Child's Rompers—Here is a splendid romper suit for the small boy or girl. It is a practical outfit, and will be good and convenient for summer weather. Note the short sleeves and low

neck, which look so cool and airy. Four sizes: 2, 4, 6, and 8 years.

2081—Dress for Misses and Small Women—This dress will no doubt prove popular with many of our young girls, but as it is constructed on a new plan, it shows extremely good style. The belt of the costume, the pockets, too, are used for color and cuffs, it will also be very chic. Three sizes: 14, 18 and 20 years.

2084—Girl's Dress—The little girls will soon be going off to school without their coats, and they will be wanting mother to have at least one new dress ready for them to wear. This little dress would be a very good model to follow. As will be noted, it opens right down the front, and will thus be easily laundered. Five sizes: 4, 6, 8, 10 and 12 years.

2079—Lady's House Dress—What could be more simple than this model, and yet how attractive if made from some of the light materials which are easily laundered.

2086—Girl's Dress—This little dress will prove very becoming to many a little miss. The high waist line looks well on many children, and the short sleeves and low round neck show good style. Four sizes: 2, 4, 6, and 8 years.

1629—Lady's Apron—This apron is one of the popular "Twenty-Minute" styles. We presume that it derives its name from the fact that it can be constructed in twenty minutes. There should be no danger of straps slipping on the shoulders when an apron is made from this type and construction. Three sizes: small, medium and large.

The Maker

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WOOD AND HIDE

FARMING—Why not get
best prices for your wool
by shipping direct to our
make the middleman's
my. We send cash on
as goods are received. We
paying the following pri

Wool (washed) 55
Wool (unwashed) 50
Sheepskins \$2.50 to
Beeskins (cured) 20
Catkins (cured) 20
Tallow (rendered) 12
Horsehair combings 37
70-DAY 10

No shipment is made
large and

John Hall

111 Front St. East, T.

The Makers' Corner

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

New Dairy Commissioner

THE position of Dairy Commissioner for the Province of Manitoba has been filled by the promotion of Mr. L. A. Gibson to occupy that place. Mr. Gibson has been for 14 years in the Canadian West, and previous to that was a factory manager in Eastern Canada for 16 years. Mr. Gibson knows every butter factory in Manitoba, through his connection with the Manitoba Dairy-men's Association, of which he was secretary. He also acted as creamery inspector in the province.

Mr. John A. McDonald is severing his long connection with the dairy branch of Saskatchewan to join the Manitoba dairy branch. He is a factory instructor and inspector of many years' experience, and is fully conversant with the Western system of cream and butter grading.

The Cheese Situation

THE Secretary of the Brockville Cheese Board is in receipt of a letter from Prof. Ruddick, Dominion Dairy Commissioner, which clears up a lot of misapprehension in connection with the appointment of the Commission to fix a price for the output aspect of the Canadian cheese which will be purchased in its entirety by the Imperial Government. It is stated that the buyers have reached a conclusion that 2 1/2 cents might be the basis for the season of 1917, but such a figure, it is thought, will not be acceptable to the producers who are looking for fully five cents more per pound. Prof. Ruddick, who is a member of the Commission, says the whole matter is still in the air and nothing can be done until further instructions are received from the Imperial Government. There have been so many rumors and so much misinformation on the subject that Prof. Ruddick deems it advisable to make a statement regarding the proposal as follows:

"The matter was first discussed last October, when it was pointed out that the proper time to make such arrangements was between the first of January and the end of February, during which period the cheese trade in Canada was less active than at any time during the year.

"Nothing was heard of the matter until recently, when it was proposed that the British Board of Trade should

purchase the entire exportable surplus of Canadian cheese for the season 1917, and it was suggested at the same time that a representative of the Canadian cheese trade and some one to represent the Canadian Government should act on a commission with the representative of the British Board of Trade to carry out the details of the purchase and shipment. If the arrangement goes through it is proposed that the cheese should be handled through the usual channels, purchased at a price agreed upon and that the business will be conducted along the regular lines. Persons or firms now in the trade will be able to carry on business as they do at present. The plan offers one very important advantage in that the Admiralty would become responsible for the overseas shipment of the cheese and whether the cheese were shipped regularly or not the producers would receive their money. In the face of the existing very serious shipping situation that is no important consideration.

No Prices Fixed.

"Many statements have been made as to the price which it is proposed to fix. All that is pure guess work, because no price or prices have been considered as yet. It is needless to say any price or prices must be fair and reasonable for both parties concerned. There is no reason why those interested in the manufacture of cheese should have any misgivings over this matter. The proposal so far as it has gone is decidedly in the interests of the cheese industry of this country, because it deals with the shipping difficulty, and that is an aspect of the situation which is far more serious than is generally realized. Until such time as the Commission has received further instructions, it has no advice to give, and buyers and salesmen must act according to their own judgment as to whether they should do business or not."

CHEESE MAKING IN MANITOBA.

IT seems certain that the growth in Manitoba cheese making, which has been so marked since the beginning of the war, will be even more pronounced this year than last. Four entirely new factories are opening at St. Claude, one at Fisher Branch, and one at Fannyville. In addition, the factory at St. Anne, which has been closed, will again be brought into operation, and the new factory at Haywood, which got into operation only at the close of last season, will put in a full season this term. In all, 26 factories will operate this year. Already some of this year's make of cheese has sold at 25 1/2 cents at the factory. This is an unprecedentedly high price at this time of year.

Mr. J. Villeneuve, of the Dairy Department of the Agricultural College, who is spending almost all his time in government inspection and supervision of the cheese factories, reports that he finds the cows of the cheese districts in much better condition than one year ago.

One fact that will help to swell the season's make is the early opening of the factories. About one-half of them began work about April 1st, and the others followed during the weeks since then.

This year the effort is general to make an earlier ripening cheese. Manitoba's cheese is consumed locally, and the keen demand has been for cheese to put right on the counter. A few weeks ago the Dairy Department held a largely attended conference of cheese factory managers, cheese makers and factory directors. This whole question of quick ripening cheese was covered with such good results that part of this season's make has already entered into satisfactory consumption.

"I could not have done without it this Summer, as help is so scarce"



Here is the experience of one of the scores of dairy farmers for whom the

EMPIRE Mechanical Milker

is taking the place of the farm help they can no longer get, and enabling them to keep their herds together and take advantage of the prevailing high prices.

Gentlemen—

I have used one of your "Empire Milkery" since early last April, on from 20 to 45 cows constantly, and can find no injurious effects on the cows. They seemed to like it from the first time, and I think gave rather more milk than with the best hand milking. I have sent the make a number of years to the Borden Condenser Company and have had no complaints. I have just followed the instructions for keeping it clean, and I could not have done without it this summer, as help is so scarce. I may mention nearly that length of time, I have had no previous experience with any other milkers ever used on 40 cows, and have been in the milking business for over 20 years, and have had very little trouble or expense for repairs. I have used an Italian never mixed before, with perfect satisfaction, no matter how small their tests were.

The Milker has been of more practical value to me than I ever expected.

WILLIAM COLYER.

We will be glad to send you Booklets showing exactly how the Empire Mechanical Milker works, and telling the experience which dozens of prominent dairy farmers have had with it. Address Dept. E

The Empire Cream Separator Co. of Canada, Limited,
25 MONTREAL TORONTO. WINNIPEG.

POWER FARM MACHINERY

"THE NAME THAT STANDS FOR QUALITY IN FARM MACHINERY"

The Spring Drive

Now, as never before, the call comes for increased production. This necessitates improved methods and the installation of modern labor-saving farm machinery.

LISTER BRITISH-BUILT FARM MACHINERY HAS A WORLD-WIDE REPUTATION. GOODS BUILT IN OUR FACTORIES IN ENGLAND CARRY A LIFE-LONG GUARANTEE. Our line includes:

- LISTER ENGINES—MILKERS
- FARM LIGHTING PLANTS—GRINDERS—SILOS—SILO FILLERS—SMALL THRESHERS—MELOTTE CREAM SEPARATORS.

We are also the sole representatives in Eastern Canada for AVERY FARM TRACTORS.

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TORONTO. MONTREAL

Ringo-Bone

There is no one else who had that we will not guarantee

Fleming's Spavin and Ringbone Paste
To remove the lameness and make the horse go as if he were sound. It is a sure cure for all cases of Spavin, Ringbone, Splints, and all other lamenesses. It is a sure cure for all cases of Spavin, Ringbone, Splints, and all other lamenesses. It is a sure cure for all cases of Spavin, Ringbone, Splints, and all other lamenesses.

Fleming's Vast Pocket Veterinary Adhesive
Ninety-day pages of veterinary information, with special attention to the treatment of lamenesses. Durable bound, indexed and illustrated. Makes a night beginning by sending for this book.

83 FLEMING BROS., Chemists
Toronto, Ont.

Kendall's Spavin Cure

LAME HORSES PUT BACK TO WORK QUICK

Dr. J. Kendall's Spavin Cure. It has been a great many years—has put them back to work even after they had been given up. Over 25 years of success has proved the merit of

Dr. J. Kendall's Spavin Cure
BOSTONVILLE, Ont., March 10, 1917.
I have used a good many bottles of Kendall's Spavin Cure for sprains and lameness and I do not think it has an equal, especially in stubborn cases. Kindly send me a copy of your "Spavin Cure" and a bottle of the same. I will be glad to pay for it. G. E. YOUNG.
Sold by druggists everywhere. \$2.00 a bottle, 6 bottles for \$10.00. Get a copy of "A Treatise on the Horse" from your druggist or write Dr. E. J. Kendall Company, Enosburg Falls, N. Y.

WOOL AND HIDES

PAKERS—Why not get the highest prices for your wool and hides shipping direct to us? You can make the middlemen a profit, and we will send you the same day goods are received. We are now offering the following prices—

- Wool (washed) 18 to 22c lb.
- Wool (unwashed) 15 to 18c lb.
- Sheepskins \$2.50 to \$4.00 each
- Hides (cured) 20 to 24c lb.
- Calfskins (cured) 20 to 25c lb.
- Tallow (rendered) 15 to 16c lb.
- Stearine 15 to 16c lb.
- Horsehair combings 17 to 40c lb.

SHIP TO-DAY!
No shipment is too small or too large.

John Hallam Limited
111 Front St. East, Toronto.

BOOKS Send for our Catalogue of Books Sent Free on Request.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS, FROM APR. 1 TO APR. 15, 1917.

Mature Class.
1. Princess Sagic Walker, 15093, 5y. 3m. 25d.; 65.3 lbs. fat, 24.4 lbs. fat, 30.80 lbs. butter.
2-day record: 5y. 3m. 23d.; 1378.8 lbs. milk, 52.8 lbs. fat, 35.49 lbs. butter.
W. L. Shaw Newmarket.
2. Lyndis Pictle Abbebeck, 17483, 4y. 10m. 12d.; 459.5 lbs. milk, 24.1 lbs. fat, 31.64 lbs. butter.
1-day record: 4y. 10m. 12d.; 1216.5 lbs. milk, 47.14 lbs. fat, 58.93 lbs. butter.
3-day record: 4y. 10m. 12d.; 3647.4 lbs. milk, 96.07 lbs. fat, 120.09 lbs. butter.
Allison Brown, Chateaufort.
3. Sincere Mercedes Queen, 22263, 3y. 11m. 28d.; 516.4 lbs. milk, 24.06 lbs. fat, 31.07 lbs. butter. R. W. L. Barnaby, Jefferson.
4. Lulu Pooch Ross, 16498, 7y. 3m. 20d.; 583.4 lbs. milk, 23.83 lbs. fat, 29.85 lbs. butter. G. A. McDown, Lyndebosc.
5. Hill-Crest Pontiac Sagic, 21789, 5y. 3m. 11d.; 578.8 lbs. milk, 23.17 lbs. fat, 33.34 lbs. butter. G. A. Brecken, Newwood.
6. Hill-Crest Pontiac Sagic, 23713, 5y. 3m. 2d.; 581.8 lbs. milk, 23.17 lbs. fat, 28.87 lbs. butter.
3-day record: 5y. 3m. 2d.; 2427.0 lbs. milk, 83.76 lbs. fat, 110.84 lbs. butter. G. A. Brecken.
7. Keyes Sagic Walker Pictle, 18931, 5y. 10m. 9d.; 709.6 lbs. milk, 27.18 lbs. fat, 37.73 lbs. butter.
30-day record: 5y. 10m. 24d.; 2762.8 lbs. milk, 93.83 lbs. fat, 132.43 lbs. butter. W. L. Shaw.
8. Inaugur Maid, 16809, 6y. 1m. 13d.; 754.6 lbs. milk, 25.24 lbs. fat, 36.68 lbs. butter. F. A. Inkster, Capetown.
9. Pontiac Avon Beddown, 2682, 3y. 8m. 11d.; 485.0 lbs. milk, 18.65 lbs. fat, 23.90 lbs. butter. G. A. McDown.
10. Nibor, 16596, 7y. 3m. 25d.; 452.2 lbs. milk, 11.35 lbs. fat, 21.25 lbs. butter. G. A. McDown.
11. Rose Abbecker, 15117, 6y. 10m. 20d.; 452.3 lbs. milk, 15.96 lbs. fat, 19.68 lbs. fat.
14-day record: 6y. 10m. 30d.; 831.1 lbs. milk, 29.39 lbs. fat, 37.44 lbs. butter. J. F. Hooley, Manchester.

12. Amalia Echo Pooch, 19410, 6y. 3m. 4d.; 474.8 lbs. milk, 16.65 lbs. fat, 19.56 lbs. butter. E. B. Malloy, Belleville.
13. Bella A. Pooch, 17190, 6y. 3m. 15d.; 452.2 lbs. milk, 15.96 lbs. fat, 19.46 lbs. butter. E. B. Malloy, Belleville.
14. Lady Sylvia of Bayada, 23276, 5y. 3m. 6d.; 456.4 lbs. milk, 16.41 lbs. fat, 19.37 lbs. butter. E. B. Malloy.
15. Rosey Rose, 26495, 6y. 3m. 20d.; 509.3 lbs. milk, 14.54 lbs. fat, 18.13 lbs. butter. St. M. Holby, Port Henry.
16. Keyes Walker Sagic, 18522, 14-day record: 6y. 3m. 2d.; 1262.9 lbs. milk, 52.13 lbs. fat, 66.66 lbs. butter. W. L. Shaw.
17. Zariola Clothilde 3rd DeKol, 14837, 120-day record: 6y. 10m. 12d.; 1500.9 lbs. milk, 52.81 lbs. fat, 64.23 lbs. fat.
18. Madam Joseph Pontiac, 10281, 240-day record: 6y. 9d.; 3106.4 lbs. milk, 95.79 lbs. fat, 119.29 lbs. butter. Colony Farm.
Sr. Four-Year-Class.
1. Frances Queen Onnaby, 22293, 4y. 3m. 5d.; 633.4 lbs. milk, 21.86 lbs. fat, 27.33 lbs. butter. D. Haymond, Vestrauld.
2. Pontiac Rose Queen, 23, 2y. 8m. 6d.; 497.3 lbs. milk, 18.46 lbs. fat, 26.34 lbs. butter. T. H. Dent & Son, Woodstock.
3. Franck Hengervald, 20171, 4y. 3m. 24d.; 575.0 lbs. milk, 16.39 lbs. fat, 21.23 lbs. butter.
40-day record: 4y. 3m. 24d.; 722.3 lbs. milk, 33.37 lbs. fat, 41.72 lbs. butter. Roy Nevill, Stratfordville.
4. Mervad Pictle Abbebeck, 21609, 30-day record: 6y. 11m. 28d.; 3569.2 lbs. milk, 109.06 lbs. fat, 134.89 lbs. butter.
40-day record: 4y. 11m. 28d.; 3669.2 lbs. milk, 109.04 lbs. fat, 139.20 lbs. butter.
45-day record: 4y. 11m. 28d.; 4578.4 lbs. milk, 150.86 lbs. fat, 201.06 lbs. butter. W. L. Shaw.
Sr. Three-Year-Class.
1. Hill-Crest King Pontiac Rawmerd, 20129, 3y. 8m. 4d.; 638.6 lbs. milk, 27.35 lbs. fat, 34.04 lbs. butter.
2. Hill-Crest Bay Echo Countess, 22263, 3y. 8m. 4d.; 2781.8 lbs. milk, 108.03 lbs. fat, 126.04 lbs. butter. G. A. Brecken.
3. Manor P. H. Alta, 37353, 3y. 8m. 24d.; 501.3 lbs. milk, 14.03 lbs. fat, 18.10 lbs. butter.
30-day record: 3y. 8m. 24d.; 2360.0 lbs. milk, 82.03 lbs. fat, 116.03 lbs. butter. G. A. Brecken.
3. Wilfred King Pontiac Countess, 30108, 3y. 8m. 4d.; 560.9 lbs. milk, 23.21 lbs. fat, 27.77 lbs. butter.
30-day record: 3y. 8m. 4d.; 2466.3 lbs. milk, 82.06 lbs. fat, 106.94 lbs. butter. G. A. Brecken.
4. DeKol Plus Sagic Dicie, 25787, 3y. 11m. 18d.; 631.7 lbs. milk, 21.98 lbs. fat, 27.47 lbs. butter. D. Haymond.
5. Joe Lou Clothilde, 25221, 3y. 11m. 18d.; 466.5 lbs. milk, 21.17 lbs. fat, 24.46 lbs. butter.
14-day record: 3y. 11m. 18d.; 818.3 lbs. milk, 41.35 lbs. fat, 51.69 lbs. butter. W. L. Shaw.
6. Alice Tessens's Canary, 25785, 3y. 11m. 18d.; 507.7 lbs. milk, 20.69 lbs. fat, 26.65 lbs. butter.
14-day record: 3y. 11m. 18d.; 1016.8 lbs. milk, 60.88 lbs. fat, 81.18 lbs. butter.
A. C. Hardy, Brookville.
Sr. Two-Year-Class.
1. Pictle Inka Pontiac, 10073, 2y. 6m. 6d.; 463.1 lbs. milk, 18.06 lbs. fat, 22.68 lbs. butter. A. C. Hardy.
2. Colony Lady Agricola Newman, 26526, 2y. 6m. 9d.; 462.1 lbs. milk, 17.80 lbs. milk, 22.36 lbs. butter.
30-day record: 2y. 6m. 9d.; 2373.6 lbs. milk, 72.17 lbs. fat, 91.47 lbs. butter. Colony Farm.
3. Springbank Betsy Colantha, 21340, 3y. 8m. 25d.; 422.0 lbs. milk, 15.04 lbs. fat, 16.94 lbs. butter. T. H. Dent & Son.
4. Tracie Echo Pontiac, 46009, 3y. 8m. 25d.; 396.4 lbs. milk, 13.02 lbs. fat, 16.28 lbs. butter. Geo. D. Wright.
Sr. Two-Year-Class.
1. Het Lou Wayne, 32729, 2y. 11m. 10d.; 257.5 lbs. milk, 16.70 lbs. fat, 20.83 lbs. butter.
21-day record: 2y. 11m. 10d.; 1102.3 lbs. milk, 48.93 lbs. fat, 56.62 lbs. fat.
L. Shaw.
2. Riverdale Lyons Sagic, 20828, 2y. 11m. 24d.; 483.9 lbs. milk, 18.41 lbs. fat, 19.39 lbs. butter.
14-day record: 2y. 11m. 24d.; 310.4 lbs. milk, 29.96 lbs. fat, 37.33 lbs. butter. Allison Brown.
3. Manor P. H. Alta, 37353, 3y. 8m. 24d.; 418.5 lbs. milk, 14.87 lbs. fat, 18.90 lbs. butter.
14-day record: 2y. 9m. 21d.; 748.1 lbs. milk, 28.43 lbs. fat, 36.66 lbs. butter. G. S. Gooderham, Clarkson.

4. Rose Echo Pontiac, 40906, 3y. 8m. 24d.; 368.9 lbs. milk, 12.19 lbs. fat, 14.49 lbs. butter. Geo. D. Wright, Brookville.
5. Maggie Echo, 24300, 3y. 10m. 23d.; 352.3 lbs. milk, 10.71 lbs. fat, 12.39 lbs. butter. Queen Baker, Brighton.
1. Carman Pontiac Pictle, 24728, 3y. 6m. 20d.; 257.0 lbs. milk, 13.24 lbs. fat, 23.80 lbs. butter.
14-day record: 3y. 6m. 20d.; 652.7 lbs. milk, 34.48 lbs. fat, 43.52 lbs. butter. A. C. Hardy.
2. Pictle Pauline Hengervald 2nd, 32349, 3y. 2m. 14d.; 364.1 lbs. milk, 15.76 lbs. fat, 19.49 lbs. butter.
30-day record: 2y. 2m. 14d.; 1564.0 lbs. milk, 62.70 lbs. fat, 73.38 lbs. butter. A. C. Hardy.
3. Flora DeKol Kornyde, 41737, 1y. 11m. 1d.; 342.7 lbs. milk, 15.75 lbs. fat, 19.62 lbs. butter. Carman Baker.
4. Lady Kornyde Wayne 2nd, 42342, 2y. 10m. 16d.; 423.5 lbs. milk, 14.94 lbs. fat, 18.71 lbs. butter. K. M. Dalgleish, Kenmore.
5. Pontiac Hester Pictle 2nd, 36208, 1y. 11m. 27d.; 372.5 lbs. milk, 14.89 lbs. fat, 18.52 lbs. butter.
14-day record: 1y. 11m. 27d.; 694.7 lbs. milk, 31.07 lbs. fat, 38.04 lbs. butter. K. M. Dalgleish.
6. Low Banks Queen Kornyde, 39772, 2y. 11m. 12d.; 416.5 lbs. milk, 14.37 lbs. fat, 17.96 lbs. butter. K. M. Dalgleish.
7. Low Banks Kornyde Pooch, 4146, 1y. 11m. 27d.; 409.3 lbs. milk, 15.83 lbs. fat, 16.99 lbs. butter.
14-day record: 1y. 11m. 27d.; 806.5 lbs. milk, 34.46 lbs. fat, 33.07 lbs. butter. K. M. Dalgleish.
8. Het Lou Kornyde Bloon, 26499, 2y. 3m. 16d.; 406.3 lbs. milk, 13.37 lbs. fat, 16.73 lbs. butter. W. L. Shaw.
9. Lulu Inka Hermes, 40476, 2y. 6m. 24d.; 351.7 lbs. milk, 13.30 lbs. fat, 16.63 lbs. butter. D. Haymond.
10. Riverdale Hengervald Sagic, 28170, 2y. 6m. 14d.; 248.4 lbs. milk, 12.13 lbs. fat, 16.16 lbs. butter.
14-day record: 1y. 10m. 1d.; 812.0 lbs. milk, 41.20 lbs. fat, 27.75 lbs. butter. Allison Brown.
(Continued next week.)

11. 25.83 lbs. fat, 56.66 lbs. butter. G. S. Gooderham, Clarkson.
12. 368.9 lbs. milk, 12.19 lbs. fat, 14.49 lbs. butter. Geo. D. Wright, Brookville.
13. 352.3 lbs. milk, 10.71 lbs. fat, 12.39 lbs. butter. Queen Baker, Brighton.
14. Carman Pontiac Pictle, 24728, 3y. 6m. 20d.; 257.0 lbs. milk, 13.24 lbs. fat, 23.80 lbs. butter.
15. 409.3 lbs. milk, 15.83 lbs. fat, 16.99 lbs. butter.
16. 416.5 lbs. milk, 14.37 lbs. fat, 17.96 lbs. butter. K. M. Dalgleish.
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Market

TORONTO, May 24.—The price of the greater portion of the present crop of wheat was shown to winter wheat last season of which 425,000 bushels, 4,000 in Manitoba and 42,000 in Ontario. The percentage winter killed in a total destruction of the crop. The price for the Dominion 17,000 acres, or 33 per centum as the average for this year since 1909, is the general condition of the crop. In Canada only a small portion of the present crop of wheat was shown to winter wheat last season of which 425,000 bushels, 4,000 in Manitoba and 42,000 in Ontario. The percentage winter killed in a total destruction of the crop. The price for the Dominion 17,000 acres, or 33 per centum as the average for this year since 1909, is the general condition of the crop. In Canada only a small portion of the present crop of wheat was shown to winter wheat last season of which 425,000 bushels, 4,000 in Manitoba and 42,000 in Ontario. The percentage winter killed in a total destruction of the crop. 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1917.

utter. G.

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Frankford.

2m. 25d.

11.30 lbs.

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27. 6m.

fat. 22.80

562.7 lb.

1.48 lbs.

2nd.

11.70

654.9 lb.

utter. A.

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fat. 17.

1.48 lbs.

Dalglish.

16208. 16.

fat. 17.

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utter. K.

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May 24, 1917.

FARM AND DAIRY

Market Review and Forecast

TORONTO, May 21.—The first crop report of the present season, issued down to winter wheat last fall at 42,400, 167,000 in Saskatchewan are in Ontario, 6,000 in Manitoba, and 4,500 in Alberta. Conditions in Ontario the percentage winter killed is 25 per cent, owing to the destruction through winter 157,000 acres, or 23 per cent. This proportion is the largest for some years, and than any year since 1909. Prospects for hay and clover, 1917, are better than last year, and spring seedling, late-planting a whole, has made slow progress.

During the week, wheat, coarse grains and mill feeds have all declined in price, potatoes, eggs, poultry and dairy products are firmer. Potatoes and beans are exception of both, sells lower than a few weeks ago.

WHEAT.

Heavy government buying in the past two weeks tended to shoot prices skyward, and at the height of the market wheat was well paid at 82 cents. The season long and offerings from the United States crop report, however, almost 40,000 acres more wheat at good yields, and, however, advanced in price warranted, and during the latter part of last week market fell. Cereals or more. Quotations follow:

No. 1 winter, 23.85 to 23.90, \$1.25 to \$1.82.

COARSE GRAINS.

A fair business has been done in coarse grain, principally because of lower quotations in the demand for slaughtering cattle go on pasture. Quotations here:

Ontario oats (according to freight outside), No. 2 white, 74c to 77c, nominal; corn, No. 3 yellow, \$1.63, nominal; sorghum, nominal; peas, nominal; barley, nominal; rye, 77c to 78c, nominal; American No. 2, 22.00; No. 1, 21.70; Canadian western, No. 3, 24.00; Manitoba feed, \$1.18.

MILL FEEDS.

Wheat is down 2¢ to 4¢ a ton, following even greater declines on the United States market. The period of greatest demand apparently is over. Quotations are quoted: 146¢ bran, 140¢ middlings, 143¢; Montreal quotes bran, 147¢ shorts, 142¢ middlings, 144 to 152; moultie, 152 to 157.

HAY AND STRAW.

Hay, track here, extra No. 2, \$12 to \$13; mixed, \$9 to \$11.60; straw, carlot, \$15.50 to \$9. At Montreal, hay, No. 2, carlots, \$13 to \$15.60.

POTATOES AND BEANS.

The market for potatoes holds strong, and there seems little prospect for easier

Ourville Holsteins

Get in the swim and buy a herd leader from the family that has produced the first 50-lb. cow by getting subject to embargo: FINEBINE KING MARY FAYNE.

LADLAW BROS., AYLMER, ONT.
R. R. No. 1 (Elgin Co.)

FOR SALE.

A fine young Registered Jersey bull ready for service. Choice breeding.

Hy. Glendinning & Son,
Manitowish, Ont.

VILLA VIEW OFFERS FOR SALE.

choice bull calves all sired by our \$2,000, 85 lb. ALCARTRA bull. The debutant has been greater than the supply. 60 head in the herd and only 5 left.

ALBERT BROTHERS,
Sebringville, Ont.

GET ONE OF THESE BULL CALVES.

I have for sale three well-bred Holstein bull calves, one whose dam made 225 lbs. butter as a junior four-year-old. Sire is brother of LIZZY. Another whose dam made 14.80 as junior two-year-old; Sire at one year 11 months of age; Sire PONTIAC MAY PIERREUX. Another whose dam made 170 lbs. butter. These

Write for Prices.

R. R. No. 2.

BRIGHTON, ONT.

CARMAN BAKER

prices. Ontarios are quoted at 23.25; Westerns, 24 to 24.25; Domestic, 23.50; and Cobblers, 25. At Montreal, New Brunswick Delawares, 23.25; Quebec, 24; Green Mountains, 24.25. Beans—Season, hand-picked, bushel, 16.50 to 16.75; price, 14 to 15.25; Canada, hand-picked, bushel, 17.75; prime, 17.25.

EGGS AND POULTRY.

The egg market is firmer and quotations at country points have advanced, as high as 40¢ having been paid for new-laid eggs. Lower prices are not looked for this season. From all over the country come reports of heavy marketing of recently on which all of the layers, some and where 500 chickens have been hatched, instead of the usual 4,000. This is an exceptional case, but in view of the high price of grain, the tendency seems to be to keep flocks to a minimum. Eggs are quoted to the trade here at 41c to 43c, ex-cartons, and at Montreal at 42c to 1¢ stock 43c.

Poultry, delivered in Toronto, is quoted as follows:

Chickens, milk fed 25c Live Dressed,
No. 1 23c
Hens, under 5 lbs. 23c
over 5 lbs. 23c
Roosters 25c
Ducks 18c
Spring chickens 18c to 18c

DAIRY PRODUCTS.

Dairy product markets are unsettled. The make of butter this season will be cheese market. On the condition of the were first expected, much milk that is to butter, will be diverted to the cheese price of cheese will be, all dealers are expected, as mentioned some time ago's surplus cheese in this season. Old fresh-made butter is been used up, and small quantities. The price has advanced at both Toronto and Montreal. Montreal quotes choicest creamery quotations here are:

Creamery prime, fresh made 41c to 42c
choicest dairy prints 40c to 42c
Ordinary dairy prints 38c to 40c
Bakers' 34c to 36c
In Montreal, the part of feeders to be clean out their stall-fed cattle, if there. If such a heavy runs do of June or later, when grass-fed stockers and feeders were hard to come of during the winter. Thin paid a large call for grass cows, but there was sprayers were strong. The demand for lambs was slack. Hogs were fairly on the market, and the few packers were not busy. LIVE BOTTLES SOLD AT 21.15-16c.

LIVE STOCK.

The Toronto live stock market saw the heaviest runs this season on the first few days of last week, and consequent degree. Probably the large runs were due to efforts to clean out the stalls. If there is no necessary to turn them to pasture not be expected again until the mid-summer will begin to come to market. Thin packers were strong. The demand for lambs was slack. Hogs were fairly on the market, and the few packers were not busy. LIVE BOTTLES SOLD AT 21.15-16c.

Quotations follow:

Choice heavy steers \$11.25 to \$12.00
do medium 10.50 to 11.25
Butchers' choice handy, 10 to 12 10.00 to 11.00
do good 9.50 to 10.50
do common 9.00 to 9.50
Butchers' steers, choice, 10 to 12 10.00

(Continued on page 22.)

THE FARMERS' SEEDS FIFTY-ONE YEARS

1866 1917

Good reliable seeds of all kinds are extremely scarce and the supply is very limited this season, so

DO NOT DELAY SENDING YOUR ORDER

If you would guard against being disappointed.

We pay railway freight on all orders of \$25.00 or more in Ontario and Quebec.

SEED CORN	Rack Crib	Bush.
Ontario Crown, cured	cured	O.A.C. No. 3 Oats 2.00
On Cob.	in bags or in crates, bags.	Danboney Oats 1.60
	Per Bushel.	O.A.C. No. 72 Oats \$1.16 to 1.25
Wisconsin No. 7.....	2.25 2.50	Monymaker, Delaware, 1.00
Golden Glow 2.16 2.76		Empire State, Gr. Mountain and Early Ohio 5.00
Wisconsin No. 7, shelled, 2.75		White Intermediate Car-rot 60c lb.
White Cap 2.25 2.50		Thousand Headed Kale, 22c lb.
Longfellow 3.50 3.25		Sweet Clover, White Blossom No. 18 and 22c per lb.
No. Dakota 2.25 2.76		Astoria—Montana 15.00
Compton's 3.50 3.25		Ont. Variegated No. 1 (Gal-mat No. 1) \$33.00 to \$35.00
Queers No. 18 and 19c and 22c per lb.		Lepanto's Grimm 38c lb.
Leaning Fodder, Mann- ing Southern, shelled. 2.00		North-West Grimm 75c lb.
Dunrobin and shelled 2.50		Croshaw Grass 21c lb.
Golden Glow, shelled, 2.60		O.A.C. No. 21 Barley \$1.8c bus.
Wisconsin No. 7, shelled, 2.75		Rape (Dwarf Essex) 13c lb.
Hungarian Millet 4.00		Dutch Setts 18c lb.
Siberian Millet 3.25		Hairy Vetch 8c lb.
German or Golden Millet 3.50		Alsace Sugar Cane 8c lb.
Common Millet 2.75		
Joe Burdard Millet 7c lb.		

Garden Corn: Golden Bantam, 25 bus., 25c lb.; Early White Corn, 26 bus., 25c lb.; Stowell's Evergreen, 19 bus., 25c lb. or more of any variety, 20c.

Mangels: Keith's Prinsaker, Danish Sugarstraw, Yellow Lovitman, Yellow Intermediate, Giant Half Sugar and Mammoth Look, 10 to 15 pkcs., 25c. If 15 lbs. or more of any variety, 20c.

GEO. KEITH & SONS SEEDS

124 KING ST. E. TORONTO

Co-Operation Not Competition is the Life of Business

If you have eggs and butter to sell, we will furnish crates on application, and pay express charges. Send a trial shipment to us.

As there appears to be no possibility of prices going down in the near future, but on the contrary, further advances may be looked for, we would suggest that you place your grocery order with us early. Send us a trial order; we are sure we can please you.

For feeds, flour, seeds, paints, implements, buggies, gasoline engines and fencing, we are in a position to render you good service.

We can also take care of your live stock and poultry. Patronize your own Company; it will save you money.

The United Farmers' Co-operative Co.

LIMITED

Cor. King and Francis Streets, Toronto
Telephone Main 2237. Entrance No. 2 Frances St.

AYRSHIRES

LAKESIDE AYRSHIRES

A select lot of young bulls, all sired by Auchenbray Sea Foam (Imp.) 18785 (REG), Grand Champion at both Quebec and Sherbrooke, from Record of Performance Dams. Write for catalogue.

Proprietor:
GEO. H. MONTGOMERY,
Dominion Express Bldg., Montreal.

Manager:
D. McARTHUR,
Phillipsburg, Que.

Farnbrook Ayrshires for Sale

SPRINGBANK AYRSHIRES

For sale. One choice yearling bull; a few bull calves from 3 to 4 months old, and a few choice heifer calves. All are bred to color and type, and from R.O.P. dams.

A. S. TURNER & Son, Ryckman Carvers, Ont.

Bulls from 8 to 12 months old, out of dams closely related to the two greatest Ayrshire cows in the world, Garlaugh May Mischief and Jean Armour.

COLLIER BROS., Beachville, Ont.,
Oxford Co.

FAIRMOUNT AYRSHIRES

Mature cows and young stock for sale always on hand (both sexes) from large heavy producing high testing cows, sired by Robin Hood of Fairmount, Imp. U.S.A. No. 49134, son of the famous Netherhall Robin Hood, Imp. No. 5872. Inspect herd or write for particulars.

B. J. TAYLOR

AYERS CLIFF, QUE.

HOLSTEINS

BARGAINS IN HOLSTEIN BULLS

I have several bulls, from one month old to bulls fit for service, to dispose of. Remember, these are sired by Prince Segla Walker Korndyke, whose full sister gave 23.78 lbs. butter in 7 days as a four-year-old, and with his twelve half-sisters average 4 per cent. or better. These calves are nicely marked and out of R. O. P. show cows. Remember, I guarantee satisfaction or refund money.

A. J. TAMBLYN,

ORONO, ONT.

CLOVER BARK HOLSTEINS

A choice bull calf born March 17, 1917, whose three nearest dams average 30 lbs. butter in 7 days and 10 lbs. milk a day; also a few others from R.O.M. dams.

P. SMITH,

R.R. 3,

STRATFORD, ONT.

FAIRMONT HOLSTEINS

Bull calves for sale, sired by KING SEGIS ALCARTRA CALAMITY, from tested or untested dams.

Write to-day, my prices will appeal to you.

PETER S. ARBOGAST,

R. R. No. 2,

MITCHELL, ONT.

HOLSTEINS

Could sell a 10 cows or heifers bred to the Great Bull KING SEGIS PONTIAC DUPLICATE. Have one yearling bull, and calves from 10 months down. Myrtle, G.T.H. Manchester, G.T.H.

R. M. HOLTBV,

Port Ferr, R. R. 4

Registered Holsteins

Bulls from one month to 17 months old for sale. All from our grand herd in E. Echo Segla Fayne, whose sire is half-brother to Segla Fayne Johanna, the world's wonder cow, who has just made a record of 50 lbs. in 7 days. If you need a well backed bull write at once.

JOHN M. MONTLE, Sunnyside Stock Farm

STANSTEAD, QUE.

RIVERSIDE HOLSTEINS

For Sale, Choice Young Bulls, sired by grandson of Pontiac Korndyke, and a brother of Pontiac Lady Korndyke, 35.62 butter in 7 days, 16.33 lbs. 30 days—world's record when made. Also sired to "King." J. W. RICHARDSON, CALEDONIA, ONT.

MR. HOLSTEIN BREEDER

It is customary in selecting a herd sire to choose one backed by great records. Do not forget the individual. We bred to a standard for INDIVIDUALITY and PRODUCTION, therefore choose your next sire from either Lakeside Dutchland Hesperwell 2nd, Grand Champion at the Canada-National Ex. and Western Fair, 1916, with a Can. Chan. 3-year-old average, 24.66 lbs. butter, 7 days, or by Peterite Ormsby Beauty, 3 generations over 20 lb. cows, or from King Sylvia Keres, whose 20 nearest relatives average for 7 days, 29.97 lbs. butter and whose dam and 6 sisters average 12.13 lbs. of milk per day. A.L. FAULTLESS INDIVIDUALS. Correspondence solicited.

W. G. BAILEY

Oak Park Stock Farm, R.R. No. 4, PARIS, ONT.

Postal Card Reports

Correspondence invited.

KINGS CO., P.E.I.

MONTAGUE, May 2.—Since last writing, we had a lot of cold weather. It is besides the grass and cropping but very much. About one-half of the clover had been killed. It will be June before the stock will be able to go on the grass. Feed of all kinds is very dear. Hay, 11 to 12 tons per ton; corn meal, \$2.50 per bushel; corn meal, \$1.60 cwt.; corn meal, \$1.50 cwt.; for a bushel; potatoes, \$1.50 per bushel. There will be a big shortage in the crop production on the island owing to dried help being so scarce—G.A.

CAPE BRETON, N. S.

SALMON RIVER, May 7.—Weather cold, very little seeding done yet. Plowing in progress, but no cultivating, as soil is too wet. Prices are high for all produce. Potatoes, \$1.30 a bushel; eggs, 40c; butter, 42c. Good clover and hay seed is hard to get and very high—J. H. McD.

COMPTON COUNTY, QUE.

Bury, May 2.—Last week the weather was fine and dry and good for working. Some of the wheat already sown. Stock come through the winter fairly well. Hay is selling at \$10 a ton; all grades to scarce and high, \$20 a ton; clover, 35c. The loss of very lambs was heavy, some farmers even losing all their young lambs. Cow are plentiful at \$10 a pair. The first lot of the season came April 14th, well and strong. The shortage of grain in this district will be rather small this season, as farmers neglected their fall plowing—G. W. F.

SHERBROOKE CO., QUEBEC.

LENOXVILLE, May 9.—Weather conditions are very backward in this locality, and very little seeding has been done. Potatoes are scarce and brought \$3 per bushel on market. Dealers are quite unable to supply seed wheat required, and other seeds are scarce. There is a marked increase in garden work, especially in the towns and villages, but the scarcity of farm help makes it very difficult for farmers to meet the demand for increased production—H. M.

HASTINGS COUNTY, ONT.

Tweed, May 3.—Our farmers are now in the midst of spring seeding and the seeds are being put in very good condition, although the weather has been too cold for much growth. Clover and all grains are coming out very well and with favorable weather will be a good crop. There is just now a very keen demand for young pigs—H. S. T.

GREY CO., ONT.

THORNHURST, May 11.—The farmers are quite busy this week, hauling in the seeding. We had quite a flurry of snow last week, and the air is still cold. Hogs brought \$16.30 a cwt. on Tuesday, the fall wheat to a poor looking crop. The seeders are being sown as they should, as the air is too cold to produce much growth. Potatoes are keeping very high. Potatoes are 12 a bag; eggs, 36c, and butter seems to keep firm at 36c and 36c a lb. The people are trying to produce more stuff—MRS. C. P.

HORSE HILLS, ALTA.

North Edmonton, April 28.—Spring is coming, but very slowly. We are having a very late spring here this year. No seeding done yet, as we are doing the plowing. We still have frosts at night. There are no dairy men in this district and cattle are very high. Two-year-old heifers, which have not freshened, are selling at \$100 and low grades are selling around \$120 to \$150; hogs \$15.10 a cwt. and 5c to 15c a pound; butter, 40c; eggs, 35c. Horses are high, old pigs selling at \$100 to \$140, and good sound ones at \$250 to \$350—G. S. T.

ANNUAL MEETING, HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA. The Holstein-Friesian Association of America will hold their 22nd annual meeting on the first Wednesday in June, 1917, at Worcester, Mass., in the Hazlett Hotel, at 10 o'clock P.M. The site and the nature of the transaction of any business that may legally come before them.

"Must compliment you on the big stand your paper is reaching. I find it of great value in the work and the photos of dairy cattle alone are worth five times the subscription price. Might say all photos are liked and make a good selection. Long may your paper live and prosper."—John Warner, Cayuga, Ont.



CANADA LINED OIL MEAL SIFTED

TORONTO-MONTREAL

CREAM

WE ARE OPEN TO BUY CREAM, both for churning and table use.

ASK ANY SHIPPER about our service and prompt returns.

ASK FOR PRICES. The figure for yesterday may be TOO LOW for tomorrow.

WE FURNISH CANS.

The Toronto Creamery Co., Limited
Church St., TORONTO, Ont.

WANTED

An experienced man in handling milk as an assistant in our milk bottling plant. Must be accurate in use of Babcock. Permanent position and good salary to right man. Address

ELMHURST DAIRY,
Montreal West — Que.

SHIP YOUR BUTTER & EGGS

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

THE WILLIAM DAVIES COMPANY LIMITED
Established 1854 TORONTO, ONT.

Sell Them Now

as Others are Doing

Make sale for those surplus bulls. Why keep them longer? Among our dairymen who read Farm and Dairy there are hundreds who, if they knew what you had for sale, would buy it at your own price.

Fix up an advertisement to-night, and send it to Farm and Dairy, and have it in these columns for a few weeks. It will speak to 23,000 possible buyers. Cost to you is only \$1.68 per insertion or lower by contract.

Other progressive breeders sell their stock this way. You can, too.

Try it. Make your start now while the demand is still keen.

Please mention Farm and Dairy when writing advertisers.

Market R

(Continued from

do good
do medium
Butchers' good
do good
do medium
Feeders, 700 to 800
do medium, 700 to 800
do good, 800 to 900
Stockers, 700 to 800
do medium
Grass cows, 800 to 900
do good, 800 to 900
Milkers, grass good to chiding
do com. and medium
Springers
Calves, yearling choice
do medium
do common
do grass
do heavy fat
Spring lambs, each
Sheep, yearling, choice
do common
do medium
Sheep, ewes, light
do heavy and bucks
do culls
Hogs, fat and watered,
do common
do medium
do off cars
do f-a-b country
DAIRY BOARD
St. Paul's, Que., May 23
butter sold at 40c
Woodstock, May 16
for 1,200 factory
factories wanted much milk
Hesterboro, May 16
cheese loaded; 977 sold
21 15-16; balance sold off
Hesterboro, May 17-23
and 1,568 colored offered
at 22c
Stirling, May 17-23-18
ferred; 475 sold at 22-23c
at 22c
Kingston, May 17-18-15
colored boarded; 312c bid

TWO NEW WORLD'S R

A TWO-YEAR-OLD Holstein, 43 lbs. of butter in 10 days. This is probably the national record ever made. Glen Alex. Queen, Dalkeith, Ontario, cow of any breed to make over 40 lbs. of butter

W. A. McE

DE

Herd of

at CHESTER

We believe we are the only herd ever held in Canada. IN FEMALES—Five cows with record completed an R. O. P. age.

1 16,000 lbs. cow in R. O. P. 11,000 lbs. cow in R. O. P. 11,000 lbs. 3-yr.-old cow. Then also—A 28 lbs. cow in R. O. P. 11 lbs. 1 day.

Most of our herd consist of 20,000 lb. cows. MALES—

PRINCE OF DUNDAS—A 19 months old sire with 10 best dams' combined records average 22.48 lbs. Four sires in all—4 from cows with record 20,000 lbs. milk.

Not only in performance but also individually in our sale one that any breeder in Ontario should miss. WATCH FOR FUTURE ANNOUNCEMENTS N. W. WEEK.

Our catalogue will

W. A. McE

Market Report

(Continued from page 21.)

do good	2 35	to 10 00
do medium	2 25	to 8 75
Butcher's good	1 25	to 10 75
do good	1 15	to 9 75
do medium	1 00	to 9 50
do good, 700 to 1,000	9 25	to 10 00
do medium, 700 to 800	8 25	to 9 00
Stockers, 700 to 800	6 25	to 7 75
do medium	5 25	to 6 75
Cross cows, 800	4 25	to 5 75
do medium	3 25	to 4 75
Canvases	2 25	to 3 75
Milkers, good to choice	85 00	to 125 00
do cum and medium	60 00	to 80 00
Springers	69 00	to 125 00
Calves, veal, choice	12 00	to 13 25
do medium	10 00	to 11 25
do common	6 00	to 8 50
do grass	4 00	to 7 50
do heavy fat	7 50	to 10 00
Rising lambs, each	9 00	to 12 00
Sheep, yearlings, choice	15 00	to 17 00
do common	13 50	to 14 50
do culls	9 50	to 11 50
Sheep, ewes, light	12 00	to 14 50
do heavy and butchers	9 00	to 11 00
do culls	4 00	to 7 50
Hogs, fed and watered	17 40	to 19 50
do choice	17 25	to 17 50
do common	17 25	to 17 50
do off cars	17 50	to 17 85
do job country	16 50	to 16 75

DAIRY BOARD SALES.

St. Paschal, Que., May 15—70 boxes butter sold at 48c.
 Woodstock, May 18—buyers offered 21½¢ for 1,300 lbs. colored cheese; the factories wanted much more.
 Peterboro, May 18—117 boxes of cheese boarded; 97½ sold on board at 21 15-16c; balance sold off board at same price.
 Brookville, May 17—2,336 boxes white and 1,648 colored offered; no bids; no sales.
 Striling, May 17—829 boxes were offered; 475 sold at 22 15-16c and balance at 23½c.
 Kingston, May 17—145 white and 657 colored boarded; 97½ being bid; no sales.

TWO NEW WORLD'S RECORD HOLSTEINS.

A TWO-YEAR-OLD Holstein has made 43 lbs. of butter in seven days. This is probably the most sensational record ever made in the world. Glen Alex. Queen DeKok, 275362, is the connect cow of any breed in the world to make over 40 lbs. of butter in a 7-day period.

official test. Her record of 42.26 lbs. surpasses the former champion in this class by 10.76 lbs. She is the first 40-lb. cow in the world. Her dam being daughter of a 40-lb. cow, her record being 41.26 lbs. This was made last December on the same farm, and has since been sold for \$5,000.

During the test Glen Alex. Queen DeKok ate about 22 lbs. per day of the following grain ration: 20 lbs. distillers' grain; 50 lbs. bran; 30 lbs. ground oats; 20 lbs. alfalfa; 10 lbs. oil meal; 4 lbs. salt; and 2 lbs. charcoal. A small quantity of cottonseed meal was fed in addition, daily, and for roughage this young world's champion had 70 lbs. of beta, 20 lbs. of dried pulp and a reasonable quantity of alfalfa and mixed hay. No alkali was used.

Another 40-lb. cow, three-year-old this time, is K. K. S. V. Topay, who first saw the light at Brothertown Farms, Utica, New York. Her exact record is 40.28 lbs. of butter from 563.7 lbs. of milk, testing 4.69 per cent. She was bred by King Kornnyke Saddle Vale, and out of a 3½-lb. four-year-old dam.

K. K. S. V. Topay was fitted for the test with a ration composed of oil meal, corn meal, molasses meal and bran, with an occasional variation of ground oats in place of the bran. Four supervisors were employed in making the test, during which she consumed 20 lbs. of the following ration per day: 1 lb. Continental gluten; ¼ lb. cottonseed meal; ¼ lb. oil meal; ¼ to 1 lb. bran; ¼ to 1½ lbs. yellow gluten; ¼ lb. hominy and sufficient Union Dairy ration to make a total of 5 lbs. for a feeding. She was bred and developed by a well-known and successful New York State breeder, and is the second cow in his establishment to make a record of over 40 lbs. butter in a week.

A SPLENDID ONE READY FOR SERVICE.

A SIRE of particular merit is the one being offered by Avondale Farm, at the present time. This chap is a choice son of Woodcrest Sir Clyde. At present he is just two years old, and therefore, ready for the heaviest of service. On the dam's side he is backed by splendid records, being out of Natoye Maida Pontiac, a daughter of King Pontiac Artis Canada. His dam's record at three years is 27.5 lbs. butter, and 31 lbs. milk. Her six nearest dams average 31 lbs. He therefore combines both breeding and producing ability. For those of our breeders who are looking for a fine sire of the virile mature sire, this fellow will be worth a week's consideration.

"CENTRE VIEW" FARM

offers the service of PONTIAC KING WALKER.
 His Dam—PONTIAC JESSIE—664 lbs. milk, 37.62 lbs. butter, 7 days, average test 4.63 per cent. 2827 lbs. milk, 153.46 lbs. butter 30 days, average test 4.3 per cent.
 His Sire's Dam—BROOKSIDE BEGGIS KORNDYKE (17149) C.H.B. 678 lbs. milk, 25.73 lbs. butter 7 days, average test 4.14 per cent. 2,450 lbs. milk, 119.76 lbs. butter 30 days, average test 4.04 per cent.

Terms: \$50.00 to insure a live calf.
 M. McDOWELL Woodstock Station. Oxford Centre, Ont.

Eighth Annual Live Stock Show

of the
Live Stock Breeders' Association
 of the
DISTRICT OF BEAUHARNOIS, Ltd.

Will be held at
ORMSTOWN, Que. JUNE 6, 7, 8, 1917

Come to Ormstown, Quebec on the above dates and see one of the best Live Stock Shows in Canada.
 All Horses and Cattle judged under cover in the large Stadium at 10 a.m., 2 p.m. and 8 p.m. daily.

HORSE RACING ON THE THREE DAYS OF THE SHOW.
 Admission to Grounds:
 ADULTS, 25c CHILDREN, 15c.
 Write the Secretary for Prize Lists and other information.
 NEIL SANGSTER, President. W. G. McGERRIGLE, Sec.-Treasurer.

A RARE BARGAIN

to be sold at once

SIR PONTIAC NATOYE

Born May 1915—a choice son of WOODCREST SIR CLYDE, good enough for any herd—very active and sure.
 Dam, NATOYE MAIDA PONTIAC, a daughter of KING PONTIAC ARTIS CANADA, record at 3 years 27.5 lbs. butter, 626.5 lbs. milk; 30 days, 109.9 lbs. with 2,611.9 lbs. milk. Best day's milk 96 lbs. Her dam, a 19.85 lbs. daughter of a 31.13 lb. cow, with 704 lbs. milk. Six dams average 31 lb. each.

This is a special bargain for an immediate sale.
 Write us for particulars.

AVONDALE FARM A. C. HARDY, Prop. Brockville, Ont.
 H. LYNN, Mgr.

HIGHLAND LAKE FARMS

Here sire, AVONDALE PONTIAC ECHO (under lease), a son of MAY ECHO SYLVIA, the world's record cow for milk production and Canadian of one hundred includes nearly fifty daughters of a 33.31-lb. son of the great KING BEGGIS, brother to the sire of three world's record cows—Maida, Sr. 4-yr.-old 46.84, Jr. 4-yr.-old 40.32 lbs. Junior herd sire, KING OF A 30 lbs. Regis cow. He is for sale. If this combination of breeding interests you, write for prices on either males or females.
 R. W. E. BURNABY, (Farm at Stop 55, Yonge St. Radial), Jefferson, Ont.

LAKEVIEW HOLSTEINS

Are still in the lead. The latest Holstein year book shows that they held 4 Canadian Records for butter, and Lakeview bulls have won all honors at the fall fairs, and we have decided to give \$25.00 in gold to the man that brings the 1917 winner.
 Don't miss this opportunity. Act quick, and plan to spend a day at Lakeview. Terms cash or time.
 Major E. F. OSLER, Prop. Bronte, Ont. T. A. DAWSON, Mgr.

W. A. McElroy's

GO HEAD

DISPERSION SALE

—OF HIS—

Herd of Record HOLSTEINS

at CHESTERVILLE, ONT., JUNE 14

We believe we are offering in our sale a list of animals whose records make them worthy of the first place in any sale of this kind ever held in Canada. Run over our list of record offerings herewith:

IN FEMALES—
 Five cows with records of over 20,000 lbs. in R. O. P. 1 cow just completed an R. O. P. record of more than 19,000 lbs. at 12 years of age.

1 16,000 lbs. cow in R. O. P.	3 18.5 lb. Jr. 2-yr.-olds in R. O. M.
1 16,000 lbs. 4-yr.-old, R. O. P.	1 24 lb. mature cow—record made at 11 yrs.
1 14,000 lbs. 3-yr.-old, R. O. P.	1 22 lb. mature cow—record made at 10 yrs.
Then also—	
• 28 lbs. cow in R. O. M.—101 lbs. 1 day.	

Most of our herd consists of daughters and grand-daughters of these 20,000 lb. cows.

MALES—

PRINCE OF DUNDAS (31292)
 a 10 months old sire whose four nearest dams' combined yearly records average 22,468 lbs. milk.

Four sires in all—every one from cows with records over 20,000 lbs.

Not only in performance, but also individually you will find our sale one that any breeder of Holsteins in Ontario should not miss.

WATCH FOR FURTHER ANNOUNCEMENTS N E X T WEEK.

Our catalogue will be ready May 31st. Write me for one
W. A. McELROY HILLSIDE FARM Chesterville, Ont.



THE DAIRYMAN'S SLOGAN: BREED, FEED AND WEED.

Raising the Milk and Profit Yield

Can you do it? You can. Others are doing it. John Wait, of Colborne, did it. He raised his milk yield in 5 years from 5,438 lbs. per cow to 9,954 lbs. by herd testing and business methods. "Early freshening," he says, "would often make a good dairy cow out of an apparently low producer."

Let us quote his letter further. "You cannot emphasize too much the importance of a pure-bred sire with a record—as I have found to be only too true. I have 2-year-old well-bred heifers which I expect this year will out-yield my best mature cows of 4 to 6 years ago with fully 1% more fat."

"Dairying," he adds, "is profitable if properly managed. This is the important part—for I know of several hard-working farmers whose herds are actually not paying for the feed and labor put on them."

John Wait increased his production with profit—that is, with the same equipment, stables and labor, at practically the same cost, he has doubled his milk production. This is a story of success that can be yours.

In Europe the breeding and milking stock are certainly not above normal, and are probably below. Moreover, cheese and butter being valuable and concentrated foods, will be readily shipped when more bulky foods are held owing to the submarine. The home demand for dairy products is vastly on the increase, although our herds do not show much growth. The growing demand in the cities for ice-cream and milk, and in the condensaries and milk powder plants guarantees that continued progress will be made in the dairy business.

How progress will be made

There are just four principles—Good Management, Feeding, Weeding and Breeding.

"Management" means meeting the labor and feed shortages in the proper way. Install modern milking machines—they give excellent results in herds of 20 cows or over, and cut down your labor one-half. Use wide machinery and more horsepower. Use the gang plow this fall and the double cut-away disc. Employ modern haying machinery, and thresh from the field.

"Good herd management" calls for getting rid of every cow that won't give at least 5,000 lbs. of milk a year. To fill their places keep every good individual heifer calf from a good cow. The cost of feed for a heifer up to the time she is bred should not be over \$40—you can sell her for much more than that if you don't need her yourself. But, keep no scrub dairy calves and no grade dairy bull calves—there is no money in feeding them after

twelve weeks. This, of course, does not apply to dual purpose cattle.

Carry all the dairy cattle your pasture land, your plan of crops and your labor will permit—don't go beyond it. A smaller herd of well-fed, well-cared for, heavy milkers, will give more hard cash profits than a big herd, half-fed and half-cared for.

Feeding is important—of course

You are probably too busy for selling crops this year, but if pastures become short and dry, cut some of your green oat crop and feed it. You will make more money than if you let your oats ripen, but allow the milk flow of your cattle to stop—it will not come back until after freshening. This will be especially desirable in 1917, because of the short corn crop last year.

Unless pastures are burned and no summer silage or sodding crop is available don't figure on feeding grains or meal this year—unless to very heavily producing cows, or to cows on test or for records. If you want to do so, however, try cottonseed meal, the cheapest concentrate at present prices, considering its food value. Don't feed over two lbs. One part cottonseed meal mixed with two parts bran, and green food, gives the ideal balanced ration for succulence and energy.

Grow more corn this year—the variety that suits your district best. Provide ample silo space. Even if it costs more money to build, the silo built in 1917, will pay big. Harrow your corn before it breaks through, when about two inches high, and again when five inches high. It doesn't hurt the corn, and it kills thousands of weeds.

Give your cows pure water—a cow needs ten to twenty gallons daily. Remember a can of fly spray in July and August will pay its cost many times over by increased production. Nail an old sack in the doorway—darkened stables during milking time for greater comfort and greater production. A tree or two in the pasture field will mean many dollars in July and August.

Weeding out—it must be done

Ask yourself: Are cows keeping you or are you keeping cows? You can find out only by the test, which doesn't take up much time. Weigh each cow's milk twice a day on three widely separated days in each month. Put down the results on a card. Three times a month on the same days take a sample of her milk, put it in a bottle with a preservative and have the milk tested for butter fat. Your district

representative will do the testing and make all the calculations. In this way, we'd out all the profit eaters and fill the gaps with your best heifers.

And now breeding—it is vital

A good bull is more than half the herd, but kill off that grade bull—he's robbing you. Fill his place with a good, pure-bred bull, but be sure he is good. A scrub "pure-bred" is worse than a scrub grade. He steals your money and he hides behind a pedigree. But choose a bull of the breed which predominates amongst your cows and be prepared to pay a reasonable price for a pure-bred. But be sure he comes from a family which has produced heavy milkers consistently for generations. If possible, buy a bull calf whose dam and sire, especially the dam, have qualified in the official Record of Performances. Of course, he must be a strong, healthy, vigorous individual, too.

When the pure-bred bull of good family and strong personality is mated to profit-making females, proved by test, and the progeny is properly fed, profitable production is assured. It may take time and some money, but the result is certain—the farmer is on the highway to prosperity.

If you wish immediate practical information regarding

The installation of a milking machine. The best variety of corn, ensilage or ear, for your county.

The equipment preferred for herd testing. How to make the test with little labor. How to organize a small herd testing centre in your community without cost.

Whether to feed concentrates this summer and just what to feed according to your local conditions.

How to care for the corn crop at a minimum of expense.

The latest in efficient silo construction. The families (or blood lines) of the dairy breed you favor that have been noted producers.

The cheapest way to produce clean, pure milk, according to your local conditions.

Or information upon any other practical phase of dairying which will best meet your particular requirements, write to the office of the Commissioner of Agriculture. Kindly give details regarding your local conditions and ask specific questions.



The Ontario Department of Agriculture

PARLIAMENT BUILDINGS, TORONTO

HON. WM. H. HEARST

Minister of Agriculture

G. C. CREELMAN

Commissioner of Agriculture

ONTARIO