

FARM and DAIRY & Rural Home

TORONTO, ONT.

Western Canada Number

August 16th, 1917

Comm. of Conservation
Jan. 21
Asst. Chairman

Spotted Cow in Southern Manitoba

ISSUED EACH WEEK

Address all correspondence to

ONE DOLLAR A YEAR

The RURAL PUBLISHING CO. Limited, Peterboro, Ont.

Another Progressive Year for the farmers' company

If there is a single doubt lurking in any farmer's mind about the value of cooperation, a casual reading of the history of The Grain Growers' Grain Co., Limited, for the past eleven years will dispel the last vestige of distrust.

The few figures given to the left show that this year is proving a successful one.

The company buys grain on track, or by the single load at our country elevators, or handles cars on consignment.

The Cooperative Departments are organized to give a complete service on implements, building materials, and general supplies, including:

Plows	Grain Grinders	Coal
Harrows	Sleighs	Flour
Packers	Wagons	Apples
Drills	Buggies	Twine
Cultivators	Harness	Fencing
Manure Spreaders	Cream Separators	Belting
Corn Machinery	Incubators	Oils
Hay Rakes	Stable Equipment	Washing Machines
Mowers	Lumber	Sewing Machines
Gasoline Engines	Cement	Etc., Etc.

These are supplied to farmers for cash at prices very close to manufacturers' costs.

The Livestock Department handle cattle, sheep and hogs on commission, and each Elevator Agent of the company acts as shipping agent for the farmers who wish to club together in making cooperative shipments from his district.

Cooperation, whether in Western Canada or in the East, is simply a matter of getting together—burying little differences and jealousies and coming out strongly for bigger, better things. If two horses can't pull a plow, you put on two or three more, and their combined effort gives you what you want and how you want it. With all farmers pulling for better conditions, the influence that will be brought to bear on their problems, will eventually eliminate those things which are blocking their progress. Cooperation is here to stay, so let every farmer in Canada apply its principles to his daily work and life. What the future holds for all farmers and their companies is limited only by the farmers' own grasp of the meaning of cooperation.

FIGURES TALK

Following is a condensed statement of the Company's business and gives some idea of the growth since the Company opened for business on Sept. 1st, 1916. The fiscal year runs from Sept. 1st to Aug. 31st of each year.

SHARES ALLOTTED.

1906, 1,000; 1915, 47,965; 1916, 57,605; to June 30, 1917, 67,444.

CAPITAL SUBSCRIBED.

1906, \$25,000; 1915, \$1,199,400; 1916, \$1,440,160; to June 30, 1917, over \$1,650,000.

CAPITAL PAID-UP.

1906, \$5,000; 1915, \$867,422.00; 1916, \$1,073,179.95; to June 30, 1917, over \$1,300,000.00.

PROFITS.

June 30, 1907, first profit, \$790; 1915, \$226,963.08; 1916, \$572,804.33 to June 30, 1917 (not yet arrived at).

In addition to the paid-up capital, the company has in reserves and undivided profits over \$700,000.00.

On June 30th of this year the shareholders numbered over 20,000.

The Grain Growers' Grain Co. Ltd.

Branches at
REGINA, SASK.
CALGARY, ALTA.
FORT WILLIAM, ONT.

Winnipeg-Manitoba

Agency at
NEW WESTMINSTER
British Columbia



We'll increase

Trade increase

VOL. XXXV

Its Influence

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FARM AND DAIRY



We Welcome Practical Progressive Ideas.

The Recognized Exponent of Dairying in Canada

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

VOL. XXXVI

TORONTO, ONT., AUGUST 16, 1917

No 33

The Farmers' Movement in Western Canada

Its Influence in Provincial and National Affairs—Things It has Accomplished—Reforms It Hopes to Effect—Leaders in the Movement.

THE greatest force in public life in western Canada is the farmers' movement. In Ontario, where our farmers have little to say in public affairs, although they are beginning to have more than they used to, this may seem a strong statement to make. In the west, however, things are different. Whereas in Ontario we have only about twenty farmers in the Ontario Legislature with its 112 members, there are 46 farmers in the Saskatchewan Legislature as against only thirteen men who be long to other callings. In Alberta the proportion of farmers in the Legislature is almost equally as large as in Saskatchewan, while farmers are also a most influential factor in the Manitoba Legislature.

There is a reason for this. In the west much the greater proportion of the population still lives in the open country. It is apparent to everybody, therefore, that the success of the west is dependent upon the success of the farmer, and every effort, therefore, is made to assist agriculture. In the east, where about half the population lives in the cities, and where towns and cities are to be found in every county, the importance of agriculture is more easily lost sight of, and the influence of city life more readily magnified.

But there is another reason for the success western farmers have met with in moulding and directing public affairs. It is found in the fact that for a considerable number of years they have been thoroughly organized in their provincial farmers associations and farmers' companies, and through them again in the Canadian Council of Agriculture. So powerful are these farmers' organizations, with their 50,000 members, that none of the provincial governments in the three prairie provinces would think of introducing any important legislation without first consulting leaders in the farmers' movement.

So important and powerful is the influence wielded by the farmers of the west that it is now becoming an important factor in influencing national legislation. One of the leading political parties of the day will shortly hold a convention in Winnipeg for the purpose of determining its attitude on national issues. It is practically assured that this convention will adopt most, if not all of the Farmers' National Platform as en-

H. Bronson Cowan, Editor-in-Chief of Farm and Dairy.

dorsed by the farmers' organizations a few months ago. Thus it will be seen that the farmers' movement is becoming national in its scope and influence. If other evidence is needed it is furnished by the fact that it was the support of the farmers' organizations that enabled the western provinces to be the first to adopt prohibition and

R. Motherwell, now Minister of Agriculture for Saskatchewan, and Peter Dayman, of Abernethy, for the purpose of establishing some form of farmers' organization in order that they might more effectively combat the influences which at that time were oppressing them.

Seventeen years ago western Canada was a young country in every sense of the word. During the few years previous there had commenced the first big rush of immigration to the west.

People had flocked in from many countries. Many of them lived long distances apart. Like all settlers in a new country they were so busily occupied in breaking land, putting up houses and getting started that they had not much time to devote to matters of more general interest. This condition furnished an excellent opportunity for the business interests to take advantage of them, and as might be expected they did not neglect the opportunity. Private companies controlled the elevators in which the farmers stored their grain and charged excessive prices for handling it. The railway companies in many instances demanded exorbitant rates for handling the farmers' supplies and crops. Implement dealers were willing to sell implements on time, but demanded conditions of payment which placed many farmers at their mercy. Loan companies were ready to advance money, but insisted on obtaining rates of interest, that few of the settlers could safely agree to pay. Thus it was not to be wondered at that many of the farmers in spite of the natural advantages of the country, found it impossible to make headway, although other people were making fortunes out of the wealth they created.

At this first farmers' meeting it was decided that local organizations should be established throughout the country at all points where an interest could be created, and that these locals should be asked to send delegates to a larger convention to be held later where a more permanent and representative form of organization could be established. Within two months 38 locals had been established. These were represented at the convention, which was also held in Indian Head. At that convention the Territorial Grain Growers' Association was organized.

(Continued on page 12.)



Leaders in the Western Farmers Movement.

Reading from left to right above are J. B. Musselman, Secretary, the Saskatchewan Grain Growers' Association; J. A. Maharg, President, Saskatchewan Grain Growers' Association, and Roderick McKenzie, Secretary, Canadian Council of Agriculture. Below are H. W. Wood, President of the United Farmers of Alberta and the Canadian Council of Agriculture; R. C. Henderson, President of the Manitoba Grain Growers' Association, and P. P. Woodbridge, Secretary of the United Farmers of Alberta. These are only a few of the many strong men whom Western farmers have chosen from their ranks to lead them.

woman suffrage, and it was due to the agitation of the western farmers that the Dominion Government was induced to commence the construction of the Hudson's Bay Railroad in order that the prairie farmers might have another outlet for their wheat.

Start of the Movement.

Like many other great movements the farmers' movement traces back to a very humble beginning. It dates from a meeting held in Indian Head in December, 1901, and called by Hon. W.

Corn, Silos and Cows for the Manitoba Farmer

An Opinion Based on Experience.—*W. J. Cummings of Glenlea Stock Farm.*

It is but a few years since when the revenue from live stock in Western Canada was an insignificant amount when compared with the large returns from the grain crops, but conditions have changed in the last few years, and to-day there are sections in the Prairie Provinces where the live stock of the farm yields a very handsome income. In order to realize the rapid strides being made in the live stock in the Province of Manitoba alone, it is only necessary to give a few comparative figures during the past two years.

Year	Horses	Cattle	Sheep	Pigs
1906	151,141	362,232	11,696	129,838
1911	251,572	497,511	37,257	192,336
1916	341,495	665,686	89,476	261,774

These figures show only the starting point, as there are a large number of farms in Manitoba even at the present date, that devote very little, if any time, to the live stock branch of farming, but the time is rapidly approaching when every farm will have to go into the raising of live stock, at least to a limited extent. This statement is made from the fact the grain yields per acre are yearly falling behind, and the quality of the sample has been yearly growing poorer like the yield. And again, a few crop failures soon cease the average farmer to realize "it does not pay to have 'all his eggs in one basket.'"

There is no chance for argument on the fertility of the soil, or the ability of the country to produce the equal, if not more, than it has ever done in the past, but to bring about this improvement, there must be a change in the present methods of farming which will necessitate getting away from the one crop plan, which has existed so long in the West. This will bring about rotation, and in order to have rotation and do it successfully, we must be in a position to realize the full value out of the returns of these rotation crops, which can be done most successfully through the introduction of stock on the farm. Every farmer appreciates these conditions, and you hear but one argument—he cannot afford to buy the stock, as he has not the capital with which to purchase them. Here is where it is realized what a regrettable feature it is that the dairy cow is not better understood by the average western farmer, as a good dairy cow would pay for herself in a short time, and make the start for the farmer of a good herd, giving a cash return every day in the year. This is where the dairy cow excels the beef type for the average farmer, because he does not have to wait to sell either her or her offspring to get returns, and it is the same dairy cow that will give returns to the fullest extent of the feeding value of the rotation crop.

There are many crops used in the rotation sys-

tem, but the one most common is the corn crop, possibly because it will prove equal to a summer fallow, if not better, on account of the continuous cultivation required to get the best results from the crop, and at the same time give a yield equal to the average grain crop. While the climatic conditions of Western Canada are not suitable to many of the varieties of corn grown elsewhere, there is little doubt it will be but a few years until a variety suitable to this climate will be introduced, as within the past few years corn has been matured in some parts of Manitoba to a limited extent. In the meantime, as we have not arrived at that point, the question is, what can be done to obtain the full feeding value of the corn crop? The answer is the silo.

The Argument for the Silo.

The question of maturing the corn crop need not worry the western farmer, as in districts

where they have matured corn for years, they have gone very extensively into silos in recent years, and to-day a certain per cent. of their corn crop is sown expressly for the silage, as they realize they are able to obtain as much, if not more, out of the crop in this manner than if it were allowed to mature and be sold for grain. In no other way can so large a percentage of the feed value of the corn crop be secured as by the use of the silo. Every pound of the crop that grows above ground is available for feed in the most tempting and digestible condition if cured in a silo, and it can be kept so for an almost unlimited length of time, if the silo is properly constructed. After many tests it has been demonstrated that corn is at its highest feeding value when it is ready for the silo, and during the period of fermentation it only loses from eight to ten per cent. of its original feeding value, which is very small when taking into consideration that corn in the crib will show almost a 20 per cent. shrinkage in the year, and the stalk in the field is almost a total loss.

(Continued on page 8.)

The Progress of Dairying in Manitoba

The Government Plays an Important Part—*By L. A. Gibson, Dairy Commissioner*



L. A. Gibson
Dairy Commissioner for
Manitoba.

rops, officers or makers.

To-day there are forty creameries in operation in the Province of Manitoba. During the year 1916, 6,674,510 lbs. of creamery butter was made, as compared with less than half that amount in 1912. The total value of dairy products during 1916 amounted to \$4,483,614, a 100 per cent. increase.

An increase of more than 100 per cent. in output in four years, and a steady proportionate increase during the intervening periods, suggests immense possibilities ahead of the creamery industry in Manitoba. Generally speaking the present season is proving to be a most satisfactory and successful one to the dairymen of

this province. Although the spring was late and backward a substantial increase in the output of creamery butter in the province is assured, especially in Northern Manitoba.

The dairy staff of the Department of Agriculture includes a dairy commissioner, two creamery inspectors, one cheese factory inspector and a dairy produce grader, together with a chemist and clerical staff. Each member of the staff has had a thorough practical dairy school training in addition to wide experience in factory work, teaching and instruction work. The following are the main features to which we attribute the improvement which has taken place in the quality of Manitoba creamery butter:

1. Grading of cream and paying for it on the basis of quality. This is the common practice amongst our creameries. Cream grading has demonstrated the fact that payment for quality is the means of securing quality.

2. Instruction work and butter grading. Cream and butter grading have greatly enhanced the value of the inspectors, and created an increased demand for their services. The inspectors and dairy produce grader cooperate closely, and from week to week they visit the creameries where their services are most urgently needed. Each creamery reports to the produce grader on every shipment of butter made, and the produce grader in turn reports to the creamery upon each churning in the shipment, suggesting where improvements can be made in quality. Practically

(Continued on page 8.)



A view of Glenlea Stock Farm in Manitoba, where Dairying is the mainstay and corn and silos are popular.



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Where Wheat is the Main Crop of the Farm extensive Buildings are not needed and are expensive to build. Stack and stook threshing, therefore, are Popular on the Prairies.

Saskatchewan—Where Wheat is King

And the Mainstay of the Saskatchewan Farmer.—By R. D. Colquette, B.S.A.

NATURE pays little heed to man's convenience in making her arrangements. What could equal her contempt for him in hiding the Canadian prairies behind a 2,000 mile rampart of forest and rock? If the old pioneers could have stepped from the decks of their emigrant ships on to those broad plains, already chopped, logged and stoned, it would have saved them many a backache. It would also have saved their grandchildren a lumber and fuel problem. But if nature ever thinks in terms of economies she has the satisfaction of knowing that it might not have helped matters so much after all. What land was left after the dukes and seigneurs had been satisfied would have been gobbled up by the ordinary garden variety of land speculator, and the advantage of location would have been neutralized by their exactions.

And the modern landseeker has the satisfaction of knowing that the prairies have been reserved for the pioneer of his day. Out here in Saskatchewan, for example, there are some 57,000,000 acres of arable land within the range of settlement. All of this 57,000,000 acres, together with a lot more that was not worth the taking, have been alienated from the crown. For let no one be deceived, there is no homestead land left in Saskatchewan that it is wise to homestead. Canadian governments have always been characterized by a passion to dispose themselves of land. Railway companies and land syndicates have shown equal eagerness to gain possession of it. They got all that an outraged public would stand for. The homestead regulations, which in a large percentage of cases meant that a bonus of 160 acres of land was given to able-bodied men on condition that they would withdraw from productive industry for six months in each of three years; together with the pre-emption rights granted in 1908, were successful in getting what was left into private or corporate control. Hence it is that of the 57,000,000 acres all alienated, of good land in the nine statistical crop districts of the province only 13,000,000 acres bore crop in 1916. Allowing another 10,000,000 acres for summer fallow, pasture and new breaking makes a total of 23,000,000 acres and leaves some 34,000,000 still to be turned to productive use.

Unlimited Productive Capacity.

The productive capacity of Saskatchewan soil, broken and unbroken, may be judged by the following official figures of the 1915 crop. The season was an exceptionally favorable one. Prices,

though good, were not equal to those obtained in 1916.

Acreage, Yield and Value of Saskatchewan's 1915 Crop.

	Acreage	Yield per acre	Yield per bushel	Price	Value to producer
Wheat.....	6,584,874	114,723,775	35.2	\$.3374	\$14,529,432
Oats.....	7,246,259	139,319,042	65.2	30	30,711,914
Barley.....	773,229	9,942,513	33.3	.441	4,354,426
Flax.....	539,474	6,098,499	11.3	1.56	9,695,776

In 1916 the yields were lower, principally on account of the widespread ravages of rust and the phenomenally large hail losses. But since farmers are more concerned with dollars than with

were reported. One hundred bushel yields were common in many districts.

The quality of Saskatchewan's grain has been demonstrated at world wide exhibitions and farming congresses. The prince of the world's wheat growers is Seager Wheeler, who farms some 40 miles north of Saskatoon. On three different occasions he has won premier honors on hard spring wheat in competition with the world. Paul Gerlach, who also farms near Saskatoon, has won in competition with the world of wheat, while W. S. Simpson, of Swift Current, has secured more world's prizes in various

classes than any other man on the continent. Altogether about 50 first prizes at world's exhibitions have been captured by farmers of the province.

Wheat is King.

Although oats, barley and flax are large and important crops in Saskatchewan, wheat easily maintains its supremacy as the king of all her agricultural products. Roughly, two-thirds of the acreage

devoted to crops is normally under wheat. Making allowance for the large amount of oats used for feeding horses on the farms it is safe to say that three-quarters of the Saskatchewan farmer's income comes from this great cereal. And it will be so for many years to come. There are other considerations besides the adaptability of the province for wheat growing that lead to this conclusion. Under normal market conditions oats are too bulky and cheap for the long haul to the world's markets. The market for flax is limited and easily glutted as many Saskatchewan farmers know from experience. Barley is not a favorite crop with farmers in any province. Wheat fulfills the requirements of a permanent cereal crop better than any of them. There is always a market, sometimes an unsatisfactory one, but it is always there. The crop lends itself to the conditions of the export trade better than the others. On the whole it is the most profitable to grow. In addition it has the preference of the farmer. Wheat growing has become a habit with him. He will not break it easily. Wheat

(Continued on page 9.)



A Settler on His Way to the Wheat Kingdom.

bushels the results were even more satisfactory than those of the previous year.

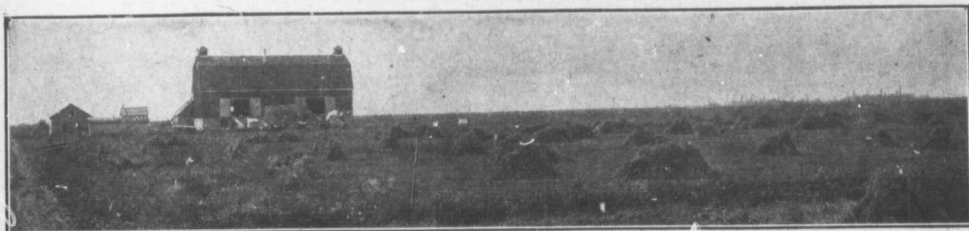
Acreage, Yield and Value of Saskatchewan's 1916 Crop.

	Acreage	Yield per acre	Yield per bushel	Price	Value to producer
Wheat.....	6,822,709	121,964,454	34.1	\$1.25	\$80,861,909
Oats.....	8,541,000	139,882,716	59.1	25	30,411,556
Barley.....	851,400	9,400,426	36.4	.751	6,245,374
Flax.....	519,700	6,032,249	10.4	1.59	10,060,095

These tables do not include hay, potatoes and roots, which netted several millions to the farmer each year. In interpreting the figures, however, it should always be kept in mind that substantial reduction must be made to allow for feed and seed.

Phenomenal Yields.

The favorable season of 1915, combined with good farming methods brought out tremendous yields in many cases, on wheat field of 80 acres and another of 11 acres averaged 61 bushels to the acre. Many cases were reported and sown to 60 bushel yields, one of them for a field of 610 acres which threshed 30,500 bushels. Of oats two cases of yields averaging 116 bushels an acre



A very respectable Barn is that which shelters the Grain Crop and Animals on Glangarry Stock Farm, near New Liskeard, in New Ontario.

What New Ontario Has To Offer the Prospective Settler

It is a Land of Promise Whose Promises are Made Good

IN the clay belt of Northern Ontario is a vast agricultural country in the making. And because it is yet in the making, it is a land of golden opportunities. For the man who is desirous of getting a start in the business of farming as well as for the experienced agriculturist who wants more scope, Northern Ontario sounds her call. Should the prospective settler's financial capital be limited, he will find in this great new country a chance to exchange labor for land, and that land of the finest quality obtainable. Should he be untrammelled financially, he will find here unexcelled opportunities and room for working out his ideals in farming. To all who are willing to invest some muscle, and who are not easily discouraged by the hardships which must always precede conveniences in a new country, this great land will pay within a reasonable time rich dividends in the form of broad acres and well filled barns.

A Land of Vast Distances.

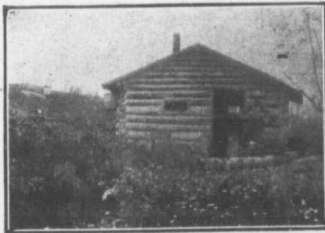
The first thing that strikes the visitor to Northern Ontario is its vastness. We of Old Ontario, cannot realize the tremendous areas of tillable land which await the plow in the great clay belts which cross our province north of the Great Lakes. It is only by referring to the Western prairies, of which this strip is a continuation, albeit wooded, that one can imagine such a huge block of farming land as is included in the 16,000,000 acres which await settlement in Northern Ontario. One must travel through this country to get even a faint idea of its extent.

On leaving Halleybury on the line of the T. N. O., one begins to come out into the open. For several hours he has been travelling through the rough country which has proved itself to be so rich in minerals, and is now coming out into the country which will in the future prove to be even richer in agricultural wealth.

From Halleybury to Cochrane the farming land is divided into huge districts by well defined rocky strips. Here may be found larger areas of level arable land than may be seen in any district which I have travelled in Old Ontario. It is

S. R. N. Hodgins, Associate Editor, Farm & Dairy

in these districts that the first agricultural settlements were formed. Some of the southernmost, the chief example being the New Liskeard district, are as well built up and tilled as many of our foremost farming sections in Old Ontario. There are yet, however, along this line, huge districts which have never been opened up by settlers. As the terrific forest fires of last year, however, passed through this strip of country, making the land easily cleared, settlers will doubtless realize their good fortune and flock into these newly burned districts.



The Settler's First Home.

The danger from forest fires in the wooded districts makes it advisable to build inexpensive buildings on the new homestead.

West from Cochrane along the line of the Grand Trunk Pacific, twelve townships have been thrown open for settlement. These extend as far west as Hearst, which is 130 miles west of Cochrane. Along this entire strip the land is practically unbroken, except where it is cut by the rivers which flow northward into James Bay. This is indeed a goodly land, as level as the prairies, wooded with balsam and spruce, and clear of stones practically throughout its entire

extent. The same kind of country may be found on the line of the Algoma Central Railway for 20 or 30 miles south of Hearst, and this level clay plain stretches north practically to James Bay. While this does not cover the extent of the clay belt of Northern Ontario, it embraces the land that is at present open for settlement and covers the territory over which I travelled on a recent survey.

The Soil.

Throughout the whole of the district covered, both along the lines of the T. N. O. from Halleybury to Cochrane and along the G. T. P., to Hearst, I found the soil to be of undoubted richness. The typical soil of this belt has for its foundation at a depth of eight or ten feet, gravel or sand, both water bearing. Above this is laid a strata of clay, which may run to seven or eight feet in depth and which gives to this belt its name. This clay in turn is laid over with black muck running from four to 18 inches, in depth, and it is this, coupled with the clay, which gives to Northern Ontario its capacity for tremendous yields of hay, clovers and roots.

The settler upon coming into this country to locate is not faced with the same problems which confronted our pioneer forefathers. It is an entirely different proposition entering these woods and clearing up a farm, to that which confronted the settler who had to hew out for himself a little farm from a hardwood bush. Until this land is opened up, it is all more or less swampy. That is, it is very level and more or less water remains in the soil all the year. For this reason the roots of the trees do not grow deeply. The character of the trees themselves is different. The unburned forests are found to consist of straight spruce and balsam with some poplar on the knolls.

In choosing a farm site in this country, the settler has two options at his disposal. In either case his cleared land will not cost him much. If he is desirous of getting into actual farming in as short a time as possible, he will find in such districts as that around Matheson, huge areas which have been burnt over several times. In these districts the work of clearing up the land for plowing, is almost negligible. Farmers who have cleared up this land and put it into cultivation, estimate the cost of getting it ready for the plow at sums varying from two to ten dollars an acre. In many of these districts, one handy man is able to keep the ground cleared as fast as a plow can follow him.

The Cost of Clearing.

For the young man, however, who is not anxious to get into the raising of crops immediately and who wishes to take advantage of the high prices that are being paid for pulp wood at present, there are vast areas of green wooded land awaiting his choice. To the uninitiated settler

(Continued on page 84.)



The Proof of the Pudding—Harvesting a three-ton clover crop in the Montelith district, Northern Ontario.

DAIRY farming in the southern part of the province is adapted to certain kinds of farming. No one should soon consider the different kinds of the irrigated land adapted in certain parts of the province. No one should consider the different kinds of the irrigated land adapted in certain parts of the province. No one should consider the different kinds of the irrigated land adapted in certain parts of the province.

My first insight into the possibilities of the Canadian prairie section was gained by the hot weather of the summer of 1916. A view was had in contrast to the usual view about, and present Alfalfa hay and other crops are naturally well known in Calgary I find it interesting to find of farming 't

"I believe that the districts we have visited are the water of the Alberta Co., Limited irrigation was a long time ago." Some years ago, secretary of Mr. Frampton on behalf of the province, obtained from the south of Lethbridge the most attractive of a regular growth, as well



These districts are the Bow River.

Dairy Farming on Western Irrigated Land

A New Type of Farming Being Developed in Southern Alberta

H. Bronson Cowan, Editor-in-Chief of Farm and Dairy.

DAIRY farming on irrigated land is an industry which is making considerable headway in southern Alberta. In fact, numerous different kinds of farming are being conducted on the irrigated land, although it is especially well adapted in certain districts to the production of alfalfa and crops which lend themselves to dairy farming. No one can visit southern Alberta without soon coming in contact with the large irrigated districts. The results that are being achieved prove considerable of a surprise to most easterners who very naturally are inclined to look upon it with a considerable degree of suspicion and doubt as to its being a desirable form of farming.

My first insight into what can be accomplished by means of irrigation was gained a few weeks ago, while on my way west on the main line of the Canadian Pacific Railway. For hours we had been travelling through an unattractive prairie section where the ground had been baked by the hot weather and lack of moisture and where the farms and ranches were few and far between. Some time after passing Medicine Hat a view was had of some crops which stood out in contrast to the almost barren country round about, and presently we passed a large stack of alfalfa hay and noticed a sign posted conspicuously to show the public that it had been grown on irrigated land. It served to demonstrate that irrigation is capable of transforming a country not naturally well adapted to the production of general crops into a section where such crops can be grown with striking results. On arrival in Calgary I made some inquiries and was interested to find the extent to which this class of farming is being conducted.

The Best Section.

"I believe that the most successful irrigated districts we have," said Mr. E. J. Fream, the secretary of the Alberta Farmers' Cooperative Elevator Co., Limited, "is south of Lethbridge, where irrigation was first introduced some 20 years ago." Some years ago, while holding the office of secretary of the United Farmers of Alberta, Mr. Fream conducted an investigation of irrigation on behalf of some farmers who were having trouble with the C. P. R. over the land they had obtained from the company. "I visited a town south of Lethbridge," he said, "which I consider the most attractive spot we have in the west. It is a regular garden and the quantity of produce grown, as well as its quality was a surprise to

me. I know that irrigation farming is proving successful in this district. I cannot speak with the same assurance in regard to the land east of Calgary, as it is a newer section, and I am not so well posted concerning it. Successful irrigation depends considerably on the quality of the soil. Soil not suitable to irrigation tends to hold the moisture and the best results can not be obtained. South of Lethbridge the land seems well suited to irrigation. Just what proportion of the land in the large irrigated districts east of Calgary is good, I am unable to say."

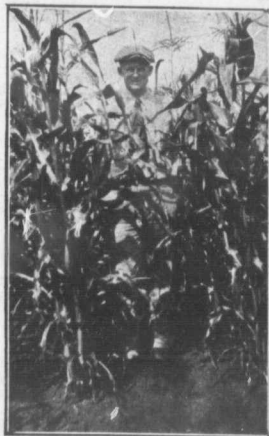
An Immense System.

Most easterners are under the impression that the greatest irrigation systems on the continent are in the western States, it comes as a good deal of a surprise, therefore, to find that the Canadian Pacific Railway Co., has developed in southern Alberta, the largest individual irrigation project on the continent. This company has under its control an area greater than the total irrigated area in either Colorado or California. To date about \$20,000,000 has been invested in the construction of the dams and canals that have made this system possible.

The Main Districts.

The main irrigated districts run for about 150 miles south-east of Calgary, along the main line of the Canadian Pacific Railway. They are situated between the Bow River on the south and the Red Deer River on the north. Surveys originally conducted by the Dominion Government showed that this district was admirably suited to irrigation. The soil was deep and fertile, easily cultivated, and for the most part without natural obstructions. The land lies in gentle slopes to the north-east, affording the natural flow necessary for irrigation, and providing for the easy disposal of surplus water. Sufficient water was available in the Bow River to make it certain that irrigation could be carried on for practically all time. The Bow River rises in the Rocky Mountains, where it is fed by the glaciers. Thus it is not dependent upon rain fall, in fact the hotter the season the greater is usually the flow of water.

The Canadian Pacific Railway was interested in developing this great area. In its natural state it was not likely to produce much traffic for the lines of the company. If, however, it could be converted into an important crop-producing area, it would not only increase the value of the company's lands, but would also increase



Western Field Corn.

Fodder crops can be grown to excellent advantage on the irrigated lands of Southern Alberta. A sample crop is here shown.

the business conducted over the company's lines through the greatly increased settlement that would be promoted. The situation was examined carefully, the best possible experts were engaged, and finally, when the company was fully convinced that the project was feasible it embarked upon the expenditure of the many millions of dollars in the construction of the system of irrigation, which is now transforming that part of the country.

Four Areas.

The main irrigated district east of Calgary is divided into three sections designated, respectively, western, central, and eastern. The central district is devoted entirely to dry farming, while the western and eastern are under irrigation. The Lethbridge district is in another district of the country, considerably south of Calgary. Roughly speaking the first three districts contain about 1,000,000 acres each, and the Lethbridge district about 150,000 acres. Not all of the land is suitable to irrigation, only that portion being irrigable which lies below the canal that carries the water. In the eastern section approximately

(Continued on page 8.)



Dairy Farming is being undertaken on an extensive scale in the irrigated districts of Southern Alberta.

These districts are supplied with water from high reservoirs such as the one shown above and created by the Bassano Dam, situated about 35 miles east of Calgary, on the Bow River. The purpose of the dam is not to store the water, but to raise it to a sufficient height to enable it to be used to irrigate the nearby land. The concrete dam is 720 feet long and the earthen embankment 7,000 feet long. It raises the water 46 feet.

Corn, Silos and Cows for the Manitoba Farmer

(Continued from page 4.)

Ensilage is not only a most satisfactory feed in the dairy during the winter months, but it is equally as good during the summer months.

One of the foremost questions in the mind of every feeder in the northern country is that of succulence. The pasture season is short, and as most of the feeding is done during a period of the year when we have no pasture, it is absolutely necessary for us to prepare some succulent food. It is an undisputed fact that the spring pasture forces every cow to a heavier yield caused by the succulent feed. We know on pasture alone a cow will give a good yield of milk, but cut this grass, dry it carefully, so that the water only is lost, and give this dried grass to the cow as her only feed and she will soon go dry. Why? Just because the grass has lost its succulence. It is not a hard matter to figure out how this succulent food can be obtained for winter feeding, as it is known it may be obtained either from roots or ensilage, but the question is how can it be done the cheapest. When the first expense can be afforded the silo is the cheapest and the best way of providing green feed for the winter. Every feeder appreciates that succulent food in the winter has two advantages; it is appetizing, which makes the cow enjoy her feed, and it keeps the system in a healthy condition and the bowels open. The nearer a cow can be fed in the winter to secure the natural loose condition of the droppings, as they are from the spring pasture, the more she can eat, and the more she will be able to give in return for each pound of food eaten, as when concentrated there is a smaller condition of the body, a smaller

percentage of the food is digested and converted into milk and the yield is lowered.

It is impossible to emphasize too much on the care and attention that should be given the filling of the silo, as on this point will depend a great deal the success of the ensilage. Corn should be as near as possible to the point of its full feeding value, when it is put in the silo, and that is just when the corn is going into the glaze. Corn should not be allowed to remain in the field over half a day after it is cut before it is put into the silo, as in this way you get the full value of the entire plant, and you will have sufficient moisture to cause fermentation, which will start almost immediately. Should it be impossible to handle it in this manner and the corn be left in the field for some days after cutting, before it can be placed in the silo, it should be stooked immediately, and in this manner it will retain as much of the moisture as possible, and if necessary a small stream of water can be run into the blower of the ensilage cutter when you are filling the silo.

There is nothing that will tend to increase the income on the farm, and make the winter farmer satisfied and contented like the dairy cow, the corn and the silo.

The Progress of Dairying in Man.

(Continued from page 4.)

all butter exported is accompanied by the Government Produce Grader's certificate, and butter purchased for the home trade is paid for on the basis of quality. During the present year 75% of the creamery butter manufactured in Manitoba will be made from properly pasteurized cream.

The grade standards for Manitoba creamery butter are established and defined by the Department of Agricul-

ture. They are based very largely upon the preferences of the trade and of the consuming public in the markets which we supply—with due regard to the conditions which surround the manufacture of creamery butter in this province. An extra grade will be added this year to be known as "Manitoba Specials." This grade was asked for by the members of the Manitoba Dairy Association in convention Feb. 15th and 16th, 1917. In order that creamery butter may qualify for "Special" grade certificate, it must have been made from properly pasteurized cream and otherwise closely conform to the following description, which represents in a general way the requirements of the markets in which the great bulk of the Manitoba product is consumed:—
Flavor: Fine, sweet, mild and clean.
Texture: Firm and fine; clean but not excessive, free moisture. Color: Uniform and of a pale straw shade.
Salting: About two to two and one-half per cent., thoroughly dissolved and incorporated.

The foregoing is an outline in brief of the means we have adopted to improve the quality of Manitoba creamery butter. The results obtained have been very encouraging. In the year 1912 Manitoba imported 55 car loads of butter from eastern Canada. In the year 1916 this condition was ruthlessly reversed and, in stead of importing, the province of Manitoba exported no less than 65 car loads of creamery butter, or close to 2,000,000 pounds, and a considerable portion of which was sent to the British markets.

The future of the dairy industry in the province of Manitoba is definitely assured and, so far as it is possible to make a forecast, a further extension will have to be recorded for the current year.

It behooves us to pay a little more

attention to our home products and not gauge their relative values by the remoteness of the scene of their production. Far too often it is agreeably interpreted that Manitoba is a grain growing province pure and simple. This has been proved to be a delusion.

Dairy Farming on Western Irrigated Land

(Continued from page 7.)

440,000 acres are to be rendered irrigable, while in the western section about 370,000 acres have been brought under irrigation. The central section contains 901,740 acres. At first it was intended to irrigate about one-quarter of this area. Up to date, construction of this portion of the system has been held in abeyance.

The System of Canals.

The system of dams and canals which supply the water is most interesting. The water for the western section, for instance, is diverted from the Bow River at a point just inside the easterly limits of the city of Calgary. From there it is carried south and east through a main canal 17 miles in length, which in part is 60 feet wide in the bottom and 120 feet wide at the water line, and designed to carry water to a depth of ten feet. The larger portion of this canal, however, is 44 feet bed width and 84 feet on the water line.

This main canal delivers water to a reservoir for which a natural depression has been utilized, and whereby the erecting of a large earth dam a body of water three miles long, half a mile wide and 40 feet in depth has been created. From the reservoir the water is taken out in three secondary canals, "A," "B" and "C" and carried to the different districts to be irrigated. These secondary canals have

a combined length of 1,000 miles.

From the reservoir the water is again distributed in a comparatively simple manner, water to each pated. In the following mileage of constructed:—Main secondary canals, 1,000 miles; butting ditches, 1,300 miles. In addition there are several thousand small ditches on the farms to distribute their farms. The section has been of—less than five area, both irrigable remaining unoccupied. There are awaiting settlement.

Number

In the western about 600 actual tween what they rent, are working. In addition there are on the dry. For some years Railway advertisements for sale. Mistakes which the companies to a class of cured who were carrying on the irri late years of the irri most of its irrigated districts in the West. Much better results obtained by these making it easier experienced in irrigation of whom are busy make a success of it.

Best Styles

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Sask. where V

(Continued fr

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And wheat will placed from its p the province. The swing to mixed far acreages coming



WHEN COMING WEST

take time enough to cultivate the acquaintance of

MANITOBA

A FEW FACTS TO THINK ABOUT

1. Manitoba still has splendid land for sale at Low Prices.
2. Manitoba has an advantage in freight rates over the other Western Provinces, on account of proximity to markets.
3. Manitoba Legislature already has effectively dealt with the question of rural credits through the Manitoba Farm Loans Act and the Rural Credits Act. Under the former the Government provides money to farmers at low interest rates on long term mortgages. Under the latter farmers, assisted by the Government and the municipalities, organize into groups for short term borrowing. These Acts are now IN OPERATION in Manitoba.
4. Manitoba Government, on behalf of bona fide land owners, lists lands for sale, enabling prospective buyers to get directly into touch with the real land owners.
5. There are no better agricultural opportunities to-day than in Manitoba.



V. WINKLER

Minister of Agriculture and Immigration.

a combined length of about 250 miles. From the secondary canals which vary in bed width from 15 to 40 feet, the water is again taken out and distributed in each irrigation district through a comprehensive system of distributing ditches, which bring the water to each parcel of land irrigated. In the western section the following mileage of waterways has been constructed:—Main canal, 17 miles; secondary canals, 254 miles; distributing ditches, 1,329 miles; total, 1,600 miles. In addition to the foregoing there are several hundred miles of small ditches constructed by the farmers to distribute the water over their farms. The land in the western section has been pretty well disposed of—less than five per cent. of its total area, both irrigable and non-irrigable, remaining unsold. In the eastern section there are about 400,000 acres awaiting settlement.

Number of Settlers.

In the western section there are about 600 actual settlers who, between what they own and what they rent, are working about 1,000 farms. In addition there are about 600 settlers on the dry lands in this area. For some years the Canadian Pacific Railway advertised ready made farms for sale. Mistakes were made at first, which the company readily admits, due to a class of settlers being secured who were not suited for the carrying on of irrigation farming. Of late years the company has been securing most of its settlers from the irrigated districts in the United States. Much better results are being obtained by these men and they are making it easier for farmers inexperienced in irrigation farming, some of whom are buying this land, to make a success of their venture.

Best Styles of Farming.

My Impression had always been that irrigation farming was conducted almost exclusively for fruit and truck farming. It came as a considerable surprise, therefore, to be informed that the history of the irrigation enterprises in the United States has demonstrated that the basis of irrigation is not so much the production of either fruits, garden truck or other expensive crops, as the feeding and finishing of live stock and the development of dairying in its various branches. Because of this the Canadian Pacific Railway is concentrating its attention largely on developing animal husbandry and the raising of fodder crops in its irrigated district. This work is being supervised by Dr. J. G. Rutherford, who is at the head of the Live Stock Department of the company and who is well known to live stock men all over Canada as the former Dominion Live Stock Commissioner. Dr. Rutherford's assistant, Mr. A. D. Campbell, B.S.A., who some years ago was the district representative at Morrisburg, in Dundas County, showed me a number of striking photographs of crops grown in the irrigated district. If present plans are carried out I hope to visit some of these sections about the time this article appears in print, and to report something more definite about the actual results being secured by the settlers than I have been able to give in this article.

Sask. where Wheat is King

(Continued from page 5.)

has got hold of him. It has not him coming. In his opinion it has prestige. It is at the head of the cereal social ladder. Wheat is King in Saskatchewan.

And wheat will not soon be displaced from its premier position in the province. There is a widespread swing to mixed farming, but with new acreages coming under cultivation

wheat is proportionately holding its own. There are reasons for this—reasons overlooked by many parliamentarians at Ottawa in opposing the demands of the farmers for tariff reform. They say that if the farmers would worry less about fiscal matters and grow more of the things they would be better off. But impressions received while travelling on free passes furnished by railway companies with axes to grind are not always reliable. There are crops of the province well adapted to stock raising and dairying where more of these should be done, but a complete reorganization of agriculture along these lines is neither possible nor desirable. Building material is high in price. The production of large amounts of suitable feed for the long winter feeding period is difficult. In some localities water is hard to obtain in sufficient quantities for carrying much livestock. In the great southwestern portion there are occasional dry years and it must always be remembered that the amount of live stock carried by a district is limited absolutely by the amount of feed produced in the poorest year. The wheat grower can afford to lose an occasional crop. Within the last two weeks I have seen five new barns and houses built on farms. Last year of 1914 did not produce seed and feed enough for the 1915 crop. The ability of wheat farmers to "come back" is marvelous. One good crop at fair prices will frequently establish their prosperity. Two good crops at high prices have compensated for the partial failure of 1914 many times over. Can you blame them for sticking to wheat? Besides, in these times of world wide food shortage, the Saskatchewan wheat farmers have the satisfaction of knowing that they are producing more exportable foodstuffs per man than any other class of farmers under the sun.

Annual Meeting of the C.S.G.A.

THE annual meeting of the Canadian Seed Growers' Association for the year 1916-17 was held in the Canadian Building, Ottawa, on July 31st and August 1st. Dr. Jas. W. Robertson, President, occupied the chair, and there were present among others: Dr. C. A. Zavitz, O.A.G., Guelph; G. H. Clark, Seed Commissioner; Geo. F. Chipman, Winnipeg; R. B. Whyte, Ottawa, and the Secretary, L. H. Newman.

The reports submitted showed that never before in the history of the Association has the value of systematic work in the improvement of seed been more apparent than during the past season. The number of applications from individual farmers who wish to carry on this work under expert direction is 285, this being much the largest number ever received during any one year. The total number of farmers now affiliated with the Association is 1,504. Plans were discussed for advancing the work still further and of adapting it to meet after-war conditions. The problem of assisting in creating a source of supply of pure, vital and productive seed in sufficient quantity to meet the needs of newcomers and others is an important one, and therefore received special consideration at this conference. The matter of encouraging the production of registered seed potatoes on a substantial scale in certain districts in New Ontario for use in the older settled parts was discussed at considerable length. The Association expects to cooperate with the Provincial Department in this work, and looks forward to rather large developments. The officers elected for the ensuing year are as follows: Dr. Jas. W. Robertson was re-elected President, as was also Mr. L. H. Newman as Secretary-Treasurer. The

Young Men on The Farm!!

Who Cannot Go to War!!

Canada must have greater agricultural production. Canada needs men trained in the best agricultural practices.

You will be of greater value to your country and to yourself if you acquire all available information regarding your business as a farmer.

You can obtain this information during the Fall and Winter months at the

ONTARIO AGRICULTURAL COLLEGE GUELPH,

The College Term

The college opens September 21st and closes April 12th. This is convenient for most farm boys as the hardest work of the summer is completed before the commencement of the term and students can return to their homes for the spring seeding.

Courses

The Two Year Course is particularly designed for young men intending to be good practical farmers. It includes studies which are of practical value in all the work of the farm. The Four Year Course for the degree of B.S.A. is a two year continuation of the two year course.

Expenses:

In order to encourage young men to attend the college, the fees are fixed at the lowest possible figure. Board, \$4.00 per week; Tuition Fee, \$20.00 per year.

Public School Education is Sufficient for Admission.

College Opens September 21st

Write for a calendar giving full particulars.

G. C. CREELMAN, B.S.A., LL.D.,
President.

The Place of the Canadian Northern in the Economic Life of Canada

THE expansion of modern Canada has been achieved through transportation. The mighty St. Lawrence and the connected chain of Great Lakes; the boat-ways of the Ottawa and its tributaries; the canoe-ways of the voyageurs of Hudson's Bay factors and their competitors; these only gave access to limited sections of the country. Then came the day when the railway supplemented the services of the craft on the liquid highways. And, latterly, what is called the New Era by Mr. W. H. Moore in "Railway Nationalization and the Average Citizen", when the spreading of the steed highways throughout the inland areas overhauled the services of the waterways, and opened vast regions to settlement,—to a marvellous degree facilitating the growth in prosperity of the nine federated provinces.



The Annual Harvest of Golden Grain to Feed the World.

MOST people in Canada have long known that natural riches, varied in character and almost limitless in extent, existed in the so-called wilderness north of Lake Superior—a wilderness with Sudbury as an outpost on the east, and Fort Arthur doing similar duty on the west. And yet, a map is such an unconvincing thing in actual practice, that few had the hardihood to preach the commercial possibilities of the Superior hinterland.

The Canadian Northern,—in keeping with its record of work done in other "wildernesses" in Canada—has already proved the surveyors, geologists, and Ontario timber cruisers to have been justified when they declared the Clay Belt of New Ontario would provide several millions of people with the necessities and even comforts of life. The millions, of course, are not located yet, but the vanguard—pioneers if you will—are already on the ground.

One year ago in July, 1916, the company set about making the dream of the scientific visionaries come true.

A sawmill, and pulp barking plant have been erected at Foleyet divisional point, 160 miles northwest of Sudbury, and this fall it will be "Mecca" in New Ontario for the settlers, lumbermen, pulp wood men, and not a few prospectors exploring the adjacent gold and silver formations.

ONE year ago, the first woodmen's axes hit deep into the timber in making clearance for mill site and town site. To-day the pulp barking plant and sawmill are running day and night, affording employment for 600 men in woods and mill. The stores there would be a credit to any town in Ontario; the bungalows and cottages comfortable, and each with its vegetable and flower garden, pure water supply and fire protection. There is electric light and telephones. There are schools. Churches are being erected. Movies are running. Some \$200,000 in freight and passenger earnings will accrue from the Foleyet plant in its first year of operation, and that is only a beginning. The slogan of the Eastern Lands Department of the Canadian Northern Railway is: "one million a year in freight and passenger traffic between Sudbury and Fort Arthur within five years."

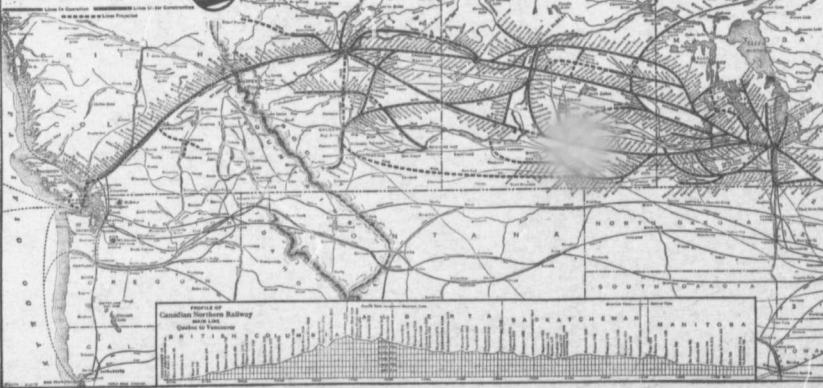


The Lumbering Industry at Foleyet.

ABATTERY of four boilers, using refuse as fuel, driving on 250 horsepower engine, and another of 10 horsepower, provides the motive power. This year the production at the Foleyet plants, will be 250,000 railway ties, and from two to three million feet of lumber. The barking plant the first year will handle 20,000 cords; next year 30,000 cords. A carload of settlers' wood from the plant, dumped in the chutes of the lower conveyor, can be put through the siding, every particle of bark removed without hand labor, and delivered from the upper conveyor chutes into open cars within an hour.

Foleyet is the pivot point for Canadian Northern development in the Clay Belt. But each of the other new divisional centres—Horn's, Fagne and Jellicoe—is making progress. The setting up of an industry in them, as at Foleyet, would create a market for settlers' output and clear the land for agricultural production. The fourth divisional point, Capreol, is only a few miles beyond Sudbury. There the C. N. R. main line, from Montreal joins the Toronto line. The company has ordered the erection there of 40 additional dwelling houses.

Canadian Northern Railway
WESTERN LINES AND CONNECTIONS



VISION and big plans demonstrate that the Canadian Northern Railway System is not only a means of transporting goods and passengers, but also a means of developing the country. This was under-
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-a Compound of Canadian Constructive Energy and British Investment

A Vital Force for Expansion Within the Dominion

VISION and courage of a high order are essential to the successful conduct of big pioneering operations. The management of the Canadian Northern demonstrated repeatedly, that it possesses these qualifications in large degree. Indeed, when the first 100-mile stretch of what is now the Canadian Northern Railway System was built in Central Manitoba in 1896, there were many who, prophesying disaster, were astounded when the road paid its expenses and fixed charges and retained a small surplus at the close of the first year of operation. This was under the superintendency of Mr. D. B. Hanns, now Third Vice-President and operating head of the Canadian Northern Railway System.

So it was, also, in 1902, when the Canadian Northern was granted power from Parliament to build westward to Edmonton through the Yellowhead Pass and down to the Pacific Coast. People who should have known better, declared without qualification, that the country through which the road was to run was frost-bound and would produce little or nothing.

To refute this charge, the late Land Commissioner of the Canadian Northern, Col. A. D. Davidson, journeyed on horseback through the territory to be opened up, testing the soil as he proceeded. When, a little later, members of the Western American Bankers' Association in two special trains, visited the Saskatchewan Valley country, as his guests, they were so convinced of the sterling worth of the region that several millions of acres were purchased outright. The sale of this virgin territory in small parcels to their country correspondents in the United States brought about the peaceful American invasion which has been such an esteemed and influential force in the development of Western Canada.

Indeed, throughout its 20 years of expansion, the Canadian Northern has performed development work within the Dominion on a scale that is not yet fully realized.

Some 600 shipping points—villages, towns and cities, owe their planning—even their very existence—to the Canadian Northern Railway. The railway, building through, determined their location and to a large extent found the settlers to produce the farm products necessary for each shipping point to attain success as a marketing centre for each little community.

THROUGH these marketing centres on the Canadian Northern, together with those it serves in common with competing railways, there has passed the last two decades a steadily increasing stream of grain, cattle, dairy products and all the things that go to make up agricultural production in the western country. Approximately one-third of all the grain handled by the railways in Canada, is moved over the rails of the Canadian Northern Railway. And year by year, through additional acreage going under the plough, production is increasing in the territory it serves.

Leading newspapers in Britain have not been slow to recognize the imperial significance of Canadian Northern growth, and have pointed out in clear language, the value of the substantial contribution to the foodstuff supplies of the Allies from the acres traversed by its rails; nearly all of which, also cultivated for the first time during the last 15 years.

The building of Canadian Northern line was hailed in the West as a most potent means to relieve overland transportation worry. The first fruits of their construction was the marketing by modern methods of the products of the farm through newly created centres. But, closely allied with that boon, came marked reductions in freight rates, which it is conceded have meant the saving of millions of dollars to the farmers along the lines of the Canadian Northern. The saving, indeed has been much greater, even, than that. The laws of competition made it necessary for the C. N. R.'s chief competitor west of the Great Lakes to meet the cut, and, so, the saving has been extended to all points reached by rails in Manitoba, Saskatchewan and Alberta.

It is not possible to over-estimate the importance of the work the railway has done in opening up to settlement the vast areas of fertile land within the Dominion, and in sending information of that fertility to land-hungry people everywhere. Agriculture, as everyone knows, is at the base of the economic structure in Canada. General Canadian prosperity trends in the wake of it because the western farmer barter the proceeds of his farm products for the factory output eastern Canadians are paid to produce. Each settler in the western provinces has meant a speeding-up of industry in the eastern provinces. Each family the Canadian Northern has located along its lines in the West has been an important source of revenue, if indirect, to the wage earners of Ontario and Quebec.

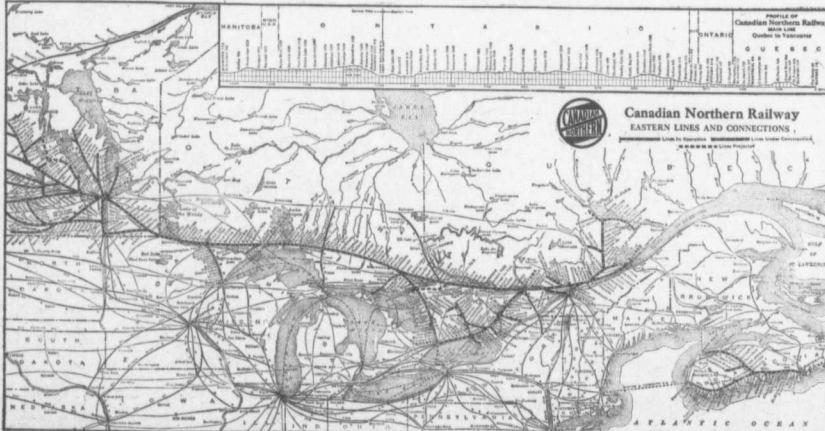


One of the 600 Marketing Centres on the C. N. R. in the Wheat Belt.

AND when, in addition, it is considered that through the building of its lines, the Canadian Northern has thrown open vast areas since developed through the generating activities, and mining activities, on a large scale, its contribution to the general progress of Canada, is manifest. The work being done in Northern Ontario is characteristic of its record during the last 20 years.

The desire for the making of countless heads of wheat to grow where none was grown before, can be traced to the inner core of its initial plan. Seventy-five per cent. of the aggregate population of the cities and towns of all Canada having 5,000 inhabitants or more are on its 10,000 miles of line. Its trains carried last year, 7,574,000 sacks of flour, nearly 132 million bushels of grain, nearly two billion feet of logs and lumber, in addition to livestock, coal and miscellaneous freight.

The Canadian Northern is a compound of Canadian constructive energy and British investment gold—a vital force for expansion within the Dominion. Toronto, August 10, 1917.



The Farmers' Movement in Western Canada

(Continued from page 3.)

Association was established, and from that time to this the farmers' movement has been an important influence in public affairs in Western Canada.

The First Big Fight.

Those were the days of 30 and 40 cent wheat. The farmers had no way in which to market their grain except through the elevators of capitalistic companies, whose chief aim was to secure the grain for the smallest amount of money the farmer could be made to accept for it. Farmers

who desired to ship their grain direct found it almost impossible to ship over the loading platforms of the elevator companies, and when they did so they still had to pay tribute to the companies. To make the situation worse the railway companies were in close league with the elevator companies, and often refused to furnish the farmers with cars, thus forcing them to ship through the elevators.

The first big fight was with the railway companies to get them to supply the farmers with cars. It resulted in the passing of an act which gave the farmers the right to ship their grain direct. This act, however, was disre-

garded by the railway companies under the plea that they did not have enough cars to supply the farmers. This made it necessary to repeat the fight all over again, but the fighting blood of the farmers had been aroused and they had been cheered by their initial success, and so they went to work again with a will. Their next success came when they succeeded in securing legislation which compelled the railway companies to furnish cars to shippers in the order in which application was made for them. This prevented the railway companies abdicating their cars to the elevator companies while refusing to supply

them to the farmers. It has been estimated that this clause alone in the Canada Grain Act has been worth to every farmer selling grain during the past 15 years at least 10 cents per bushel on every bushel of wheat sold and thus has been worth tens of millions of dollars to the farmers of the west.

Growth of the Movement.

Growing out of the success of the Territorial Grain Growers' Association, the grain growers of Manitoba were led to form the Manitoba Grain Growers' Association in March, 1903. Among the officers of this association was Mr. R. C. Handers, who was appointed vice-president and who has been active in the movement ever since. Mr. Handers is the present president of the association. The first secretary of the association was Roderick McKenzie, of Winnipeg, who retained that position till about two years ago, when he resigned in order that he might devote all his time to his duties as secretary of the Canadian Council of Agriculture. Still later there was formed the organization which is now known as the United Farmers of Alberta.

The Business Companies.

As the number of local organizations in all three provinces increased there became a growing demand that the farmers should find some method of marketing their own grain. In 1905 a committee was appointed to investigate the practicability of the farmers disposing of their grain co-operatively. The committee reported favorably in 1906, with the result that action was taken that led to the establishment that year of the Grain Growers' Grain Co., which is now the most powerful organization of its kind in the world. In spite of strenuous opposition of many of the leading business interests in the west, this company has grown with tremendous strides. It now does a business running into many millions of dollars a year. Its profits last year were \$775,000. Growing out of this success there was established a few years later the Saskatchewan Cooperative Elevator Co., which has been equally successful and last year reported profits of \$750,000. Still later there was formed the Alberta Farmers' Co-operative Elevator Co. This company last year reported profits of almost \$300,000 and is shortly to be amalgamated with the Grain Growers' Grain Co. In a new company to be known as the United Grain Growers' Limited. These companies own and operate hundreds of elevators, as well as large terminal elevators at Port Arthur and Port William.

Other Accomplishments.

Important as has been the accomplishments of the great business organizations of the western farmers they represent only one phase of the farmers' movement. In 1908 it was recognized that some means was required of giving more definite and ready expression to the demands and ideals of the farmers' movement. The result was that the Grain Growers' Grain Company was induced to establish the Grain Growers' Guide. From that time to this the Grain Growers' Guide has been the official organ of the farmers' movement in western Canada, and has wielded a tremendous influence on public life in the west. To-day it has over 34,000 subscribers among the farmers in western Canada. Again and again it has exposed efforts to mislead and disorganize the farmers and thus has helped to keep the farmers' movement a live and vital force.

The Council of Agriculture.

As the various provincial organizations grew in membership and influence, it became apparent that their

objects and aims therefore it was should be some to represent the terms of national some seven or eight formation of the Agriculture representatives three provincial the first few years ago, but increase its effective office was opened secretary appointing who was to give work. To-day the ture represents tions of the thre but the United F well.

Reforms

So many have accomplished by the in western the able in a short even mention the securing of provin woman suffrage i the farmers have forced the railw due their rates proved facilities supplies and mar They have indu legislatures to cation to promote operative organiz the telephone lin tance, to pass farmers to borro tively low rates lish hail insur well as grant me forms.

One of the pre posed on the r grown out of the tion that has tal Hundreds of the land have been bo ct use by specul farmers to travel vacant land in reach their own led the farmers o demand the imp land values inste ments. The resu all the revenue ties in the west land value, the farmers' improv of taxation on the very successful a speculators to let and thus has ena hold of the land

Prominent

Because leader movement have deal with public that a number o been selected to positions. Mr. M intimated, is now ture for a member of the Saskatchewan, th was an early ag movement and i dent of the Sask Elevator Co. W the manager of Mr. C. A. Duanni provincial treasur Over these leader movement in Sa members of the p

In Alberta the shal, Minister of assisted the farm H. W. Wood, United Farmers T. A. Crerar, the Grain Growers' cunity appointed



Real Daylight Saving

In the harvest time every hour between daylight and dark is worth money to the busy farmer.

You get an early start in the morning intending to do a big day's work, but the

binder, mower or other implement breaks down and you must go to town for the repairs. If you have a Ford you are soon away and its speed clips two hours off the former three-hour journey there and back.

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objects and aims were identical and therefore it was decided that there should be some central organization to represent the farmers in all matters of national importance. This led some seven or eight years ago to the formation of the Canadian Council of Agriculture, which was composed of representatives from each of the three provincial organizations. For the first few years the Council held only occasional meetings. About two years ago, however, it was decided to increase its efficiency, so a permanent office was opened in Winnipeg, and a secretary appointed in Mr. McKenzie, who was to give all his time to the work. Today the Council of Agriculture represents not only the organizations of the three prairie provinces, but the United Farmers of Ontario as well.

Reforms Accomplished.

So many have been the reforms accomplished by the organized farmers in western Canada that it is impossible in a short article such as this to even mention them all. Besides the securing of provincial prohibition and woman suffrage in all three provinces, the farmers have again and again forced the railway companies to reduce their rates and to grant them improved facilities for handling their supplies and marketing their products. They have induced the provincial legislatures to enact excellent legislation to promote the formation of co-operative organizations, to take over the telephone lines in the three provinces, to pass legislation enabling farmers to borrow money on comparatively low rates of interest, to establish hail insurance commissions as well as grant many other similar reforms.

One of the greatest handicaps imposed on the farmers of the west has grown out of the tremendous speculation that has taken place in land. Hundreds of thousands of acres of land have been bought up and held out of use by speculators, forcing the farmers to travel long distances past vacant land in order that they might reach their own homesteads. This led the farmers of western Canada to demand the imposition of a tax on land values instead of on improvements. The result is that practically all the revenue of rural municipalities in the west is raised by a tax on land value, there being no tax on farmers' improvements. This system of taxation on the whole has proved very successful and has forced many speculators to let go of their holdings and thus has enabled farmers to get a hold of the land on reasonable terms.

Prominent Public Men.

Because leaders in the farmers movement have shown their ability to deal with public life, it is only natural that a number of them should have been selected to fill important public positions. Mr. Motherwell, as already intimated, is now Minister of Agriculture for Saskatchewan. Another member of the provincial cabinet of Saskatchewan, the Hon. Geo. Langley, was an early fighter in the farmers' movement and is still the vice-president of the Saskatchewan Co-operative Elevator Co. Within the past year the manager of the same company, Mr. C. A. Dunning, has been appointed provincial treasurer of Saskatchewan. Thus three leaders in the farmers' movement in Saskatchewan are now members of the provincial cabinet.

In Alberta the Hon. Duncan Marshall, Minister of Agriculture, has also selected the farmers' movement. Mr. H. W. Wood, the president of the United Farmers of Alberta, and Mr. T. A. Crerar, the president of the Grain Growers' Grain Co., were recently appointed by the Dominion

government members of the Board of Grain Supervisors which has very wide powers and is charged with the responsibility of supervising the sale and marketing of the wheat crop this year in Canada.

Association Officers.

The chief officers of the farmers' organizations in western Canada are as follows:

Manitoba Grain Growers' Association—President, R. C. Henders, of Winnipeg, who at present is acting also as secretary of the association.

Saskatchewan Grain Growers' Association, President, J. A. Maharg, Moose Jaw; secretary, J. B. Musselman, Regina.

United Farmers of Alberta—President, H. W. Wood, Carstairs; secretary, P. P. Woodbridge, Calgary.

Canadian Council of Agriculture—President, H. W. Wood, Carstairs, Alberta; secretary, Roderick McKenzie, Winnipeg.

It is with these successful business organizations that the United Farmers of Ontario and the United Farmers' Co-operative Company, Limited, are now linked up through the Canadian Council of Agriculture. The progress already made indicates that the movement is going to prove equally as successful in Ontario as it has in the west. Already our Ontario Association, with its over 10,000 members has a larger membership than the Manitoba Grain Growers' Association. In this it should have the largest membership of any of the provincial organizations. The united support of the farmers of Ontario is all that is required to enable equally as great reforms to be accomplished in the east as have been secured in the west.

Fall Pastures for Profit

It is important that live stock go into winter quarters in good condition. Good flesh and vitality gained during the fall months lessens the cost of carrying through the winter. It is difficult to make stock do as well any place as on good pastures and an attempt should be made to provide the best of grazing facilities during the fall months. In many instances the regular pastures have been eaten bare while the crops have been growing and must be supplemented, if best gains are to be made.

On farms where aftermath is not available and where the pastures are bare a good supplement is offered in an early-sown crop of fall rye. With rye sown at the rate of two bushels per acre on well prepared land there is a possibility of excellent pasture for the various classes of animals. Fall rye is best adapted to the needs of sheep and they do exceptionally well upon it. A thick growth of fall rye is also acceptable pasture for hogs and gives the opportunity for a material saving of grain. When well grown, fall rye makes an excellent fall pasture for cattle of any kind. It is especially useful in quickening the milk flow from dairy cows. Best of all, a fall rye crop can be pastured by sheep or cattle during the fall months without in the least reducing the yield of grain from it the spring following. Any one who is short of pasture should plow up a piece of land and sow it to fall rye by August 15.

Where the rye crop is not wanted or rye seed is not available, a good fall pasture can be provided by sowing a mixture of oats and one-half bushels, barley a bushel, and Dwarf Essex rape two pounds per acre. This mixture sown by August 15 will furnish an excellent growth of rough forage that will be very acceptable when the grass pastures are gone.—A. B.

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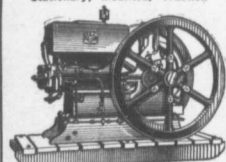
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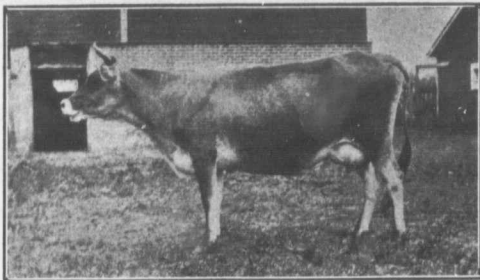
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A High Testing Jersey of the Foot-Hills.

This is Society Belle, owned by W. J. Williamson, Fort Saskatchewan, Alberta; dam, Society Beauty; sire, Brampton Rose's King. She has tested 6.92 per cent. butter fat.—Photo by an editor of Farm and Dairy.

Jersey Cattle Interests Are Progressing in the West

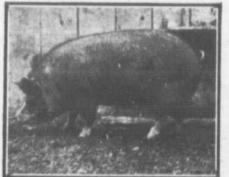
By an Editor of Farm and Dairy.

ANY lover of dairy cattle who visits western Canada and takes in the leading summer and fall exhibitions cannot help being impressed by the numerous excellent herds of Jersey cattle that he will find at the various exhibitions. This is especially true of Alberta and British Columbia, as while there are good Jersey herds at the Experimental Stations and Agricultural Colleges in Manitoba and Saskatchewan, the climate and soil conditions of Alberta and British Columbia seem to be better suited to the raising of good Jersey cattle. This applies also to the other dairy breeds.

In western Canada large towns and cities are not numerous, and the manufacture of cheese is but little practiced. The making of butter, on the other hand, is becoming an important industry. Cows which can be counted upon to give a large yield of butterfat are therefore sure to be popular. This helps to explain why Jerseys are now one of the principal breeds in Alberta, where the finest butter in Canada is manufactured. They are popular also in British Columbia, where profitable prices are paid for butter and cream. Another factor that is helping Jerseys in British Columbia is the method adopted by the local cow-testing associations of including the cost of production in the records that are kept of the production of each cow, so that the net profit in each case is shown. Certain it is that pure-bred Jersey and Jersey grade cattle have been increasing rapidly during the past few years in British Columbia.

Utility Type Preferred.
There have been some Jerseys imported into western Canada from the United States during the past year that in beauty of type and conformation will hold their own with the best show yard animals that eastern Canada can produce. This is saying a good deal when we consider the rarely good animals that are found in such herds as those of H. Bull & Sons, of Brampton, and Sir William MacKenzie at Kirkfield, and Mr. Robert Fleming's at Toronto. Neverthe-

less, the fact is that the west prefers a larger and more rugged type of Jersey than is commonly noticed in the show yards in the east. The people of western Canada are essentially practical. They have little regard for show and fine features, but a high opinion of everything that has a direct utility value. This it is which is leading them to demand a type of



A good Berk owned by W. J. Williamson, of Alberta.

Jersey cow that while testing high will also yield a large mess of milk. **An Outstanding Herd.**
In last year's Western Canada number of Farm and Dairy mention was made of the well-known Jersey herd of J. Harper & Sons, of Westlock, Alberta. For some years this herd has been the leading Jersey herd shown at the exhibitions in the prairie circuit. This year this herd has been remarkably successful in cleaning up most of the prizes. During the past 12 months it has been strengthened by the purchase of 12 animals from leading breeders in Kentucky and Wisconsin, with the result that it is stronger than ever before. Five of

these animals were secured from the famous Allandale Farm at Shelby, Ky., the purchase price of several of them running into four figures each. Two of these animals formed part of the winning breeders' young herd last year at a number of the leading fairs in the United States. All five were from high-testing animals in the American Registry of Merit. One heifer was recently imported from the Island and a second one was brought over three years ago.

Mr. Harper's show herd this year comprised 19 animals. At Calgary it won all the red tickets but one, and in that class they did not have an animal to enter. At Red Deer they got all the first prizes, there being only one other competitor. At Edmonton they took all the first prizes but two. Here they were defeated in the junior yearling bull class by an animal of their own breeding. At the Brandon Exhibition we had the privilege of looking over their stock, including their recent importations, and were not surprised when we were informed that Mr. W. W. Ballantyne, of Stratford, Ont., and Mr. W. F. Stephen, of Huntingdon, Que., who judged at some of the western fairs this year, had expressed the belief that they were as fine animals of the breed as ever have been imported into Canada. This is particularly true of You-Will-Do-Sweet-Thistles-Fatsoo, a two-year-old which this year has been winning the grand championship for the breed on the western circuit. Certain it is that she is a rarely good one.

A Utility Herd.
A typical western utility Jersey herd is that on the farm of W. J. Williamson, of Fort Saskatchewan, about 20 miles out of Edmonton. Mr. Williamson has been breeding Jerseys for only a few years, but already has secured stock which does him credit, and which will assure him, if his present plans are carried out, having in time a herd of great merit. This herd was started only five years ago. Mr. Williamson left Lindsay, Ont., and moved to the west in 1905. For a couple of years he lived in Edmonton, and later on bought a farm near Edmonton. About five years ago he purchased his present farm of 265 acres from his brothers and commenced the breeding of Jersey. His first start was made with three females purchased from John Steinford, who had procured them from David Ure, of Windsor, Ont. All three animals are still in the herd, and have done well for Mr. Williamson.

"My aim in breeding," said Mr. Williamson, "is to develop a strong type of animal which, while testing high, will also give the largest possible yield. So far I have been able to secure strength and size rather



Buildings on farm of W. J. Williamson, Fort Saskatchewan, Alberta, Jersey cattle breeder.

than some of the I believe I will be I feel that I have g intend to still fur herd as rapidly as tions will permit of my visit to Mr. his animals were considerable plain found to be stron showing every y good performers a The young stock strong in point

The He
The herd sire, D is an unusually large one about 1,610 pounds show yard type individual, and his strength of con qualities. This bull, Hazel Pogis and Flora. He is a M on both lines of traces into high-b including the dairy t. St. Louis World' brought from E. O. Ore.

A younger bull, Raleigh, took second year-old class at the bitton, and is a y good quality, show type, vigor and sm with strength and qualities. This bull, W. F. Cameron, o dam being Primro the Massie breed Brampton Raleigh from B. H. Bull & Sons.

Some Good
The herd compri bred animals and of superior female might be mention seven years old, on mals purchased. I tyes Beauty and H roses King. Her seed 6.1 per cent. producer.

Lady of the West
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A daughter of L
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"In addition to h Williamson has a n including young sto made into butter an Macdonald in Edm son is planning to sties, will also give in order to furthe herd. He desires more pure-bred cow his herd sire.

Farm Op
Mr. Williamson farmers who, hav from Ontario, is v the change. The la unusually rich and well suited for dai being water in ever grown include abo wheat, 17 of barley, 30 of green feed, a total of 250 acres. There is also grow of roots and potato raised with a fair during the past thr acres of alfalfa w year and produced good pasturage.
The farm is wel buildings, including feet, including two each. The barn brick foundation

than some of the finer points, which I believe I will be able to secure later. I feel that I have got a good start, but intend to still further strengthen my herd as rapidly as my farming operations will permit." On the occasion of my visit to Mr. Williamson's farm his animals were looked over with considerable pleasure. They were found to be strong, robust animals, showing every indication of being good performers and money makers. The young stock was particularly strong in point of quality.

The Herd Sire.

The herd sire, Dorinda Flora's Son, is an unusually large Jersey, weighing about 1,610 pounds. While not a show yard type he is a good individual, and his young stock show his strength of constitution and dairy qualities. This bull was sired by Olga Hazel Pogis and is out of Dorinda Flora. He is a Merry Maiden's son on both lines of his breeding, and traces into high-testing animals, including the dairy test winners at the St. Louis World's Fair. He was bought from E. O. Fisher, of Carlton, Ore.

A younger bull, Primrose Golden Raleigh, took second place in the two-year-old class at the Edmonton Exhibition, and is a youngster of rarely good quality, showing good Jersey type, vigor and smoothness, combined with strength and good handling qualities. This bull was bought from W. F. Cameron, of Strathcona, his dam being Primrose Golden Fox of the Masiee breeding, and his sire, Brampton Raleigh Hay, a bull secured from B. H. Bull & Sons.

Some Good Females.

The herd comprises some 17 pure-bred animals and includes a number of superior females. Among these might be mentioned Society Belle, seven years old, one of the first animals purchased. Her dam was Society Beauty, and her sire Brampton Roses King. Her tests have averaged 62 per cent. She is a large producer.

Lady of the West, a 10-year-old animal, is one of the large dairy type that Mr. Williamson prefers. She will weigh about 1,100 lbs. Her dam was Dentonia's Society Girl, and her sire Beckland's King Edward IV.

A daughter of Lady of the West is Hillcrest Lass, a seven-year-old, sired by Brampton Rose King. This is a low, deep-set animal, showing great dairy capacity and good Jersey quality.

In addition to his pure-breds, Mr. Williamson has about 20 grade cattle, including young stock. The creams is made into butter and sold to the Hotel Macdonald in Edmonton. Mr. Williamson is planning to go either to the States or the Isle of Jersey this fall in order to further strengthen his herd. He desires to secure a few more pure-bred cows and to change his herd sire.

Farm Operations.

Mr. Williamson is one of those farmers who, having moved west from Ontario, is well satisfied with the change. The land on his farm is unusually rich and productive. It is well suited for dairy farming, there being water in every field. The crops grown include about 45 acres of wheat, 17 of barley, 60 of timothy hay, 30 of green feed, and the balance, (a total of 250 acres in crop) in oats. There is also grown five to 15 acres of roots and potatoes. Corn has been raised with a fair degree of success during the past three years. Eighteen acres of alfalfa were grown in one year and produced two good cuttings and good pasturage.

The farm is well equipped with buildings, including a barn 86 x 70 feet, including two wings of 18 feet each. The barn has an eight-foot brick foundation and a large root

house under one wing. There is a milk house, 15 x 22 feet, with a refrigerator, in which the temperature can be controlled at from 40 to 44 degrees. There is also a slaughter house, 37 x 40 feet, in which there is another large cold storage compartment. Water is piped through the buildings by a Fairbanks-Morse engine, in addition to which there is a 12 h.p. International engine. The buildings are equipped with electric light.

At the Edmonton Exhibition this year Mr. Williamson's Jerseys captured 17 prizes. He is commencing to test his animals this year, having entered them in the R.O.P. Like many other farmers the chief difficulty he has to contend with is lack of experienced help. This has handicapped him quite a little in his farm work, but he hopes soon to overcome it and to develop his herd to a point where it will take a leading place both in the show ring and in the making of official records.

In the Exhibition number of Farm and Dairy we hope to publish a further reference to the Jersey herds of western Canada, more particularly those in British Columbia.

Gold Medal Farmer Dead

A SAD fatality occurred at Woodstock on August 6th, when Mr. Wm. Donaldson, 88 years of age, was run over by an automobile and killed. Mr. Donaldson was at one time known far and wide as one of the best farmers in Ontario, and his farm was once awarded the gold medal in an Ontario Good Farms Competition, conducted by the Provincial Government. Mr. Donaldson came to East Zorra from his home in England when a boy of eleven, and had lived on the farm in which he took so much pride ever since. He was a member of the executive of the Ontario Agricultural College, president of the North Oxford Agricultural Society for many years, and for some years president of the North Oxford Conservative Association.

W. J. Bell Appointed

W. J. BELL, B.S.A., has been appointed Principal of the Agricultural School which the Ontario Government is establishing at Kempville for eastern Ontario. Mr. Bell comes from Dufferin county, and taught school for a number of years. Since graduating at Guelph he has been in the Institutes Branch of the Ontario Department of Agriculture. He is reported as an excellent livestock man. His appointment takes effect on September 1st.

Although the school will not be open for students in the regular courses this year, there is a great deal of preliminary work to be done, which will require the attention of a Principal. The red-stock judging pavilion will be finished this year, in which short courses will be held during the winter months. The two-hundred-acre farm is also being operated by the government, and a herd of dairy cattle is being assembled. The work is therefore being advanced as rapidly as possible, under war conditions, and everything should be in shape for starting the institution on full running as soon as the war is over.

More Western News

Owing to lack of space in this issue, several articles dealing with western Canada had to be held over. These articles will be published in succeeding issues of Farm and Dairy. Some of the subjects to be treated are "Live Stock Marketing in Alberta," "How Western Farmers Raise Their Taxes," "What Saskatchewan Does to Help its Farmers," and numerous others.

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IT IS YOUR SAVINGS, NOT PAY CHECKS THAT COUNT

The average town worker with a family cannot save more than \$120 a year. Rent, food, clothing and expensive amusements take the rest. Once his machinery, seed and live stock are paid for the average Western Farmer has a yearly turnover of \$500 and up, his own.

OWN A WESTERN FARM

by Homesteading along the lines of the Canadian Northern Railway, where the newest and most fertile sections are still open for settlement.

Booklets and information on application to General Passenger Department: Montreal, Que., Toronto, Ont.; Winnipeg, Man.

CANADIAN NORTHERN RAILWAY

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CANADIAN NORTHERN RAILWAY

The Canadian Pacific Gives You Twenty Years To Pay---

if you wish. An immense area of the most fertile land in Western Canada for sale at low prices and on easy terms, ranging from \$11 to \$30 an acre for farm lands with ample rainfall—irrigated lands from \$35. Terms, one-tenth down, balance within twenty years.

In irrigation districts, loans for farm buildings, etc., on irrigation farms, up to \$2,000, also repayable in twenty years—interest only 6 per cent. This great offer is based on good land. The Canadian Pacific offers the finest land on earth for grain growing, cattle, hogs, sheep and horse raising; dairying, poultry, vegetables and general mixed farming.

If you already have a farm in Western Canada, here is your opportunity to increase your holdings by getting adjoining land, or to secure your friends as neighbors.

For literature and particulars apply to

Allan Cameron

General Superintendent of Lands,

Desk 12, Department of Natural Resources,

CANADIAN PACIFIC RAILWAY,
CALGARY, ALBERTA.

Leaders in Western Agriculture

Introducing to Our Readers the Ministers of Agriculture for Our Four Western Provinces—By the Deputies

THE HON. VALENTINE WINKLEH, Minister of Agriculture and Immigration for Manitoba, has farmed extensively in that province, being a breeder of pure-bred livestock, as well as engaging extensively in grain growing. Mr. Winkler was born at Newstadt, Ontario, on March 15, 1864, and in 1878 migrated to Emerson, Manitoba.

His sympathy with the struggling homesteader was the reason for his passing at the 1916 session of the Manitoba Legislature of "The Settlers' Animal Purchase Act," or, what is far better known as "The Winkler Cow Scheme." This Act is entirely original and will in time be the means of

gave to the accomplishment of the task of organizing the scattered groups of grain-growers. Today western farmers enjoy the benefits which the grain-growers wrested one by one from their unyielding taskmasters.

His department is admitted by even his political opponents to be one of the most capably administered of any in Canada.

THE HON. DUNCAN MARSHALL, Minister of Agriculture for Alberta, had the great ideal in life, to promote the welfare of the men of the land. This consecration of intelligent endeavor on behalf of Alberta's agricultural problems has already borne a rich harvest in almost every avenue of our agricultural development.

Mr. Marshall was born September 24, 1872, at Elderslie Township, Bruce County, Ontario. He was one of the best-known workers and organizers of the Patrons of Industry movement in Ontario from 1891 to 1898. He came to Alberta June, 1905, as manager of the Edmonton Morning Bulletin, until he became Minister of Agriculture. He is the owner and operator of a large farm in the Olds District.

While it has been said that his greatest hobby is "live stock," his most distinguishing characteristic undoubtedly has been in promoting agricultural education. Mr. Marshall has set the standard for practical teaching services for farm boys and girls for the whole of the Dominion of Canada, in the establishment of his Agricultural Schools. It is evident from the popu-



Hon. Valentine Winkler, Minister of Agriculture and Immigration for Manitoba.

lating a prosperous community in a section of Manitoba where the settlers were in need of practical assistance.

Other progressive pieces of legislation fathered by the Manitoba Minister of Agriculture during his term of office are the "Agricultural Societies' Act," "Sheep Protection Act," "Stallion Enrolment Act," and the new Weeds Act, all of which are working out admirably well and producing beneficial results to a marked degree.

The Minister is a man of few words but quick action; physically strong and mentally active; a pronounced democrat, and commands the respect and confidence of the entire staff of his department; a Liberal in politics; a Methodist in religious belief, and a Canadian in ideals.

A PIONEER among pioneers and a farmer among farmers is Hon. W. R. Metherwell, of Saskatchewan, Minister of Agriculture for the big wheat-growing province of Canada, where the "farmers' government" is strongly entrenched in the confidence and esteem of the electorate.

Mr. Metherwell began life in Perth, Ontario, 58 years ago. He homesteaded in Abernethy district north of Qu'Appelle 35 years ago. He was a student at the Ontario College before going to the "Northwest," and the training which he there received, with the experience on his father's farm, was the foundation for a successful career in the new land. He was largely instrumental in organizing the Grain Growers' Association in Saskatchewan and was president of the association until he became Minister of Agriculture in 1905. The world knows how this association has succeeded, but few know the time, the energy, and the thought which Mr. Metherwell



Hon. W. R. Metherwell, Minister of Agriculture for Saskatchewan.

larity of the schools that they are meeting the need of the province. They have now been in operation four years and some 900 boys and 350 girls have been in attendance. Under his skilful direction the cause of agriculture in Alberta has the right-of-way to-day and is being established upon the firm foundation of modern science, statistics, facts and advertising, and everywhere our farmers are enjoying a large measure of contentment and prosperity.

THE HON. JOHN OLIVER, Minister of Agriculture and Railways for British Columbia, has behind him considerable experience in agriculture and contracting in his province. Mr. Oliver was born in the Village of Hartington, Derbyshire, England, on the 31st July, 1856, and came to Wellington County, Maryborough Township, with his parents in May, 1870. For the next seven years



Hon. Duncan Marshall, Minister of Agriculture for Alberta.

he was engaged in clearing up land and farming operations with his father in Maryborough. In the spring of 1877 he came to British Columbia, taking up land in the New Westminster district. His present farm was reclaimed from the sea by dyking and under-draining. Mr. Oliver has been engaged in agricultural pursuits for the major portion of the time that he has been in British Columbia, although he has engaged in general contracting, and operations in connection with steam threshing and sawmill machinery as a side issue. He first entered provincial politics in 1900, representing the District of Delta for ten consecutive sessions. At the general election last September he was returned to represent the Electoral District of Dewdney, and was appointed Minister of Agriculture and Railways in November last.

A. MacLachlan, the district representative in New Liskeard, writes Farm and Dairy that he is now managing a government creamery at that point. He believes that the north country has a great future as a dairy industry where it should be given every encouragement. "I gave the patrons an address on cow testing, handling the dairy cow, taking care of milk, etc., to our patrons and they were very enthusiastic," said Mr. MacLachlan. "Although the factory is not large at present, it will grow quite rapidly."



Hon. John Oliver, Minister of Agriculture and Railroads for British Columbia.

SASKATCHEWAN

The Fruits of Co-operation Between the Farmers and the Government Which Have Made Saskatchewan Such a Desirable Province to Live in Are Many. Here Are a Few:

1. The Saskatchewan Cooperative Elevator Company, Limited, is the largest and most successful initial grain handling concern in the world, owned by the organized farmers. The Saskatchewan Government loaned 85 per cent. of the money needed to erect the elevators and guaranteed the company its line of credit, but left the management of the business to the farmers.

2. The Saskatchewan Cooperative Creameries, Limited, is a new company which includes all the cooperative farmers' creameries in Saskatchewan. The Government loans the company up to 75 per cent. of the capital needed to erect new creameries or public cold storage warehouses in connection with its creameries, and guarantees the repayment of its bank loans.

3. The Municipal Hail Insurance Act was passed on the recommendation of the Grain Growers' Association, to indemnify farmers for hail losses. The application of the Act is optional by any municipality. Except in 1916, it has proven very successful.

4. The Farm Loans' Act, provides for long term loans to farmers on the amortization plan with annual payments (covering both interest and principal) less than are now paid for interest alone.

5. The Saskatchewan Government was the first in Canada to adopt a policy of selling live stock to farmers on credit terms with low rates of interest. A Royal Commission is now working on a solution of the live stock marketing problem.

6. Rural telephones are now used by 25,141 farmers. By the end of 1917 there will be 37,000 in use. Favorable laws and reasonable assistance have made this possible.

7. The Farm Implements Act was passed to provide necessary safeguards in the purchase of large implements. The Government through a Royal Commission first investigated conditions and then applied the remedy.

8. Temperance legislation and executive action have succeeded, as far as it is possible for a province to do so, in curtailing the trade in intoxicating liquors.

9. Saskatchewan women, the first in Canada to exercise the franchise, voted for the overthrow of the liquor traffic in Saskatchewan, December 11th, 1916.

10. The Government has made liberal provision for agricultural education through its College of Agriculture at Saskatoon. Experimental work, teaching and extension work are included in its activities.

If you wish to select a new home in a new country, consider carefully the inducements which Saskatchewan offers.

DEPARTMENT OF AGRICULTURE

Regina

Saskatchewan

Farm and Dairy

AND

Rural Home

"The Farm Paper of Canada's Dairy Farmers"
Published Every Thursday by
The Rural Publishing Company, Limited
Peterboro and Toronto

47

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The paid subscriptions to Farm and Dairy approximate 20,000. The actual circulation of each issue, including copies of the paper sent to subscribers who are but slightly in arrears, and sample copies, varies from 20,000 to 22,000 copies. No subscriptions are accepted at less than the full subscription rates.

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

OUR GUARANTEE.

We guarantee the every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provide such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and we will find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Regus shall not ply their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and dishonest business men who advertise, nor pay the debts of non-payers.

The Rural Publishing Company, Ltd.

PETERBORO AND TORONTO

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

The Number in Your Hand

THIS is the second Western Canada Number published by Farm and Dairy. The success of last year's Special Number, in helping to create a greater sympathy between our Eastern and Western farmers, decided us to make this an annual feature. Certain conditions have created a real need for such a link between East and West, and it is with the hope that this demand may be in some measure satisfied, that we send out this number.

Western Canada is the country in which the Canadian farmer first really found himself. It was there in the fertile prairie soil that the most powerful farmers' organizations on the continent took root. The same factors that have given us the famous hard wheat of the prairies, have given us hard-headed farmers, who have shown themselves thoroughly capable of managing their own business on a large scale. The growth of the farmers' movement in Ontario has led to an increased desire for information explaining the success of the farmers' movement in Western Canada and its development in each of the three prairie provinces. A study of the methods by which such success has been achieved cannot fail to be of benefit to the farmers of our older provinces. Much information along this line will be found in this edition of Farm and Dairy.

Each year, also, a certain number of our readers in Ontario, who require more room for working out their plans in farming, sell out their old homesteads and "go West." These prospective settlers are therefore desirous of obtaining accurate information regarding farming conditions in Western Canada. Information from the pen of

the disinterested easterner is of much greater value to such men than the selling points displayed by a real estate agent or a railway company. Here, too, we desire that our Western special may be of value to our readers.

In order that we may keep in touch with Western farming conditions and thereby maintain Farm and Dairy as the national dairy farmers' paper of Canada, our representatives have travelled to the coast, over all three of the great transcontinental lines; as well as over numerous branch lines, and have thus thoroughly covered the country. Each year we purpose to cover our Western provinces, and each year the results of our studies and observations will be published in an issue such as the one you hold in your hand. Above all else we desire that this issue may be a link between the men of the East and their brethren of the West who earn a living from the soil.

The Railway Proposals

THE proposal of the Government to nationalize the Canadian Northern Railway system and to loan \$7,500,000 to the Grand Trunk system, is not considered by anyone as a solution of our railway problems. Even Finance Minister White admitted in introducing his measure that the bill was intended to alleviate the present situation and that the final solution would have to be dealt with by a future Parliament.

Among the more conservative elements of both parties, the Government proposals will be regarded as a long step toward Government ownership. Among the more radical elements, however, and in these are numbered the organized farmers of Canada, the measure now before the House will be regarded as inadequate in the face of a situation that calls for vigorous and fearless action. The nationalization of the Canadian Northern Railway this year will do practically nothing to remove the weakness of the present situation. We will still have the same duplication of tracks in unproductive areas. The lack of Eastern connections will hamper the new government road as it did the old Mackenzie and Mann road. In the nature of things there can be no more cooperation between the roads to render real service to the people than has been the case in the past. Had the recommendations of the Drayton-Ackworth report been followed and the Canadian Northern and the Grand Trunk systems both nationalized and these connected up with the Intercolonial, much duplication of effort could have been avoided, the combined systems would have had splendid connections with both Eastern and Western points, and would have been the most complete railway system in the world. Such a nationalized railroad would have had a good chance of making ends meet financially. If the Canadian Pacific Railway, as well, had been included in the nationalization, maximum economies would have been possible, operating expenses and dividends could have been met and Canadian railroads could have been an asset to the Canadian people. As a result of partial nationalization as proposed, the Government is undertaking the expense of running a line, a great part of which should never have been constructed.

An Embargo on Wool

OVER a year ago the woolen manufacturers of Canada succeeded in having an embargo placed on Canadian wool, which depressed prices to a point where farmers were compelled to sell at a loss. This embargo was brought on so quietly that farmers knew nothing of it until the market began to drop. We were caught napping and we need to beware lest the manufacturers catch us again unawares. Another embargo is desired. In the Canadian Textile Journal for July the plea is made that such a large

percentage of the Canadian clip is being sold to the United States, that the output of Canadian mills is in danger. The situation can be best remedied, so our contemporary tells us, by another embargo on wool.

It is true that much wool is going across the line. What the Canadian Textile Journal fails to mention, however, is that Canadian mills can buy this wool just as cheaply as the United States mills are doing, and that their manufactured product is being sold at just as good prices. Likewise wages in the textile industry are, if anything, higher in the United States than here. If our mills cannot manufacture in competition with the mills across the line, it must be due to inefficient management, and this can be remedied only by the wool manufacturers themselves. If, however, we may judge of the condition of our woolen industry by the dividends that our mills are paying on their capital stock, we should say that they are doing fairly well and are quite able to pay a competitive price for Canadian wool. We know that any farmer would be glad to reap half the interest on his farm investment that the woolen industry is netting its shareholders.

A little history may be of interest. In pre-war days woolen manufacturers enjoyed, as they still do, a high protective tariff on the manufactured article. Even the British Preference was modified to meet their demands and shut out the British manufacturer. Raw wool on the other hand was placed on the free list. Much foreign wool was imported and Canadian manufacturers showed little interest in the Canadian clip until foreign supplies became scanty. Now, when the Canadian farmer, for the first time in the history of the woolen industry in Canada, is in a position to demand a fair price for his product, the woolen manufacturers are said to be importuning the Government to again knock the bottom out of the market with an embargo. The great of protected corporations is beyond all reason and serves to emphasize anew the need of a powerful farmers' organization to guard our interests.

Big Business

THE Grain Growers of Western Canada at their next annual meeting, so it is reported, are going to ask for authority to borrow the sum of \$15,000,000, protected by mortgage and bond issues. This request is taken to indicate plans for a widespread extension of the company's activities in grain handling and in cooperative selling throughout the West.

This report indicates the extent of the business now being handled by the farmers of Western Canada. It is big business, but unlike "Big Business" as we have known it in the past, it is not intended to enrich corporations at the expense of the masses, but its benefits will be distributed far and wide among the thousands of cooperating farmers in Western Canada. This is a type of big business that we, as farmers, may well endorse. Ontario farmers have made a start and East and West may some day be uniting in even greater undertakings than those which will be considered at the next meeting of the Grain Growers' Grain Company. Our success in the East, and therefore the value of the cooperation that we can extend to the West, all depends on the support which Ontario farmers are willing to give to their own organizations, the United Farmers of Ontario and the United Farmers' Cooperative Company, Limited.

Corn should be nearly ripe before being put in the silo. Experiments at the North Dakota Experiment Station have shown that corn in the glazed stage contains three times as much dry matter as when tasselcd out, and the glazed corn is also more digestible than corn that is less mature.

P A Talk With Dairy

EVER since the day we have acquired the art of making butter toations in Eastern Canada away the chief advantage as a marked increase towards the dairymen as well as a desire as possible about the remarkable success. As the reason for the took advantage of the while in Calgary remark that I could about the growth t in the manufacture Commissioner C much interesting in

"The increase that year in the manufacure entirely," said M increased price that cheese this year, been due to world c increase has taken plac our large cities. Th creameries, such as City Dairy, and the Co. of Edmonton and Col. of Edmonton and Carlisle Dairy Co. found it possible to increase the summer making purposes. been enabled to pay ter prices for their merly, and this has increased price that cheese this year, about 1,000,000 lbs. o against 750,000 lb increase of about cheese is sold almost local market, and beginning to ship s which in the past has Ontario cheese."

The Creamery When asked what success of Alberta Mr. Marker replied that it was its mild flavor texture and low content. "We attach a preference to the low moisture," said M means less loss in eva In setting we use 1 1/2 pared with about 2 1/2 quality of butter we facturing has grown o of the consumers in for such butter.

At one time British New Zealand butter under that we might our butter we had t grade of butter that own with or even s Zealand product on the big market. The w in doing, as now Brit ports very little from the process we have deal, as the style o manufacturing is simi was imported from which they had de shipping butter to Gre our grade of butter is to the demands of the lic in Alberta and T but to the British n I am satisfied that it ter which is bound t

Better Keeping "One advantage I ter possesses, is that keeping qualities. W a higher pasteurizat than other provinces o methods are cons of line with the gen siders set by leadin

Progress In Alberta Dairying

A Talk With Dairy Commissioner Marker. Alberta Butter Now Controls British Columbia Market. Cheese Trade Growing.

EVER since the dairymen of Alberta have acquired the habit of sending butter to our largest exhibitions in Eastern Canada which carries away the chief awards there has been a marked increase in respect felt towards the dairymen of that province, as well as a desire to know as much as possible about the reasons for the remarkable success they have achieved. As the reasons are numerous I took advantage of the opportunity while in Calgary recently to learn all that I could about them, as well as about the growth that is taking place in the manufacture of cheese. Dairy Commissioner C. Marker furnishes much interesting information.

"The increase that has occurred this year in the manufacture of cheese is due entirely," said Mr. Marker, "to the increased price that has prevailed for cheese this year. This, in turn, has been due to world conditions. The increase has taken place mainly around our large cities. This year our largest creameries, such as the Edmonton City Dairy, and the Woodland Dairy Co. of Edmonton and the Calgary Central Dairy and Creamery Co., and the Carlyle Dairy Co. of Calgary, have found it possible to use the surplus milk of the summer season for cheese-making purposes. Thus they have been enabled to pay their shippers better prices for their surplus than formerly, and this has tended to increase the supply of milk.

"I expect that we will manufacture about 1,000,000 lbs. of cheese this year as against 750,000 lbs. last year, or an increase of about 33.3%. Our cheese is sold almost altogether on our local markets, although we are now beginning to ship some to the coast, which in the past has been supplied by Ontario cheese."

The Creamery Situation.

When asked what he attributed the success of Alberta butter to chiefly, Mr. Marker replied that he believed it was its mild flavor and fine or close texture and low content of free moisture. "We attach a good deal of importance to the lower percentage of moisture," said Mr. Marker, "as it means less loss in weight when selling. In selling we use 1 1/2% to 2% as compared with about 3% in the east. The quality of butter we are now manufacturing has grown out of the demand of the consumers in British Columbia for such butter.

At one time British Columbia imported as much as 7,000,000 lbs. of New Zealand butter in a year. In order that we might find a market for our butter we had to manufacture a grade of butter that would hold its own with or even supplant the New Zealand product on the British Columbia market. This we have succeeded in doing, as now British Columbia imports very little from New Zealand. In the process we have learned a good deal, as the style of butter we are manufacturing is similar to that which was imported from New Zealand and which they had developed through shipping butter to Great Britain. Thus our grade of butter is adapted not only to the demands of the consuming public in Alberta and British Columbia, but to the British markets as well. I am satisfied that it is a style of butter which is bound to grow in favor.

Better Keeping Qualities.

"One advantage I believe our butter possesses, is that it has better keeping qualities. We have adopted a higher pasteurizing temperature than other provinces or states, in fact, our methods are considered to be out of line with the generally accepted standards set by leading investigators.

In other words, we are going a little farther along certain lines than it has been considered safe to go. As a result we are turning out butter that can be stored for eight, ten or even twelve months, and come out of storage as good in quality as when it was put in. Of course there is no reason why butter should be carried that long, but the fact that our butter can be so kept shows its keeping qualities, and these qualities are given to it during the process of manufacture.

Two Important Factors.

"The two outstanding factors that make for keeping quality are low acidity of the cream and high pasteurizing temperature during the process of manufacture. In deciding to favor high temperatures we worked on the basis that there are two known classes of ferments in milk and its products—the organized and unorganized. Investigators have worked out relative temperatures for different systems that were supposed to be about equal in efficiency. The two chief systems are the continuous and the vat system.

"These comparisons have generally been made on the basis of bacterial count. Since the deterioration of butter in storage is largely due to the action of unorganized ferments, it appeared to us necessary to employ temperatures sufficiently high to destroy or at least to make inoperative the majority of the unorganized ferments or enzymes.

Careful Tests Conducted.

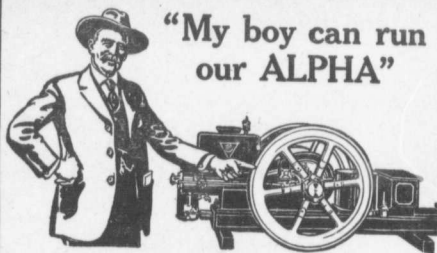
"Before advocating the use of high temperatures we tested their results thoroughly privately until we felt that we were sure of our ground. It was not, however, until the beginning of last season that our creameries were urged to adopt this method in a large way. Our object was to eliminate fishy flavors and to give the butter improved keeping quality. We knew that if we could do this the trade would have more confidence in our product, and the whole industry be placed on a better basis.

"Were it not for the fact that our creamery managers, and I might also say our dairy farmers, are an unusually progressive set of men we would not have met with the success that we have in introducing this system. The cost of equipping a creamery so that it can pasteurize its cream runs from \$1,000, to the case of a small factory, to as high as \$10,000 for the larger ones. Naturally our creamery men had to be convinced that it would pay them to make such an investment before they would consent to do so. As one of our large manufacturers said to me, "You are asking me to bet \$10,000 that what you are advising me to do will turn out to my benefit." This man took a bet. Six months after the system was installed I asked him how his bet was coming out. He replied that it did not owe him a cent.

Great Benefits Derived.

"I believe that the direct benefits derived from the adoption of our present methods are at least ten times greater than the cost involved in securing the necessary equipment, while the indirect benefits that grow out of the increased confidence of the trade and the knowledge that it can feel absolutely safe in handling our goods may be placed at figures as high as you care to make them." When asked what proportion of the butter in the province was made according to the new method, Mr. Marker replied that last year about 85% of the output was made of pasteurized cream, and that

(Concluded on page 37.)



"There aren't many engines I'd trust him with, but the Alpha is so simple that I know he can't go wrong."

Isn't that the kind of engine you want around your place—an engine that is as steady and dependable as the best horse you've got?

The Alpha doesn't have to be "tuned up" every time you want to run it. It contains no electric batteries to weaken and give trouble—no complicated parts to get out of order. To start it you simply oil it, turn on the fuel and give the flywheel a pull.

You need a gas engine and it pays to buy a good one. There are definite reasons why the Alpha is best.

Alpha Gas Engines are made in eleven sizes, 2 to 25 H.P., and each size is furnished in stationary, semi-portable, or portable style, with hopper or tank-cooled cylinder.

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separator and Ideal Green Feed Silos, Alpha Gas Engines, Alpha Churns and Butter-machines.

MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

HOMESTEADS

In the Banner Home Province of Ontario

20,000 acres of the Finest Agricultural Land in Canada, Waiting for You in the Northern Part of Ontario.

Think of it! Homesteads available at 50 cents per acre—close to railroads—close to markets—close to civilization and attending advantages.

Land of opportunity—you can make yourself a home within a short day's journey of Toronto.

Land lies in one of the best belts of Canada along the TEMISKAMING AND NORTHERN ONTARIO RAILWAY, which has connections with the G. T. R., C. P. R., C. N. R. and C. G. R. Railways, thus bringing the settlers within easy reach of the profitable markets of the Continent and Europe.

Prosperous towns, growing into cities; in this way local markets available to the settler for buying and selling.

You may have a happy home and a fertile farm at 50 cents per acre in your own home Province of Ontario—why, then, go far afield for these ideal conditions?

Exhibits of the products and of the possibilities of production of New Ontario's land have been shown at Canada's National and other Expositions, so that it is now known as Canada's land of production.

Not only land of agriculture, but embraces large and rich mineral belts, from which annually, millions of dollars of gold and silver are mined.

Learn more of this Land of Plenty by sending for free booklets to Geo. W. Lee, Commissioner, and General Agent, North Bay, Ont.

Temiskaming and Northern Ontario Railway Commission

Executive Offices—56 Church Street

TORONTO, ONTARIO.

Alberta Farmers

Find Cooperation in Business Profitable

The Proof of the Pudding That it is paying the Farmers of Alberta to cooperate has been proved in many ways. We not only are often able to buy goods from our own company at much lower prices than we could procure similar goods for elsewhere, but the mere fact that we are in business leads business firms all over Alberta to sell goods to farmers on better terms. Competing elevator companies, also, handle the farmers' grain on better conditions than they would, but for our presence in the field and live stock buyers pay better prices. Thus tens and hundreds of thousands of dollars are saved by us each year.

The Cooperative Supply Department The farmers of Alberta appreciate the service we are giving them. This is shown by the growth in the volume of the business they are doing through our company. Take our Co-operative Supply Department: It is through this department that we enable Alberta farmers to purchase supplies on the best possible terms. This Department was started in a small way in 1913-14. It grew rapidly. The following year, 1914-15, the business transacted was 400 per cent greater than during the first year. In all \$400,000 worth of goods were handled, not including binder twine. This represented a total of 705 cars. Last year, 1915-1916, there were 998 car loads of goods shipped. This included 133 car loads of binder twine, 160 cars of flour and feed, 204 cars of posts and 372 cars of coal. During the first 10 months of this year we have handled 1,825 cars of goods, worth \$858,488. Thus we have demonstrated that it is possible for farmers to conduct a big business in general supplies with success.

Live Stock Handled on a Large Scale It used to be hard for our farmers to sell their live stock to advantage. Now we are helping them and they appreciate it. In 1913-14, when we opened our Live Stock Department, we handled up to June 30, 1914, 141 cars of stock, or about 11,000 hogs and 6 cars of sheep. During 1914-15, farmers sent us 344 cars of live stock, including 27,529 hogs, 897 cattle and 91 sheep. Between August 1, 1915 and August 31st, 1916, there were sold 628 cars, representing 36,224 hogs, 3,545 cattle and 659 sheep. In 10 months this year, there have been handled 1,367 cars, or 56,750 hogs, 10,709 cattle and 2,260 sheep, which were sold for \$2,092,409. This business represents a large saving in expense and better prices to the farmers, and a profit to ourselves. Thus it has been proved that farmers can sell live stock cooperatively and successfully.

Grain Handled with Great Success It is in the handling of grain that we have laid the foundation of our business that has made our other undertakings possible. The first year we started, 1913, we had 52 elevators; in 1914 the number grew to 79, in 1915 to 87, and in 1916 to 103. This year we will have 143. In 1913-14 our farmers shipped through us 4,119,813 bushels of grain, in 1914-15, we handled 5,149,092, and last year 19,123,486. Year by year, as the farmers of Alberta find ever more clearly the benefits of cooperative shipping they are enabling us to handle for them, a rapidly increasing percentage of the total grain crop of the province. Thus our cooperative handling of the grain crop has proved a great success.

Cooperative Efforts a Financial Success Our aim has always been to give our farmer-shareholders and patrons better service, and at less expense than they could obtain elsewhere. Through their loyal cooperation, we have succeeded. This is shown by the growth of our business. In 1913, when our company was organized, we had 3,500 shareholders. To-day we have 15,640. In 1913, our subscribed capital stock was \$360,000. To-day it is \$1,315,500. In 1913 our paid-up capital stock was \$72,000. Now it is \$552,179. Three years ago our assets were \$953,849. On July 31, 1917, they were \$2,580,078. But better even than this; we have not only given the farmers of Alberta better service and enabled them to save and earn many millions of dollars more than they otherwise could, but we have done it on sound business principles, and at a liberal profit to ourselves. In 1915 our net profits on all our operations were \$36,229. Last year they were \$282,484. Thus we have further demonstrated that farmers can both work and stick together in cooperative efforts, and do so at a substantial profit to themselves.

The great cooperative movement among the farmers of Canada is only in its infancy. It has not more than nicely started. As we progress we discover many new lines along which we should advance as opportunity permits. Our success, so far, has been largely due to the fact that we have not hesitated to pay liberal salaries in order that we might secure and retain the services in our business of men of marked ability. The progress made so far has but laid the foundation for future enterprises, the size and scope of which no one can estimate or foresee. Thus we hope the day is at hand when farmers' sons will no longer leave the farms of Canada to make names for themselves in business in our great cities, but, instead, will identify themselves with our own great undertakings, and thereby assist in making farmers the most prosperous, contented, progressive class of citizens in Canada. In the accomplishment of this ideal we ask for your cooperation.

The Alberta Farmers' Co-operative Elevator Supply Co., Ltd., Calgary, Alta.

Alberta Farmers

Cooperate in Handling Their Own Business

15,640 Farmers in Alberta have united their forces and now bear testimony that cooperative methods are profitable and beneficial. **True cooperation involves complete cooperation.** That is, we must work together not only that we may be enabled to produce larger and better crops, but in order that we may produce those crops at the least possible expense and sell them at the highest possible price. Only in this way can farming be made to yield the profits that it should.

Alberta's Organized Farmers are cooperating in three ways through our great provincial farmers' company, **THE ALBERTA FARMERS' COOPERATE ELEVATOR COMPANY, LIMITED.** **FIRST,** We are uniting through our **Cooperative Supply Department** in order that by buying only **FOR CASH, in LARGE QUANTITIES, WHEN THE MARKET IS FAVORABLE** we may be enabled to secure our supplies **ON THE BEST POSSIBLE TERMS.** This is assisting us to greatly reduce our individual expenditures for binder twine, fence posts, wire, agricultural implements, coal, lumber, cement and many other articles we have to purchase for use in our farm operations. In this way we save annually hundreds of thousands of dollars a year.

Sell Live Stock Cooperatively **SECOND:** Because we are organized we are now enabled, through our **Live Stock Department,** to sell our **cattle, sheep and hogs** at less expense and more easily and satisfactorily, as well as at **better prices** than ever before. Much of our live stock is shipped through our own local associations or through the managers of our own local elevators, to our own live stock salesmen at the large market centres, such as Calgary and Edmonton. These men are paid good salaries and it is to their advantage to obtain for us the best possible prices for our live stock. These same men, when we so desire, will purchase for us stockers and feeders on the lowest possible terms. Being always on the market they know just when and how to buy. Thus we derive the benefit of their wide experience and special opportunities for buying.

Sell Grain Crops Unitedly **THIRDLY,** through our own great elevator system we are selling our grain cooperatively and saving millions of dollars a year by so doing. Some years ago we were largely at the mercy of the private elevator systems. We had to accept their weights, spreads, dockages, etc., and pay their charges for cleaning, binning and handling our grain. Where there were no competing elevators these dockages and charges were often exorbitant. Now we have 103 elevators of our own throughout Alberta. This year we are erecting 40 more. Now we do our own weighing, cleaning and storing by means of our own paid managers, and thus we are assured of fair treatment at moderate expense. Last year we handled 19,123,486 bushels of grain in our own elevators. No one can tell how many millions of dollars we have saved in this way since the formation of our company. We have proved that **CO-OPERATION PAYS LARGE DIVIDENDS.**

Cooperation in National Affairs Now that we have proved that cooperation pays in business and also in provincial affairs it is our desire to unite with the farmers in the other provinces of Canada in National Affairs. We have found, through conducting our own business that many industries in Canada have succeeded in having national laws passed which benefit them through putting a burden on us. This is particularly true in tariff matters as our tariff laws enable our great city and other industries to form trusts and combines and thereby to increase the cost of practically everything we buy. In this way millions of dollars are taken from us each year. When the farmers of Canada unite on the Farmers' National Platform, which we are glad to note that the organized farmers of Ontario have adopted, we will be able to change these conditions.

To the farmers of Eastern Canada we send this message, through The Western Canada Number of Farm and Dairy. It is our hope that you will all use every opportunity to unite not only with yourselves, but with us in promoting the cause of the farmers of Canada as a whole in every legitimate way. In no way can we better assist Canada and the Empire. All of you who may be thinking of moving to our Great West we invite to settle in Alberta and become identified with us in the company of which we are so proud.

The Alberta Farmers' Cooperative Elevator Co., Ltd. - Calgary, Alta.

OUR FARM HOMES



FAITHFULNESS is better than silver and gold and farms and households may, than all worlds.

Winning the Wilderness

(Continued from last week.)

"Oh, that's right next door to heaven, but I can't go just yet. There's too much doing here," the little bugler declared as he hurried away.

Young as he was, Little Kemper was the busiest member of the regiment. Life with him was a continual "doing" and he did it joyously and well.

"There's something doing here." Thaine hardly had time to think it as the armies came into their places. It was the third day after the regiment had reached Tien-Tsin. Along the Peiho river lay a sandy plain with scant tillage and great stretches of barren lands. Here and there were squallid villages with now and then a few more pretentious structures with adobe brick walls and tiled roofs. Everywhere was the desolation of ignorance and fear, saddening enough, without the Boxer rebellion to intensify it with months of dreadful warfare.

As Thaine fell into his place he thought of the Aydelot wheatfields and of the alfalfa that Leah Shirley's patient judgment had helped to spread over the Cloverdale Ranch. And even in the face of such big things as he was on his way to meet the conquest of the prairie soil seemed wonderful.

Big things were waiting him now, and his heart throbbed with their bigness as his regiment took its place. It was a wonderful company that fell into line and swung up the Peiho river that August afternoon. The world never saw its like before, and may never see it again. Not wonderful in numbers, for there were only sixteen thousand of the allied armies, all told, to pit themselves against an armed force able to line up one hundred and sixteen thousand against them. Not numbers, but varying nationalities, varying races, strange confusions of tongues, with one common purpose of binding all into one body, made the company forming on the banks of the Peiho a wonderful one.

Thaine's regiment was drawn up at an angle with the line, ready to fall into its place among the reserves, and the young Kansan watched the flower of the world's soldiery file along the way.

In the front were the little brown Japanese Cavalry, Artillery, and Infantry—men who in battle make dying as much their business as living. Besides these were the English forces, the Scotch Highlanders, the Welsh Fusiliers, the Royal Artillery, all in best array. Behind them the Indian Empire troops, the Sikh Infantry with a sprinkling of Sepoys and the Mounted Bengal Lancers. Then followed, each in its place, the Italian marines, French troops from all branches of the military; the stalwart, fair-haired Germans, soldiers to a finish in white

and training; the Siberian Cossacks and the Russian Infantry and Cavalry, big, brutal looking men whom women of any nation might fear. In reserve at the last of the line were the American forces, the Ninth and Fourteenth Regiments of Infantry, the Sixth Cavalry, and F Battery of the Fifth Artillery.

So marched the host from Tien-Tsin along the sandy plains, led on by one purpose, to reach the old city of Peking and save the lives of the foreign citizens shut up inside their compound—whether massacred, or living, starved, and tortured, this allied army then could not know.

The August day was intensely hot, with its hours made grievous by a heavy, humid air, and the sand and thick dust ground and flung up in clouds by sixteen thousand troops, with all the cavalry hoofs and artillery wheels. It was only a type of the ten days that followed, wherein heat and dust and humid air, and thirst—burning, maddening thirst—joined together against the brave soldiery fighting not for fortune, nor glory, nor patriotism, but for humanity.



Alberta Flowers.

As they tramped away in military order, Thaine Aydelot said to his nearest comrade:

"Goodrich, I saw a familiar German face up in the line."
"Friend of yours the Emperor sent out to keep you company?" Goodrich inquired with a smile.
"No, a Kansas joint-keeper named Hans Wyker. What do you suppose put him against the Boxers?"
"Oh, the army is the last resort for some men. It's society's clearing house," Goodrich replied.

The speaker was a Harvard man, a cultured gentleman, in civil life a University Professor. The same high purpose was in his service that controlled Thaine Aydelot now.

"I don't like being at the tail-end of this procession," a big German from the Pennsylvania foundries declared, as he trudged sturdily along under the blazing sun. The courage in his determined face and his huge strength would warrant him a place in the front line anywhere.
"Nor I, Schwoebel," Thaine declared. "I came out with Funston's 'Fighting Twentieth.' I'm used to being called back, not tolled along after the rear."
"Rock Chalk! Jay Hawk! K U!" roared Schwoebel in a tremendous bellow.

"Rock Chalk! Jay Hawk! K U!" a Pennsylvania University man named McLean followed Schwoebel.
"Rock Chalk! Jay Hawk! K U!" went down the whole line of Infantry.

The old Kansas University yell, taken to the Philippines by college men, became the battle cry of the Twentieth Kansas Volunteers, when they returned to civil life, left it there for the American army—and "Rock Chalk! Jay Hawk! K U!" became the American watchword of all that "far flung line" marching on through dust and heat to rescue the imperiled Christians in a beleaguered fortress inside the impregnable city of Peking.

"You needn't worry about the rear, Aydelot. One engagement may whip this line about, end to end, or it may

scale off all that's in front of us and leave nothing but the rear. All this because we have time to change collars again. We'll let you or Tasker here lead into Peking," an Indiana University man declared.

"That's good of you, Binford. Some Kansas man will be first to carry the flag into Peking. It might as well be Aydelot."

This from Tasker, a slender young fellow from a Kansas railroad office.

So they joked as they tramped along. It was nearly midnight when they pitched camp before the little village of Peit-Tsang beside the Peiho. In the dim dawning of the August morning Little Kemper's bugle sounded the morning reveille. Thaine was just dreaming of home and he thought the first bugle note was the call for him up the stairway of the Sunflower Inn. His windows looked out on the Aydelot wheatfields and the grove beyond, and every morning the sunrise across standing grain brought him a picture only the hand of the Infinite could paint. This morning he opened his eyes on a far different scene. The reveille became a call to arms and the troops fell into line ready for battle.

Before the sun had reached the zenith the line was whipped end to end, as Binford of Indiana had said it might be. In this engagement on the sandy plain about the little village of Peit-Tsang, Thaine with his comrades saw what it meant to lead that battle line. He saw the brave little Japanese moved down like standing grain before the rearing cyclone. He saw the ranks move swiftly up to take the places of the fallen, never wavering nor retreating, rushing to certain death as to places of vastation, and a coronal put on. The Filipino's Mauser was as deadly as the older styled gun of the Boxer. A bullet aimed true does a bull's work. But in this battle that raged about Peit-Tsang Thaine quickly discovered that this was no fight in a Filipino jungle. Here was real war, as big and terrible above the campaigns he had known in Luzon as the purpose of the expedition above the flag and extension of American dominion and ideals.

When the thing was ended with the routing of the Boxer forces, of the sixteen thousand that went to battle a title of one tenth of their number lay dead on the plains—sixteen hundred men, the cost of conquest in a far wilderness. The heaviest toll fell on the brave Japanese who had led in the attack.

Thaine Aydelot did not dream of home that night. He slept on his arms the heavy sleep of utter weariness, which Little Kemper's bugle broke at three o'clock the next morning.

Before the August sun had crawled over the eastern horizon the armies were swinging up the Peiho river toward Peking. The American troops were leading the column now, as Thaine Aydelot had wished they might, and in all that followed after the day at Peit-Tsang the Stars and Stripes, brave token of a brave people, floated above the front line of soldiery, even to the end of the struggle.

It was high noon above the Orient, where the Peiho flows beside the populous town of Yang-Tsun. The Boxer army routed by the battle of Peit-Tsang had massed its front before the town, a formidable array in numbers, equipment, and frenzied eagerness to halt here and forever the poor little line of foreign soldiers creeping in upon it from the sea. The Boxers knew that they could match the fighting strength of this line with quadruple force. The troops coming toward them had marched twelve miles under the August heat of a hundred degrees, through sand and alkali dust, in the

(Continued on page 27.)

THE UP

REACHING which are the mark.

When we ro on Mount Man the highest of but a short di and not as diffi which we had There was one had to be sur we reached it summit was m far -teper th Nothing daunte when we reachi sinking hearts still higher po! Then courage Knew we could may we great saw great ceemed we wou reaching the ed neck of rock, o

Our guide w ahead and abov Encouraging u ing us not to ta fear of going d times depth; ag was the easie times coming b most difficult pointing out the lost it. Very ch the memory of a mighty peas against the sky warned, advised, to give a helping a moment would be the memory of a mighty peas against the sky warned, advised, to give a helping a moment would be

When at last est peak, and a panorama stretch as far as the e knew then it was great exertion an

When we w thought came to sense of realisti typical of life th been. That sun towards which G of us to strive, h the setbacks, dift agements. God guide and leader, encouraging, and ready to come to comfort when the cult. When th exceeding great all the struggle a If we fail, exceed ward of the know done our best to mark.—I. H. N.

A Western "E

Miss R. M. McKee

WHILE atten Institute. Ont, whic these columns a was my good fort ern Canada "Insta meeting commoed the room and wa by many present. till I was inform Elizabeth Walker in the west but old home near Ki that Miss Walker worker in the anous to attend t in order to see h being carried on.

THE UPWARD LOOK

Our Vision

REACHING forth unto those things which are before I press toward the mark.—Phil. 3: 13-14.

When we reached Summit House, on Mount Mansfield, we were shown but a short distance from the base and not as difficult a climb as that which we had already accomplished. There was one rocky pinnacle, which had to be surmounted first. When we reached its point, we realized the summit was much farther away and far steeper than we had expected. Nothing daunted we pressed on, but when we reached the next point, with sinking hearts we saw, far ahead, a still higher point, with steep ascent. Then courage almost failed, but we knew we could not give up. Our dismay was great, when suddenly we saw a great abyss, into which it seemed we would have to go, but on reaching the edge we saw a narrow neck of rock, over which we passed.

Our guide was sometimes away ahead and above on the next peak, encouraging us to go on; often warning us not to take a certain turn for fear of going over into the precipitous depths; again, advising which was the easiest way to go; many times coming back to help over the most difficult places; sometimes pointing out the trail, when we had lost it. Very clear and distinct will be the memory of him, standing up like a mighty peak and clearly outlined against the sky, as he encouraged, warned, advised, or came down to us to give a helping hand. But never for a moment would he dream or would we dream of his deserting us.

When at last we reached the highest peak, and saw the numerous panorama stretching out on all sides, as far as the eye would reach, we knew then it was richly worth all the great exertion and fatigue.

When we were descending the thought came to me, with a strong sense of realization of how truly typical of life that whole incident had been. That summit is the ideal towards which God wishes each one of us to strive, however great may be the setbacks, difficulties and discouragements. God Himself is ever our guide and leader, directing, warning, encouraging, and ever and always ready to come to our side to help and comfort when the way is most difficult. When the summit is obtained, exceeding great is the reward after all the struggle and endeavor. Even if we fall, exceeding great is the reward of the knowledge that we have done our best to press towards the mark.—I. H. N.

A Western "Instituter" in the East

Miss R. M. McKee, Household Editor.

WHILE attending the Women's Institute meeting at King, Ont., which was reported in these columns a few weeks ago, it was my good fortune to meet a Western "Instituter." Before the meeting commenced a lady came into the room and was warmly welcomed by many present. It was not long until I was informed that she was Miss Elizabeth Walker, who is now living in the west but was visiting at her old home near King. I also learned that Miss Walker was an Institute worker in the west, and that she was anxious to attend the meeting at King in order to see how their work was being carried on. While refreshments

were being served Miss Walker and I had a pleasant chat, although a short one, as she had to leave rather hurriedly.

Miss Walker's home is near Hanley, Sask., which is a small town. She lives on a homestead not far from the town, and has never experienced living away back from a railway centre. I asked Miss Walker if she preferred living in the west rather than the east. "Well," she said, "I just came back to see if I did. I like the east and I like the west, so am going to try and find out which is best this time. I wouldn't have come east this summer, but we had a good crop of potatoes last year, so I took advantage of it."

The farm women's organizations in the west are founded on similar principles to those of our Women's Institutes, but in Manitoba they are called Home Economics Societies and in Saskatchewan, Homemakers' Clubs. (While I do not object to the old standby, "Women's Institutes," it seems to me that the Saskatchewan women have set an ideal name for their organizations—for the highest calling of the wife and mother is that of homemaking.)

In continuing our conversation, Miss Walker said that "Our club was formed four years ago. We did not know anything about the work of such a club, but the first year we had 60 members and up to the present have had a very successful organization. The greatest work we are doing is to bring all the nationalities together. We have all kinds of nationalities and ages. Some of the foreigners are Austrians, others are Germans from the United States and others Scandinavians. The Austrians are a little backward as the majority of the women do not know the English language. Some of them, however, are getting along splendidly and one Austrian woman gave a paper at one of our provincial conventions.

"We instituted a rest room shortly after we organized, but it failed, as we could not pay the rent of \$10 a month. We have started it up again, however, and as long as we are doing patriotic work, the room will be given to us free of rent. We do not have anyone in charge of our rest room, as that means expense and we leave it open to the public. It is furnished very simply and nothing of value is left in it. Last year we served tangent tea in the rest room on Saturdays, which brought us in a little cash.

"Of course our work is mainly patriotic at present," continued Miss Walker, "but I think it must be much easier for Institutes in the east to do patriotic work than for our organizations as we have so many different nationalities."

It has been rather a puzzle, so Miss Walker told me, to carry on their library, as they have not been able to secure anyone to take charge of it. The library is in the rest room and at present they are giving the books out on Saturdays. The Saskatchewan College of Agriculture sent out circulating libraries, but these did not prove satisfactory. The College has now agreed to assist in establishing a permanent library by donating toward it the same amount as is paid by the Institute.

The Homemakers' Clubs of Saskatchewan hold their annual conventions at the College of Agriculture in Saskatoon and Miss Walker reiterated that she would be absent from the one which was held this summer. The College of Agriculture pays the expenses of one delegate from each club to this convention and lots of the women have never been on a train until they get a chance to attend the convention. "So you see," concluded Miss Walker, "that our convention is not a 'dressed-up' convention, but a convention of homesteaders."



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AMUSEMENTS
Conducted by MARION DALLAS

Flowers: In Story and Contest

A PRETTY idea for the summer gathering would be a rose party, and the invitations might be written in the form of a verse like the following:

"Oh, come to my party, for welcome you'll be,
And I will expect you exactly at three;
A large bow of pink kindly pin on your clothes,
For this is a party whose color is rose."

If possible have the invitations delivered, tying each note with pink ribbon to the stem of a pretty pink rose. As it is a rose party the games should all partake of this name in some way, so for the first you might have hoops made with pink paper. The "trading toss" may be used for this, the hoops would be pink paper. This game is simple to play and requires only the rings of different sizes and the stake. The girls stand some little distance from the stake and try throwing the rings over it, the large ring counting five, the next smaller 10, and the last 15. The score can be set at any number desired and a prize may be awarded if liked. "Drop the rose may be played instead of drop the handkerchief, a long-stemmed rose being used. Pink bean bags will also add to the fun for the old-time game of this name.

For the refreshments provide in the centre of the table a large Jack Horner pie in the form of a big pink rose, made of crepe paper, and from the pie have pink ribbons run to each guest's place. The pie should contain some dainty little gift for each guest, tiny boxes filled with candy with rose decorations serving nicely for this purpose.

A Flower Remedy.

Pass to each of the guests a tiny flower pot, which may be purchased at any of the department stores or made at home from red paper—a long strip and a round pasted together. In these pots should be tucked a list of descriptions that will fit certain well-known flowers. Attached to the pot should be a pencil on a string to enable each player to fill the list. Here is a list that may be trusted as you wish:

1. What the father said to his son in the morning?—Johnny, jump up.
2. A bird that rises early and an implement that makes the horses go?—Larkspur.
3. A lover's farewell to his sweetheart?—Forget-me-not.
4. Fragrant letters?—Sweet peas.
5. The color of a horse?—Sorrel.
6. My first is made in a dairy and is measured in a second?—Buttercup.
7. My first wears my second on his head?—Cock's comb.
8. One end of the family pet?—Cattail.
9. A fair fower between two mountains?—Lily of the Valley.
10. Part of the day?—Four o'clock.
11. A dude and an animal?—Dandy-Hound.
12. What Cinderella should have advertised for?—Lace slipper.
13. A yellow and a Golden rod.
14. An amiable man?—Sweet William.
15. What an unmarried man often lacks?—Bachelor's button.
16. A church official?—Elder.
17. A Robin songster?—Ragged.

18. Something every person has?—Tulips.
 19. Follows disappointment in love?—Bleeding heart.
 20. A fortune seeker?—Marigold.
- Floral Love Story.
- The answers to these questions are the names of flowers:

1. The girl's name and the color of her hair?—Marigold.
2. The color of her eyes?—Violet.
3. Her brother's name and an adjective that just describes her?—Sweet William.
4. Her brother's favorite musical instrument?—Trumpet.
5. At what time did he awaken his father with it?—Four o'clock.
6. With what did her father punish him?—Golden rod.
7. What did the boy do?—Balsam.
8. What office in the Presbyterian Church did her father fill?—Elder.
9. Being a farmer, what was his occupation in spring?—Plantain.
10. Her lover's name and what did he write it with?—Jonquil.
11. What, being single, he often lost?—Bachelor's buttons.
12. What he did when he proposed?—Aster.
13. What chastely trophy did he lay at her feet?—Bleeding-heart.
14. What did she give him in return?—Heart's-ease.
15. What did she say to him?—Johnny, jump up.
16. What flower did he cultivate?—Tulip.
17. To whom did she refer him?—Poppy.
18. What minister married them?—Jack-in-the-pulpit.
19. What was wished with regard to their happiness?—Live forever.
20. What did she say when he went away?—Forget-me-not.
21. With what did she punish her children?—Lady's slipper.
22. What hallowed their last years?—Sweet peas.

Vegetable contest.

1. A wise man?—Sage.
2. Wins?—Beets.
3. In history?—Dates.
4. A kind of shot?—Grape.
5. Complex?—Pears.
6. A labyrinth?—Malze.
7. Letters?—Peas.
8. Antics?—Capers.
9. Predicaments?—Pickles.
10. Relation to a swell?—Pumpkin.
11. Part of a river?—Currant.

Another Contest.

- Each answer is the name of a vine.
1. A sweet tomboy?—Climbing rose.
 2. Held Saturday nights at summer hotels?—Hops.
 3. Spoiled with two letters?—Ivy.
 4. A universal necessity?—Money.
 5. Where to get brass instruments?—Trumpet vine.
 6. What should a Hollander smoke?—Dutchman's pipe.
 7. A common lot?—Matrimony.
 8. A beautiful sunrise?—Morning glory.

A Contributor Passes Away

OUR readers will learn with much regret that Miss Lillian Crummy, Toledo, Ont., passed to her reward on July 16th. For several years Miss Crummy has been contributing the Cook's Corner in our household department, and many of Our Women Folk have found her recipes and suggestions practical and helpful. She was an invalid for many months, and on different occasions was too weak to write her contribution for Farm and Dairy. Her life was a modest, noble one, and she left many friends.

Hints for Jelly-makers

TO the uninitiated, and even to those who have had considerable experience, putting the "jell" into jelly is not always an easy proposition. Time was when the paking of jelly was largely a matter of guess work and we were on the qui vive until our jelly had reached the stage where it would "jell." There are a few fundamental principles, however, with which jelly makers should make themselves familiar, which do away with guess work. One is that the fruit should be firm but not over-ripe. The substance in fruit which has the jellifying property as pectin is contained in largest quantities in under-ripe fruit. In order to find out if our fruit has the necessary pectin the alcohol test is now being widely recommended. This test is a simple process.

Mix with a little hot fruit juice to which the sugar has not been added, an equal quantity of ethyl or grain alcohol. If pectin is present in sufficient quantities the juice will congeal into a solid gelatinous mass which can be lifted on a spoon. If the pectin is not present, this necessary ingredient should be supplied. This can be done by adding the juice of another fruit, such as apples or the inner peels of oranges and lemons. To make use of the latter fruits, remove carefully the yellow outer skin, then remove the inner skin from the juicy portion and put this through a food chopper. Soak it in sufficient water to cover for several hours, then cook slowly for three or four hours and drain. This extraction is particularly done by adding the juice of another fruit like pectin and can be added to a fruit juice lacking this property.

A certain amount of acid is also necessary in fruit juice to make it jell. For this reason some fruits, like raspberries, will not make good jelly alone. Lemon juice or rhubarb added will supply the deficiency. Fruit should taste as sour as tart apples before it can be made into first-class jelly. Crab apples form an excellent basis for all kinds of jellies, and that is why they are often combined with the non-sold fruits in jelly making. The best fruits for jelly are currants, apples, crab apples, quince, raspberries, blackberries, raspberries and peaches. A combination of strawberries and currants is good.

We are told that more jelly is ruined from using too much sugar than from any other cause. The idea has been the reason for this excessive use of what is now a high-priced commodity. Too little sugar makes a soft jelly. About three-quarters of a cup of sugar to one of juice is a good proportion, and if the sugar is heated in the oven before adding to the juice it will shorten the time of cooking and give a better-colored jelly. To test whether or not the jelly has cooked long enough, try boiling it after sugar has been added until it reaches the point at which the boiling mass jellifies as a portion of it is allowed to drip from the stirring spoon.

How the Disaster Occurred.

A gentleman in Cincinnati employs two negroes to work on his rather extensive gardens, which he personally oversees. One morning Sam did not appear.

"Where is Sam, George?" he asked. "In de hospital, sah."

"In de hospital?" Why, how in the world did that happen?"

"Well, Sam, he been a tellin' me ev'ny mornin' foh ten years, he gwine to lick his wife 'cause o' her naggin'."

"Well?"

"Well, yestiddy, she done overahke him. Da's all."

Western

Mrs.

THAT a farm is a tremendously big drum, has been an idea of many farmers of eastern farms who are prepared to form their own opinion and the pleasures, comfort and luxuries of the compared with the liv-



A Youthful Po
The illustration is evidently copied from the Yellow Wyan-

en. And what these satisfied with the community in which they live with a feeling of pride and young gone to find or "west." Perhaps the mental attitude and country women of the cause similar. Some and life inter the city, does not consists of the woman falls to put the circ life in their prop some holds true of woman in her opin come to farms in S eastern women bu west is the home and that their joy heart-interests are know that despite a which sometimes ar ships, there are c sures and interest balance even. Po understand just bo until they have th the argument revol of home and hom come to farms in S a great many of a brides and usual home to make. We of a bachelor's resid (regardless of his c menations), and by mon usage, the sam a "house" when he home to it. In trans into the house, man western life has g interest. A picture shack might be int variety is too great

Western Farm Women, Enthusiastic and Happy

Mrs. F. H. Stewart, Humboldt District, Saskatchewan.

THAT a farm woman's life is extremely monotonous and hum-drum, has long been the common idea of many of her city sisters. There are plenty of women on the farms of eastern Canada, however, who are prepared to refute this prevalent opinion and point with pride to the pleasures, conveniences, comforts and luxuries of their positions, as compared with the lives of many city wom-

en to generalize. They have all the individuality of the bachelors themselves. Some are carefully kept and comfortable homes, others are quite the reverse. But even the best of them lack a thousand touches which can be given only by the housewife who takes pride in her home. Whether the house be large or small, the original shack, hurriedly built when the land was first obtained, or a new dwelling designed according to the means of the young farmer who expects soon to bring home his bride, she will find broad scope for her initiative and inventive genius. Do not pity her for the hardships she must endure. She would scorn your sympathy, for those are truly the best days of life, when out of chaos she is struggling to evolve a home.

Of course, whether the house be large or small, there is a certain amount of routine work to be done in it, which occupies a woman's time for a good part of the day. Many are the makeshifts with which she has to do, in the way of utensils, etc., which eastern women would think hardships, but which western farm women seem to take as a matter of course. This condition is being overcome as their farm business develops and demands the best equipment. Many of the western farm homes are being equipped with every possible labor-saving device. This is necessary, for it is very difficult to get help with the housework, especially so at the busy times during seeding, harvesting and threshing.

Extending Hospitality.

Let us refer again to those days when the young couple are moulding the home. If the girl is of the kind that "makes good" (and most of them are), she will, in an amazingly short time, transform her surroundings into the neatest and coziest state possible under her particular circumstances. Then a new problem is introduced—the extending of hospitality to the new friends she has made and her new neighbors. In the west she must learn that neighbor has a broader meaning than in the east—something nearer the meaning brought by the parable of the Good Samaritan. It may not be the simplest problem to make a dinner, prepared for two, suddenly expand into a meal for half a dozen—



A Youthful Poultry Enthusiast.

The illustration shows Master Earl Waterman, Peterboro, Ont. Earl is evidently considerably interested in the White Wyandotte type of fowl.

en. And yet these women who are satisfied with the homes in the rural community in which they live, think with a feeling of pity of their friends, girls and young women, who have gone to find or make homes in the "west." Perhaps if we could analyze the mental attitudes of both the city and country woman, we would find the cause similar. The woman whose home and life interests are centred in the city, does not understand the interests of the woman on the farm and fails to put the circumstances of rural life in their proper perspective. The same holds true of the eastern farm woman in her opinion of the western woman's life. The truth is that could eastern women but realize that the west is the home of western women and that their joys, pleasures and heart-interests are there, they would know that despite the inconveniences which sometimes amount to real hardships, there are compensating pleasures and interests which keep the balance even. Possibly no one can understand just how this works out, until they have had experience, but the argument revolves around the fact of home and home interests.

A great many of the women who come to farms in Saskatchewan come as brides and usually with the whole home to make. We commonly speak of a bachelor's residence as a "shack" (regardless of its construction or dimensions), and by courtesy of common usage, the same is spoken of as a "house" when he brings his bride home to it. In transforming the shack into the home, many a woman new to western life has found her first real interest. A picture of a bachelor's shack might be interesting, but the variety is too great for any one pic-



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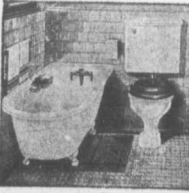
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the fireless cooker. The fruit will hold its shape better, and it will retain more of the true flavor of the fresh fruit than when canned by the old method. The fruit should be selecting. Instead of cooking the fruit in a kettle, put it in jars. Shake down a few times in order to pack it in the jar. Have plenty of boiling water. Take the required amount of sugar, put it in a pitcher, and pour a little boiling water over it. Pour the syrup over the fruit in the jar until the jar is full. Do not use too much water at first. If the syrup does not fill the jar, add boiling water until the jar is full. Cap the jar, place in the fireless cooker without a heated radiator, and leave for one or two hours."

Winning the Wilderness

(Continued from page 22.)
heavy humid air saturated with evil odors. They had had no food since the night before, nor a drink of water since daydawn. Joyful would it be to slaughter here the entire band and then rush back to the hoary old city of Peking with the triumphant message that the Allied Armies of the World had fallen before China. Then the death of every foreigner in the Empire would be certain.

At noon the battle lines were formed. In the swaying into place as Thaine Aydelot stood beside Tasker, surrounded by his comrades, Little Kemmer dashed by him.

"Here's where the corn-fed Kansans do their work," he said gaily to the Kansans men.

"With a few bean-eaters from Boston to help," Goodrich responded.

"And a Hoosier to give them culture," Binford added.

"Yes, yes, with the William Penn Quakers and the Pennsylvania Dutch," Schweobel roared, striking McLearn on the shoulder.

Men think of many things as the battle breaks, but never do they fight less bravely because they have fought the moment before.

There was in the very front of the battle lines. In the pause before the first onslaught he thought of many things confusedly and a few most vividly. He thought of Leigh Shirley and her childish dream of Prince Quippi in China—the China just beyond the purple notes. He thought of his mother as she had looked that spring morning when he talked of enlistment for the Spanish War. He thought of his father, who had never known fear in his life. Of his last words:

"As thy days so shall thy strength be."

And keenly he remembered Dr. Carey, somewhere among the troops behind him. The fine head crowned with white hair, creased by the moonbeams, as he had seen it in the Manilla garden, and his earnest words.

"You must learn to be a Christian. You must know what service for humanity means. You need not hunt for the opportunity to prove this. The opportunity is hurrying toward you now out of the Unknown."

"It is here, the opportunity," he murmured. "Oh, God, make me a fit soldier for Thy service."

He did not pray for safety from danger and death; he asked for fitness to serve and in that moment his great lesson was learned. There came an instant's longing for Dr. Carey; then the battle storm burst and he did not think any more, he fought. It was useless to picture that struggle.

Nothing counts in warfare till the results are shown. For six hours the fighting did not cease, and at not a Valley Forge, nor Brandywine, Lake Erie, nor Buena Vista, Gettysburg, nor Shiloh, San Juan Hill, nor in any jungle in Luzon did the American flag

stream out over greater heroes than it led to-day on the plains beside the Patho river before Yang-Tsun. At last the firing ceased, the smoke ed and gathered above the field; the Boxers, lifting their shattered forces together, retreated again before the little line of Allied Troops invading this big fertile land. And the last hours of that long hot day waned to eventide.

There were only a few of its events that Thaine could comprehend. He knew little Kemmer had received his death wound, blowing his bugle call again and again after he had been stricken, till the last reveille sounded for him. The plucky little body with the big soul, who had found his brief fifteen years of life so full of "doing."

Thaine knew that in the thick of the fight the native Indian Infantry, the Sikhs and Sepoys, had fallen in cowardly fear before the Boxer fire. He remembered how Binford, Schweobel, and Tasker, and Binford, Goodrich, and McLearn, with himself and another man whom he recalled afterward as Boehinger, a Kansas man, had clubbed self-respect into a few of them and kicked the other whining cowards from their way. He knew that Schweobel had been grievously wounded and was being taken back to Tien-Tsin with many other brave fellows who had been stricken that day. He knew that near the last of the fray a man whom he had admired and loved second to Lieutenant Alford, big old Clint Graham, of a royal line family of state builders in far-away Kansas, had fallen by the mistaken shot of Russian cannon, and the weight of that crushing heavy about the edge of his consciousness whenever he turned. But what followed the battle Thaine Aydelot will never forget.

Twelve hundred men rose no more from that bloody field before Yang-Tsun. The fighting force, sixteen thousand strong, was wearing off at the rate of almost a regiment and a half a day, and it was yet a hundred miles to Peking.

All about Thaine were men with faces grimy as his own; their lips, like his, split and purple from the alkali dust. They had had no water to drink all that long day's twelve miles of marching and six hours of fighting. Fearful is the price paid out when the wilderness goes forth to war! And heroic, sublimely heroic, may be the Christianity of the battlefield.

"We must help these fellows," Thaine said to his comrades as the wall for water went up from wounded men.

"The river is this way," McLearn declared. "Hurry! the boys are dying."

So over countless forms they hurried to the river's brink for water. Thaine and Tasker and Boehinger were accustomed to muddy streams, for the prairie waters are never clear. But Goodrich from Boston had a memory of mountain brooks. The Pennsylvania man, McLearn, the cold springs of the Alleghenies, and for Binford there was old Broad Ripple out beyond Indianapolis. All these men came down with dry canteens to the Patho by Yang-Tsun. The river was choked with dead Chinamen and dead dogs and horses. They must push aside the bodies to find room to dip in their canteens.

"You have one more lesson. You must learn to be a soldier."

Somehow the words seemed to ring round and round just out of Thaine's mental sight.

"Vasser! Vasser!" cried a big German soldier before him.

Thaine stopped to give him a drink, and as he lifted up the man's head he saw the stained face of Hans Wyker.

(To Be Continued.)

Belts and Girdles are Now Popular

IMPORTANT NOTICE

Farm and Dairy patterns shown in these columns are especially prepared for Our Women Folks. They can be relied upon to be the latest ending your order please be careful to state bust or waist measure for men, adult, age for children, and the number of the pattern described. Orders sent within one week to 10 days after receipt. Price of all patterns to Our Women Folks 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



THE vogue of waists and separate skirts has brought belts and girdles into a variety of colors, styles and materials appears in piece dresses also, girdles are used as a finishing touch to the costume. There is a decided feeling of air given at the back of ribbons and patterned silk, tied waistline or several loops of wide ribbon will be allowed to fall softly for some way down the skirt. This idea is especially appropriate for young girls. A girl's dress is ribbon, say two or three inches wide in pastel colorings, ran 4, 6, 8 and 10 years.

2107—Lady's Apron—For a change we are showing an apron which comes with the waistline only. Many women prefer apron to the all-over type or those which include bib. The pockets in this apron will be found very useful. The apron is cut in sizes small, medium, large and extra large, and the dress from 24 to 44 inches bust measure.

2108—2109—This outfit is a practical pattern to purchase, as either blouse or skirt may be used separately. As will be noted the popular plain background with large pattern. Many pretty figured dresses in large pattern are shown, which should make up nicely when made as designed. The model calls for two patterns, 10 cents for each. The blouse is cut in sizes from 34 to 44 inches bust and the skirt from 22 to 32 inches waist measure.

2110—2111—House Dress—A practical work dress is here shown. As will be noted, the waist line is especially suited to slight figures. Bust sizes: 34 to 46 inches.

2112—Dress for Misses' and Small Women—Bust measure.

men—Here is a costume which we do not doubt will appear to many of our women folk. The large bulging pockets are a different from many shown as it is decidedly distinctive to any we have previously shown. The collar and skirt trimmings are the most pronounced feature of this little dress. Four sizes; 10, 12, 14 and 16 years.

2113—Girl's Dress—In our pattern department this week, the young girls are receiving a large proportion of the decidedly distinctive to any we have previously shown. The collar and skirt trimmings are the most pronounced feature of this little dress. Four sizes; 10, 12, 14 and 16 years.

2114—2115—This outfit is a practical pattern to purchase, as either blouse or skirt may be used separately. As will be noted the popular plain background with large pattern. Many pretty figured dresses in large pattern are shown, which should make up nicely when made as designed. The model calls for two patterns, 10 cents for each. The blouse is cut in sizes from 34 to 44 inches bust and the skirt from 22 to 32 inches waist measure.

2116—2117—House Dress—A practical work dress is here shown. As will be noted, the waist line is especially suited to slight figures. Bust sizes: 34 to 46 inches.

2118—Dress for Misses' and Small Women—Bust measure.

The Holstein Herds of Western Canada

The Black and Whites Popular on the Prairies. Long Prices Paid for Good Stock. Western Breeders Want Constitution and Producing Qualities.

By an Editor of Farm and Dairy.

BREEDERS of Holstein Friesian cattle in western Canada are essentially practical. This is a characteristic, by the way, of most western people. They do not care paying liberal, even high prices, for good stock, but they expect to receive full value for their money. This means that they want conformation and high producing qualities combined in healthy animals whose breeding qualities can be depended upon. For some years back they have been insisting on getting what they want; the result is that they have built up a number of fine herds in the prairies and on the coast as can be found anywhere in Canada. In fact, they court comparison with the best pure-bred herds in the east, either as regards show-yard type or production at the mail under official test.

Not many years ago almost any animal that was black and white in its markings found a ready sale in the west. That time has passed. Today western men know what they want, and refuse to buy unless they know that they are going to get it. Some of them say they have been stung in the past, and that they don't intend to have the experience repeated. The same may be said of other breeds of cattle and live stock.

One point western breeders are becoming very insistent upon, that is, that all stock brought in from outside points must first be tuberculin-tested. Private breeders first took this stand in reference to their own purchases, but now the provincial governments are beginning to co-operate with them. British Columbia for some time has refused entry to untested animals, and similar action on the part of Alberta Government. Eastern cattle-breeders, who have any expectations of making sales in the west, should note this tendency and govern their actions accordingly.

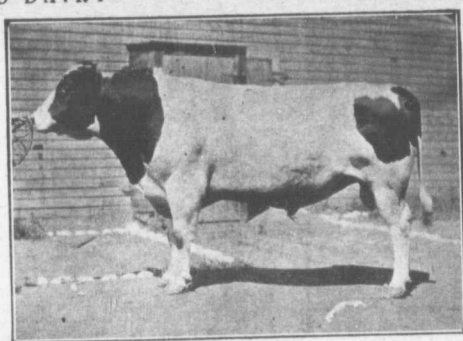
Government Herds.

Last year we described at considerable length the great Holstein herd of the Colony Farm at Essendale, B. C., which contains probably more 100-lb. cows than any other herd in Canada. Mention was also made of the Holstein herds on the various provincial government farms, including those of the Alberta Government at Olds, Stony Plain and Vermillion, and at the Edmonton University. A full description

was also given of the herd at the Manitoba Agricultural College.

Manitoba College Herd.

Since last year the herd at the Manitoba Agricultural College has been considerably strengthened. Following the resignation of Professor Jacobs, Associate Professor G. W. Wood, who had been acting as Professor Jacobs' assistant, was given charge of the herd. Being keenly interested in the handling of pure bred stock, Mr. Wood is already getting good results from his efforts. This year the herd was shown at the Brandon Provincial Exhibition, where nine animals from the college herd that were shown in keen competition, captured a very creditable portion of the prizes. The most notable addition to the herd during the year has been the young bull, Forest Ridge Payne Ax, which captured the first award in the yearling bull class at Brandon. This youngster was purchased from L. H. Lipsit, of Stratfordville, and was sired by Finnerde King May Payne. He is



Joseph H. Laycock's Champion Sire on the Western Circuit

both last year and this. Korndyke Posch Pontiac is a grand individual any way you take him, combining great substance with dairy type and character.

He is one of the best known sires in Western Canada.

West are those of Joseph H. Laycock, of Okotoks, Alberta, and George Bevinston, of Winterburn, Alberta. These two herds for some years have taken

well known was his stock that the average price paid for the 73 head was \$212, including calves as young as 30 days old.

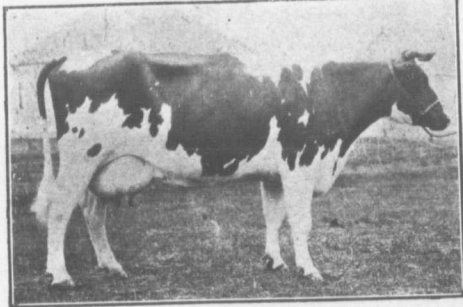
The present herd was started by Mr. Joseph H. Laycock five years ago, when he purchased 29 head of yearling heifers through G. A. Gilroy, of Glen Buell, who was told to secure nothing but the best. Mr. Laycock's farm is situated in the dairy district of Alberta, about 26 miles south of Calgary, on the main line to Macleod. At the same time that Mr. Laycock made his purchases through Mr. Gilroy, some aged cows were purchased from other herds. So well has this stock turned out that for some years Mr. Laycock has been the principal prize-winner at the western exhibitions. The herd now comprises 65 pure-bred animals.

The herd sire, Korndyke Posch Pontiac, owing to his noted winnings in the show ring, is the best known herd sire in western Canada.

Mr. W. F. Stephens, who judged this year at Calgary, at Red Deer, said that he would like to see this bull shown against the noted bull of the Raymond Stock Farm which won at Ormstown. He is a grand individual, great substance with dairy type, character and strength of constitution. He is very strong in the top line, broad across the loins and in the quarter, and his lines blend nicely from head to tail. Both last year and this he was first and champion at Calgary, Red Deer, Edmonton and Brandon, and was expected to win at the latter exhibitions this year. He was brought out from Ontario in dam, his dam being Queen Merveyne Posch, a half sister to Queen Butter Barness, who has a record of 23 lbs. in 7 days. His sire was Korndyke Yeoman Pontiac, the well-known herd sire for several years of R. J. Kelly, of Tillsonburg. Not himself, but his young stock is also succeeding, as is shown by the fact that Mr. Laycock won first prize for get of sire at the Calgary, Red Deer, Edmonton, and Brandon exhibitions in strong competition. A youngster sired by this bull, Bonnie Brae Carman, was the junior champion bull at the same exhibitions. This young bull is a particularly fine animal (see photo) and defeated the Manitoba College bull already mentioned.

Some Good Females.

Included in the herd are some particularly fine females. So far Mr. Laycock has devoted his principal attention to developing animals of good dairy form and conformation. Now that he has succeeded in this and his increased his herd in the course of time to 73 head. Five years ago he held a complete dispersion sale. So



They Grow them Straight in Alberta. Maude Sarcastic, a Holstein cow in the herd of the Dominion Experimental Station at Lacombe, Alta., looks well and works hard. On a butter fat test of 4.76 per cent. she made 483.7 lbs. milk in seven days, equal to 27.31 lbs. butter.

In the circuit of western fairs and has captured the greater part of the prize money. Two other herds that are doing well in the prize ring are those of the Duke of Sutherland, who has four or five farms in Alberta, and who showed last year and this at the Edmonton Exhibition, and Clark & Sims, of Argyle, Man., who showed this year at Brandon. We had the privilege of attending the Brandon Exhibition and looking over the herds of Clark & Sims, and Clark and Sims. The examination showed that they contained some rarely good animals.

The Laycock Herd.

The Holstein herd of Bonnie Brae Stock Farm, owned by Joseph H. Laycock, of Okotoks, Alberta, is not only one of the best herds in the western provinces but in Canada as a whole. Mr. Laycock's father was the pioneer Holstein breeder in western Canada, having made his first purchase of Black and Whites 25 years ago, when he bought the first and second prize cows shown that year at the Toronto Exhibition. Quality was the watchword when this first purchase was made, and it has been the guiding principle in the management of the herd ever since. Mr. Laycock, Sr., increased his herd in the course of time to 73 head. Five years ago he held a complete dispersion sale. So

Forest Ridge Payne Ax.

This yearling sire is the Junior Herd Bull, of the Manitoba Agricultural College Herd, son of Finnerde King May Payne, from the herd of L. H. Lipsit, of Stratfordville, Ont. The photo does not do him justice, as he is full of character and vigor, and easily won out in the yearling class at the Brandon Exhibition. (Photo by an editor of Farm and Dairy.)

tion to the show ring making of records. T of animals in his he should be equal in this direction.

Nelle Teak De K cow, has no been an excellent performer. entered in the next Ca As a two-year-old she lbs. milk, and Mr. 1 ber to be as easy 50, is a large, ruzged coo cally all of the other herd.

Carman Beauty D six-year-old animal, shown, as she could has a two-year-old 16,000 lbs. of milk. S half every year, and all been winners. Her man Korndyke Beauty year-old won the dairy exhibition this lbs. of milk a day, test She was entered in year, but met with an being chased by a dog withdrawn. At the e month she gave over 7 day testin. over 4 per

Another good indivi Bayham Mercedes, bo sonburg sale three ye nine years old and a lie of Bayham, the first grand champion in the first and champion at shown by Mr. Lipsit. record of 22 lbs. of butter of 1,500 to 1,600 lbs. of

A full sister of hers Mercedes 2nd, 8 y animal has a record of 7 days as a three-year a first prize winner a year, the only time shown, and a member of first prize herd. Bot mala.

A Great Co Princess Holdenby D the best-known Holstei ries, she having won a championships in two y grand champion cow last year at Red De she was defeated last her stable mate, Mollie Mercedes 2nd. This y captured first place and at Calgary and Red De and before the Edmont where she took the reser. As might be expect animal with strong dairi ties, possessing a gran tuous milk veins and strength.

Carman Korndyke Be year-old of Mr. Laycock ing, was last year the fi year-old and reserve sen

tion to the show ring and more to the making of records. The excellent type of animals in his herd indicates that he should be equally successful in this direction.

Nellie Teak's De Kol, a six-year-old cow, has not been shown, but is entered in the next Calgary dairy test. As a two-year-old she produced 10,783 lbs. milk, and Mr. Laycock believes her to be an easy 20,000-lb. cow. She is a large, rugged cow, as are practically all of the other females in the herd.

Carman Beauty De Kol, another six-year-old animal, has never been shown, as she calves in the fall, but has a two-year-old record of over 10,300 lbs. of milk. She has raised a calf every year, and her calves have all been winners. Her first calf, Carman Korndyke Beauty, as a three-year-old won the dairy test at the Calgary exhibition this year, giving 57 lbs. of milk a day, testing 3.5 per cent. She was entered in the R.O.P. last year, but met with an accident through being chased by a dog, and had to be withdrawn. At the end of the third month she gave over 60 lbs. of milk a day, testing over 4 per cent.

Another good individual is Mollie of Bayham Mercedes, bought at the Tilsonburg sale three years ago. She is nine years old and a daughter of Mollie of Bayham, the first prize cow and grand champion in the western circuit, first and champion at Toronto when shown by Mr. Jlpalt. She has a record of 22 lbs. of butter in 7 days, and of 1,500 to 1,600 lbs. of milk.

A full sister of hers is Mollie of Bayham Mercedes 2nd, 8 years old. This animal has a record of over 15 lbs. in 7 days as a three-year-old. She was a first prize winner at Calgary last year, the only time she has been shown, and a member of Mr. Laycock's first prize herd. Both are strong animals.

A Great Cow.

Princess Holdeaby De Kol is one of the best-known Holsteins on the prairies, she having been a winner of nine championships in two years, including grand champion cow over all breeds last year at Red Deer. The only time she was defeated last year was by her stable mate, Mollie of Bayham Mercedes 2nd. This year she again captured first place and championship at Calgary and Red Deer, but freshened before the Edmonton Exhibition, where she took the reserve championship. As might be expected, she is an animal with strong dairy characteristics, possessing a grand vessel, tortuous milk veins and abundance of strength.

Carman Korndyke Beauty, a three-year-old of Mr. Laycock's own breeding, was last year the first prize two-year-old and reserve senior champion

to Princess at all the fairs, and on the western circuit. This year she was first at Calgary, Red Deer and Brandon and second at Edmonton. Her son, Bonnie Brae Carman, was the first prize senior calf and junior champion at Calgary, Red Deer and Edmonton, and first prize senior calf at Brandon. The Carman stock has been doing well for Mr. Laycock. It is related to Hardy's great Carman Silva cow.

Cornelia Aagie Pontiac, a daughter of the herd sire, was first prize senior heifer calf last year at all shows, being undefeated on the circuit. This year she won 2nd place at Calgary, Red Deer and Edmonton, and first at Brandon. In type she shows many of the characteristics of her sire.

It is interesting to note that in Mr. Laycock's large show herd there are only five animals not of his own breeding. So well known is this herd that

in Manitoba who are in any way interested in dairying. Starting in the fall of 1910 with little or no practical experience to guide him, Mr. Cummings, by good management, shrewd foresight, and because of his deep interest in farming and live stock, has developed a farm and herd that even members of the Provincial Government and Department of Agriculture call attention to with pride. When we asked the dairy officials of the Department of Agriculture who would be the best man in the province to furnish Farm and Dairy with an article on "Clovers, Cows, and Silos in Manitoba," they unanimously agreed that Mr. Cummings was the man. Incidentally we might state that we overheard Premier Norris, of Manitoba, describe to Mr. Cummings the pleasure he had felt a short time before while passing the farm in company with some prominent American visit-



Sir Beattie Homestead Fobes.

Senior sire of herd of W. J. Cummings, at Winnipeg. His breeding is given in the accompanying article. Farm recently visited by an editor of Farm and Dairy.

the are paved streets. The government is now planning to convert the road that passes the farm into a portion of the Jefferson highway which is to extend from New Orleans to Winnipeg. The Manitoba Government desires that the stretch of the road running from Winnipeg to the provincial boundary, a distance of about 68 miles, shall be the best portion of the road on the whole route, in order that visitors to Canada may be led to decide that Canada has the best roads of all. The Glenlea Station, used by the Canadian Northern, the Northern Pacific and the Great Northern Railways, is located on the farm, which is thus furnished with unusually favorable railway facilities.

Character of Farm.

The farm comprises two sections, or 1,280 acres in all. The soil is a black clay loam, unusually productive in character. The land is all clear, except about a quarter of a mile of light bush, that extends back from the river, and among which are located Mr. Cummings' summer residence, the barns, and residences of his help. When the farm was purchased by Mr. Cummings it was in a badly run down condition and most of it had never been cultivated. Much of it was badly infested with weeds. To-day 1,100 acres are under cultivation and producing as fine crops as could well be desired. Of the farm, 200 acres are in hay, 60 acres in corn, 100 in pasture, 25 in roots and potatoes, 300 in summer fallow, 100 or more in timber and the balance in oats and barley. In 1906 the oats produced an average of 100 bushels to the acre. Last year's crop was not so successful, it having been affected by rust.

The Start of the Herd.

Seven years ago, when Mr. Cummings decided to go into dairying, he realized that his milk and cream would be sold in the city and decided that for that purpose Holsteins were likely to prove the most profitable. Like Mr. Laycock, his first purchases



Buffalo Pauline.

A splendid specimen of the Holsteins in the Glenlea herd of Mr. W. J. Cummings, Winnipeg. Among the Holstein herds of Manitoba, Glenlea easily holds the foremost place.

last year Mr. Laycock sold over 50 head in the four western provinces. Now that he is arranging to devote special attention to the making of records, it may be expected that there will be an even greater demand for his stock.

Manitoba's Popular Herd.

The outstanding Holstein herd of Manitoba is that of the Glenlea Stock Farm, owned by W. J. Cummings, a member of the Grain Exchange, Winnipeg. This herd, and we might say Cummings' comfortable touring auto

ors, in being able to call attention to it as a farm that would stand comparison with the best dairy farms anywhere.

Our visit to the farm was made in company with Mr. J. T. Evans, B.S.A., the Deputy Minister of Agriculture for Manitoba. The farm is ideally located, it being situated about 15 miles from the city, on the banks of the Red River, on which it has a mile of frontage. The trip out was made in Mr. Cummings' comfortable touring auto



Manitoba Dairying at its Best. A scene on the Glenlea Stock Farm of W. J. Cummings, of Winnipeg.

were made through Mr. G. A. Gilroy and Gordon Manhard, of the Brockville district. The animals purchased through these breeders from 1910 to 1913 gave excellent satisfaction. Some bulls and females of rarely good breeding were purchased in the States. By 1912, the herd was so strong that Mr. Cummings was able to capture most of the principal awards for Holsteins at the Winnipeg, Brandon and Regina Exhibitions, and also the following year at the Dominion Exhibition in Winnipeg against strong competition.

In 1912 the herd captured first place in almost every class wherever shown. It has not been shown since 1913, partly because the Winnipeg Exhibition has not been held for several years. One of the principal prize winners was Daisy Camille 2nd, a grand cow still in the herd, which was the grand champion female at Winnipeg, Brandon and Regina in 1912. The bull, Sir Beattie Homestead Fobes, won first prize at the Dominion Fair in 1913 and headed the group which won the prize offered for the best five dairy cattle. In the younger classes at the Dominion Exhibition winning animals from the herd included Pontiac Calamity Mercena, winner of first in the senior calf class, and also reserve champion male of age; Pontiac Mercena Bonheur, 2nd in senior calf class; Shadeland Queen 2nd



A Neat Line-up of one of the Classes of Holstein herds at the Calgary Exhibition, this present summer.

lonia Champion Johanna, a number of whose young stock is still in the herd. This bull derives his blood from Johanna Colantha 2nd, record 32.89 lbs., Colantha 4th Johanna, record 35.32 lbs., and Sir Payne Concordia, who is a full brother to the former world's champion, Grace Payne 2nd's Homestead, that has a record of 35.55 lbs. The combined records of these three cows average 34.55 lbs. of butter in a week. The sires appearing in his pedigree had 50-lb. daughters.

The present herd sire is Sir Beattie Homestead Fobes, a grand large bull, full behind the shoulder, strong in the back and loins, broad in the quarter and full of vigor and character. His sire is from the former world's cham-

ion with distinct success. At present this herd is in care of Lorne Logan, who is well known to eastern breeders as the former manager of Mr. A. C. Hardy's herd at Brockville. At the Edmonton Exhibition this year this herd won both the herd prizes. It included the grand champion female, Duchess of Spring Hill, a low-set cow of great capacity. Their young bull Colony Major Pasch Tensen won first prize this year in the two-year-old class practically wherever shown, while their junior bull, Sir Modest Tensen, won everywhere but at Brandon, including the reserve junior championship at Calgary, Red Deer and Edmonton. The two-year-old heifer Trancy Faforit Pride was first this year at the western shows, while Catharine Faforite, a senior yearling, was first everywhere but at Brandon. Katie Tensen, a junior yearling, has also proved a prize-winner this year.

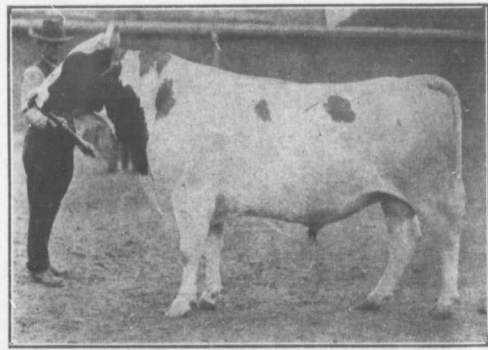
A New Exhibitor.

This year a new exhibitor appeared at the Brandon Exhibition in Clark & Sims, of Arroyo, Manitoba. They showed some 18 head. Mr. Clark came to the west about a year ago from Prince Edward Island, bringing with him Ruby Nig, the champion female last year at Halifax, Charlottetown and the other Maritime exhibitions. This year she repeated her success at Brandon by winning the championship. As a three-year-old she made a record of 16.55 lbs. of milk and 750 lbs. of butter in a year—and as a four-year-old gave 25.67 lbs. of butter in 7 days.

It would be impossible to mention in detail all the fine herds in western Canada, as they are numerous and increasing in numbers. British Columbia has also some of the best herds in the west. These we were unable to visit before this issue went to press. We hope to report on them at some length in a future issue.

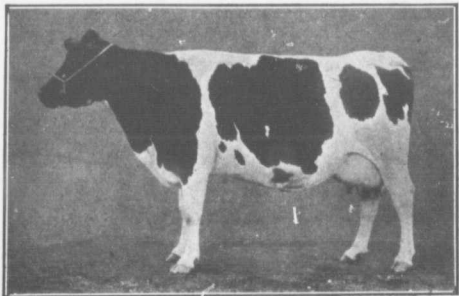
The Bevington Herd.

George Bevington, of Winterburn, Alberta, is another breeder that has



Laycock and MacDonald's (of Calgary) Ayrshire Sire.

A favorite prize winner at many of the Western Fairs of 1917. He is a bull of great character and splendid handling qualities, and comes from big producing stock, being out of the Neat famous cow, Barcheak Lucky Girl, with official record of over 17,000 lbs. of milk at 13 years of age.



One of the Most Noted Holsteins in the Prairie.

Princess Hildenny DeKol has won for Mr. Joseph H. Laycock, of Okotoks, Alta., many worthy honors in the show ring. She is known as his champion cow, having been the winner of nine championships in two years, including the Grand Championship over all breeds last year at Red Deer. Farm recently visited by an editor of Farm and Dairy.

Beauty, 1st in junior calf class; Glenzie Belle Korndor, 2nd in junior calf class and Glenzie Pearl Hengerveld, 3rd in junior calf class.

Mr. Cummings started the herd by a purchase of twenty animals. Since then other animals have been purchased from time to time. In all about 70 head have been purchased; against this, 130 have been sold. In spite of these sales the herd now numbers from 125 to 150 pure-breds, of which 60 are milking. Included among the females are 25 yearling and 25 two-year-old heifers, that are as fine a lot as could well be wished for, they being all growthy, straight, strong constitutioned youngsters in excellent flesh. The cows are bred to freshen in the fall. The butter fat is sold to the T. Eaton Co., Winnipeg, the price averaging about 82 cents winter and summer, occasionally running as high as 50 cents a pound in winter.

Herd Sires.

A glance at the pedigrees of the herd sires that have been and are being used in the Cummings' herd reveal lines of breeding that would rejoice the heart of every good Holstein breeder. A bull that was used for some time with great success was Co-

pion, Jessie Fobes Beattie Homestead, with record of 34.96 lbs. His dam was a full sister to the same cow and both of them are three-fourths sisters to the 36-lb. cow Lady Oak Fobes De Kol and Jessie Fobes Sunnyside De Kol, one of the few cows that have made two 30-lb. records. A brief review of the work of these great sisters shows that it is not without cause, for their sire is a grandson of De Kol 2d's Mutual Paul and Aaltje Salo 3d's Tritonia Netherland and their dams are by Homestead Jr. De Kol. This great bull is stamping his characteristics on much of the young stock of the herd.

Two of the younger herd sires are also rich in breeding. One is a son of Buffalo Eona Johanna, which at two years of age gave 24.7 lbs. of butter and 454 lbs. of milk in seven days. This grand cow is still in the herd and shows her great producing qualities. The sire of this young bull is Colonia Champion Johanna, something of whose breeding we have just given.

The other young sire is out of Glenzie Pontiac Bonostine Belle, and her dam was Buffalo Eona Johanna, a granddaughter of the St. Louis World's Champion, Sarcastic Lad, and the 26-lb. cow Johanna Colantha. The breeding back of this young bull as

Ayrshires

Strong Herds Shown
Animals to the

A tour of Western Canada, by an editor of Farm and Dairy, was productive that Ayrshire cattle in numbers and quality herd are maintained in various departments of the three prairie provinces by numerous private owners in the Lower Fraser Valley district of British Columbia are raised extensively an excellent account of the numerous cow tests conducted under the supervision of the British Columbia Department of Agriculture. In these tests the cost of feed is considered the amount of milk and butter and from this the animal is deducted. This test our Eastern Ayrshires have long been clamoring which in British Columbia the yielding excellent result is that some of the herds in Canada are the Fraser Valley. Two of were described at some year's Western Canada Farm and Dairy Shows. Thompson, of Sardis, Bros. of Cloverdale, E. A. Wells, of Sardis, has another well known herd. Since last year the Shannon Bros. great cow Rose, has completed her R.O.P. test with a record of over 20,000 lbs. of milk. Such records naturally are tending to give the breed a great boost.

The Manitoba College Herd.

During the past year the Ayrshire herd of the Manitoba College at Winnipeg, has greatly strengthened. A this herd was purchased our Western Canada manager charge of Associate Professor Wood, who is well known breeder. That the herd numbers of good animals at the recent Brandon



A Good Representative of the Ayrshire Breed.

Lechtern Snowdon was a splendid representative of the breed. Her owner, W. H. Brad, Oak

Ayrshires Making Headway in the West

Strong Herds Shown This Year at Prairie Exhibitions--New Championship Animals to the Front--Manitoba College Herd Strengthened

(By an Editor of Farm and Dairy).

A tour of Western Canada this year, by an editor of Farm and Dairy, was productive of evidence that Ayrshire cattle are increasing in numbers and popularity. Excellent herds are maintained by the provincial departments of agriculture of the three prairie provinces, as well as by numerous private breeders, while in the Lower Fraser Valley, the dairy district of British Columbia, Ayrshires are raised extensively and are giving an excellent account of themselves in the numerous cow testing associations conducted under the supervision of the British Columbia Department of Agriculture. In these associations the cost of feed is considered as well as the amount of milk and butter fat produced and from this the net profit per animal is deduced. This is the form of test our Eastern Ayrshire breeders have long been clamoring for and which in British Columbia appears to be yielding excellent results. Certain it is that some of the best Ayrshire herds in Canada are located in the Fraser Valley. Two of these herds were described at some length in last year's Western Canada number of Farm and Dairy, those of Joseph Thompson, of Sardis, and Shannon Bros. of Cloverdale. E. A. Wells, of Sardis, has another well known herd. Since last year the Shannon Bros. great cow Rose, has completed her R.O.P. test with a record of over 20,000 lbs. of milk. Such records naturally are tending to give the breed a great boost.

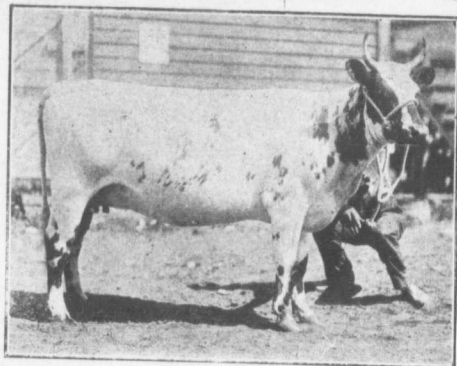
The Manitoba College Herd.

During the past year the Ayrshire herd of the Manitoba Agricultural College at Winnipeg, has been considerably strengthened. A description of this herd was published last year in our Western Canada number. It is in charge of Associate Professor G. W. Wood, who is well known to Quebec breeders. That the herd comprises a number of good animals was shown at the recent Brandon Exhibition

where in strong competition against such herds as those shown by Rowland Ness, of De Winton, Alberta, and Wm. Braid, of Oak River, Man., it succeeded in capturing a number of the important awards, more particularly in the younger classes. These awards included first on herd bull and three females under two years--first for three females under two years bred by the exhibitor, and first on two calves under one year bred by the exhibitor. Such winnings speak well for the well known college sire Sunnyside Imperial Chief which has headed the college herd for some years. The foregoing winnings as well as one or two other important ones were won with only eight animals shown.

The yearling bull Selwood Daisy King, bred by Wm. Thorn of Lyndoch, was first in the yearling class and later the junior championship. This bull is out of Hole House Flirt, the 14,522 lb. cow. His sire was the junior champion at Toronto when shown by Wm. Stewart, of Menie.

The college also won first prize on reserved championship in the three year old cow class with Miss Floss of Springbank recently purchased from A. S. Turner & Sons. This victory was



Marie of Lone Spruce.

One of the typey Ayrshires in the herd of Rowland Ness, of De Winton, Alta., and prominent in many of the Western Fairs of 1917. She was a winner at Calgary, second prize winner at Brandon, in the three-year-old class, being only beaten by the Manitoba Agricultural College heifer, Miss Floss of Springbank.

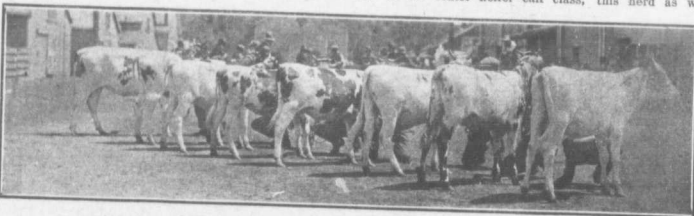
second on M.A.C. Peggy 2nd. This is a line bred Netherhall Good Time heifer. She was bred at the college from a cow purchased from John Logan. In the senior heifer calf class,

bull with college Imperial Chief out of Scottie Victoria 2nd, a cow with a record of 10,941 pounds. With the excellent older animals now contained in this herd as well as the promising young stock that is coming along the college herd gives promise of still better accomplishments in the future.

Greenhill Stock Farm.

One of the most satisfactory herds of Ayrshires in the west is that owned by Wm. Braid, of Oak River, Manitoba, the proprietor of the Greenhill Stock Farm. The farm is situated 35 miles northwest of Brandon where the land is more rolling than in most places on the prairie, and thus is better suited to Mr. Braid's Scotch temperament. At the Brandon Exhibition this year where there was an excellent showing of Ayrshires, Mr. Braid made a strong exhibit, and captured a number of the most important awards including

(Continued on page 34.)



A Class of Young Ayrshires at the Calgary Exhibition.

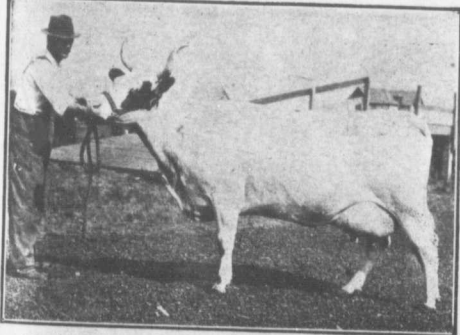
Ayrshires are worthy assuming a prominent place in the dairy industry of Western Canada.

won although she had been in milk over a year. Miss Floss was second in the two year old class at Toronto last year. Her dam, White Floss, has a yearly record of 12,875 lbs. of milk, and for four years has taken part in being first place in the Ayrshire classes at both Guelph and Ottawa. In senior yearlings the college won

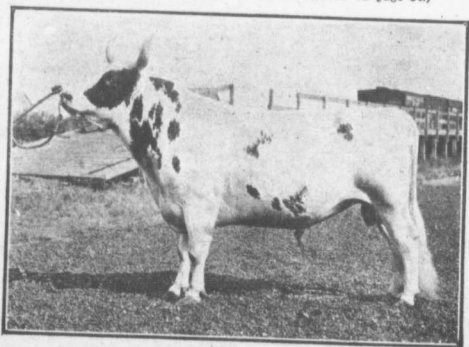
the College won first, second and fifth places, these three heifers all being sired by Sunnyside Imperial Chief.

In the senior bull calf class the third prize ticket was placed on the college calf Selwood Ideal Prince sired by Selwood Prince Ideal the winning show bull at Toronto as a yearling and two year old in 1915 and 1916. The college also won third place on junior

west of Brandon where the land is more rolling than in most places on the prairie, and thus is better suited to Mr. Braid's Scotch temperament. At the Brandon Exhibition this year where there was an excellent showing of Ayrshires, Mr. Braid made a strong exhibit, and captured a number of the most important awards including



A Good Representative of Her Breed and a Dairy Cow Worth While. Loehfergus Snowdrop was grand champion at the Brandon Fair this summer. As a splendid representative of the Ayrshire breed and a cow excelling in dairy quality, her owner, W. Braid, Oak River, Man., has good cause to be proud of her.



The Grand Champion Ayrshire Bull at the Brandon Summer Fair. Bursdale Lucky Senior, owned by W. Braid, Oak River, Man., is a grandly bred bull. His sire is Morton Man's Senator and his dam the great Barcheakie Lucky Girl. He is one of the great Ayrshires of the West.

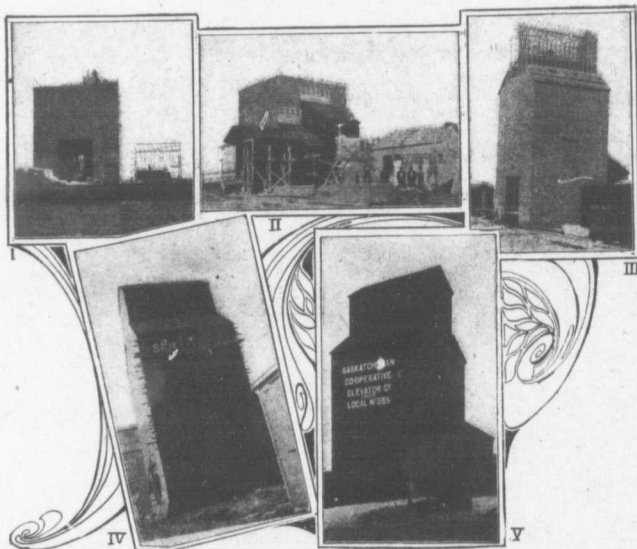
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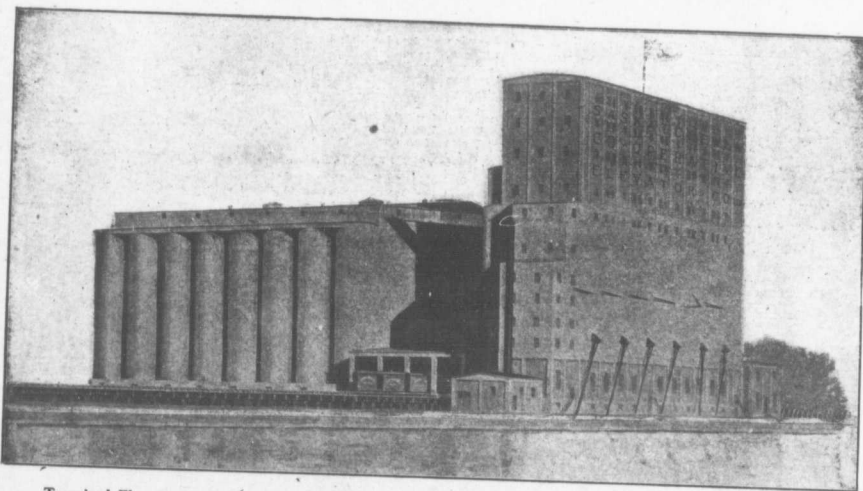
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Ayrshires Making Headway in the West

(Continued from page 31.)

first and grand championship on his herd since Burnside's Luck was first and championship on aged cow Snowdrop and third in the same class on Spicey Lass and first for herd of bull and four females any age. There is an interesting story connected with the establishment of this excellent herd. Mr. Braid left Scotland some 20 years ago and settled in the Oak River district. For seven years he worked as a hired man but at the time with the idea of in time owning a good farm of his own. Much of the credit for the accomplishment of this ideal is freely given by Mr. Braid to Mrs. Braid. At the end of seven years he had saved enough to purchase 160 acres for himself. Some time later he succeeded in purchasing the 160 acres adjoining this, giving him a half section of 320 acres. At first he kept good cows and used Shorthorn bulls, but found that he could never tell what class of milkers he was getting from Shorthorn sires. From this he realized that on a farm such as his to make it pay he must have good milk cows as it would not pay to raise beef cattle, the milking that he would receive the milking quality of his herd. Mr. Braid decided that an Ayrshire bull would be the best to use, because it would be sure to tick in nicely on his Shorthorn sires. From this he realized that better than any other dairy cross. He knew also that the first cross should give him good producing females or good steers as the case might be.

The first bull secured was from P. D. McArthur, of North Georgetown, Que. This bull was Cherry Bank Dandy Jim, by Mechanical Bull and was a prize winner in the 5-year old class at the Brandon and Winnipeg Exhibitions. The next herd sire procured was Greenhill Rising Star, bred by Hector Gordon, and purchased in his dam. He was sired by White Hall Free Trader out of Stone House Blossom. Stone House Blossom is one of the best producing cows in Mr. Braid's herd. This bull was a first prize winner in the yearling class in Winnipeg, and the following year repeated this success in the two year old class at the Brandon Exhibition, not being held that year. This bull was used for two years and left a lot of fine stock, considerable of which is still in the herd. The next sire secured was Logan Braid of Menlo, out of Stuart's famous cow Dewdrop and sired by Springfield Cashier. As a yearling he won first place at Brandon in a class of nine, and the following year second place in the two year old class.

The present herd sire is Burnside Lucky Sessler, as already stated the grand champion at Brandon this year. He is a bull of an age, quiet, having the type of head that Ayrshire breeders prize, combined with substance and an excellent barrel, a straight strong top line, broad quarters, deep, plenty of character and good handling qualities. He would make a good showing in any Eastern show ring. The dam of this bull was Ness' famous cow Barkesh Luck Otn and her sire was a bull advanced Register record of over 17,000 pounds of milk at 15 years of age, and which was a sweepstakes winner at the Ottawa Dairy Show. He was sired by Morton Maine Sessler Imp., a R.O.P. bull Macdonald College has used a bull out of the same cow with splendid success, and is now using another son of the same cow.

Females.

Among the fine females in Mr. Braid's herd are the two prize winners already mentioned, Lochergrus Snowdrop Imp., the grand and complete cow is to year old animal that is a credit to the breed. She is practically

all white, showing a little brown markings on the hind, and is a beautiful dairy type throughout. She carries an excellent set of Ayrshire horns on a fine head and over a grand muzzle. In body she is straight, long, smooth, and carries a beautiful vessel extending well forward and behind, in fact her udder is well high perfect, and is adorned with a set of excellent, well placed teats. She was first in the dairy test and in spite of warm weather and her strange surroundings save 60 lbs. of milk a day.

Spicey Lass, the 3rd prize cow at Brandon, has won a Guelph dairy test winner, and in the dairy test at Brandon, although she had been milking for over two months, gave 54 lbs. of milk a day on the fair grounds. In conformation she is much like Lochergrus Snowdrop, the two making a grand pair. She is not quite so smooth as Snowdrop, nor does she possess quite the same length but she is a rare good one just the same. A lot of the young stuff in Mr. Braid's show herd were from these animals or others of the same type and showed their breeding. Snowdrop is the type of cow that about meets Mr. Braid's ideal and as he has been breeding with that ideal in view the young cows in his herd are much of the same type. Flossie was mated at the age of three with a record of 3,204 lbs. of milk, testing 3.95% in the R.O.P. Mr. Braid has two animals now entered in the R.O.P., and will enter the balance of his females as they freshen.

Two years ago Mr. Braid erected a modern dairy barn 36x90 ft., which is equipped with all modern conveniences, including partitions, feeding pens, litter carriers, etc. Mixed farming is followed on the farm. Other stock raised includes pure bred Berkshire hogs and Plymouth Rock poultry, the latter handled by Mrs. Braid. About 60 acres of wheat, 100 of oats and 20 to 30 acres of barley are raised, the balance of the farm being devoted largely to timothy hay. Considering the few years that Mr. Braid has been handling pure bred Ayrshires, he has secured an exceptionally fine start. This herd promises to become more widely known in the future.

Another Show Herd.

As mentioned in last year's Western Canada number, the Ayrshire herd of Rowland Ness, of De Winton, Alberta, is one of the outstanding herds in the west. Mr. Ness is a son of the famous Robt. Ness and a brother of the equally famous R. L. Ness, of Howick, Que., and therefore, knows about all there is to know about Ayrshires. For several years this herd has been the largest prize winners on the western circuit, and this year, although it had been somewhat depleted by important sales, was again successful in winning most of the awards at the leading exhibitions, including Calgary, Red Deer, Edmonton, Brandon and Regina. Mr. Braid's champion bull was purchased from Mr. Ness, and was, although Mr. Ness was defeated in the aged bull class at Brandon he had the satisfaction of knowing that the bull which defeated him was an animal from his own herd. Mr. Ness has a large herd which show their good breeding and approved Ayrshire type. The herd sire of the Ness herd is Burnside Masterman, a son of the famous Hobland masterpiece.

Another Alberta Herd.

An Alberta herd which was shown with considerable success at the Calgary, Moose Jaw and Regina and Red Deer exhibitions is owned by Lock & MacDonald, of Calgary. It comprises 50 to 60 pure bred. We did not have the privilege of seeing the herd, but were advised by some very excellent stock. It captured the breed prize and other awards at Calgary and

at Medicine Hat, took 15 first, seven second and three third prizes. We expect to visit this herd and report on it more fully later, as well as on the rarely good herd of Shannon Bros. of Cloverleaf, B. C. A full description of this last herd probably appear in our Exhibition number.

What New Ontario Has to Offer the Prospective Settler

(Continued from page 6.)

cost of clearing off land in this virgin forest may seem prohibitive, but in reality, state the men who have actually done it, the price of the timber and pulp wood sold off the land will pay for its clearing and will allow the settler handsome wages for his time.

The man who goes in to clear up a wooded farm, however, must not expect to have it all ready for cultivation within one or two years. The cost of clearing up a whole section in that time would be greater than the settler could probably afford. If, however, he cleared up only a few acres each year take out a certain amount of pulp wood, then slash the remaining growth and burn. By this method it will be found that the land will be easily cleared and that the money received from the sale of pulp wood will easily pay all expenses incurred in the clearing.

On the Monteith Experimental Station, close records were kept of the cost of timbering and slashing nine acres of virgin forest. The price of pulp wood at the time when this work was done, was but \$3.25 a cord. Even then the revenue derived was such that it left a balance of \$14.38 an acre over the cost of clearing, even after paying high wages in having the work done. When one considers that pulp wood is sold at a price of \$10.00 on the railway line, it can easily be seen that the cost of clearing land need not distress the prospective settler.

For the man who wishes to get his plow into the land as quickly as possible, however, there is ample space for him to locate in the burned-over areas. While it is true that he will have no pulp wood to sell, it is equally true that within a short space of time he should have many acres of hay and grain ready for market. On one farm, just north of Hearst, in a district which had been well burnt over, a man with two grown up sons came in last fall just in time to build little shacks before winter set in. This spring, one of the boys has 30 acres in crop, the other has six acres of oats and has 18 bags of potatoes planted, while the father, who is an old gardener, has 4,000 cabbages. It will be seen that it is not difficult to clear up burned over land and results can be obtained in one spring.

What It Will Grow.

The impression seems general in Old Ontario that while the land in these new sections may be good, it is so far north that ordinary crops will not mature. This impression has been proved to be entirely erroneous in the older established districts, and as the country becomes opened up, it is to be seen that the sun and the water may drain away, it will be found that any of the ordinary farm crops which can be grown in Old Ontario will do equally as well if not better in this new country.

One crop in which New Ontario certainly excels is clover. Nowhere have I seen such crops of hay as I found growing in every district from New York, Moose Jaw, and Hearst. Hay and clover four feet long and timothy stretching up to five feet were not uncommon in the majority of the districts, and in certain particular districts visited on this trip were not the exception, but the rule. Three tons to the acre of timothy and red clover is

the crop which large fields of New Liskand this on which this growth is a crop of about 40 pounds to the year after his, was yielded through his.

Alske, a settler in Northern Ontario, finds it growing tracks and animal by burning and clearing the country in a way as being a weed. In strict adjoining New erable Alske also porty New Ontario famous for its clover.

Fall wheat is a New Ontario. Bountiful are grown there districts, and at a comparatively few bushels to the acre in three successive years. This has been found at this extent of the increase in grain placed on clearing on the new land. It has not been found quite in the northern districts of the country has not yet opened there is also in the fall before the matured. Of course also attended the open districts in Canada are now considered front, and it may be in connection to remember the land open for settlement in Ontario is still so large of Winnipeg.

On account of its shallow rooting in one of the surest crop districts. On the Montreal Farm and good crop each year for five years. Peas are crop throughout Ontario, the visitor from Old certainly marvels at the plentiful stands of peas old fields throughout the districts where farming in Northern Ontario.

For the most part, just newly opening up found that the O.A.C. giving the best value year this variety gave bushels per acre at the experimental Farm, and days from the time of a reached maturity. The sown on 7th and August 5th, thus giving for the fall plowing of.

One of the out-stands Northern Ontario is the thick black mud which characterizes the turnips do exceptionally find here the same which 'obtain in all the markets' regarding local ca. At one of the recent trip, turnips had full crops for seven year sion.

Northern Ontario potato come well known to the Old Ontario for their ties when used as seed. ers in the new district find very little trouble in growing them. The fact that it gives earlier and larger brought back to Old Ontario the potato grower in Ontario of a steady market.

The fact is the present. It does not take a person of a prophet to put Northern Ontario in one of the finest farming sections of the New World, which is now some

the crop which grow on one of the large fields of Mr. Leng's farm at New Liskeard this year. The field on which this grew produced last year a crop of oats, the seed of which went 40 pounds to the bushel. "There is nothing like the muck for good crops after year," said Mr. Leng as we waded through his field of clover.

Alsike clover is indigenous to Northern Ontario. Everywhere one finds it growing, along the railroad tracks and among the stumps in newly burned clearings. This is the country in which clover is spoken of as being a weed. In the Milberta district adjoining New Liskeard, considerable alsike seed is raised for export. New Ontario is becoming quite famous for its clover seed.

Fall wheat is a never-failing crop in New Ontario. Bountiful crops of this cereal are grown throughout the older districts, and at Monteith, which is a comparatively new community, 30 bushels to the acre has been reaped in three successive years. It has been found at this experiment station that wheat increases its yield on being placed on clover sod, instead of on the new land. Spring wheat has not been found quite so successful in the northern districts. Where the country has not yet been well developed there is always danger of frosts in the fall before the wheat has quite matured. Of course these dangers also attended the opening up of new areas in the Canadian West, which are now considered immune from frost, and it may be interesting in this connection to remember that all of the land open for settlement in Northern Ontario is still south of the latitude of Winnipeg.

On account of its early maturing and shallow rooting habits, barley is one of the surest crops in the new western farm. This grain has given a good crop each year for five successive years. Peas are an outstanding crop throughout Northern Ontario. To the visitor from Old Ontario it is certainly marvellous to see the excellent stands of peas obtained in large fields throughout practically all the districts where farming is practised in Northern Ontario.

For the northern districts and those just newly opening up, it has been found that the O.A.C. No. 3 oats is giving the best satisfaction. Last year this variety gave a yield of 60 bushels per acre at the Monteith Experimental Farm, and took but 90 days from the time of seeding until it reached maturity. This crop was sown on May 7th and harvested on August 5th, thus giving plenty of time for the fall plowing of this field.

One of the outstanding crops of Northern Ontario is that of turnips. With the black muck soil, which is characteristic of the whole district, turnips do exceptionally well. They find here the same soil conditions which obtain in all the important market gardening locations in America. At one of the farms visited in my recent trip, turnips had given bountiful crops for seven years in succession.

Northern Ontario potatoes have become well known to potato growers in Old Ontario for their excellent qualities when used as seed. Potato growers in the new districts of Ontario encounter very little trouble with insect enemies. The fact that northern seed gives earlier and larger yields when brought back to Old Ontario assures the potato grower in Northern Ontario of a steady market.

The Proof of the Pudding. It does not take a prophet or the son of a prophet to prophesy that Northern Ontario will one day make one of the finest farming countries in Canada. In the New Liskeard district, which is now some 15 years old,

ample proof is at hand of the beautiful farming country which follows the settler's axe in the clay belt.

The farmers about this district are now getting well established in stock raising. The Glangarry Stock Farm, owned by Mr. A. J. Kennedy, although only cleared some three years, already possesses buildings which would look well in the company of any farm buildings in Old Ontario. The large barn, 104 x 54 feet, set on a concrete basement with a stable for 39 cattle, is indistinguishable from the equipment of this barn is entirely up-to-date with water before all the cattle. Although so far Mr. Kennedy has been largely raising beef cattle, it is his intention to swing over to dairying shortly.

Mr. W. Yates, with his 45 head of cattle, has already made a good start in dairying. Mr. Yates is now building a large dairy barn, 54 x 89, in preparation for 60 cows next year. Further west, in the Milberta district, there is a considerable rivalry existing in the erecting of fine barns. At one particular spot I was able to count 12 large barns in a double row running westward. These were along two parallel concession lines. When we find farmers who produce as much as 7,000 bushels of grain in a season, we find farmers who are enthusiastic about the possibilities of this new northern country.

How Shall I get a Start? While the majority of the settlers in the new districts of Ontario have started in without much, if any, capital, usually going north because they had made a failure of some other business, and have made good there, it must not be thought that money is a drawback to any settler. Many are the instances in which men with families have gone into New Ontario with but a few dollars in their pockets, and by working out, building roads, or cutting pulp wood, have made enough money to pay expenses for the first couple of years while they were clearing the land. Everywhere can be found those men who, barehanded, have been down into this new country that are now valuable farmers. At the same time the man who can bring in with him a team of horses, a cow, a few hens, and from \$500 to \$1,000 in ready money with which to pay expenses until the farm begins to bring in returns, is, in the opinion of many settlers whom I interviewed, in a good way to make a success in the new country.

It must be remembered that when one takes up a farm in a new district, it is not necessary to build expensive buildings. In fact, in any of the wooded districts, it is better not to build these because of the danger of forest fires. And in such districts forest fires are always to be feared.

Forest Fires a Blessing. While the settler in a timber district may clear the immediate effects of a fire on his buildings, the feeling exists everywhere among the settlers that the greatest blessing that can come to a farmer in Northern Ontario is to have his bush burned over by a forest fire. When one has been over the district and has seen the enormous difference in the amount of labor required to clear up timbered land as compared with that which has been burnt over, he begins to see that terrible as the fire may have been while they lasted, they have resulted in untold wealth to the settlers who are going into these districts. Not only have they cleared up the land, but for miles they have opened up the country to the rays of the sun and have allowed the snow and rains to escape much more quickly, thus greatly lessening the dangers from untimely frosts in the districts burnt over.



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What Saskatchewan Does to Help Its Farmers

F. H. Auld, Deputy Minister of Agriculture, Saskatchewan.

SASKATCHEWAN farmers differ widely. They represent in their rank a large variety of races, professions and occupations. They came from all climes and countries. The conditions under which they live and labor were new to the most of them when they came, and this alone imposed a grave responsibility upon the Saskatchewan Government with respect to agricultural instruction.

When Saskatchewan was organized in 1906 there were only 257,763 persons in the province, and 209,261 of these, or 81.77 per cent, were classed as rural dwellers. The census of 1916 showed Saskatchewan's rural population to be 471,182, or 86.1 per cent, and her total population 76,653, or 15.9 per cent. Immigration so varied, so voluminous, and so recent, as these figures show the movement to Saskatchewan to have been, could not but impose many responsibilities. Highways, telephones, and schools were urgently needed. Municipal institutions had to be supplied and strengthened. Public buildings were few and inadequate. These enterprises had to be met on new conditions. The legislative and administrative record of the Saskatchewan Government since 1905 shows that it has been done to make agriculture profitable and rural life attractive in Saskatchewan.

Cooperative Creameries.

Since 1906, when there were no creameries in Saskatchewan which were not cooperative, the Saskatchewan government has operated all the cooperative creameries in the province. In 1907 the first cooperative creamery made 66,246 pounds of butter as compared with 2,538.661 pounds in 1916. This development is due to the management of them by the Commissioner of Saskatchewan, who for the past ten years engaged local managers, purchased supplies, marketed the product and paid the patrons. Judicious control over the organization and location of new creameries, the introduction of a graded scale of prices for milk and cream according to quality, and the grading of butter for markets outside of the province, together with government aid in equipping and operating the cooperative creameries, have been the main features which contributed to their remarkable success.

The cooperative creameries being no longer "infant industries," are cutting loose from government aid, and as one large incorporated company, known as The Saskatchewan Cooperative Creameries, Ltd., will manage their own affairs in the future. The Saskatchewan Government will loan up to 75 per cent of the capital required to erect and equip local branch creameries and cold storage warehouses, organized by the Saskatchewan Creameries, Ltd.

Cooperative Elevators.

The Saskatchewan Cooperative Creameries are the oldest form of cooperative enterprise in Saskatchewan, and when the Grain Growers in 1908 wanted government aid elevators the government furnished an object lesson. Consequently the form which government assistance took corresponded with that which was contemplated as the ultimate form of assistance for the cooperative enterprise, namely, the aid in financing plants owned, controlled and operated by the farmers themselves. And it is worthy of note that in many respects the new Cooperative Creameries Act is similar to the Cooperative Elevator Act. Local organization, local control, central management, government loans on the security of the plant and the

unpaid shares are features common to both. This comparison, however, is by the way. The notable fact in connection with the Elevator Company is that the government loaned 85 per cent of the money needed to construct the elevators, and for the early days when business was not so anxious to finance the business of the company as they are to-day the government found it necessary to guarantee the repayment of their current borrowings. Every reader of the agricultural or financial press knows how successful the Saskatchewan Cooperative Elevator Company, the largest of the farmers' elevator companies, has proven.

Cooperative Marketing of Wool and Poultry.

These lines of effort have been carried on by the Cooperative Organization Branch for three years with very beneficial results. Saskatchewan wool sold for the first time in 1916 than similar wool anywhere else in Canada. Poultry marketing stations have for two years handled a large quantity of poultry, and since these enterprises were undertaken by the government local prices have been set on the basis of what the government realized for its patrons.

Saskatchewan passed a law four years ago which is possible for needy farmers to buy cattle, sheep and swine on credit terms, by paying at least 25 per cent in cash and the balance on easy terms, with interest far below the normal rate for such credit accommodation. Several thousand head of stock, consisting of pure-bred bulls, grade cows and heifers, and pure-bred rams and ewes have been supplied under these provisions since this act was passed.

Farm Loans.

The Live Stock Credit and Sale Act was to a limited extent the means of providing cheaper money for farmers, but land credit at lower rates than have been available from the principal sources of farm loans came into demand. To provide this the Saskatchewan Government has passed legislation which will enable a Farm Loan Board to be set up for farmers, at least in those parts of the province which borrow. All loans will be on the amortization plan, and will be repayable in 30 equal annual payments. The government not only interested itself in a large way in the organization of districts, but it provided the funds for rendering financial assistance to these districts, notwithstanding the heavy burden created by the overwhelming number of schools. The following figures will indicate what this has meant to the public treasury:

The number of school districts existing in Saskatchewan on September 1st, 1905, was 894. The number in existence on December 31st, 1916, was 3,878, showing an increase of almost 3,000 in a period of 11 years, or an average of 270 for each year.

The government not only interested itself in a large way in the organization of districts, but it provided the funds for rendering financial assistance to these districts, notwithstanding the heavy burden created by the overwhelming number of schools. The following figures will indicate what this has meant to the public treasury:

For the year 1906 the total grants paid to school districts amounted to \$251,200.50. This increased to \$350,807.95 in 1910, and to \$639,812.08 in 1915.

In addition to these grants the government provided a scheme for raising additional money through the Supplementary revenue act, the chief object of which at the time was to tax unoccupied land outside of school districts in order that they might bear some share of the cost of education.

Under this Act, there has been raised in eight years and distributed to our rural schools no less than \$2,213,676.88.

Since 1908 the government has supplied school readers free of charge to every school in the province. During the years this law has been in force no less than 402,761 books have been so distributed at a cost of \$82,128.96, and at a saving of over \$55,000 to the people of the province. By this action the former sum has been saved to the parents of children who have been attending school.

Secondary Education.

A good primary education is a prime requisite, but secondary education has not been neglected. Provision is made in our statutes and encouragement is given by a system of grants out of the public treasury in aid of high schools and collegiate institutions. There are now 22 high schools and colleges in Saskatchewan, and all of them were established since the organization of the province in 1905. Legislative grants amounting to \$301,210 have been made during the past eight years. To complete the educational edifice a state university, liberally supported by public funds, has been established at Saskatoon, and an integral part of it is the College of Agriculture. Nearly two million dollars have been spent upon the university, and much of this has been devoted to agricultural education and research.

Liberal grants in aid of agricultural societies are paid by the government to 126 societies and two winter fairs. From one-third to two-thirds of the money expended in prizes for live stock and agricultural exhibits is repaid in the form of grants.

Just at this season especially is the work of the Bureau of Labor in supplying farm help worthy of note. It has many other duties, of course, but not the least of them is that relating to getting annually an adequate supply of labor into the province to reap our grain crops. The Bureau maintains three public employment offices and receives applications from farmers for men. The best evidence of its usefulness is the fact that it aids in handling upwards of 30,000 farm hands each year, most of them at harvest time.

In conclusion, I shall refer to the fact that only a little more than two years ago the retail sale of liquor was illegal in every province except Prince Edward Island. The Saskatchewan Government exercised the powers which it has been striking after the outbreak of the war to strike a death blow at the trade in intoxicating liquors. Measuring the benefit of this reform by the gauge with which the public is most familiar, the financial outlook—but which is the least important, it may be stated that by this means ten millions a year have been saved for useful enterprises in this province alone.

HOME CLUB

"Homeland" Ties Continue Strong

IMUST not let this Westerner go into so many homes of dear old Ontario without a little message of greeting to the Home Club. I think that the "home folks" in Ontario sometimes have the feeling that we who have left home to go to a "new country," have gone back on Ontario or do not properly appreciate it. And now while our western land is in the thoughts of Home Club members at the reading of a whole magazine full of articles about us, I would like to add

my little word to tell you what a strong bond of love there is between the "Homeland" and the hearts of our children who are far away. In fact, I think, if there is any difference, it is that the absent ones love and appreciate the old home even more than the ones who are here.

By comparing your native land with different districts with which we become acquainted, we realize more fully what a wonderfully favored land Ontario really is. And in the home-club circles which we have met of our hearts to be "back home," (it will always be that to us) then we know as we never knew before, how very, very dear are the scenes of our childhood.

And to show Home Clubbers how far we are from forgetting Ontario I want to tell you that we are always trying to transplant a little of Ontario into our adopted country. For one thing we have maple seeds planted in our garden. I said we will have maple trees, but it will not be long till we will have maple leaves." And how we have longed for the beautiful old maple trees! The seeds will be planted at Ashpole county. Mr. J. J. M. in the meeting in the time of the local conference. A couple of Mr. E. J. Ellis, of Farm and Dairy, in completing the organization promises to be a great

And oh! you see it in so many ways—the love for the old home. When we meet strangers in this country, one of the first questions always is, "Where do you come from," and as soon as we hear the name has come from Ontario, there is a bond of sympathy at once. Just lately I was in a small company of people and a stranger came up to me. (We are not very particular about introduction in our country, for we are all strangers together). The stranger said: "Excuse me, but what part of Ontario did you come from?" I heard you say you came from Ontario.

How we love to tell about Ontario to the people who have never been there! And that "we" includes all the children of old Ontario. When they go back home they naturally talk of the west and that is perhaps the reason the home folks get the idea that they have gone back on Ontario. But get any of them in conversation with some one who has never seen Ontario and you would soon realize the how- ever extravagantly they boast the west, in their hearts is still a very, very warm spot for the old home. How we love to describe the old orchards and the grand old maple trees, the good roads and fine buildings and the good roads! So often I have said to English people on the prairie, "Oh, I hope you will never go home without taking Ontario." Once while in a lecture, when the lecturer was suddenly surprised by a spontaneous and ringing cheer, just because he had said something particularly fine about Ontario, and we who were in the audience were from Ontario and what pride you could see in their faces! I was amused to see a man turn and look at his neighbor with an expression that plainly said, "Dear old Ontario, you have come on that wonderful place, which the speaker is talking about?" And when he saw his neighbor looking at him with the same expression they immediately shook hands.

We love this glorious west of ours with its vastness and newness and wealth of beauty and the fascination of watching it "in the making." But we will never cease to love the dear old home, that like a part of us, because it is so entwined in our hearts, being inextricably woven with so many sacred memories. And so I say from my heart, "Three cheers for Ontario for the farmers who have made her what she is!"—"A. B. C. Pioneer."

Progress in Alberta
(Continued from page 911)
This year the percentage of the population run over 90%. "The ivy have done more than to assist us in improving our butter," he said of the adaptive of the which most of our graduates as determined by ment graders at Edmonton, and secondly, the best cream. There are

Organization

INTEREST in Ontario farming is right into the year. Recently Mr. J. J. M. of the U.P.C. secretary, in Middle West, was organized, then went up to county, and again meeting was successful promises to be a great help to the farmers, without a side organizer, for own and decided U.P.C.

The Martintown F.O. in Glendon, Ontario, had to do something. On their initiative to hold a public meeting to boost the part of Ontario. The premier clubs of the matter of holding trial company, the having two shares. A strong club was organized at Ashpole county. Mr. J. J. M. in the meeting in the time of the local conference. A couple of Mr. E. J. Ellis, of Farm and Dairy, in completing the organization promises to be a great

Dues Cooperation

PROBABLY the best above question to announcements Cooperative Elevator Saskatchewan Co., on other pages is the unanswerable operation amongst the east. The Statistics of very best interests of Alberta and Saskatchewan, and what has to do with equal success in Ontario, and is even way. In the second year, the Cooperative movement of the Alberta increased its business only one instance. The results that have attended since its inception, a chevron company can equally gratifying. These 15,840 farmers and 20,000 farmers of Ontario certainly found that it the line to cooperate.

We would call attention to these announcements them to carefully consider them. The store farmers' fight for will make fascinating comes to be written, in Canada. Under the name a little story is given in statement of the Active Elevator Company, the Saskatchewan Cooperative Company, which is open for the farmers of Ontario with no uncertain vocal that one of the great success, protection and the farmer, is cooperation

Progress in Alberta

(Continued from page 911)
This year the percentage of the population run over 90%. "The ivy have done more than to assist us in improving our butter," he said of the adaptive of the which most of our graduates as determined by ment graders at Edmonton, and secondly, the best cream. There are

Organization Continues

INTEREST in organization among Ontario farmers is being carried right into the busiest season of the year. Recently Mr. Morrison, the secretary of the U.F.O., was invited to Dorchester, in Middlesex county, and a good club was organized. Mr. Morrison then went up to Seaford, in Huron county, and again the organization meeting was successful, and this club promises to be a strong one. At Cranbrook, in the same county, local farmers, without the help of an outside organizer, formed a club of their own and decided to affiliate with the U.F.O.

The Martintown branch of the U.F.O. in Glengarry county have decided to do something new and original. On their initiative the club is going to hold a public meeting late in August to boost the movement in that part of Ontario. This is one of the premier clubs of the province in the matter of holding stock in the central company, the secretary himself having two shares.

A strong club was recently organized at Asphodel station, in Peterboro county. Mr. J. J. Morrison addressed the meeting in this district at the time of the local convention in Peterboro. A couple of weeks later Mr. Ellis, of Farm and Dairy, assisted in completing the organization of what promises to be a good club.

Does Cooperation Pay the Farmer

PROBABLY the best answer to the above question is found in the announcements of the Alberta Cooperative Elevator Company and the Saskatchewan Cooperative Elevator Co., on other pages of this issue. It is the unanswerable argument for cooperation amongst the farmers of the east. The statistics given there prove conclusively that it has been to the very best interests of the farmers of Alberta and Saskatchewan to cooperate, and what has been done there may with equal success be done in Ontario, and it is even now under way. In the second year of its history, the Cooperative Supply Department of the Alberta company increased its business 400%, to quote only one instance of the wonderful results that have attended this company since its inception, and the Saskatchewan company can point to results equally gratifying and wonderful. These 15,640 farmers of Alberta and 20,000 farmers of Saskatchewan have certainly found that it pays all along the line to cooperate.

We would call our readers' attention to these announcements and ask them to carefully consider the figures given there. The story of the western farmers' fight for a square deal will make fascinating reading when it comes to be written. In this Western Canada Number of Farm and Dairy a little story is given in the interesting statement of the Alberta Cooperative Elevator Company, and the Saskatchewan Cooperative Elevator Company, which contain a message for the farmers of Ontario, and sounds with no uncertain voice the clarion call that one of the great secrets of success, protection and prosperity for the farmer, is cooperation.

Progress in Alberta Dairying

(Continued from page 19.)

This year the percentage was likely to run over 90%. "The two factors that have done more than anything else to assist us in improving the quality of our butter," he said, "have been the adoption of the grading system, by which most of our butter is sold by grade as determined by the Government graders at Edmonton and Calgary, and secondly, the use of pasteurized cream. There are 35 creameries

now using our grading or marketing service. These are the largest creameries in the province. Some of our smaller creameries as yet have not cared to make the necessary investment for equipment."

As one travels through the western provinces and talks with the dairy officials, it soon becomes evident that western dairymen are forging right ahead in their methods. Dairy Commissioner L. A. Gibson, of Manitoba, informed me while I was in Winnipeg that the Manitoba creameries are rapidly adopting the system of pasteurizing their cream. A system of grading has been in use for some years, although not on just the same basis as the one used in Alberta.

Round Grain Shocks

IT is very unwise to grow a good crop of grain, cut it with a self-binder and then put it up in shocks that permit it to spoil. It is not uncommon, however, to find field shocks that have been put up in poorly-made shocks. In many instances the shocks are too small to stand up well. In others the bundles have been carelessly thrown together, and the shock in setting has drawn out of shape and gone down with the heads of the bundles resting on the ground. In a great many cases the shocks are left uncaped. Under any of these circumstances the grain cannot help deteriorating in quality, if allowed to stand in the shock for any length of time.

In order to save grain a good system of shocking should be learned and then conscientiously followed.

One of the most satisfactory shocks to build is what is known as the twelve-bundle, round shock. It will answer for any kind of grain. It is built by setting up three pairs of bundles in a row, preferably starting with the centre pair and placing another pair on each end. Two bundles on each side complete the foundation for the shock. All of these bundles should lean slightly toward a common centre. The other two bundles should be used for caps, breaking them down well at the band and placing them over the ridge of the shock, which will run in the direction of the three centre pairs of bundles. The heads of the first cap bundle should be covered by the second cap bundle. In this way only one bundle of heads out of the twelve is exposed to the weather. Such a shock, when well built, will preserve grain almost as well as though it were stacked.—Andrew Boss.

FACE TO FACE WITH HALF-A-MILLION

Canadian farm homes want the best our factories can turn out for them. And, in proportion to the greater need and demand for farm products, will be the increase in their profits and prosperity. The harvest, this year, has been good. This fall will be a big buying season, and our farm folk will be open for ideas at the big Exhibitions. Bear this in mind in planning

EXHIBITION ADVERTISING

where your products will be face to face with a hundred thousand farm homes.

Not only show these people your best at Toronto, but make sure they will plan to see it and see your representative there, by announcing it in our

Exhibition Number of August 30th, 1917

It reaches the cream of our farm homes—dairy farmers and dairymen.

All Copy for this must reach us by August 23, 1917

FARM and DAIRY PETERBORO, ONTARIO

CANADIAN NATIONAL EXHIBITION

Aug. 25 TORONTO Sept 10

JUBILEE YEAR SPECTACLE

1200—Performers—1200
The last word in spectacular pageantry.

More exhibits, more features and more special attractions than ever before.

MAMMOTH TRACTOR AND FARM POWER EQUIPMENT DISPLAY.

A SOLUTION FOR MANY PROBLEMS OF THE FARM
New and enlarged Government exhibits; new competitions; new classifications; giant agricultural and livestock display.

Inspiration, education and recreation on a colossal scale.

REDUCED FARES ON ALL LINES OF TRAVEL TO THE BIGGEST AND BEST SHOW IN EXHIBITION HISTORY.



Many Thousand Farm Laborers Wanted for Harvesting in Western Canada

"Going Trip West"—\$12.00 to WINNIPEG "Return Trip East"—\$18.00 from WINNIPEG

GOING DATES

August 21st and August 30th
All stations in Ontario West of Smith's Falls up to and including Toronto on Lake Ontario Shore and Hazelock-Peterboro Lines; also from stations between Kingston and Renfrew Junction, and from stations on Toronto-Sudbury direct line. From stations on Main Line, Beauvais to Franz, inclusive. From stations between St. Marie and Port McNicoll and Burketon-Holbrooke.

August 23rd and August 30th
From stations West and South of Toronto up to and including Hamilton and Windsor, Ont., and Owen Sound, Walkerton, Tecumseh, Wingham, Elora, Elstow, Goderich, St. Mary's, Port Burwell and St. Thomas branches, and stations Toronto and North to Bolton, inclusive.

SPECIAL THROUGH TRAINS

Further particulars from Canadian Pacific Ticket Agents, W. B. HOWARD, District Passenger Agent, Toronto.

KING SEGIS WALKER'S

Oldest daughter with first calf made 456 lbs. milk and 24 lbs. butter; with her second calf, 560 lbs. milk and 29½ lbs. butter. His first granddaughter, through his son, at 2 years 2 months, made 440 lbs. milk and 25½ lbs. butter. Young stock for sale.

A. A. FAREWELL, OSHAWA, ONTARIO.

RIVERSIDE HOLSTEINS

For Sale, Choice Young Bulls, sired by King Johanna Pontiac Korndyke, a grandson of Pontiac Korndyke, and the brother of Pontiac Lady Korndyke, 25-02 butter in 7 days, 146-92 lbs. 30 days, record for made. Also females bred to "King." J. W. RICHARDSON, CALEDONIA, ONT.

LAKEVIEW HOLSTEINS

Are still in the lead. The latest Holstein year books show that they held 4 Canadian Records for butter, and Lakeview bulls have won all honors possible at both Toronto and London Exhibitions, 1915 and 1916. Now we are offering several richly bred young fellows that are looking forward to the fall fairs, and we have decided to give \$10.00 in gold to the man that buys the 1917 winner. 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.

HIGHLAND LAKE FARMS

Some of the bulls we have for sale at attractive prices:
 1. Born May, 17, two dams average 35.62 lbs.
 2. Born March, 17, two dams average 34.18 lbs.
 3. Born March, 17, two dams average (1 as Jr. 2 yr.) 33.12 lbs.
 4. Born March, 17, two dams average (1 at 3 yrs.) 32.23 lbs.
 These are sons of AVONDALE PONTIAC SEGISO, our herd sire (under loan), a son of MAY ECHO SYLVIA, the world's record cow. Only one other 4½-lb. bull in Canada.
 Send for extended pedigrees and prices on these and others, a few of serviceable age, come from 1½-lb. cow. We guarantee satisfaction. Twenty-five females for sale.

R. W. E. Burnaby Farm at Step 55 Young Street Radial Jefferson, Ont.

HOLSTEINS

We have the only two sons in Canada, of the 4½-lb. bull Ormsby Jane King—only mature son of the world's most famous cow. One of them for sale, also a 30-lb. calf, also a dam and two great-granddaughters, 30 lbs. butter in 17 days. These all bull calves of better grade, and females of all ages.
 R. M. HOLTVY, R. R. No. 4, PORT PERRY, ONT.

Registered Holsteins

Bulls from one month to 17 months old for sale. All from our grand herd sire, Echo Segis Fayne, whose sire is half-brother to Segis Fayne Johanna, the world's wonder cow, that has 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.

EWELAMBS FOR BREEDING PURPOSES

The Sheep Breeders' Associations in Quebec are offering several hundred choice ewe lambs for breeding purposes—Shropshire, Oxford, Hampshire, Leicester and Cheviot grades. Price \$12.00 to \$15.00 each. Orders also received for pure bred rams of the above breeds at \$30.00 to \$40.00 each.
 Apply A. A. MACMILLAN, in Charge of Sheep Husbandry, Macdonald College, Que.

VILLA VIEW OFFERS FOR SALE

Villa View, the home of King Segis Alcarra Calamity and Dutehand Pontiac Colaliba, the two that are backed up by more dams than that have held world's records on the herd sire of any other herd in Canada. We have a few Alcarra bulls for sale at reasonable prices.
 A. ARBOGAST BROTHERS, Sebringville, Ont.

LAKESIDE AYRSHIRES

A select lot of young bulls, all ages, sired by Auchenbrain Sea Foam (Imp.) 35768 (8865), Grand Champion at both Quebec and Sherbrooke, from Record of Performance Dairy. Write for catalogue.
 Proprietor: GEO. H. MONTGOMERY, Dominion Exchange Bldg., Montreal.
 Manager: D. MCARTHUR, Phillipsburg, Que.

Every Farm should have an Ayrshire!

MORE MILK MORE BUTTER

SPRINGBANK AYRSHIRES
 For sale, One choice yearling bull; a few bull calves from 3 to 6 months old, and a few choice heifer calves. All are bred to color and type, and from E.O.P. dams.
 A. S. Tarrar & Son, Rocklawn Centre, Ont.

TAMWORTH
 Young Sows and Heats from several lots, all good weight and quality. Farms, Beaverville, Ont. Heralds Farm, Niagara District.

Please mention Farm and Dairy when writing advertisers.

Market Review and Forecast

TORONTO, Aug. 13.—A report has just been issued by the Census and Statistics Office giving the conditions of field crops throughout Canada at the first of the month. The eastern part of the province was hit by frequent rains and good grain crops are reported from all quarters. Hay, potatoes, broom corn and alfalfa crops, however, have not fared so well with regard to rain, which has done much to improve prospects there. Manitoba, and Saskatchewan both report poor grain crops through lack of moisture. Unless these provinces get rain at once, they will not likely reach more than half a crop. The United States Department of Agriculture report a corn crop surpassing any ever grown before. The grain, however, are poor through the United States. Barley, rye and potatoes will give large crops.

WHEAT.

The poor prospects for a wheat crop in the United States have made themselves felt on markets, both in the U.S. and in Canada. Small crops in the Canadian west have also tended to make for a strong wheat market. Already some new Ontario wheat in the Quotation No. 1, Northern, at 2.40; No. 2, \$2.37; No. 4, \$2.25; Ontario winter—No. 2 winter, at \$2.29, according to freight-outside; No. 3 winter, \$2.53 to \$2.68; new crop, No. 2, \$2.25.

COARSE GRAINS.

With no new grain yet ready for the market, little has been done in the coarse grain marketing this week. The strengthening grain market, which followed the United States crop report, has, however, been felt. Quotation: Oats, C. W. No. 2, 80c; other grains not moving. Montreal quotations: Oats, C. W. No. 3, \$2 to \$2.05; No. 2, \$2 to \$2.05; corn, \$2.35 to \$2.40; barley, medium, \$1.28.

MILL FEEDS.

The mill feed market is very strong in sympathy with the upward trend of the grain market. The demand for bran for shipment to the United States is steady, and prices are running high. Carlots of bran, \$2; middlings, \$47 to \$48; good feed flour, per bag, \$1 to \$1.25. At Montreal, bran, \$35; shorts, \$40; middlings, \$48 to \$50; moultrie, \$60 to \$61.

HAY AND STRAW.

The hay crop throughout eastern Canada is a little above the average. In some districts exceptionally good yields have been harvested. The United States also reports a bumper crop this year. Track, Toronto, extra No. 2, \$1.50 to \$1.75; mixed, \$9 to \$10; straw, carlots, \$7 to \$7.50. At Montreal, hay, No. 2, per ton, carlots, \$10 to \$10.50.

HIDES AND WOOL.

Country Markets—Reef hides, fat, carlot, 30c to 32c; Gunner or bob calf, \$1.75 to \$2.50 each; horsehides, country No. 1, \$1.10 to \$1.25; No. 2, \$1 to \$1.25; take-off, No. 1, \$2 to \$2.50. Hides, calf farmers' stock, \$3c. Washed wool, 16c; coarse, 55c. Washed wool, fine, 60c; coarse, 55c.

EGGS AND POULTRY.

Eggs are remaining firm. The supply of eggs at present is unusually low, due not only to the season, but also to the scarcity of feed. Eggs at country points are selling at from 57c to 58c a dozen, and wholesalers are producing at the retail trade at 65c. The retail price at Montreal is 45c.
 Live weight Dressed, Chickens, spring: 20c to 25c to 20c; Hens, over 5 lbs.: 16c to 20c to 20c; Roosters: 14c to 20c to 20c; Ducks: 18c to 20c to 20c; Turkeys: 16c to 20c.

DAIRY PRODUCE.

The hot weather which was general throughout Ontario for a week or so had its effect upon pasturage, and the demand for butter is steady at good prices. The butter market is paying the following prices: Creamery, sold, 25½c; dairy prints are selling at 26c to 27c. At Montreal, butter, choice creamery bringing 25½c to 26c, with seconds, 25½c to 26c. Cheese remains strong at good prices. Quotations follow: New large, 25c; twins, 23½c; old large, 23c; twins, 21c.

CHEESE BOARD SALES.

Lequios, Aug. 3.—720 colored and 126 white. No sale on board or on the curb.

Alexandria, Aug. 3.—990 white sold at 21½c.
 Danville, Que., Aug. 4.—1,775 boxes sold at 20½c.
 Belleville, Ont., Aug. 4.—1,741 boxes, previous have been blessed with milk offered; 1,171 were sold at 21 5-16c, balance at 21½c.
 Cowansville, Que., Aug. 4.—700 pigs.
 St. Hyacinthe, Que., Aug. 4.—8,000 cheese sold at 20½c.
 Vankeke Hill, Ont., Aug. 4.—1,256 sold at 21 3-16c.
 London, Ont., Aug. 4.—535 boxes boarded; 260 sold at 21c. Balance refused.
 Mont Joli, Que., Aug. 4.—275 sold at 20½c.
 Woodstock, Aug. 8.—410 colored cheese; highest bid 20½c; no sales.
 Peterboro', Ont., Aug. 2.—2,700 boxes sold at 21 3-16c.
 Madoc, Ont., Aug. 8.—385 boxes sold at 21c.
 Campbellford, Aug. 9.—450 white cheese sold at 21 5-16c.
 Kingston, Aug. 9.—458 cheese sold at 21c.
 Kingston, Aug. 9.—668 white and 33 colored boarded; 500 were sold at 21c.
 Striling, Aug. 9.—675 boxes sold at 21 3-16c.
 Brockville, Aug. 9.—2,390 white and 850 colored cheese were offered, and 3,500 boxes sold at 21 3-16c. One lot of 457 white sold at 21½c, and 267 colored sold at 21c.
 Mont Joli, Que., Aug. 10.—250 sold at 21 5-16c, and 200 boxes butter at 28½c.
 Trois-Rivières, Que., Aug. 10.—645 colored and 280 white sold at 21c.
 Anticosti, Que., Aug. 10.—2,500 boxes sold at 20½c.
 Alexandria, Ont., Aug. 10.—378 boxes white sold at 21 3-16c.
 Picton, Aug. 10.—640 cheese sold at 25c.
 St. 1-16c; 160 lbs. when butter sold at 25c.
 Napanee, Ont., Aug. 10.—330 white, 385 colored sold at 21 3-16c.

LIVE STOCK QUOTATIONS.

Choice heavy steers.....\$11.75 to 12.50
 Butcher's choice heifers.....11.75 to 12.25
 do good.....10.00 to 10.35
 do common.....9.00 to 9.50
 Butcher's bulk choice.....7.50 to 8.25
 do good.....6.50 to 7.25
 Butcher's choice cows.....8.25 to 8.75
 do medium.....6.50 to 7.25
 do good.....6.25 to 7.00
 Feeders, 800 to 1,000 lbs.....9.25 to 9.75
 do medium, 700 to.....7.75 to 8.25
 Stockers, 700 to 800 lbs.....7.00 to 8.50
 do medium.....6.00 to 6.60
 Canners.....5.00 to 5.60
 Milkers, good and medium.....15.00 to 15.50
 Spinners.....10.00 to 12.00
 Calves.....14.75 to 14.75
 do medium.....11.50 to 13.00
 do common.....6.00 to 7.00
 do grass.....8.00 to 8.50
 do heavy fat.....8.00 to 10.50
 Spring lambs, ewe.....16.00 to 18.75
 Sheep, yearlings, choice.....15.00 to 15.50
 Sheep, ewes, light.....8.00 to 9.00
 do heavy and backs.....6.50 to 7.25
 do culls.....4.00 to 5.25
 Hogs, fed and watered.....16.00 to 16.50
 do fresh.....17.00 to 17.50

ANOTHER LONG-DISTANCE RECORD FOR CANADA.

LAKELVIEW QUESIN 3rd, owned by W. H. T. PRESTON, was sired by the senior two-year-old, but established a new high-water mark for Canada in producing 28½ lbs. milk, testing 4.21 per cent. butter fat, equivalent to 15.01 lbs. the better. This was after calving on May 23 days. Boneross Ormsby, whose record for 70 days was 27½ lbs. milk, 14.28 the butter, set two weeks ago the grand-dam of this heifer, Queen Inka De Kol, in the record in the same division 18 mos. after calving, by producing 21.55 lbs. butter, testing 4 per cent., making 21.55 lbs. the best, and is only equalled by two other cows. The record of 100 lbs. of milk makes the sixth Canadian record for a heifer. Queen Inka De Kol, in the distance class, eight months after calving.

NEW YORK REPORTS:
 HERTZ INCORPORATED, owned by W. H. Shaw, Newark, Ont., is now the world's champion in the 30- and 60-day divisions as a 2-year-old. Her records are as follows:
 7 days 27½ lbs. Milk; 30 days 2,262.6 lbs. Milk; 60 days 2,262.6 lbs. Milk.
 This great record is a Canadian record, and individual as well as an A.I. product. Her reputation is due to the type of the breed, her good state and development, and the fact she might stand well up in the price list at any fair.



Alberta offer one best chance to work together

Farmers produce a square deal to their advantage

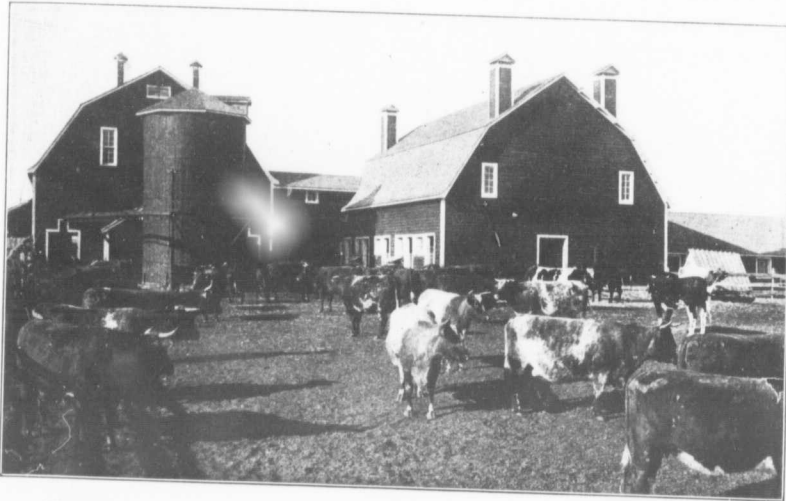
The Minister of Agriculture is a farmer, and in the interest of farmers

Though Alberta stock-raising was the premier place

Dairying has increased in the Province; the output is increasing year by year

Hon. DUNCAN M. McLEOD, Minister of Agriculture

PROVINCE OF ALBERTA



**FREE
LAND
FOR
SETTLERS**

**HEALTHY
CLIMATE**

Alberta offers the farmers of Ontario, and elsewhere, the one best chance; the land, climate and the local Government all work together for the success of the agriculturist.

Farmers predominate in Alberta's Legislature and guarantee a square deal to the man on the land; direct and remedial legislation has already given agriculture the right of way.

The Minister of Agriculture (an ex-Ontario boy), is himself a farmer, and is in direct touch and sympathy with every problem of interest to farmers.

Though Alberta is well adapted for wheat and other cereals, stock-raising was her first industry of importance and still holds the premier place.

Dairying has now become firmly established throughout the Province; the output of the creameries and home dairies is increasing year by year with leaps and bounds.

FOR FULL PARTICULARS APPLY TO

Hon. **DUNCAN MARSHALL**,
Minister of Agriculture,
EDMONTON, ALBERTA

"FARM AND RANCH REVIEW, JULY 20, 1917."

"Alberta Dairy Exhibit the Best on the Continent."

"According to expert judges of butter and dairy products, the dairy exhibit made at the Calgary Exposition could not be beaten on the North American continent. Six Canadian provinces—Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia had butter in competition, but about ninety per cent. of the prizes were awarded to Alberta butter-makers. According to L. A. Gibson, Dairy Commissioner of the Province of Manitoba, who was one of the judges, the quality of the butter shown at the famous Toronto Exhibition is not equal to that exhibited at Calgary.

"In explanation of the high quality of butter exhibited in Alberta, Mr. Gibson is quoted in a newspaper interview as saying that this had been attained by the grading of the cream and butter. 'Alberta took the lead in this: Manitoba and Saskatchewan came next, and now Ontario is in line. It is hoped that there will be a uniform standard as high as that which Alberta has reached, and when that is reached there will be a big development and expansion in trade that will develop with Great Britain. The quality of the Alberta butter has been brought up to just what the British trade demands. It has the mild flavor, the color, the proper amount of salt, the keeping quality, and in fact, everything that is required to meet the demands of the British market. That is what we are trying to make the Dominion standard, so that our butter can be sold on standard, and the trade find that it is an established thing.'"

CHARLES S. HOTCHKISS,
Chief Publicity Commissioner,
Department of Agriculture,
EDMONTON, ALBERTA

Why not consult The Ontario Department of Agriculture About your Farm problems?



THE DEPARTMENT ENCOURAGES FINE PLOWING. SCENE AT PROVINCIAL PLOWING MATCH.

THE ONTARIO DEPARTMENT OF AGRICULTURE invites you to make fullest use of its staff of farm experts. Each branch listed below wishes to co-operate with you. Write directly to each official, addressing him, unless otherwise directed, at Department of Agriculture, Parliament Buildings, Toronto. Your request will receive prompt attention.



AN APIARY DEMONSTRATION RIGHT ON THE FARM. COLONIES—INSPECTED FOR DISEASE AND BEST METHODS EXPLAINED

Ontario Livestock Branch

Full information is given on all phases of the livestock industry. It stock association memberships, cooperative shipments of livestock to Eastern and Western Canada, grading and marketing of wool, stallions in use in Ontario, and the stallion law and requirements for inspection and enrolment.

Assistance is also given to sales of livestock and to local poultry associations.

As secretary of the Sheep Breeders' and Swine Breeders' Associations, Ontario Horse Breeders' Association, Ontario Stallion Enrolment Board and Ontario Provincial Winter Fair the Director will give full information about any of these. WRITE DIRECTOR R. W. WADE.

Ontario Fruit Branch

For the fruit grower this branch has valuable information. If necessary a personal visit will be made to your farm. Expert advice on planting of orchards, vineyards and small fruits—the best districts, types of soil, varieties and the most approved methods, cultivation, cover crops, thinning; packing in boxes and barrels; any question, in short, relating to practical fruit growing in Ontario. WRITE DIRECTOR P. W. HODGETT'S.

Three important divisions are also under the supervision of the director. (1) **Orchard Diseases and Pests.** Nurseries and orchards are inspected: information given regarding the identification of, and treatment for, orchard pests. WRITE L. CAESAR, Provincial Entomologist, O. A. College, Guelph, Ontario.

(2) **Orchard Diseases and Pests.** Nurseries and orchards are inspected: information given regarding the identification of, and treatment for, orchard pests. WRITE L. CAESAR, Provincial Entomologist, O. A. College, Guelph, Ontario.

(3) **Beekeeping.** Regarding any phase write MORLEY PETTIT, Provincial Apiarist, O. A. College, Guelph.

The Vegetable Division

For information concerning vegetable growing both in field and under glass; the results of experimental work on a field scale, and the practical use and value of all new appliances, materials and methods; and the control of insect pests and fungus diseases of vegetables, write S. C. JOHNSTON, VEGETABLE SPECIALIST.

Ontario Agricultural Societies Branch

The Superintendent directs the work of agricultural, horticultural and vegetable growers' societies, including the payment of grants provided for the purpose; has charge of the field competitions and exhibits of prize winning grain, sheaves and vegetables from these; appoints judges, upon request, for competitions; and fall points judges for the conventions of the Ontario Association of Fairs and Exhibitions and of the Ontario Horticultural Association and acts as secretary of the Ontario Vegetable Growers' Association and of the Ontario Plowmen's Association. Questions in any way related to any of these associations will be answered by SUPERINTENDENT J. LOCKIE WILSON.

Ontario Institutes Branch

Gives information and assistance to Ontario Farmers as follows: (1) The organization and management of boards of agriculture, farmers' clubs, Women's Institutes, Patriotic work, Girls' Clubs, etc.; short courses in livestock and seed judging, and demonstration lecture courses in foods and cooking, home nursing and

sewing. (2) Supplies speakers for agricultural meetings of associations and for courses as listed above. (3) Supplies milk record forms and general dairy information. (4) Upon request will supply to agricultural speakers slides (for projector) of weeds, livestock, poultry and poultry houses, and charts for illustrating lectures.

For complete information concerning any of the above or upon any phase of the work of Boards of Agriculture or Women's Institutes write SUPERINTENDENT GEORGE A. PUTNAM.

Ontario Cooperation and Markets Branch

"We can produce crops with the best" say many farmers; "but we can't sell to advantage." This branch is maintained to aid farmers in the selling of their produce and to encourage active, practical cooperation of every nature, such as the organization and business management of cooperative societies—difficulties to be overcome, securing a proper manager, how to incorporate and to raise funds; lists of farmers' clubs, women's institutes, wholesale produce houses and other prospective customers; how best to ship livestock; book-keeping systems for cooperative associations. Valuable information is also available regarding the grading, packing and selling of Ontario farm products. Especial assistance is offered in the organization and management of new or old cooperative associations either by letter or by personal visit. Write DIRECTOR F. C. HART.

The Ontario Agricultural College

At this institution a staff of highly trained farm experts are in close touch with the farmers' affairs and the farmers' problems. Information upon practically every agricultural subject affecting Ontario may be secured. Besides this, the College offers the young man and young woman from the farm a practical and efficient education in agricultural science and domestic science respectively, at very small cost. Write DR. G. C. CREELMAN, PRESIDENT.

District Representative

In forty-seven counties and districts in Ontario agricultural college graduates are placed who bring to the farmer's very door the latest in science as discovered by agricultural experts and the best in practice as applied by successful farmers. Write or call by telephone the District Representative in your county. For general information regarding the work write C. F. BAILEY, ASSISTANT DEPUTY MINISTER.

Ontario Bulletin Service

Each year new bulletins and pamphlets are added to an already long list. They are compiled by experts and give authoritative information upon different phases of the farmer's business. They are free and may be secured upon request. Write for a list of those published and select the ones which will be most useful to you. For any bulletin prepared by any branch or division write THE ONTARIO DEPARTMENT OF AGRICULTURE, PARLIAMT BUILDINGS, TORONTO.

You May Save Dollars

by securing this information. So don't trust to memory. Preserve this page and use it as a yearly calendar. Then you will always know exactly whom you can get the information from which you want—just when you want it. When writing please mention this advertisement and give as complete information regarding your problem as possible. It will insure a prompt and satisfactory reply.

Ontario Department of Agriculture

PARLIAMT BUILDINGS, TORONTO
SIR WM. H. HEARST, DR. G. C. CREELMAN,
Minister of Agriculture, Com'rs'oner of Agriculture



DEMONSTRATORS ARE SENT TO ORCHARDS, TO EXPLAIN THE PRACTICE OF PRUNING

Each branch wishes to co-operate with You