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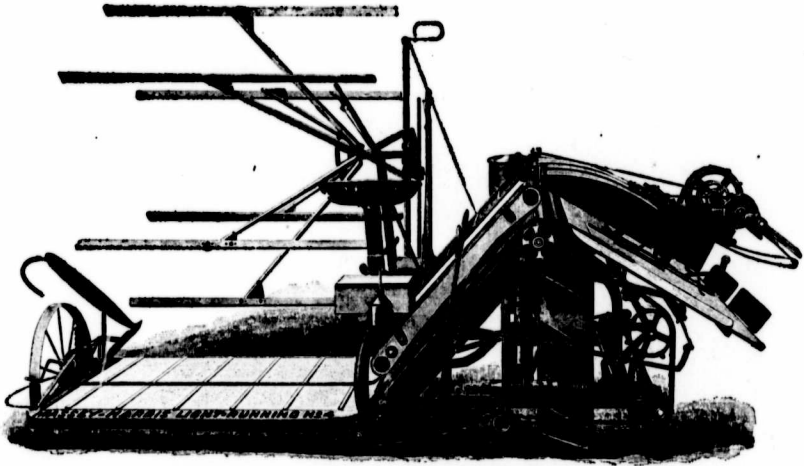


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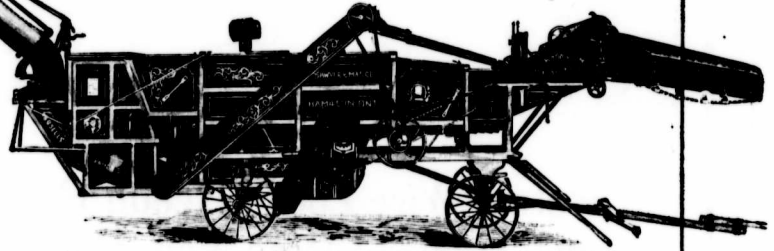
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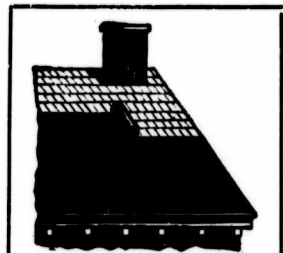
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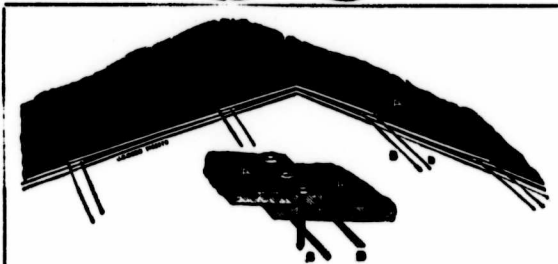


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A PAPER FOR FARMERS AND STOCKMEN.

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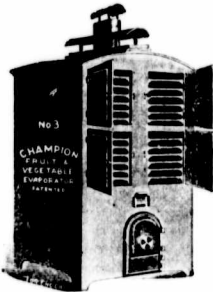
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North Grey, Owen Sound	Sept. 10-18
Hamilton	Sept. 10-18
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Stavner Indus., Stavner	Sept. 17-18
Eldon, Woodville	Sept. 18-19
Wilnot, New Hamburg	Sept. 18-19
Palmerston and N. Wallace, Palmerston	Sept. 18-19
East Simcoe, Orillia	Sept. 18-20
Greenock Tp., Pinkerton	Sept. 19
Pikington and Elora	Sept. 19-20
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Clarke, Orono	Sept. 22-23
Prince Edward Co., Picton	Sept. 21-25
Carleton, Richmond	Sept. 22-24
N. Ontario, Uxbridge	Sept. 23-24
N. Victoria, Victoria Road	Sept. 23-24
North Muskoka, Huntsville	Sept. 23-24
Fullarton and Logan, Mt. Pelham	Sept. 23-24
Drumbo, Drumbo	Sept. 23-24
Haldimand, Cayuga	Sept. 23-24
Centre Bruce, Paisley	Sept. 23-24
Ontario St. Durham, Whitby	Sept. 23-25
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North Leeds, Merrickville	Sept. 24-25
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Table of Contents

After Twenty Years.....	205
This Issue.....	205
Money in Raising Horses.....	205
The Happy Farmer.....	205
The Outlook for Beef Cattle Breeders.....	206
The Dressed Poultry Trade.....	209
Will Visit Japan.....	206
Progress of a Century in Western Canada.—Melvin Bartlett.....	207
The Industrial Fair.....	208
The Ottawa Fair.....	208
The Pioneer Agricultural Society of Ontario.—C. C. James.....	211
Progress Towards Good Roads.—A. W. Campbell.....	212
Canada's Export Bacon Trade.—J. W. W.....	215
The Early History of Canada's Export Bacon Trade.—Wm. Davies.....	217
The Dominion Live Stock Department.—F. W. Hodson.....	218
Canada at British Shows.—W. H. Hay.....	221
The Settling of New Ontario.—Thos. Southworth.....	223
The Story of Canadian Dairying.—J. W. W.....	224
The Government Cool Cheese Curing Stations.—J. A. Riddick.....	228
The First Importation of Shorthorns into the Guelph District.—Lt. Col. McCrae.....	229
Why Don't Farmers Keep More Sheep? —A. W. Smith.....	230
The Dominion Live Stock Association. A. P. Westervelt.....	231
THE AGRICULTURAL GAZETTE.	
Stock for Sale.....	233
Help Wanted.....	233
Poultry Notes.....	234
A New Era in Dairying in Ontario.—G. C. Creelman.....	235
Dairy Instruction in Eastern Ontario.—G. G. Puhlow.....	235
Dairy Instruction in Lambton County.—G. H. Barr.....	236
Dairy Instruction in the Ottawa District.—S. G. Lawson.....	236
In the Peterboro District.—R. W. Ward.....	236
Advances in Horticulture During the Year.....	237
Official Programme, Whitley Model Fair.....	238
Fall Fairs for 1902.....	238
Winter Wheat Experiments at Guelph.....	240
Fifty Years of Service to Canadian Horse Breeding.....	242
Handling Heavy Draft Stallions.....	243
Horse for Army Use.....	244
SUGAR BEET WORLD.—James Fowler.	
Sugar Beetlets.....	245
Dresden and Warton.....	245
Selection of Mother Beets for Seed Production.....	245
The Speckles Sugar Co.....	245
THE FARM HOME.	
Farm Life in Nova Scotia.—Laura Rose.....	247
Hints by May Manton.....	248
A Summer Romance.....	249
A Clambake.....	250
QUESTIONS AND ANSWERS.....	251
The Western Fair.....	251
The Model Fair.....	252
Proposed Legislation, re So-called Woolen Goods.....	252
PURE BRED STOCK.....	257
MARKET REVIEW AND FORECAST.....	261
Keeping Up the Milk Flow.....	263

The Farming World

For Farmers and Stockmen

Vol. XXI.

SEPTEMBER 21st AND 28th, 1902

Nos. 10-11

After Twenty Years



THE present issue The Farming World enters upon its 20th year. The first number was published in Hamilton in 1882. For many years it rendered excellent service as a monthly under the name of The Canadian Live Stock and Farm Journal. In Sept. 1897 it first appeared as a weekly in its present form. Since that date it has grown steadily in circulation and in influence and is to-day recognized as one of the best agricultural papers on the Continent. Nothing, perhaps, could demonstrate its growth more clearly than a comparison of the first weekly number in Sept. 1897 with the present issue. That number contained twelve pages of which five were advertisements. The Farming World to-day averages thirty-two pages. Its growing circulation and its increased advertising patronage has made this enlargement possible.

The Farming World has always stood for what is best and most worth while in agriculture, its aim being to furnish its readers with matter, practical and up-to-date.

The success which has attended our efforts in the past has been made possible only by the co-operation of our readers, and we take this opportunity of thanking all who have by word or otherwise helped to extend its circulation. As in the past our aim will be to still further make The Farming World a real help to every reader and a reliable exponent of what is best in Canadian Agriculture.

This Issue

In preparing this our fourth annual autumn number for our readers we have endeavored to make an historical review of several of the leading agricultural industries in Canada one of its main features. Though we have not been able to cover the ground as fully as at first intended several interesting articles of an historical character have been provided. Mr. James' description of the first Agricultural Society compiled after considerable research and effort on his part, should prove of wide interest. Lt.-Col. McCrae's story of the first Shorthorn importation into Wellington County will recall to some of our older breeders scenes of earlier days when pedigree stock was not as plentiful as it is to-day. In his reminiscences of the early days in bacon curing in Canada, Mr. Wm. Davies recalls the time when "hog killing" on the farm was one of the important tasks to be got

through with before winter set in. In those days the farmer liked to retain the "squeal" at home when he sold his pigs. To-day he sells his pigs, "squeal" and all. Mr. Campbell's article though dealing more fully with progress in good roads as it is to be found to-day, takes us back a few years to the beginning of the agitation for better roads. "The Story of Canadian Dairying" though it has been told many times will bear a perusal and should prove helpful in contrasting present methods in dairy practice with those followed at the inception of co-operative dairying in Canada. The other group of articles brings us more in touch with present day methods and progress. Mr. Hodson's description of what is being done by his department in furthering organization work and trade between the various provinces of the Dominion is most hopeful and encouraging. Mr. Hay's account of Canada abroad should inspire one with greater pride in his native land and a stronger desire to see her lead all other in supplying a high quality of food products for the world's markets. Miss Rose's touches of home life in rural Nova Scotia will recall many similar scenes in the early days in old Ontario. The articles by Mr. Ruddick, Mr. Smith, Mr. Westervelt, Mr. Creelman, Mr. Bartlett and several others also make interesting reading and add greatly to the value of this special issue.

The illustrations speak for themselves. The much larger number of these have never appeared before and are descriptive of rural Canada and farm scenes that are no doubt familiar to many. The three illustrations showing Canada in Great Britain, are worthy of note. The photographs from which these were made were kindly loaned us by Mr. Hay and are certainly among the very best specimens of the photographer's art we have ever seen. We would have liked to have had some illustrations of the earlier scenes so well described by several of our contributors, but they could not be procured.

This is a brief summary of what we present you with to-day. We trust that it will meet with your approbation and aid in the advancement of Canadian agriculture and all those associated with it.

Money in Raising Good Horses

Among the several articles of an historical character we had planned for this number but were unable to secure owing to lack of time was one dealing with the early introduction of improved horse breeding in Canada. This we will take up in some future issue. Horse breeding

is one of the most important branches of Canadian Agriculture. The revival in the horse trade and the high prices being paid for the best types of horses of nearly all the leading classes, including heavy draughts, general purposes, carriage and saddle horses make the breeding of good horses a most profitable business for the Canadian farmer to engage in. Good horses of all the classes we have named are very scarce in the country and in some cases cannot be had for love or money. This condition prevails in the United States also and to a very large extent in the horse breeding districts of Europe. A profitable market is therefore assured for horses of the right type for several years to come.

But care and skill are necessary in breeding horses of the right type for the market of to-day. No haphazard methods will suffice. The selection of both mares and stallions should be carefully made. So far as the latter are concerned breeders will have a large number of importations chiefly of the heavy draft classes to choose from this year. Not for a number of years have there been so many importations of horses as is the case this season. And as far as we are able to learn these importations are of a high standard as regards quality and if taken advantage of as they should be by farmers will do much to improve the quality of Canadian horses. These importations, however, mean the expenditure of large sums of money by someone, and farmers should not look for the services of imported animals at a fee such as they would pay for some of the scrub, nondescript stallions that are all too numerous in this country. It pays to raise only the best types of horses if you raise any at all and these cannot be got but by breeding to the very best sires and the extra charge for such service will be very much more than made up by the enhanced value of the offspring. Careful breeding and careful feeding will bring success.

The Happy Farmer

The Canadian farmer should be a happy man these days, that is if good crops and high prices are in any way conducive to inspiring that quality in mankind which we call happiness. Not for many years has his position been as favorable as at the present. Everything in the way of live stock including horses, cattle, sheep, swine and poultry are selling higher to-day than for years past. This is especially true of all excepting perhaps, sheep, which because of the low price of wool are not as strong as

some of the other lines, though mutton has kept pace with beef and pork in the more recent advance in values. Dairy products and eggs are also on a high level and likely to continue so for a time.

With live stock and food products of all kinds high and an abundant crop of fodder in prospect, the farmer should be in a position to increase his bank account very materially this year. If he does not do so we are inclined to think he is not making the very best of his opportunities. True there are one or two drawbacks that tend to counteract these advantages, such as the help problem, but this has been present when prices were not so high nor crops as large as in this year of 1902.

Canadian farmers are nevertheless, deserving of all they can get in the way of success and prosperity. They are the most industrious

and sober-minded of our citizens and labor faithfully and honestly for what they get and if a season of prosperity comes their way who shall begrudge it to them? Not the manufacturer or professional man as their prosperity depends in no small degree upon the prosperity of the tiller of the soil. Every citizen will therefore rejoice in the prosperity that has come to the Canadian farmer, not only of Ontario where grains, roots and fruits are to be found in abundance and of the eastern provinces where better and more up-to-date methods are making for better and higher agriculture, but also of the western prairie where a record breaking wheat harvest is being gathered in. Truly the outlook for Canadian Agriculture is bright and the farmer should endeavor to make the very most of the splendid opportunities that are coming his way at the present time.

and eight cent cattle must come, must be expected to reach higher figures than for many years past.

The breeders of beef breeds in this country are to be congratulated upon the outlook which is presented at the present time. It is a good time for them to remember that in the end only the best will win, and that, while this brisk demand exists, care should be taken to raise the herds to a higher standard than ever before. It will pay to do so, not merely in the meantime, but if, in the future, days of depression should again appear, the best will always sell, while the poorest are crowded to the wall.

The Dressed Poultry Trade

The season has arrived when farmers should give special attention to fitting their poultry for market. The trade in dressed poultry is a most important one and is becoming more so every year. Not only is there an excellent home market for well fattened chickens, ducks, turkeys and geese, but these are in good demand in the British markets. The export side of this trade has passed the experimental stage and all that is needed to develop it is a large increase in the number of fowls raised by farmers and more care in fitting them for market. From information lately received at Ottawa it is learned that British produce merchants are desirous of a large increase in the Canadian trade in chickens. The latest British returns show that Canada exports to Great Britain only two per cent. of the value of the chickens imported. There is therefore lots of room for expansion.

The greatest demand, both in Great Britain and in the Canadian market as well, is for chickens weighing from four to five pounds each, dressed weight. The demand for the large heavy chickens in both countries is limited. A large plump breasted chicken is more saleable than a large thin chicken. But whether the bird be large or small it should be well fattened before being marketed. Particulars regarding methods for fattening will be found in the Gazette department in this issue. Farmers having poultry to dispose of should read these carefully. There need be no fear of overstocking the market. Local dealers here complain that they cannot procure nearly enough birds to supply the demand. The market then is a sure one for the right quality of poultry.

Will Visit Japan

The Hon. Sydney Fisher, Minister of Agriculture, has decided to postpone his contemplated visit to Japan until next spring. The probability now is that he will leave early in 1903 for the Orient when the Japanese International Exposition at Osaka will be in progress. There is a possibility of the minister being accompanied on his trip by Prof. Robertson, Commissioner of Agriculture and Dairying.

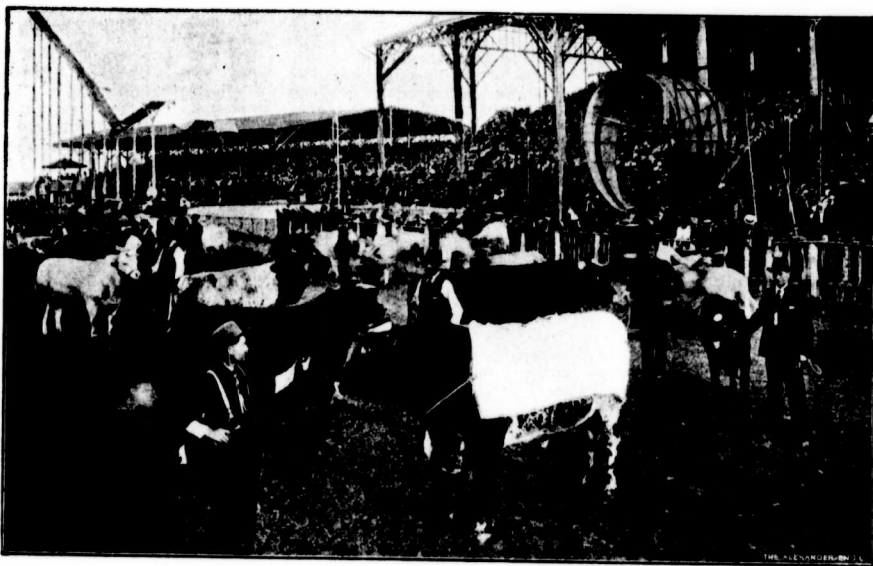
The Outlook for Beef Cattle Breeders

It is many years since the future looked so favorable for progress, advancement, and profit in the cattle trade than it does at the present moment. There seems to be a decided scarcity of beef in the markets of the world. It is well known that there has been for many years a great depression in this business both in the United States and in England, and the finest cattle could scarcely be produced at current prices then running. Certain persons seem always astonished when they are informed that a prime quality of beef could not be produced and sold at 4½ to 5 cents per pound. The result of the low price was to reduce materially the quality. Unfinished animals were sent forward. Dealers and butchers murmured and complained to no purpose. The real reason was not that they could not send forward a superior and finished article but that it did not pay to do so and no one was found willing to do it for sentiment or for mere pleasure. The inevitable result of this depression was that those engaged in this trade gradually withdrew from it. Some of them devoted their entire attention to dairying and the breeding of milking strains of cattle without regard to beef production. Steer calves, which were not wanted to make bulls, were knocked in the head and buried out of sight. This process has continued until it looks now as though the statement made by Col. Woods a couple of weeks ago at the Shorthorn sale in Hamilton, was really true, "that the consumption of cattle products had caught up to their production." At all events, we are face to face with a great demand both in Great Britain and in the United States for all the cattle that can be sent forward at exceedingly high prices. A careful survey of the situation will convince any fair-minded man that further demands will be made on the older settled portions of Ontario

for the production of beef. We can certainly increase our supply to a very large extent without inconvenience, and doubtless this will be done if anything near the present prices prevail.

The grazing land of North America will soon be entirely occupied while the demand is constantly increasing. British Columbia is rapidly filling up with a population engaged largely in mining operations. These are annually consuming more and more of the surplus produced in Manitoba and the Northwest Territories. Those who have waste lands need not hesitate therefore, in seeking to stock them with a better grade of beef animals. In many of our dairy districts a very large number of suitable calves can be furnished suitable for this purpose. If, however, our dairymen undertake to supply this demand, which would mean an additional return of say from \$12 to \$15 for each cow, it must be understood that it can be accomplished only by the use of superior beef sires. The Jersey steer calf, or even the pure-bred Ayrshire, is not a suitable investment for the purpose of producing the most superior beef. It will have been noticed that the recent sales of Shorthorn cattle both in the United States and in Canada, have resulted most satisfactorily to those making the offerings. This only indicates that many persons are awake to the situation, and that it is presumed that there must be an increased demand for this class of blood.

At the Combination Sale in Hamilton a few days ago, an average of over \$400 on some sixty head was the result of the sale. It must be admitted that this average was raised by the selling of two or three animals at high prices; but outside of that the general average was exceedingly good. So long as beef sells at the prices prevalent, either in Ontario or at Chicago, the foundation blood from which six



Parade of Prize Cattle, Winnipeg Fair, 1902.
Many Ontario breeders will recognize James Yule and J. Binnie in the foreground.

The Progress of a Century in Western Canada

The First Settlement. The First Importation of Cattle and What it Accomplished.

BY MELVIN BARTLETT, WINNIPEG, MAN.

Ninety years ago Lord Selkirk brought his pioneers to this country, settling them in the very heart of the continent, of which, at that time, little more than the outermost fringes had been explored. In 1812 the first party reached Red River where they at once began to till the soil, which, by the exuberance of its natural products proclaimed to the least observant its abundant fertility. The lands along the river were allotted to such as were willing to make farming their business, and it would naturally be expected that peace and smiling plenty would forthwith have crowned their efforts. Yet neither peace nor plenty did they find in the strange land. The quarrels of rival trading companies drove peace from the land, and cruel famine ravaged the ranks of the settlers, forcing them each winter to migrate southward with the duck and the wild-goose. But when we examine more closely the causes that led to this strange state of affairs, we find most extraordinary conditions prevailing, under which successful agriculture was out of the range of the possibilities. For ten years they endeavored to farm without the aid of cattle of any kind, for burden, for draught, for food. With no other implement than the hoe their crop was planted. No plow to break the soil, since there was no

beast to pull it. No cow for milk, no ox for beet or burden. We are tolerably familiar with sickle, scythe and cradle, but the hoe as a substitute for the plow is primitive agriculture indeed. Small wonder that they were forced to seek refuge from the pangs of hunger farther south. In 1822 some 300 head of cattle were brought into the country, and then, as Alexander Ross says in his volume on the Selkirk colonists, "the plow was tried with considerable success." Henceforward famine disappeared from the land like a ghost fleeing before the dawn. Henceforth the Red River colony presents a picture of rural comfort and plenty, rude perhaps, when compared with our ideas of these two conditions, yet far in advance of the condition of rural communities elsewhere at the same period of time. To quote from the author already mentioned:

"These people surpass in comfort, those of the same class in other lands. Rich in food and clothing, all of them have also saved more or less money. Abundance on every hand testifies to their industry and economy, and this within doors and without in the same profusion. No want of blankets here on the beds, the children well clothed, the houses warm and comfortable; the barns teeming with grain, the stables with cattle, and all classes wearing more or less of their own manufacture."

So we see that even in the earliest dawn of agriculture in this land the Red River valley presented the same smiling appearance that it and the lands tributary do to-day. We see that what has now come to pass is the mere expansion of the seed sown nearly a century ago. That the growth has been slow is due to the fact that the seed was sown before its season. There were still vast areas, untouched by the foot of man, much more untouched by plow or spade, between the Red River and the sea. Ontario was still a vast forest. Quebec was a few narrow strips of settlement along the larger rivers. The States of Illinois and Ohio, were the western frontiers of civilization. Until these were developed what hope for the opening up of the remote and isolated plains of the great lone land. It was not until the rebellion of 1869 drew the attention of Canadians to the land of the Manitou, Manitoba, God's country, that her development actually began. The arrival of the Canadian soldiers, and the establishment of a regular steamboat service with the upper waters of the Red River may be called the first milestone in the making of Manitoba. Henceforth progress was steady. Though not rapid it has constantly gained momentum until now it has become a rushing tide that no human power can arrest or divert. What Manitoba was

we have seen. What Western Canada is we know, what she will be is a question that we ask of the future in full confidence of a favorable response.

To-day the Canadian west stands upon a firm foundation of continued prosperity. We need no "boom" indeed we deprecate all attempts at unhealthy development, and prefer the natural steady growth. The

inture of our land is to be found in the fertility of our lands and in the energy of our people, the most enterprising and self-reliant, the bold and daring of all lands, who have left home and the known to venture into a strange land, braving the unknown. What better security can we ask for continued advancement along the straight and well defined path that a century has left in its wake?

The Industrial Fair

An Auspicious Opening: Lord Dundonald Touches the Button

The opening day of the Toronto Industrial Fair for 1902 must be looked upon as a record breaker. The attendance was the largest on opening day in the previous history of this Great Canadian Fair, while the exhibits were well in place and the show in full swing. The Board of Management is to be congratulated upon so auspicious an opening which augurs well for the success of this year's show. The exhibition was honored this year by the presence of Lord Dundonald, the new officer commanding the Canadian Militia, who performed the pleasing duty of opening the Fair. This important ceremony was performed before a large concourse of people and beneath a blue sky, accompanied by ideal Fair conditions, in so far as the weather was concerned. After the formal opening, Lord Dundonald presented to the Toronto members of the second and third contingents and irregular corps to South Africa, the medals voted them by the city.

Lord Dundonald was well received. He is a pleasing speaker. His enunciation is clear and distinct and he speaks with a deliberation and consciousness that make his words carry weight. He certainly made a most favorable impression upon this, his first visit to the Queen City. In his address, after complimenting the Association upon the excellence of its exhibition and the progress which the country is making, he paid the following tribute to Canadian bravery and patriotism:

"That nation, however, must have two leading qualities, bravery

and patriotism. The history of Canada—the military history of Canada—shows that Canadian on the battle-field have demonstrated their bravery. Their valor during the South African war has shown that that old bravery has not diminished. Their patriotism has been shown by the great wave of enthusiasm which swept the country when they learned that British subjects were downtrodden and that British colonies were in the hands of the invaders."

The performance before the grand stand this year, promises to be one of unusual merit if we are to judge from what took place on the opening day. The trained elephants and sea lions are especially noteworthy. It was a fortunate circumstance that made it possible to hold the opening ceremonies on Labor Day. This fact added greatly to the interest and attendance on Monday last.

With regard to the exhibits in general little need be said here. A full report of the Fair, more particularly of the live stock and agricultural products exhibits will appear in *The Farming World* of Sept. 16. A special feature, however, in the live stock display is the record breaking show of horses. So large is the horse entry that some of the cattle stables have to be used for horses, the cattle being crowded more closely than usual in order to make room. The exhibits in the other live stock departments are equal to former years and ahead in several classes. The 1902 exhibit then is one well worth seeing.

Ottawa Exhibition

A Great Success—Good Exhibits—Large Attendance.

The Show of 1902 at Ottawa has been a most successful one, which is more than can be said for those of recent years. The Directors of the Central Canada Exhibition Association felt that the time had come to make a change in the date of the Fair. Previous years their dates came after Toronto and London, at a time when the harvest of the Ottawa valley was all gathered; but, also, at a time when wet days and cold nights were most depressing for their visitors. The President, Wm.

Hutchinson, Esq., consulted the clerk of the weather bureau, and found that for twelve years past the last week in August had been fine at Ottawa, and his directors, after careful deliberation, resolved to make the change to August 22nd to 30th. The result has been a pleasant outing for the many thousands who have patronized the Fair, and a good financial surplus to the credit of the association. The weather was ideal—neither cold nor hot—clear, warm, bracing days of Autumn. No better could

be had through all the year. The harvest is not past—this year on many farms it will not be for days yet—and this, no doubt, kept away some farmers who would gladly have come. There were not as many horses shown as usual, but those out were of a good class. In beef cattle, the four beef breeds were well represented by four very good herds, but there was an absence of the competition that both the public and the exhibitors expect at shows. It is true that the animals shown by owners of a few sometimes took first place, but the beef breeds were practically represented by the four very good herds. It was quite different in the dairy breeds. The Ayrshire, the dairy cow of the Eastern part of Canada and of the eastern townships of Quebec was out in force—230 animals—and of a quality never before seen in bulk in Ottawa. The exhibit of Jerseys, Guernseys and Holsteins was also very good, but not to be compared to the Ayrshires. Sheep were well represented, and swine were moderate, both in quantity and quality.

MANUFACTURES

The main building was well filled with very many useful articles. Musical instruments found a good sale, some of the manufacturers sold everything they had on exhibition and placed orders for many more for future delivery. The exhibit of carriages was large and good. The J. B. Armstrong Co., of Guelph; W. Gray & Sons, Chatham; The Tudhope Co., of Orillia; The Canada Carriage Co., of Toronto, and many others, made a splendid show of their products, which reflects great credit on the Canadian manufacturers of vehicles for the farmer and the public. Agricultural implements were not in large array, but had many good ones, both for Ontario and Quebec provinces, for the two seem to differ as much in the farm implements they use as they do in race and language. Where the Ontario farmer has the wide-cut binder, 6 feet or more, and frequently a mower, cutting a width of six or seven feet, the Quebec farmer often uses the old-fashioned reaper, throwing off a loose sheaf and a one-horse mower, cutting three, or in some cases, four feet wide. The West is giving Ontario a lesson in this, and the modern tendency of the Ontario farmer is to larger implements, working three or four horses instead of a pair, and doing more and quicker work by one man and extra horse power. This tendency may be seen in our agricultural implements.

PLANTS AND FLOWERS

There was a fine exhibit of house plants. The exhibit made by the gardener at Government House in palms and ferns was the best, but other gardeners came close up with fine specimens and varieties of both. The prize for the best and most effective display of plants



The Hunter's Paradise.

and flowers was won by R. H. Wright, of Avlmer. The display of cut flowers was extra good. Mr. Snelling, gardener for W. C. Edwards, M.P., was one of the most successful. In sweet peas there was an excellent display, Mr. Johnston, of Sherbrooke, Que., far outstripping all the local exhibitors with his fine lot of this beautiful flower. The fruit was not equal to what may be seen in the West. The earlier holding of the Show and the lateness of the season caused by the cool summer, no doubt caused this.

DAIRY AND FARM PRODUCTS.

The dairy products were made by the makers of Eastern Ontario and the Ottawa valley, and there was a nice display of both butter and cheese. The gold medal for prints was won by G. H. Fenton, Leitram, Russell Co., Ont., and the gold medal for the best three cheese was won by F. McGowan, Douglas, Ont. There was a very large and excellent show of honey, Alex. McLaughlin, Cumberland, having an extensive exhibit in this line. The Experimental Farm at Ottawa, owned and managed by the Dominion Government, had, as usual, a nicely arranged building, with the products of their various fields, and in addition, a show of poultry and honey. They divided their building with the Canadian Pacific Railway. The latter made a display of the products—grains and grasses—from Manitoba and the Northwest—very tastily arranged.

HORSES

The stables were thinly filled this year. In many classes there were not enough animals out to capture the money offered, but as a general rule, the quality of those shown was quite up to the average. Only in one or two cases did the judge withhold the first prize, where the animals were not worthy. Light

horses were judged by Professor J. Hugo Reed, V.S., of the Ontario Agricultural College, Guelph, assisted in some of the classes by George Gray, Newcastle. Heavy horses were judged by Wm. Smith, Columbus.

HEAVY HORSES

The classes were but poorly filled, the only breeders of note present being Robert Ness, of Howick, Quebec, and J. G. Clark, of Ottawa. The former had nine head, most of them imported from Scotland in the past year, and a very good lot they are, as one would expect to be selected by such a good judge and careful buyer as Robert Ness. It is not usual in Canada to bring horses into a show ring so soon after an ocean voyage, indeed, most horsemen think it somewhat dangerous, they are so apt to take colds and fevers after landing. This lot seem in good trim and are very good in quality. The champion and winner of the gold medal, as best Clyde on the ground, was the two-year-old colt, Cecil [3352], by Macara (6992), dam by the celebrated Cedric (1087). He is a fine horse, stylish and good, with clean, fine flinty bone—"too little of it," some of the admirers of thick legs would say—but none could fault the quality. He is shown well fitted with a moderate quantity of fine hair and big, well-made flinty hoofs. He weighs 1680 lbs.—quite a good size for a two-year-old. One of the most promising of colts is Killarney (11382), by Baron's Pride (9122), and out of a mare by Flashwood's Best. This is a blocky, chunky horse, with very well set pasterns, good feet and strong, well-formed legs. He is a dark bay, or brown, with white behind, and a little mixed white on fore legs. A colt that strikes you as powerfully built and one that will probably make a great horse. Another two-year-old, a trifle big-

ger looking, is Royal Stair (11509), by Royal Carrick (10270). His sire was first at Glasgow and sold for \$6,000. His dam traces to Old Times, a horse well known in years past. Royal Stair is a bay with three white socks. Another Baron's Pride colt is named Proud Baron (11477), not a big one, but a late colt and of very good breeding, and with a splendid set of legs and feet. Mr. J. G. Clark, of Ottawa, won for Clyde stallion and three of his get with Woodruff Ploughboy [2296], a bay of good size, with white hind socks. He is a worker, and as soon as the spring season is past he goes into harness and works on the farm, and is a most useful horse. The same exhibitor has a good yearling colt called "Arbitrated Again," with nice, clean legs—a promising colt. He stood second to R. Reid & Co.'s yearling. Mr. Clark has a nice, young Clyde mare, two years old, sired by Ottawa Chief and out of Erskine Tibbs, an imported mare. This filly not only won first in her class, but was also awarded the diploma for best heavy draught mare, any age. She has good legs and has a good back and loin. For brood mare and foal, Adam Scharf, of Cumming's Bridge, was first, with Lily McInnes, by MacInnes, a six-year-old mare with a very good foal at foot, by Royal Baron. In the class confined to horses bred in Canada, R. Ness won first and the gold medal for Laur-entian, by Laurence Again, a horse that has already a record in Canadian shows. He is a chunky horse, thick through the heart. His dam was a mare by MacBeth, a son of the renowned MacGregor. There was a local class made for heavy draught horses, and strange to say, the entries were very few. Only three shown in the whole class. James Callander, North-Gower, won for gelding or mare, any age, and for yield mares. A. M. Stewart & Son, Dalmeny, was first, and Bell Bros., Britannia, were second. There were no Shires shown. Only a small class of French-Canadians. J. C. Mooney, Vankleek Hill, had first and second with a black and a bay, good, fair types of the breed, while Cavan & Dole, Thurso, were third in the same class. Louis Thonin, Rep-tingy, Que., had one filly of the breed, which was given a ticket. W. R. Wilson, Manotick, had the only Percheron in the show, and R. Ness had an imported French draft horse, a very good one. In the aged class for stallions, heavy draught Canadian bred, H. G. Boag, Churchill, was first; James Callander, North Gower, second, and John Clark, Sr., Ottawa, was third. In the class for general purpose horses, Joseph Kerr, Gatineau Point, had a nice brood mare. For three-year-old, Adam Scharf won, and for two-year-olds with a good lot out, G. W. Clark, Ottawa, was first with A. Ogilvy, Cumming's Bridge, second. W. F. Henry, Ottawa, had a team of chestnuts good enough to win first

and sweepstakes, and M. R. Dunlop, Harbord, was second with a nice pair of bays, with black points, Clydegrades.

LIGHT HORSES

Thoroughbreds were very few. Only three out in the whole class, and this was formerly a very strong show at Ottawa, when the stallions and their get made a fine parade. Carriage horses were much better and while some of the animals shown were of mixed breeding, with a good deal of thorough-bred blood quite easily seen, they were a good type of a first-class carriage horse, upstanding and slightly, with fine bold action and glossy coats. The winner in the aged stallions was Shelby Chief, by A. M. Eclipse, a beautiful, bright bay with dark points; he is owned by Alex. Blythe. Second prize went to Moose Creek, a dark chestnut, shown by Fred Burnett, of Moose Creek, Ont. Third prize was won by King Chief by Indicator, a bay with white marks, owned by John McCandlish. There were some nice, stylish horses shown in the filly classes. For best matched pair, there was a keen contest, won by Geo. Pepper, of Toronto, and this team also captured the gold medal. The same owner won for pair 15½ hands and under. For single carriage horse James R. McCaig, Beaver, Que., had the winner for the high class, and Alfred Coleman, Ottawa, won for the class under 15½ hands. The same exhibitor also won for the best single high stepper. For the pairs, high steppers, substance, conformation, action, style and manners to count, Geo. Pepper won both first and second and also the gold medal. He also got all the first prizes for four-in-hand teams and for tandems. Second prize in four-in-hand went to W. C. Edwards & Co., for a very good, well-matched lot of chestnuts. With a little more schooling they will make a fine team. In standard bred, Alex. McLaren, Buckingham, had a lot of good ones. He and F. L. Cains, of Montreal, won all the first prizes in this class. In the class for roadsters, J. A. MacGregor, Brunstone's Corners, won with Bevel Edge, a bright bay horse, 16 hands by Spragold Clay, with a record of 2.29 at 8 years old. In the pairs and singles best roadsters, John Webster, Brockville, won in both classes, and carried off two gold medals. For single roadster, J. H. Currie, Iroquois, was second with a nice dark seal-brown, light and blood-like, named Kitty Wilkes. R. Gill, Ottawa, had the only brood mare and foal shown, and he also won diploma for best mare any age. Robert Ness, Howick, had the only Hackney shown. He is Bally Garton, bred in Ireland, and is by Garton Duke of Connaught, his dam being by the celebrated Danegelt. He is a dark brown with a little white about his heels, big and well made and a good goer. For saddle horses and

hunters, George Pepper had out a good lot and captured the bulk of the prizes. His black horse, Rupert, the mare, Lady Winsome, and the well-known Pearl were all much admired. Clearing 7 feet 1 inch broke the record for high pumping on the Ottawa grounds. Ponies were a small class. W. C. Edwards & Co., had a pair of roans, very good ones, while a pair of chestnuts, with white trimmings, came in second. The roans were by Ambrosia, out of a pair of Welsh pony mares.

AYRSHIRES

The Ayrshires, with 230 animals on the ground were the great outstanding feature of the cattle show. When it is considered that the eastern part of Ontario is a great dairy section and that the Ayrshires are the favorite breed, both there and in the eastern townships of Quebec, the wonderful showing is not so much a surprise. W. W. Ogilvie, Lachine Rapids, Que., with 24 head, came out of the contest with the highest honors. He had first and third with a fine pair of aged bulls. First went to Douglasdale, a white bull with a few brown markings, the favorite color still, if one should judge by the number of winners of that color. He was bred by Mr. McKinley, Hillhouse, Lanark, Scotland. Third went to Black Prince, a slightly darker bull. For cows he had a fine quartette, all fashionable colors and all much alike—grand, good cows. He got second and third for two of them, but no fault could have been found if the other two had their places. He won third for three-year-old cow, first for yearling heifer, first and second for dry cows, first for herd and first for young herd. R. R. Ness, Howick, Que., with 18 head, came second with two firsts and eight second prizes—two of the latter for aged and young herds. His firsts were for three-year-old heifer and two-year-old bull. The Greenshields herd from Danville, Que., had 32 head out. They won first and sweepstakes for best cow with Lady Bute of Mid-Ascoy, 7 years old, bred near Rothsay, Scotland. She is very thin and narrow through the heart, but is like a heavy milker, with well set vessel and nice teats. They won first for yearling bull and for two-year-old heifer. The latter with the red-spotted heifer "Moreena," by Matchless. They had third place in dry cows with Fairy Queen of Boncheskie, a big, good cow. Yuill & Son, of Carleton Place, with 11 head, won several prizes for calves and young stocks. Wm. Stewart & Son, Meine, Ont., 15 head, won fourth for aged bull, with Hour o'Blink. The same place for aged cow, with Lady Alboa, and for three-year-old cow, with Annie Lawrie. R. Reford & Co., with a good herd of 23 head, had to be content with minor honors. They had fourth for two-year-old bull, third for yearling, second for calf and second for

three-year-old cow and third for two-year-old. They have some good ones. J. G. Clark, Ottawa, 24 head, won second for yearling bull and fourth for bull calf and yearling heifer. Wm. Wylie, Howick, had also a number out, and others also. Altogether the Ayrshire exhibit was the great feature of the Exhibition of 1902.

OTHER DAIRY BREEDS

There was a large show of grade animals for dairy purposes, and in this class Ayrshire blood largely predominated. There was a good show of French-Canadian cattle, as would be expected so close to the province of Quebec. Arsene Denis, St. Norbert, Que., won the prize for best herd and nine other firsts. Louis Thonin, Repentigny, Que., had for his winnings three firsts and seven seconds, while T. B. Macauley, Hudson Heights, Que., had to be content with three seconds and two thirds. Jerseys were a good exhibit, equal in quality to previous shows, though not as many as have been seen in previous years. There was a close contest for first place, with honors nearly even between Mrs. W. E. H. Massey, Coleman, and Messrs B. H. Bull & Sons, Brampton. Each had seven firsts, but the former included the two champion prizes as well as the herd prize. In the other prizes the Massey herd had two seconds and four thirds, while the Brampton herd got eight seconds and four thirds. There was such a large show of Guernseys that a special class was made for them, though none was printed in the prize list. Mrs. W. E. H. Massey was first in Guernseys with six firsts, which included the best bull, a two-year-old, the best cow and the best herd. Greenshields' Isaleigh Grange Herd from Danville, Quebec, was second, with five firsts, two seconds and two thirds, and Hon. Sydney Fisher was third with five seconds and two thirds. Holsteins made a fair show. For the female classes, G. A. Gilroy, Glen Buell, was first with six awards, while for bulls, W. H. Brown, Lynn, had five firsts with Gilroy not getting better than two seconds. G. Dowler, Billing's Bridge, had the winning two-year-old bull. John A. Richardson, of South March, had two second prizes for bulls and a third for heifer calf, and John Tweedie, Papineauville, got third place for his two-year-old bull.

BEEF BREEDS

As has already been said, the beef breeds were represented by four herds, one for each of the breeds. W. C. Edwards & Co., Rockland, Ont., had the Shorthorns, and he won all the firsts but two and all the minor prizes but two. These four animals were the only other Shorthorns in the show. Marquis of Zenda, at the head of the herd, is looking his best and carrying gaily his 2600 lbs. of solid weight. He is of the Missie family. One of the females of this

Continued on page 233.



An Old Timer

The Pioneer Agricultural Society of Ontario

By C. C. JAMES, M.A., DEPUTY MINISTER OF AGRICULTURE

The Board of Agriculture of Upper Canada was organized in 1846, and in October of that year held its first Provincial Exhibition in the City of Toronto, utilizing for the purpose the former residence of the Lieutenant-Governor which stood on King street, on the site of the present governor's residence. After ten years' work, the Board published volume 1 of The Journal and Transactions of the Board of Agriculture of Upper Canada. This somewhat scarce volume contains a large amount of historical matter relating to the Agriculture of this province. On page 4 we find the following:

"At an early date in the history of the province, patriotic persons, in imitation of similar institutions in older countries, exerted themselves successfully in the object of establishing local Agricultural Societies. The First Provincial Parliament enactment in aid of such organizations was passed in the year 1830. Societies had existed, however, got up by individual effort, in some of the original district divisions of the Province, some years prior to that date. The Board has not at present in its possession any documents from which to compile a history of the early operations of such societies, but it is believed that one was established in the Home district (now the counties of York, Ontario, Peel and Simcoe) as early as the year 1825, and one also in the Newcastle district (now the counties of Hastings, Prince Edward, Frontenac, Lennox and Addington) each respectively, at or about the same time. Societies may also have existed in other districts at as early a date, but at present such cannot be positively stated as the fact."

Mr. George Buckland was secretary of the Board and, as editor of the volume, he was doubtless the writer of the paragraph quoted. He was not a native of Canada but we may fairly assume that he gave all the information then available in regard to the beginning of our Agricultural Societies. Later students have added to this brief statement.

Dr. William Canniff in 1869 published his "Settlement of Upper Canada" that has been a source of supply for so many writers of historical papers. In this work he makes free use of the memoirs of

Col. Clarke, of Dalhousie, the manuscript of which is now in the possession of the Parliamentary Library at Ottawa. Dr. Canniff, on page 580, quotes Col. Clarke as follows:

"I have a perfect remembrance of the first Agricultural Society patronized by Governor Simcoe, who subscribed his ten guineas a year cheerfully. My father was a member, and the monthly dinners were given by the members during the season with the great silver snuff-box ornamented with the horn of plenty on its lid."

This silver snuff-box handed from host to host to be filled for the next monthly dinner would be a precious historical treasure, but it has gone alas! with most of the other belongings of this pioneer society. This item carries us back to the days of Simcoe and locates the pioneer society at Niagara in close touch with the first Legislature of the Province.

Desiring to know more about the society, I made enquiries of Miss Janet Carnochan the energetic and enthusiastic secretary of the Niagara Historical Society, and she procured for me a fuller extract from Col. Clarke's diary by the kind permission of his son, Dr. Clarke. It might be mentioned that Col. Clarke's father went to Fort Niagara in 1789.

"The first Agricultural Society was

patronized by Col. Simcoe, who subscribed to guineas, 1793. My father was a member. I remember the monthly dinners given by the members, and the great silver snuff-box, ornamented with the horn of plenty on its lid. I wonder what has become of that box; it most deservedly ought to be kept among the archives of Canada West. It always remained with the house-keeper who had to supply the next monthly dinner to the Agricultural Society. It was the property of the President pro tem. for the year, and at the annual meeting when a new one was chosen, it passed into his hands. It was a fine piece of workmanship, and I trust it will yet turn up and be handed down to the present society that it may remain an heirloom to tell posterity at what an early age the progress of agriculture was followed up and brought to its present high state of perfection."

Mr. William Kirby in his "Annals of Niagara" (1896) p. 114 refers to this society as follows:

"In 1793 the Governor was active in the formation of an Agricultural Association, to the funds of which he subscribed ten guineas yearly. The object was good and no doubt useful in encouraging the improvement of land cultivation and of stock, but no record is found of their proceedings or mention made of exhibitions held, though, doubtless, such there were on a small scale, for the settlers were as yet too much engaged in the arduous work of clearing the forest to have time to attend to higher farming. But one thing the members of the association did, no doubt satisfactorily. Their rules provided for a monthly meeting to be held and a dinner to be partaken of—a convivial one of course—and at which the talk of the members would not be wholly of oxen. This agricultural dinner was an interesting monthly event which was kept up during Simcoe's administration at Newark."

I propose now to show that this date, 1793, is one year too late.

Sir David William Smith, one of the members for Kent in the first Legislature, 1792-96, resided at Niagara or Newark, being the Deputy Surveyor General of the Province. A large number of his papers are to be found in the Toronto Public Library, and among them is a copy of a list made out by himself of all the public offices held by himself, and therein appears the following:



A Modern Ontario Farm House

Member of First Canadian Parliament, 27th August, 1792.

Vice-President of Agricultural Society 27th October, 1792.

These two entries fix the dates of the first election held in this province and of the organization of the first agricultural society. The first session of the Legislature was held from the 17th of September to the 15th of Oct. So we find that the organization of the Agricultural Society took place a few days after the Legislature was adjourned. The Lieutenant-Governor, its patron and originator, was probably its president. That the society was in operation early in 1793 I have corroborative evidence as follows: The Upper Canada Gazette in its issue of Thursday, July 14th, 1793, has this item of local news:

"On Saturday last the Agricultural Society of this province dined together at Freemasons' Hall. Several gentlemen were invited which, with the members of this laudable institution assembled, formed a very numerous party. The utmost cheerfulness and conviviality prevailed on this occasion."

The host of the evening doubtless had the snuff-box well filled, but whether it alone was the promoter of conviviality the Gazette does not inform us.

Mr. John Ross Robertson in his "History of Freemasonry in Canada" informs us that this hall was the first built especially for Masonic purposes, that the upper story was used for Masonic meetings, and the lower for public gatherings, such as that of the monthly meeting of the Agricultural Society and for conferences between the Lieutenant-Governor and the Indians. References found elsewhere indicate that the books of the society were kept in the office of Deputy Surveyor-General Smith.

Having settled the date and place of this pioneer society, and the source whence it sprang, the question might be asked, what did the society accomplish? Did it do anything beyond meeting monthly to talk, eat, drink and take snuff? The records of the society have disappeared, and we would be left entirely in the dark were it not for the fortunate discovery of the old record book of the Niagara Public Library by Miss Carnochan who read a paper on the subject before the Canadian Institute in 1895. The following extracts are taken therefrom.

"In the old record book of the Niagara Library, dating from 1800-1820, which contains a list of the proprietors, it is number at first, who paid four dollars each year, and afterwards those who joined, paying in some cases ten dollars to entitle them to membership besides a yearly fee. There is a reference to an early Agricultural Society which must have had a valuable library, as in 1805 fifty volumes belonging to it became the property of the Niagara Library, and the arrears of certain members of the library were remitted as they were also members of the Agricultural Society. In the list of later members of the library several are given who came in this way. The list of fifty books with prices can be

found in the catalogue. It might be an interesting inquiry now to see if any trace of these books could be found. When the town was burnt in 1813, it is certain that many of the books were saved as the record of the books given out gives the number of many in the catalogue although others are mentioned as being replaced, and the prices given. In January, 1805, occurs this entry:

Resolved that the books mentioned in the catalogue from 348 to 397 be received from the Agricultural Society at the annexed prices, and that in lieu of them the arrears of Robert Ker, which is £1.4, be remitted to them.

Robert Addison, 8s.
George Forsyth, 8s.
Colin McNab, £2 os.
Robert Hamilton, 8s.

And that a share in the library be given to William Dickson, John Murrehead, Thomas Butler, John Symington, Joseph Edwards at £2 8s. each, all these sums amounting to £16 8s. At a contingent meeting of the trustees of the library, 12th November, 1808, John McNab was admitted as a member as one of the agricultural gentlemen and Ralph Clench. In August, 1806, resolved that Jacob A. Ball and Louis Clement be admitted to a share in right of their fathers as members of the Agricultural Society, those gentlemen having already purchased shares, and that Jane Crooks, eldest daughter of the late Francis Crooks, be admitted to a share in right of her father as a member of the Agricultural Society. This history repeats itself. As the daughters of Zephoeah demanded and obtained their share of land, so Miss Crooks now demands a right to all the benefits of the library. Here is the list of books from the Agricultural Society, with prices:—

348 to 361, Young's Agriculturist, £10.
62 to 366, Museum Rusticus, £3:4:0.
367-8, Young's Tour in Ireland, £1:8:0.
369-374, Wright's Husbandry, £3:12:0.
375-6, Marshall's Midland County, £1:8:0.
377 to 378, Adams' Agriculturist, £1:8:0.
379 to 384, Douglas' Agriculturist (3 Vol.), £2:0:0.
382-3, Dickson's Husbandry, £1:8:0.
384, Hart's Husbandry, £1:2:0.
385-6, Anderson's Agriculturist, £1:8:0.
387, Gentleman Farmer, £0:14:0.
388 to 392, Bath Papers, £3:10:0.
393-4, Dickson's Agriculturist, £1:4:0.

395, Dublin Society, £0:6:0.
396, Small and Barron, £0:9:0.
397, Hume on Agriculture, £0:6:0.
Making £32:7:0, a very respectable sum for an Agricultural Society to spend for books in those early days.

"The Niagara Library, numbering 1,000 volumes at one time, came into the hands of Andrew Heron, to whom a large sum was owing as he had a lending literary and book-store here."

With this long extract we must close our record of this pioneer society that began in 1792 and in 1805 became merged in the Public Library; we close because we have exhausted the material at present available. It is no unworthy record that Ontario was but little behind Quebec, Nova Scotia and the older settled neighboring states in organizing for agricultural improvement.

Progress Towards Good Roads

Municipalities Interested—Improved Machinery—The First Association—Work Slow at First.

By A. W. CAMPBELL, COMMISSIONER OF HIGHWAYS FOR ONTARIO.

The movement for better roads is so far advanced as to have become a part of the machinery of nearly every municipal organization in Ontario. It is being considered and discussed by people generally, and the methods employed for the making and maintaining of our roads are vastly different from what they were a few years ago. Proper plans and specifications have been drawn up by most municipalities. Instructions to road overseers have been carefully prepared, and are being carefully followed. The fundamental principles of roadmaking are being observed. Modern machinery of every description for doing the work perfectly, cheaply, and with the least labor is now being employed. Material of a durable nature, such as stone and concrete, is being used in the building of culverts, sluices and bridge abutments, and iron and steel are being used in bridge superstructures. In fact the question of roadmaking is now looked upon as being one of the most important of our municipal problems, as well as the greatest of our municipal public works.

The making and maintenance of roads is no longer looked upon as a simple or commonplace task, un-

worthy of our best consideration, but as one of the public properties susceptible of the greatest development, and upon which our expenditure can be made exceedingly profitable, if wisely and economically made. The day is past when we can think that the maintenance of roads involves no more than the filling up of some dangerous holes, or the fixing of a decayed culvert, or the hauling of a few loads of dirty material, or the putting in of the number of days imposed against us for statute labor. It has been reduced to a business proposition, business methods are being employed, and there is no question to-day more popular with the citizens generally than that of how best to make our roads. Wherever public meetings are called for the purpose of considering this matter so far as convenient, the people attend in large numbers, and the trend of talk is along friendly lines. The interest created is most enthusiastic, and the result, generally, a unanimous conclusion as to some reform.

OPPOSITION AT FIRST

When the agitation was put on foot a few years ago, it was met as a general thing with disapproval



A Well Graded Macadam Road in an Ontario Town

and bitter opposition in many quarters. The prejudice was a natural one, coming from a misunderstanding of the true object. People were inclined to think that the movement was inspired by a few enthusiasts, anxious to thrust upon this young country a system of roads equal to the roads of countries centuries older, regardless of cost or consequence. When the matter was taken up by the Legislature and a Commissioner of Highways appointed this substantial approval was sufficient to at least satisfy many of the people that their rights and interests would in any event be protected. The question received attention from the press. Meetings, at first slimly attended, were held, and the strong reasons for reform that were put forth attracted the attention of the people. In a very short time, prejudice was turned into sympathy, and this sympathy into a genuine determination for better methods and better work. It is not too much to say that every citizen in Ontario is now an advocate for better roads, at least an advocate of methods that will secure results consistent with every day of labor, and every dollar of municipal expenditure; that our municipal organizations should be made so perfect that in no section of the township will money be misapplied, or labor wasted or not performed.

At first the campaign was directed against the manner in which our roads were being made. Ditches were being dug without any outlets. Roads were being graded without any regard for a standard of work, or were crowned flat or concave. Gravel was being hauled without regard to its quality, whether fine stone, coarse stone, or earth, or a mixture of all, and was dumped on the roads in a most careless and indifferent manner, left to be trampled into the mud, and in a short time lost sight of. The work was divided into sections. Those who were willing were permitted to perform the full number of days allotted to them, and those who did their work in a halfhearted manner from a sense of duty were not complained of. Those who were indifferent enough to neglect or refuse to do anything were not reported, or if reported, not

punished. No effort was made to organize these forces, or to formulate a proper system. No attempt was made by inspectors, experienced direction and instruction to assist in bringing about good results where failure was otherwise inevitable.

COMMUTING STATUTE LABOR

Later on, in order to remedy these evils, it was found necessary to make simple changes in the system, while in some districts, to bring about even decent reform, it was essential to entirely abolish the statute labor system. Altering or commuting the labor into a tax, or abolishing the statute labor system was possibly the most difficult task that the movement was called upon to perform. This system had held in townships for upwards of a century, much good work had been done under it, and to even insinuate that it should be abolished into line, with the result that incurred much strenuous resistance. But when it was shown that it was the administration rather than the system that was being attacked, and that this was being done in fairness and justice to those who were working faithfully and well, rather than placing a premium upon idleness and indifference, that these reforms and modifications were necessary to adjust the burden of taxation, the shrewder immediately consented, and the more progressive gradually formed the majority, forcing the remainder into line, with the result that in about 100 townships, or nearly 25 per cent. of the area of the province, statute labor has been abolished or commuted, and an entirely new and businesslike system has been adopted. This system differs to some trifling extent, owing to the different conditions and requirements, but as a general thing it involves the payment of a money tax, based upon the statute labor levy. This is placed upon the roll and collected in the usual way. The money thus collected is united with the appropriation made from the general taxes, and together they are expended in first making temporary repairs, of a character necessary to keep the roads generally in a safe condition, and second, in doing work of a substantial and

finished nature in different parts of the township where most required. Machinery of every description that is considered essential to good work has been purchased and placed in the hands of experienced men to operate. Horses and men are employed to go with these machines regularly in order to benefit by experience and to save loss of time, and also to secure uniform and perfect work. The township is made into districts varying from one to four, and each placed in charge of a man possessing the fullest knowledge of roadmaking. This man is known as a commissioner or road overseer, is appointed by the council, responsible to the council, and makes his reports and recommendations accordingly. All work is under his direction. He lets and accepts all contracts, selects and purchases all material, certifies to all accounts, and in fact becomes responsible for everything done. This possibly is the most complete plan, but there are many modifications of this. Some townships are divided into four districts each in charge of a member of the council, and they become the commissioners. So that as far as statute labor is concerned the progress made under this revision, commutation and abolition, is extremely encouraging, considering that in a few years such a transformation has been made in the method which has held for so long a time. I predict that within the next five years every township in Ontario will have commuted or abolished statute labor where it should be so changed, or altered so as to make it susceptible of first-class results.

LESSENING COST OF MATERIAL

Possibly one of the most valuable changes in connection with road work that has been made in the last few years, is the building of culverts and bridges in a substantial manner. The making and maintaining of ordinary culverts and sluices cost the municipalities in Ontario about a half a million dollars annually. This expenditure was a perpetual one, never providing any work that would likely reduce the work to be done but simply providing temporary repairs that in a short time would have to

be repeated. Concrete pipes to a diameter of three feet, and concrete arches for the larger spans, were used upon the people and a method devised by which these pipes can be made by the local municipalities wherever gravel is available. The task of educating a few persons in each township in the science of making the concrete and making these pipes was one of difficulty.

So attractive, however, was the suggestion, and so substantial appeared to be the work, that object lessons only were necessary to at once cause the authorities to abandon the use of perishable material and adopt concrete. This material in some townships has been used to such an extent, that nearly every culvert of small dimensions has been built of it. In these townships in a few years the money formerly provided for the maintenance of temporary culverts will be saved to the municipality, and may be spent to advantage upon the road surface. Eighty-five per cent. of the townships of the province have already adopted this suggestion, and are now using concrete entirely for culvert work. Three hundred and seventy townships have purchased and are now using modern machinery for grading purposes, and where these are properly handled, a wonderful change has been made in the condition of the roads. One driving much through the country cannot but be impressed with the extent to which this work has been carried on. According to the reports of municipal officials sent to this department last year, about 7,000 miles of roads in the province were re-shaped by the use of this machinery, and in every instance the reports show it to be giving excellent satisfaction.

Where gravel of a good quality is easily available it is recommended for country roads generally, but it is also urged that before this gravel is used, the road must be properly drained and graded, and that the gravel must be carefully applied, being laid to a uniform width a specified depth, and regularly and evenly spread. The benefit of carefully following these instructions is readily observed, in the ability of the road to shed water, and its uniform strength and wear.

In other sections where good gravel is not easily obtainable, but where very coarse gravel containing large quantities of earthy matter is to be found, or where gravel is not available and stone plentiful, this coarse gravel or stone should be crushed and screened, and should be applied by placing a layer of the coarse crushed stone in the bottom, and the finer on the surface, applying the different grades according to their dimensions and leaving the whole to be surfaced with fine stone screenings. This plan is proving popular, and in 73 townships crushed stone is being used and regular macadam roads being constructed. This practice has grown rapidly, until last year the reports of the clerks show that over 3,000 miles of gra-

vel and macadam roads, laid according to fixed specifications, were built.

COUNTRY AND TOWN INTERESTED

While a very great improvement is being worked in the rural districts, it is needless to point to the results of the movement in the towns and villages. Within the last six years the policy of building sidewalks in the smaller places has been entirely changed. Planks are no longer used, but concrete sidewalks are being laid even in the unincorporated villages.

Complete outfits of modern machinery including road graders, rock crushers, and steam rollers are now to be found in every city and town in Ontario, while six years ago there were only four steam rollers in the province. In addition to this many of the larger villages make arrangements for the use of steam rollers owned by the larger places and are now employing them for finishing and doing perfectly their work.

Roads and streets made in a proper manner are extremely popular and at once attract the friendship not only of those who use them daily or frequently, but also of people who use them little. When samples of properly constructed streets or roads are once made and the people realize the improvement which the expenditure creates, they are at once anxious to have these samples extended until good roads in their municipality are general. Good roads and streets are contagious, and nothing impresses a person with their importance so much as visiting a place where they exist, or seeing them in course of construction. Anything that will lead to the establishment of sample pieces as object lessons in districts where the municipality has not taken hold of this question, will do more than anything else to promote the good work.

The average person may not realize the improvement that is going on in this direction, but to all those familiar with municipal management generally, in this country, the results are simply marvellous. In a very short time the contrast between the roads of Ontario, and those of other provinces in the Dominion that have not taken up this question will be greater than the contrast between the roads of Ontario and countries that have several centuries the start of us in respect of this work.

THE FIRST ORGANIZATION

The first definite step in connection with this movement was taken in 1894, when a good roads association was organized for Ontario. A large number of delegates attended the meeting, representing county councils, township councils, farmers' institutes, dairymen's and other associations. A constitution and by-laws were framed, and a careful campaign was launched. Mr. Andrew Pattullo, M.P.P., of Woodstock was selected as President, and Mr. K. W. McKay, County

Clerk of Elgin, as Secretary. This was the parent association that fought the real battles for road reform. Its scope was broad, extending over the whole province, and embracing sections of varying requirements. Later it was found necessary to bring the work closer home, and a local association was formed for the eastern part of the province. Mr. J. C. Bradley, Warden, of the County of Carleton, is President, and Mr. H. B. Cowan, Ottawa, Secretary. This association has been extremely active and has achieved excellent results. The organization of its good roads train for the purpose of building sample pieces of road and demonstrating to the people of the eastern counties how machinery should be employed, and how good roads should be made, is proving a wonderful success.

Realizing the importance of the work of the Eastern Ontario Good Roads Association, and the necessity for similar institutions in other parts of the province, upon the recommendation of a delegation appointed to attend the last annual meeting of the Association at Ottawa, the County Council of Ontario has issued a call for the establishment of a good roads association for Western Ontario. This meeting will be held at Toronto during the Industrial Exhibition in the Board Room on Exhibition Grounds, when it is expected that a strong organization will be effected which will produce equal results for the territory it is intended to cover.

THE MILLION DOLLAR FUND

The latest development of the good roads movement in Ontario has been the appropriation of one million dollars by the Legislature to aid in the improvement of country roads. The motive for this step has, very largely, been to encourage county councils to assume the management of the most heavily traveled roads in each county, thereby forming them into one class, in the construction and maintenance of which the most efficient superintendence, plans, methods, and machinery can be employed. One third of the cost of constructing or reconstructing all roads assumed under a county system will be paid by the Provincial Government, and the Act is so framed as to give county councils every opportunity to accept this aid. Should any counties fail in this, a proper proportion will be given to townships fulfilling certain prescribed conditions. A sufficient period has not yet elapsed to permit an estimate of the extent to which the Act will perform its mission, but at the present time county councils are everywhere interesting themselves in the matter.

For the fiscal year ending June 30th, 1902, Canada exported live animals valued at \$13,739,113. Of this sum \$10,704,875 went to Great Britain, \$2,168,349 to the United States and \$865,889 to other countries.



A Family of Money Makers

Canada's Export Bacon Trade

Its Early Development and Progress in Recent Years—Some Interesting and Valuable Figures

No industry in the Dominion has made more rapid strides during the past decade than the export bacon trade. From a value in exports in 1891 of \$590,852, this trade has reached the very large figure of \$12,162,953 for the year ending June 30th last. It has developed faster than any other industry associated with Canadian agriculture not excepting the cheese industry and is to-day a source of wealth and profit to the farmer, excelled by no other branch of his business. Not only has there been rapid progress in regard to quantity but improvement in the quality of the product has kept pace with it. To-day Canadian bacon has a reputation in Great Britain on a par with that of our cheese of which Canadians are, and rightly so, inclined to boast. Our bacon like our cheese, is fast becoming a staple article in the English market and is giving Canada a name and reputation abroad of which any country may well feel proud.

A review of the earlier history of an industry of such magnitude and

a summary of the various factors that have contributed to its rapid development should prove interesting reading at the present time. Though its growth has been rapid our export bacon trade did not come by chance. Its foundation was laid in the pioneer work of one or two individuals who after repeated and unsuccessful attempts to establish a trade in Canadian bacon with Great Britain lived to see their efforts crowned with abundant success. The pioneer to whom the country is indebted more perhaps, than any other individual, is Mr. Wm. Davies, president of the Wm. Davies Co., Toronto. Elsewhere in this issue, Mr. Davies gives at our request some reminiscences of those early days which show some of the difficulties, the advocates of an export bacon trade for Canada had to contend with. Considering the apathy of the Canadian farmer at that time, and his seeming utter ignorance of even the crudest necessities of the trade it is somewhat marvellous to think that we are

exporting annually considerably over 100,000,000 lbs. of choice bacon products to the old land at the present time. It is the result of persistent, definite effort along a single line advocated by a few individuals, both in and out of season. Such has been the early history of the cheese industry and it has been duplicated in that of our export bacon trade.

While Canada exported bacon and ham products to the value of \$783,481 in 1868 as the accompanying tables will show it was not for over twenty years afterwards that our export bacon trade as we understand it to-day began to assume large proportions. Ten or twelve years ago the value of our bacon trade was little more than it was in 1868. The conditions governing the industry had made comparatively little advancement among our farmers. Little attention had been paid to the breeding of suitable hogs and until 1887 or 1888 very little interest was taken in the development of our exports. The American hog was then consid-



Correct Form, but Overfed : Too Fat, Worth More if Killed Some Weeks Earlier.



The Proper Type : Long Tapering Ham : Long Side even and Proper Thickness of Fat over Back.

ered superior to the Canadian animal by the packers for bacon purposes and was purchased largely for Canadian packing houses, as the following extract from a letter by the Davies Company published in a circular on "The Swine Industry" issued by James Cheesman, of Toronto, in 1888, will show.

"During the year 1887 we slaughtered 63,457 hogs. Owing to the indifference of the Canadian farmer to this department of agriculture, more than half of this number were obtained on the other side of the line. When buying hogs in the markets of the United States, we have no difficulty, owing to the large number regularly on sale, in picking out exactly the class that suits our purpose. Of this kind we purchased last year, 33,113. They averaged 175 lbs., and cost laid down here \$5.19 per hundred pounds. Their yield was 78 per cent. dressed weight. Our Canadian purchases consisted of 26,244 prime hogs, between 140 and 200 lbs. They averaged 174 1/2 lbs. and cost \$5.25 per hundred pounds. In order to secure these we were compelled to take 4,100 unsuitable hogs, the objection to them being that they were either too heavy or too light, half fat or rough. These averaged 223 1/2 lbs. and cost \$4.47 1/2 per hundred pounds.

As requested we give you in tabulated form the average price for each of the 12 months of 1887, for both prime 140 to 200 lbs., and for outside weights and culls. We prefer a weight of 160 lbs. to 170.

Average paid for Canadian hogs in each month of 1887:

Month	Prime 140 to 200 lbs.	Outside weights and culls	Difference
January	\$4.50	\$4.50	\$1.23
February	4.73	4.51	1.57
March	5.08	4.81	42
April	5.04	5.22	22
May	5.70	5.48	29
June	5.80	5.21	45
July	5.87	5.12	99
August	5.86	4.77	43
September	5.40	4.87	37
October	4.87	4.80	37
November	4.75	4.38	21
December	4.97	4.76	

It will be seen from the above that outside weights and culls were bought at from 21 cents to \$1.57 per hundred pounds under prime hogs of the weight desired. We call your attention to the fact that our American purchases, including all charges, cost 6 to 7 cents per hundred less than did our Canadian purchases of prime hogs. Also that outside weights and culls averaged 77 cents per hundred lbs. less than the prime. We find that our Canadian hogs yield 77 per cent. only, or 1 per cent. less than American. The reason for this is that our farmers have not got the proper breed of hogs. If they will get the right breed and give them the proper attention, both as to care and feed, in 6 months from birth they will be just what the popular demand requires, 160 lbs. to 170 lbs., which is more economical to feed, and will yield quite as well, or better than American hogs do."

The circular from which this extract is taken was distributed largely among the dairymen of the province and as far as we can learn was instrumental in creating considerable interest in the bacon trade and the importance of developing it upon a larger scale.

The early pioneer work of Mr. Davies and those whom he mentions, and later that of F. W. Fearman, of Hamilton, J. L. Grant &

Co., of Ingersoll, and a few others, served to lay the foundation for future development and to prepare the way for the rapid expansion of recent years. The spectacular event, so to speak, that seemed to turn the tide and set in motion the machinery that has resulted in present day expansion, was the McKinley bill. Before this bill became law, as our readers well know, Ontario farmers exported large quantities of barley to the United States. The growing of barley for that market was a profitable business which our farmers took advantage of to a very large extent. The advent of the McKinley Bill therefore came like a thunder clap, cutting off this market and compelling our farmers to turn their attention to something else. This was the opportunity for the promoters of the bacon trade and backed by the advocacy of such men as Prof. Robertson, who about this time began to talk up the hog in conjunction with the dairy, farmers were induced to transfer their efforts, formerly largely expended upon the growing of barley, to rearing the bacon hog. Another factor that helped the expansion of the bacon trade considerably was the large increase in the duty upon bacon and hams made by the Canadian Government about the same period. By this combination of events the bacon trade was given a strong impetus that has caused it to expand rapidly ever since. It will be interesting to trace in the accompanying table the rapid decline of our exports of barley after the McKinley tariff was enacted and the rapid increase in our bacon exports during the years since then. During the past year or two our barley exports show a little expansion. There are a few sections of the province where farmers still make a specialty of growing barley for the American market.

Table showing exports of barley and bacon for the past twenty years ending June 30th.

Year	Barley		Bacon.	
	Pounds	Value	Pounds	Value
1882	\$10,111,623	9,213,677	\$1,007,491	
1883	6,293,233	3,736,734	439,973	
1884	5,104,642	2,846,807	731,590	
1885	3,503,833	2,189,260	630,614	
1886	5,224,693	3,443,503	621,016	
1887	5,287,889	11,030,680	871,116	
1888	6,494,416	6,701,860	629,324	
1889	6,494,589	3,879,282	361,070	
1890	4,600,409	2,235,336	607,495	
1891	2,929,873	2,156,736	530,852	
1892	2,613,363	11,341,295	1,094,205	
1893	944,355	17,288,311	1,836,368	
1894	294,200	26,826,840	2,754,479	
1895	720,718	37,526,038	3,546,107	
1896	316,028	47,957,642	3,802,135	
1897	566,505	59,546,050	5,060,393	
1898	158,978	76,844,948	7,291,285	
1899	119,040	111,868,938	9,953,582	
1900	1,019,425	132,175,688	12,471,509	
1901	1,123,955	103,020,661	11,493,868	
1902		105,841,366	12,162,953	

An interesting feature of table No. 1 is the gradual increase in the value of the bacon exported during recent years. If we compare 1900 with 1902 we will find that the value of the bacon exported in the latter year is a shade over 2 cents per lb. higher than for the former. While the quantity exported in

1900 is over 26,000,000 lbs. greater than in 1902, the total value for last year is only about \$300,000 less than for 1900. This should be encouraging to the producer. If our farmers are raising as many hogs as they did a couple of years ago they are receiving nearly as much total cash for their product.

It is not our intention to trace in detail the development of the bacon trade during recent years. Its history is or should be quite familiar to our readers. One of its striking features, however, has been the great improvement in the quality of the product. In no branch of agriculture has progress been so rapid in this particular. There is still no doubt a large number of undesirable hogs being produced, but the percentage of select bacon hogs in the country shows a very large increase during recent years. Several agencies have helped to promote this very satisfactory state of affairs. The experimental work and teaching of such institutions as the Ontario Agricultural College and the Dominion Experimental Farms, the information imparted through the Dominion Live Stock Department, the Provincial Winter Fair, the Farmers' Institutes, the agricultural press, and the distribution of bulletins, etc., have aided largely in this work. And then the farmer himself has taken hold of this matter in an aggressive manner and made himself familiar with the needs of the industry in a way that he has done with no other branch of his business. He has seen the need of raising only the kind of hogs suited to the trade and of feeding them so as to produce the finest quality of bacon. There may yet be much missionary work to be done but the tide has long since turned and it should be comparatively easy sailing in still further increasing the percentage of select bacon hogs produced by our farmers. Ontario has been the prime mover in this as in advancing other important lines of agriculture. But the other provinces are coming into line and a few years will see a very large increase in the bacon trade, especially in the Eastern provinces. Farmers there are generally changing the thick fat type of hog for the bacon type. The establishment of a few pork-packing establishments in that part of Canada will cause the supply of bacon hogs to increase very rapidly.

Table No. 2 giving the average monthly prices paid on Toronto market for select bacon hogs during the past ten years is worthy of a careful study. A most important point brought out is that there has been less variation in the monthly prices paid for hogs during recent years. A few years ago we might always count upon a decided slump in prices during the last four months of the year. While there is still considerable falling off in price at this period it is not nearly so great as a few years ago nor does it extend over so long a period of time. The tendency seems to be towards greater uniformity in price

TABLE No. 2.

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Jan.	3,294	2,013	3,141	1,957	174	384	506	450	80		
Feb.	3,254	2,514	3,214	4,635	674	415	656	586	35		
March	4,904	4,604	4,916	6,014	375	636	596	66			
April	6,294	8,055	673,392	124,804	566	139	869	41			
May	6,965	654	924	185	255	654	866	327	127	65	
June	6,965	254	374	135	505	245	666	757	427	63	
July	6,695	654	434	215	785	515	666	297	577	34	
Aug.	6,155	555	374	285	945	785	466	127	347	37	
Sept.	6,405	504	764	115	824	884	886	127	41		
Oct.	6,254	404	213	335	254	484	416	656	68		
Nov.	5,584	353	953	814	384	484	195	175	82	8	
Dec.	5,204	153	653	314	654	414	386	606	366	36	
Yearly											
Average	6,285	464	514	655	124	394	685	836	876	79	

all the year around. The lesson from all this for the farmer is to have hogs to sell all the year around, with the bulk of his supply ready for market before September of each year. By cutting off his supply as much as possible during the fall months when the British market is being supplied with poultry, game, etc., the farmer can greatly assist in maintaining a greater uniformity in prices all the year around.

As to the present outlook for Canada's export bacon trade, little need be said. Prospects are most

favorable for a very large extension of his trade providing our farmers can supply suitable hogs. There is capacity enough in our pork-packing establishments at the present time to handle at least one-half more hogs than they are doing at the present time. Prices for live hogs have never been better at this season of the year and as far as we can see are likely to continue high, with the exception of the usual fall decline, for sometime to come. Farmers should not ask anything better than this and with plenty of coarse grains as is likely to be the case this coming fall and winter, the farmer should be able to make good money out of hog feeding even if the price dropped a cent or two per lb. lower than it is at the present time. But there are no immediate signs of its doing so. Everything just now seems to be in the producers' favor. Our advice to him therefore is to raise more hogs of the bacon type and feed them so as to produce the finest quality of product and a good profitable market is assured him.

J. W. W.

The Early History and Development of Canada's Export Bacon Trade

By WM DAVIES PRESIDENT THE WM DAVIES CO., TORONTO

I believe the first shipment of Canadian bacon ever made to England was about 1849 or 1850. Mr. Isaac Atkinson, a bacon curer in Limerick, was passing through Toronto and at the hotel had some bacon for breakfast. Being a thorough expert he at once noticed its superiority to the bacon shipped from the United States. He ascertained that it was procured from a man named French, who kept a bacon stall in St. Lawrence market. He used to cut up about a thousand hogs in the winter which he cured in a cellar under the old city hall and sold it out at retail during the summer. Mr. Atkinson bought from him one or two hundred sides, which were packed in sugar hogs-heads, shipped across the lake, from there by rail to New York, thence by sailing vessel to Liverpool. The venture was not a success; in some way the bacon became damaged by contact with something offensive in the cargo. At that time a number of small grocers and a few butchers, also a number of carters, or as they would be called to-day expressmen, used to cut up one, two or three hundred hogs in the winter, which they jobbed out the following summer. This bacon was cut and cured in a very rough manner and long before it was sold it was as salt as Lot's wife and much of it as rusty as a horse-shoe.

I came to Toronto from England in 1854 and having been born and brought up in the bacon-curing business I at once commenced a local business in a small way. I always cherished the hope and expectation of embarking in the export business, but had no opportunity to do

so till the end of the winter of 1859-60, when I made a trial shipment, which was fairly successful and the following autumn I ventured on a larger scale. This bacon was made from the ordinary Canadian dressed hogs, of course scalded; I knew from my experience in England that London and the south of England demanded singed bacon, but here I was met with almost insurmountable difficulties; at that time all the hogs were dressed by the farmers and of course scalded and the bulk of them when brought to market were frozen solid. This last condition was very objectionable as it made it impossible even after they were thawed out to trim the sides properly, besides the injury to the meat.

The first shipment of singed bacon that I made was from twenty hogs bought from the Asylum alive. These were exceedingly fat and averaged no less than three-hundred pounds dressed. These, assisted by a butcher in old Yorkville, I killed and singed at his slaughter-house. These were too fat and heavy even at that day, but would be utterly unsalable now. About March 1861, I bought thirty very nice sizeable hogs from Mr. Gardhouse, a miller at Bolton village. I took the Yorkville butcher and a man in my employ to this place and we killed the hogs, burning off the hair with straw. It created a great sensation in the village and among the farmers who came in, in the course of the day. I believe they thought I was an escaped lunatic. Mr. Gardhouse then teamed the hogs to Toronto and I paid for them at a price previously agreed upon, dressed weight. The bacon made from these hogs gave very good satisfaction; it was sold by my relatives in the neighborhood where I used to live. I was assured that if I could only send a regular supply it would be easy to work up a steady and profitable business. At this time farmers strongly objected to selling their hogs alive and for two winters I adopted the following plan: I had made the acquaintance of two farmers near Bond Head, Messrs. Mills, father and son, and they very kindly drove me to a number of farm houses where I bought the hogs to be delivered in Toronto dressed. I then sent my own man to superintend the singeing. On one of these days my driver and guide was a youth, now Dr. James Mills, president of the Ontario Agricultural College, and he was the same bland, urbane, genial gentleman then that he is to-day.

It will be readily understood that the business could not be continued in this round about, cumbersome, disadvantageous manner, so that I gave up the idea of singed bacon and naturally took the course offering the least resistance and set to work buying dressed hogs wherever and whenever they could be had in quantity, converting the product into cuts suitable for the north of England where singed bacon was at that time almost unknown. I remember in the fall of 1864 I bargained with a drover at St. Thomas, named MacIntosh—I suppose he has long since gone over to the majority—for about a hundred live hogs to be delivered in Toronto at a price live weight. The bargain was that they were to be smooth and young; they were a heterogeneous lot, two or three stags, four or five old sows, a number too small, and a number too large, only about half of them being suitable. But I remember I took them all at the price agreed upon rather than have an ugly quarrel. I had rented a slaughter-house in the north-east part of the city from the estate of a deceased butcher. We killed them in batches of eight or ten, carried them bodily into the street, piled the straw over them, and when singed, carried them back into the slaughter-house, then carried back the next batch to the street and so on de novo. As fast as they were dressed we carted them down to the warehouse or packing-house so called. Again I had the assurance from my English friends of a profitable business if I would only send regular shipments. Meantime I kept steadily on handling dressed hogs on a considerable scale, still entertaining the hope and desire to embark regularly and extensively in the killing and curing of Wiltshire bacon.

It is only fair that I should say here that the pioneer of the export bacon trade is Mr. H. W. Cuff, who for many years carried on a provision business in the St. Lawrence Arcade. His father was a pork butcher in Liverpool and to him the bacon was consigned. Mr. Cuff, jr., was well up in this busi-

ness and turned out a very nice article suitable for the Liverpool trade. This he continued for two or three years and why he discontinued I do not know. Mr. Cull retired from business several years ago but is still living in the city.

Up to the time of which I am writing the obstacles in the way of shipments were most discouraging, first of all the very high rates of freight and the utter lack of attention given to the shipments by the Grand Trunk Railway. If the property reached Montreal in time for the steamer, good and well, if it did not so much the worse for the shipper. When one had business with the freight agent of the G.T.R., we could cool our heels in the passage till it suited him to see us and then were treated as suppliants for favor rather than as those whose interests with the railway were reciprocal. At that time as there was no competition in the steamship business at Montreal, rates of freight were at a giddy height and it was a great favor to have some space allotted a week or two in advance. It will give your readers some idea of the rates prevalent when I mention that I arranged for a considerable shipment with the late Mr. Wyatt, steamboat agent, Toronto, across the lake, thence by rail to Boston and from there by the sailing ship "Tranquebar" to London at one hundred shillings per ton and five per cent. primage, this in addition to the freight to Boston. The freight to London, Eng., from Toronto to-day is a trifle over thirty-two shillings per ton. I remember I built large hopes upon the result of this shipment for the raw material was very cheap and the price realized was pretty good but the charges ate up all or nearly all the profit.

In the early sixties Mr. Samuel Nash, an Englishman, who had been in the pork-packing business in Baltimore and was driven out by the war of the Secession, settled in Hamilton and commenced pork-packing on quite an extensive scale which he prosecuted successfully till his death nearly twenty years ago. About the time Mr. Nash commenced business Davies & Atkinson commenced in Hamilton on what was then a very large scale. The firm consisted of J. T. Davies, provision merchant on a very extensive scale in Liverpool, and Isaac Atkinson whom I named in the first of this letter. They brought with them several Irish operatives. This business was carried on with great enterprise and energy for a number of years but the business in Canada at that time was beset and hampered by many disabilities and the firm opened out in Chicago where they were very successful, and after a year or two closed up the Hamilton business.

The John Morrell Company Liverpool, opened out in London, Ont., twenty years or so ago. The same reasons, that I mentioned in the case of Davies & Atkinson, led them to pull up stakes and fol-

low their competitors to the west. The same story may be told of Fowler Bros., of Liverpool, who also did business in London. All these firms developed an enormous business with corresponding profits.

About 1872 I made a dead set at handling hogs alive and singeing them. By this time farmers had become educated to selling them alive. Since then I have followed

it up with varying results. Others have come in and are "reaping where I sowed and gathering where I straved" as regards the procuring of the most desirable kind and style of hogs for the English trade.

I dislike Mr. Editor to write so much in the first person, but I know no other way to give you the information you have pressed me for.

The Dominion Live Stock Department

Its Work During Two Years—Live Stock Associations—Auction Sales—Institute Work Outside of Ontario

By F. W. HODSON, LIVE STOCK COMMISSIONER

Upon assuming office as Live Stock Commissioner for the Dominion my first duty was to make a very careful examination of the live stock conditions in each of the provinces and Territories. At a later date two months were spent in Great Britain making a study of the methods of live stock management prevailing there, of the markets for live stock and live stock products, and of the plans used in conducting the large fairs and auction sales.

With this information at my command assistance was given by the department in establishing Live Stock Associations where they seemed necessary, in order to induce farmers to unite in self-help, and also to get in touch with the best men in each district and thus obtain their united co-operation in forwarding the live stock interests of Canada. Where Live Stock Associations have already existed they have been assisted to do better work. In the North-West Territories where organized efforts for the improvement of the live stock industry were particularly needed, a Horse Breeders' Association, a Cattle Breeders' Association and a Sheep Breeders' Association have been established under very capable and energetic management. Already these associations have done excellent work in arranging for and conducting the Territorial auction sales, of breeding stock, in facilitating the sale of Western horses for the Imperial service in South Africa and many other ways.

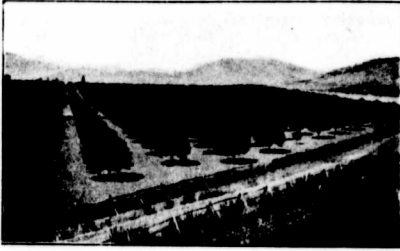
The Maritime Stock Breeders' Association has been greatly strengthened and brought into closer touch, not only with the Dominion Department but with the Provincial Governments of New Brunswick, Nova Scotia and Prince Edward Island as well. This association has been incorporated under Dominion Charter, and is now doing a great deal of educational work. A Maritime Winter Fair, along the lines of the Ontario Provincial Winter Fair has been established at Amherst, N. S., which town is now providing a permanent home for the show at a cost of \$10,000. The establishment of the Maritime Fair is very largely due to the fact that a delegation of the leaders of agricultural thought, in-

cluding representatives of the local Departments of Agriculture, was brought by this department from the Lower Provinces to the Winter Fair at Guelph, in 1900. There these gentlemen witnessed an exhibition of the best cattle, sheep, swine and poultry in Ontario, and listened to the thoroughly practical lectures, with the living animals for illustrations in the first part of the programme, and the dressed carcasses of the same at a later stage of the proceedings. The Maritime visitors were quick to see the advantage that would accrue to their provinces by having such an educational exhibition and took immediate steps to establish one.

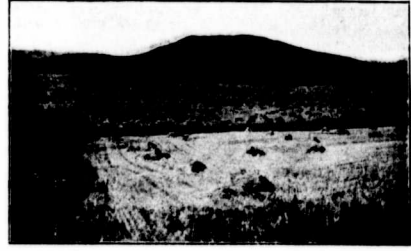
Nearly all the important Live Stock Record Associations doing business in Canada have been incorporated under the Act of Parliament passed in 1900, and the work of these associations is now under the supervision of this department.

For the purpose of bringing the buyer and seller of pure bred stock into closer relationship, by providing a market for the animals produced by the smaller breeder, and as a convenient purchasing point for large or small buyers, a system of Provincial Auction Sales has been established in connection with the Local Live Stock Associations of the several provinces. Four such sales have been held in Ontario at which 233 head of Shorthorns have been sold for \$23,464.00, an average of a trifle over \$100 per head. The great majority of animals sold have been young bulls and heifers, so that the above average ought to prove remunerative to the sellers. If Canadian breeders can sell all their surplus young stock at an average price of \$100 per head they will certainly be getting good results for the money invested.

The Territorial Live Stock Associations have, with the assistance of this department, established a very successful cattle sale at Calgary. At their first sale in 1901, 62 head of cattle sold for \$5,451, an average of over \$85 per head. This year 220 head were sold for \$21,077, an average of over \$95, which is considered very satisfactory for range bred cattle. In connection with the sale, a stallion and cattle show has been inaugurated and live stock conventions



A 160-acre Apple Orchard, Aberdeen Ranch, B.C.



A Wheat Field on the Aberdeen Ranch, B.C.

are also held, at which the educational features have been largely developed by expert live stock lecturers furnished by this department.

Auction sales of pure bred stock have also been held at Victoria, New Westminster and Ashcroft, B. C., with very satisfactory results. The stock sold in British Columbia was nearly all purchased in the East on order of the B. C. Dairymen's and Live Stock Association, which is making a determined effort to improve the live stock of their province. My visit to British Columbia has led to the opening up of a new line of live stock trade, viz., the shipping of stocker cattle from the Eastern Provinces to British Columbia, to be fattened on the abundant pastures of the Pacific Province for the home market, in the mining districts and elsewhere. To show the possibilities of this trade it is only necessary to mention that in 1900 less than \$5,000 was paid for the stock ordered in this way for Western trade, while in 1901, ten cars of pure bred stock and forty five cars of stockers, valued at over \$19,000 went to British Columbia. In order to promote this trade we have arranged with the railway companies for much lower freight rates than formerly prevailed, and whereas a year ago it cost \$360 to send a car of stock to British Columbia, stockers are now carried in trainloads at \$175 per car, and pure bred stock at \$150 per single car.

A very creditable and successful exhibit of Canadian live stock was made last year at the Pan-American Exposition held in Buffalo, N. Y., with the assistance of this department and under its direction. Five cows each of the Shorthorn, Ayrshire, Jersey, Holstein and French Canadian breeds were maintained in the Model Dairy Competition at that exposition, with distinct credit to Canadian dairy interests, and the prizes won in the general competition whether in horses, cattle, sheep, swine or poultry, show that Canada was worthily represented. A great many sales were made by Canadian breeders, and much more business is likely to be done with American buyers as a result of this exhibit.

Profiting by the experience of Mr. C. W. Peterson, Deputy-Commissioner of Agriculture for the Northwest Territories, this department

last year attempted to inaugurate an improvement in the method of conducting county and township fairs by sending out expert judges for the live stock classes, who explained to the spectators their reasons for placing the awards as they did. In this way the judging is made an educational feature, instead of being merely an allotment of premiums by men who are too often incompetent or biased in their judgment. The fairs are arranged in circuits so that the judges are able to get from one to another with as little expenditure as possible of time and money. This new plan proved so eminently satisfactory at the county fairs in the Ottawa district, in the Northwest Territories and in British Columbia, that a great extension of the movement has taken place and this year judges are being sent by the department to nearly all parts of the Dominion. The Ontario



A 160 acre Hop Yard, Aberdeen Ranch, British Columbia

Agricultural Societies have been placed under the control of a superintendent, who is arranging a large number of fairs in convenient circuits, sending them expert judges, and assisting in the drafting of up-to-date prize lists. In order to discourage questionable attractions and interest the rising generation in scientific agriculture prizes are offered for the children of a school section making the best and best arranged exhibits of garden flowers, grain in the straw, clovers and grasses, fruits and vegetables, wild flowers and leaves of trees, weeds and weed seeds, and beneficial and injurious insects. To take the place of horse racing, mounted infantry competitions, hurdle jumping and other exhibitions of skill in riding are being introduced.

Press bulletins on live stock and kindred subjects are sent out weekly to about 800 newspapers in Ca-

nada. It is believed that more can be done by sending good bulletins regularly to small country papers than in almost any other way, for by this means information is placed before many country people who can be reached in no other way. A directory of the breeders of pure bred stock in Canada has been published for the purpose of facilitating the purchase and sale of breeding animals. Other bulletins are being prepared and will be published as time permits.

FARMERS' INSTITUTE WORK

In view of the great success of the Farmers' Institute system as a means of education in Ontario, the Dominion Department has endeavored to co-operate with the different Provincial Departments of Agriculture in establishing and improving similar systems in their respective provinces. Trained speakers from Ontario have been sent to assist in the work in the other provinces, and the best available men in the other provinces have been pressed into service, not only in their own provinces, but in others as well. By sending able and observant men from one province to another, in this way it is hoped to get together a thoroughly capable corps of institute workers, familiar with the agricultural situation and requirements in all parts of Canada.

British Columbia has taken up this work with vigor, and now has an organization covering all the agricultural districts of the province. During the year 1901, arrangements were made with the Provincial Department of Agriculture at Victoria for one series of meetings in the spring and another in the fall. At each meeting addresses were given by thoroughly trained and capable speakers sent out by my division, viz., Messrs. D. C. Anderson, Andrew Elliott, T. G. Raynor and D. Drummond. At the spring meeting Mr. Anderson and Mr. Elliott delivered fifty addresses at twenty-seven places, and Messrs. Raynor and Drummond thirty-two addresses at twenty meetings. Twenty-nine meetings were held in the fall, at which twenty-two addresses were given by Messrs. Anderson and Elliott. The majority of the meetings were held in the evening, but for the first time in the history of the British Columbia Institute a good many afternoon, and some morning meet-

ings were held. Mr. J. R. Anderson, Deputy-Minister of Agriculture writes that the reports made by the various secretaries, and also verbal reports which have been made to him have all expressed unqualified satisfaction with the work of these gentlemen. To the effect of the addresses given much of the increased interest in the Farmers' Institute system is attributed by Mr. Anderson, who expresses himself as completely satisfied with all four of the delegates and is desirous of having their services in British Columbia again.

In the spring of the present year Messrs. Drummond, Anderson and Raynor were again sent to British Columbia where they conducted meetings in all parts of the province in connection with local speakers. The attendance has been large at nearly all the meetings and the people have shown themselves eager for information.

The same delegates were also sent to the Northwest Territories both in the spring and fall of 1901 and also early in the present year, to work in connection with the Territorial Department of Agriculture. Mr. C. W. Peterson, Deputy Commissioner of Agriculture, reports that the attendance and interest at the several series of meetings were highly satisfactory from the point of view of both the department and the speakers. He expresses confidence that a very large number of people who listened to these speakers were highly pleased with the innovation of bringing practical Ontario Institute workers face to face with Western audiences, and hopes that the same gentlemen may be available for future work in the Territories.

Four speakers were also supplied by the department to assist the Manitoba Department of Agriculture in conducting Institute meetings in the month of July 1901. Owing to the busy season and other influences the attendance at these meetings was hardly so satisfactory as in some other provinces. Miss Blanche Madlock's addresses on "Dairying," "Bread-making" and "Women's Institutes" attracted the largest audiences. Prof. J. B. Reynolds, Prof. R. Harcourt, and Mr. D. Drummond were also well received. This was the first attempt in Manitoba to bring the Agricultural Societies into line with the Institute work. It was therefore like breaking new land.

In Quebec a series of meetings were held in the Eastern Townships during November 1901, by Messrs. Raynor and Stonehouse representing the department. These proved very satisfactory, as the keenest interest was everywhere manifested and the discussions were generally animated and instructive. The desire was universally expressed for the organization of an Institute system similar to that in Ontario. During the same month Mr. Drummond attended twelve meetings in the County of Bonaventure which were fairly good, and awakened considerable interest in agricultural education. Early this

year arrangements were made with the Quebec Department of Agriculture for systematic work covering a large part of the province. Such capable men as Prof. J. H. Grisdale, Messrs. Robert Ness, G. H. Clark, D. Drummond, A. C. Charro, L. C. D'Angle and C. E. Mortureux were furnished and nearly sixty meetings were held at which over ten thousand people were in attendance.

New Brunswick was one of the first provinces to co-operate with us in extending Institute work. In June and July, 1901, Mr. Raynor was engaged in organization work in that province, which was divided into three sections for that purpose. Three local men were sent out, Mr. Raynor dividing his time with them, attending meetings and organizing Institutes at eleven places. In October and November Messrs. Raynor, Drummond and Ness again took up the work and attended some forty-five meetings, at which about 3,000 farmers were present. In January of the present year, Messrs. Grisdale, Clark and Simpson Kenzie were sent to assist the New Brunswick Department at over thirty well attended meetings.

In Nova Scotia no arrangement was made with the local authorities for Institute work until June of the present year, when Mr. Drummond was sent for a month's campaign in that province. The meetings were well attended and Mr. Drummond has been appreciated all along his route. Expressions of approval have been received from several places. The meetings are said by Mr. Drummond to have been as good as any he has attended outside of Ontario.

In Prince Edward Island the work of organization was taken up in June and July by Messrs. A. McNeill and W. W. Hubbard in connection with the local Department of Agriculture. Some sixteen meetings were held for the purpose of organization, at which addresses on agricultural topics were generally given in addition. Although the meetings were not

largely attended, a deep interest has been awakened among the farmers. Twenty Institutes were organized during the year, with memberships ranging from eighty to one hundred each. During January and February of this year we sent Messrs. H. K. Ross and Robert Thompson to assist in carrying on a series of meetings covering the whole island. Forty-four meetings were held at which the attendance of farmers reached four thousand. Three or four new Institutes have been formed as a result, and a good deal of enthusiasm created. At the time of writing additional work is being done on the Island, with Prof. H. H. Dean, D. Drummond and Geo. Vroom representing the Department of Agriculture.

Poultry Fattening

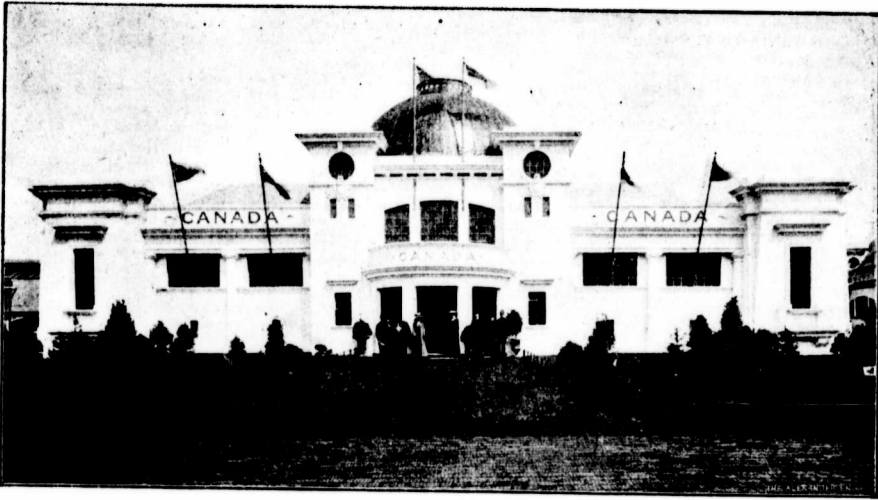
Mr. Frank C. Hare, Chief of the Poultry Division, Ottawa, has been in the Maritime Provinces recently making arrangements for establishing several poultry fattening stations. Six chicken fattening stations will be conducted in Prince Edward Island, and one each in Cape Breton, Nova Scotia and New Brunswick. They will commence operations about the 10th of September, each station being provided with crates for fattening from 500 to 1,000 chickens. Three lots will be fattened, four weeks being allowed to elapse between each lot. It is expected that 1,500 chickens will be fattened this year or more if suitable birds can be obtained.

Will Have an Office at the Fair.

Mr. Henry Wade, Registrar of Live Stock, will open an office at the Industrial Exhibition, in the Farmers' Institute tent, where breeders may register their stock and pay their annual membership fees. Pedigree blanks of all kinds will be supplied free. Mr. Wade will also be at the London Fair.



Building a Log House in New Ontario.



Canadian Building, Wolverhampton Exposition, England.

Canada at British Shows

The Wolverhampton and Cork Expositions. The Canadian Coronation Arch.

By W. H. HAY, OTTAWA.

The important part taken by Canada in the Glasgow Exhibition last year created such a favorable impression among the British people, and resulted in advertising the natural resources of Canada to such an extent that it was deemed advisable by the Hon. the Minister of Agriculture, to follow up the good work by making similar displays at the exhibitions now being held at Wolverhampton and Cork.

Mr. W. D. Scott, who so ably represented Canada at Glasgow, is the commissioner in charge of the Canadian section at these two big shows.

WOLVERHAMPTON

The site of the Exhibition is the West Park, which is both picturesque and convenient and a most desirable site for such a purpose. The most important buildings are the Industrial Hall, Canadian Pavilion and Machinery Hall. These three buildings form a crescent, face the main avenue, and command the full extent of the park.

The Canadian Pavilion occupies an area of over 8,000 square feet. It is classic in outline, its most important feature being a fine expansive dome. The main entrance to the building is immediately under the dome. Passing through this entrance, the visitor finds himself in the agricultural court. Here may be seen the immense trophy of grains, grasses and cereals. This trophy forms the centre-piece of the base of the dome, which rises to a height of forty feet. The trophy is circular at the base, and rises almost to the top of the dome, at the base of which, about forty feet in circumference, four large arches are sprung to the

walls, the whole being so arranged as to form a sort of temple of cereals. The grains and grasses are the finest specimens that could be obtained of last year's enormous crop, and are shown in sheaves and bunches, care being taken to show the full length of straw, which, for its excellence of color and remarkable length, was a surprise to visitors from the eastern countries. The shorter grains and ornamental grasses were lestooned and wreathed in many varied and artistic forms. On the immense stand in the centre are grouped hundreds of bottles, containing specimens of wheat, oats, barley, rye, Indian corn, peas, flax, millet, buckwheat, and, in fact, all the leading varieties of grains and fodder plants which grow to such perfection in Canada. These samples were all carefully labelled, giving the name and address of the grower, yield per acre, etc.

The collection contains thousands of samples, comprising upwards of five hundred varieties. The most important feature of the exhibit, and one that claims a great deal of attention, is the collection of wheat and oats of large yield from Manitoba and the Northwest Territories. These enormous yields of oats—80 to 110 bushels per acre, and wheat 40 to 55 bushels per acre—can hardly be credited by our friends across the sea.

The fine display of fruits is attracting much attention, particularly the fifty odd varieties of apples displayed on plates. These fruits are brought from the cold storage and look as fresh almost as the day they were picked from the tree.

The mineral section contains a great variety of specimens, suggestive of Canada's richness in mineral resources, and the immense possibilities which will follow in the way of development from increased investment of capital.

The large and varied collection of timbers in the rough and polished, the dozens of photographs of Canadian trees framed in the wood of the tree which they represent, cannot fail to impress the visitors with the fact that the forest harvest of Canada is very great indeed. Passing to the right of the main entrance of the building, we come to the food product section. Here may be seen a fine display of bacon, exhibited by the Wm. Davies Co., of Toronto. The Anglo-Canadian Produce Co., Liverpool, make a display of cheese, butter and eggs, and Messrs. Andrew Clement & Sons, Ltd., Glasgow, show butter, cheese and Canadian salmon. Hiram Walker & Sons, Ltd., make an attractive display of their famous "Canadian Club" whiskey. The Truro Condensed Milk and Canning Co., of Truro, Nova Scotia, show condensed milk, cream and cocoa. Leslie, Hart & Co., Halifax, lobsters; The Radnor Water Co., Radnor mineral water; The Ova Co., Winnipeg, desiccated eggs; P. Macintosh & Son, Toronto, Beaver oats and Swiss food, all make attractive displays. There is also a good exhibit of maple sugar and syrup and bottled honey.

The cold storage plant is similar to the one used at Glasgow, and is an attractive feature of this section. Several Canadian milling firms, including the Ogilvie's, The Lake of the Woods Milling Co.,

both of Winnipeg: The Tillson Co., Tilsonburg; Walter Thomson, London; John Mackay, Bowmanville, and Arch Campbell, Toronto Junction, make very fine exhibits of flour, pot and pearl barley, oatmeal, etc. The MacLaren Cheese Co., specimens of their Imperial cheese in neat jars; the Ingersoll Packing Co., cases of cheese; The Aylmer Canning Co., Aylmer, canned fruits and vegetables; The Simcoe Canning Co., Simcoe, canned meats, fruits and vegetables; The Laing Packing Co., Montreal, canned meats; Wm. Clark, Montreal, canned meats; The Kent Canning Co., Chatham, fruits and vegetables; Miller & Co., Trenton, fruits and vegetables.

The Canadian Pacific Railway Co. shows a number of paintings in oil, and photographs illustrative of the scenery along the line of that great trans-continental highway.

The building, on the whole, is well laid out and is tastefully decorated with purple and white bunting festooned with Canadian flags.

CORK EXHIBITION

Cork is the third city in Ireland, and the capital of Munster, and although, generally speaking, irregularly built, there is something fascinating and beautiful in its irregularity. The city was originally a complete island; the River Lee spread itself into two channels to encircle it, doing its arms again on its prize. But the march of human progress burst open the city gates, and carrying the city boundaries beyond the old walled town; it has now a considerable area, which is being yearly added to. Along the valley is one of the most picturesque bits of scenery to be found in the entire country, and around and about it are numerous landmarks of historic interest.

The Wardyke. This is a fine avenue overshadowed by a double row of elms, extending for about a mile at the western side of the city. "Proceeding down this walk to its western extremity," writes Thackeray, in his "Irish Sketch Book," "you pass all sorts of delightful verdure, cheerful gardens and broad, green, luscious pastures, down to the beautiful River Lee. On one side the river slides away towards the city with its towers and purple steeples; on the other it is broken by little waterfalls and bounded in by blue hills. How beautiful the scene is, and how rich and how happy." Such is the site of the Cork International Exhibition.

The buildings and gardens occupy a space of about forty acres.

The Canadian building is located in a central position, facing the river. The building is 60 x 80 feet, and has a fine arched entrance at either end. In the centre of the building are grouped the food products, canned fruits, meats, fish, game, vegetables, honey, maple syrup, etc., etc.; further along is the cold storage case, in which are

kept the perishable products, such as cheese, butter, eggs and meats. All one side of the building is devoted to the agricultural products. Standing out from the wall a distance of nine feet, are posts supporting the roof, these posts are fourteen feet apart and have been utilized as supports for arches, which have been made of grains and grasses, forming a sort of screen all along the grain section; around the base of the posts are grouped bottles of threshed grain. On the wall, directly opposite each arch is a large oil painting representing farm life in Western Canada, between the paintings, sheaves and bunches of grain are used to completely cover the wall. The screen is light and open and is festooned with riced grain.

Along the other side wall of the building are grouped the minerals and timber exhibits. The posts have been utilized to form a screen of woods, corresponding with the opposite side.

Altogether, this is one of the neatest and best arranged exhibition buildings that we have ever had.

Visitors to both the Wolverhampton and Cork Exhibitions are taking a deep interest in the exhibits from Canada, and after viewing these object lessons of the natural resources of our wonderful country, doubtless many of them will be impressed with the fact that there

is no better country for the homeseeker than the Land of the Maple.

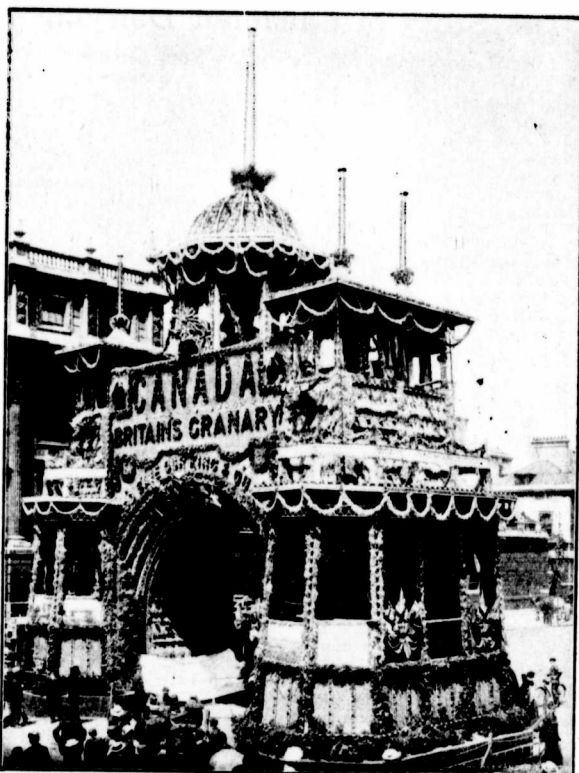
THE CORONATION ARCH

The Canadian arch in London was a great success and was probably the best advertisement Canada ever had for the money expended.

As I helped design the arch and had charge of the decorations, anything I may say about the success of the undertaking may seem like blowing my own horn, so I will quote briefly from an article appearing in the London Weekly Dispatch, under date of June 22nd. In reviewing the decorations along the route of the procession, the Dispatch says: "Perhaps the most notable and gorgeous of the many handsome structures is the Canadian Arch, which bridges Whitehall, and which bears in brilliant lettering the inscription, 'Canada, Britain's Granary,' 'God Save Our King and Queen.' Space, unfortunately, does not permit us to describe at any length this very magnificent emblem of colonial loyalty and work of artistic skill. Towering some eighty feet high are three domes, supported by very solid columns, prettily and tastefully arranged with alternate layers of oats and wheat sheaves. The whole is covered from top to bottom with myriads of colored electric lamps, ingeniously placed, and one may say, without fear, that



View of Agricultural Trophy, Canadian Exhibit, Wolverhampton, England.



The Canadian Coronation Arch, London, England.

this is the premier display of Coronation decorations."

Too much praise cannot be given to Lord Strathcona, Mr. Preston, Emigration Commissioner; Mr.

Scott, Exhibition Commissioner, and Mr. Smart, Deputy Minister of Interior Department, for bringing this undertaking to such a successful issue.

The Settling of New Ontario

By THOMAS SOUTHWORTH, DIRECTOR OF COLONIZATION.

The rush of settlers to the Canadian Northwest is attracting a great deal of attention in the newspaper press, not only of Canada, but of the United States. While our own newspapers are naturally pleased to chronicle the movement of population to our Western prairies, the sudden prominence given the matter in the United States press would be difficult of explanation, if we did not know that companies of the United States capitalists had obtained large holdings of land in Alberta, Assiniboia and elsewhere, that they desired to sell. United States land companies fully understand the "power of the press" in the United States and know how to direct it.

Without discussing the policy of disposing of the public lands in large blocks, there is no doubt that these companies will form one of the most effective agencies in the settlement of the West and prove of valuable assistance to the

Department of the Interior at Ottawa in attracting immigration.

While the rush of settlers to the West is kept prominently before the eyes of the newspaper reader, the settlement of the lands of the Crown in the Northern and Western portions of the Province of Ontario goes, solidly and steadily on, at a rate scarcely realized by residents of the parts of the Province.

Settlement in New Ontario is a different proposition from settlement in the Western Territories. A large community may transplant itself in a body to a prairie country without any special preparation of the land in advance; it may build its own roads, or use the prairie sod for the purpose and proceed at once to break up the prairie soil for a wheat crop. The problem confronting us in Ontario is a vastly different one. Densely tree-covered, as is most of New Ontario, the settler must count on the expenditure of considerable time and hard work before his land is ready for the plow.

The timber crop varies in the kind of trees and density of growth in different sections, and the Commissioner of Crown Lands, in opening lands for settlement, has to consider the question of disposal of this timber and to see that a local market is provided for the settler's first crop, the tree crop sown by Nature. So far, in our new settlements this market is very well arranged for. In the Rainy River Valley, railway ties and telegraph poles, and a ready sale to the Canadian Pacific and Canadian Northern Railways; fence posts sell at profitable prices for use in Manitoba, cordwood for fuel is used largely by the steamers on Rainy River and Lake of the Woods, while local mills convert pine, spruce, etc., into lumber for the settlers' own use and for sale in the West.

In Wabigoon District, on the main line of the C.P.R., where timber crop is very light, having been largely burned off years ago, the principal sale is for fuel and railway ties. A special freight rate obtained from the C.P.R. on cordwood affords a good market for it in Winnipeg, while the same railway company will take all the ties offered at fair prices.

In the Thunder Bay District forest fires have also rendered the work of clearing land easier than elsewhere, the principal timber being jack pine, or banksian pine, spruce, tamarac, poplar, and others for which there is a good local market, in Port Arthur and Fort William.

In the Temiskaming District, the timber is largely spruce, cedar, pine, tamarac, Balm of Gilead, etc., and as the whole section is drained by the Ottawa River and its tributaries, the market for timber is excellent.

In the matter of roads, also, the



A New Roadway in New Ontario.

The Story of Canadian Dairying

Its History and Progress During Four Decades

work of settlement in Ontario entails considerable expense and labor, far more than could well be borne by the settlers themselves. The process of making a good wagon road through a forest, through swamps, and over streams is slow and expensive and what this entails in our new districts may be seen from the fact that in the Temiskaming townships alone \$40,000 will be expended this season and this is for main trunk roads only that will not nearly reach the limits of the land located.

It will be readily seen that settlement, to be successful in a wooded country, must be steady and solid, and this the Commissioner through the Bureau of Colonization is trying to accomplish, by directing and advising intending settlers where to locate, by assisting them, so far as possible, to get established when they have selected a location.

Settlement in Ontario has so far been of a most excellent class. Very few European immigrants come to Ontario. The immigration from the British Islands is steadily increasing, but by far the greater number of settlers who have located in New Ontario during the past two years have been from Old Ontario, from the United States and from Quebec.

At this season of the year it is difficult to obtain complete returns of the settlement, but it may be of interest to know that up to July of this year there has been disposed of in Temiskaming, in Rainy River Valley and in Thunder Bay 1,006 locations, approximating 160 acres each, making in all about 160,960 acres. These locatees, with their families, represent a considerable addition to the population of New Ontario, without taking into account the settlement along the C.P.R. in Nipissing and Algoma, around Sault Ste. Marie, in Parry Sound or Wabigoon, nor the new arrivals in the villages and towns in the districts.

It is worthy of note, also, that these settlements are not scattered, but settled solidly so that roads, schools, churches, stores and other advantages follow pioneer settlement very closely.

The removal of so many Ontario farm laborers and renters to New Ontario has caused a temporary scarcity of farm labor in older Ontario, but plans are now being inaugurated by the Commissioner of Crown Lands to relieve the situation in this regard and the method of settling New Ontario being followed seems to me to be conducive to the best interests of the Province, and without incurring any heavy expenditure in immigration.

An Indiana gentleman has invented a beet thinner which has the marks of being something on the line of what is needed for this work. Two rows may be thinned at once with this machine. Knives may be set to this at any distance.

In the development of Canadian Agriculture there is no more interesting record than the history of dairying in Canada. Its rapid growth and the enormous importance to which it has grown and especially the cheese-making branch of it is without a parallel in the story of our material progress. And yet the rise and growth of dairying has been steady and sure, rather than rapid or sensational. It had a small beginning in the sixties and for many years attracted little if any attention. Success in the early days was by no means assured. Many, who engaged in it gave up the fight without achieving the rewards they deserved. But many persevered under all difficulties and their success has been of great benefit to the whole Dominion. It required indomitable courage, enterprise, patience and foresight to win success, without a wide knowledge of the business and lack of markets, of transportation facilities and of organization. The cheese-maker of the twentieth century has little idea of the unfavorable conditions under which the pioneers worked. Let the dairyman of to-day, with all his advantages in the way of dairy schools, dairy instructors, and dairy literature by a mental effort put himself in this position and he will realize what he owes to his predecessors of forty years ago, who won success and who thus added the greatest of all our industries to Canadian Agriculture.

THE FIRST FACTORY

The honor of having started the first Canadian co-operative cheese factory belongs to the late Harvey Farrington, of Oxford County. He did not gain his knowledge of the business by chance. For a number of years previous to coming to Canada he engaged in cheese-making in Herkimer County, New York State, where he was born in 1809. He was selected by his brother dairymen in those early days, for many responsible positions among them, being the selling agent for the local dairy association in New York City. Canada was at that time without cheese factories and was importing cheese for home consumption. Her conditions of soil and climate and her adaptability for the production of milk were known to many of the dairymen of New York State and among them Mr. Farrington. Realizing the importance of such a home market to the manufacturer of cheese, he moved to Canada in Sept. 1853, and settled at Norwich, Ont. His coming to Canada at that time was of the greatest importance to the future prosperity and progress of the Dominion.

A description of Mr. Farrington's first factory as given by his son Mr. I. L. Farrington, of Norwich, will not be without interest at the present time. It is as follows:

"My father came to Canada in September 1853. In that year he let the contract for his factory, and it was built during the winter. It stood on lot 10, concession 4, North Norwich. Manufacturing operations were commenced in the spring of 1864 and my father continued running it until his death. The factory was removed in 1888 to Harley, where it now stands near the station, being known as the Harley factory. My father put up two buildings, a factory and a dry house. The factory was a two story structure 30 x 38 feet. The curing house was three storeys 30 x 50 feet, entirely separate from the factory. Separate buildings were adopted, owing to the system then in vogue of holding all summer cheese."

THE FIRST MAKER

Though to Mr. Farrington is due the credit of operating the first co-operative cheese factory in Canada, he was not the first Canadian cheese maker. There is on record the history of a cheese factory built in the township of Blenheim, Oxford County, as far back as 1842 by Mr. T. H. Arnold, who also came from Herkimer County. His factory was a one story building, 80 x 100 ft. Mr. Arnold handled the milk from one hundred cows and made cheese both for himself and for the farmers of the neighborhood, giving them back cheese for milk, after the system carried on by the local grist mills. The cheese he made weighed about sixty pounds each and found a market in the city of Hamilton. In the light of present knowledge the method of making followed by Mr. Arnold is interesting. The curd was handled in large tin kettles or vats heated by a wood fire. When the whey was drained off, the curd was broken by hand, when everybody available turned in to help. The curd was pressed in vats by a wooden screw very different from what is now seen in the up-to-date factory.

There are accounts of other factories in those early days but Mr. Arnold's is the first one we have any record of. But his was not run on the co-operative plan and is not therefore so closely associated with our modern dairy system as the one started by Mr. Farrington in 1853. To the latter is due the credit of not only starting the first co-operative factory, but of advocating this system as a profitable one for Canadian farmers to engage in. He was enthusiastic and public spirited and early became a willing teacher to whom others came for instruction and counsel. He soon gathered around him a number of the most intelligent and energetic men of the district who at that time realized that the business introduced by Mr. Farrington was designed to become of great importance to Canada, though



A Modern Ontario Cheese Factory

doubtless none of them believed that the industry which he successfully inaugurated would reach its present magnificent proportions. Among others of those pioneers might be mentioned H. S. Losee, C. E. Chadwick, and T. D. Miller, and later E. Casswell, Frances Malcolm, Hugh Matheson, Benjamin Hopkins, and the Hon. Thomas Ballantyne. As far as we know the last named is the only one now living. It must be most interesting for him to look back over those early days and note the progress and advancement that has been made in connection with the industry which he has done so much to foster and promote.

THE MOVEMENT SPREADS

While Oxford County is justly entitled to the honor of being the birth-place of the modern co-operative dairy, other parts of the province were not far behind in following in her footsteps. Within a couple of years after Mr. Farrington started his factory in the West, a co-operative cheese factory was, through the efforts of the late Hon. Senator Reed put in operation near Belleville, which section has become one of the leading centres for cheese production in Canada. In the Brockville section a beginning was also made in those early days and to the credit of the dairymen of that district cheese on the Brockville market brings on an average as high if not a higher price than at any other market in the province.

DAIRYMEN ORGANIZE

From these small beginnings the movement spread rapidly and in a comparatively few years cheese-

making was looked upon as a thoroughly established industry in the country. In 1867 just three years after the first factory was started there were reported to be 205 cheese factories in operation in the province. So rapid had been the development that dairymen felt the need of organization and consequently in August of that year, the Canadian Dairymen's Association was organized at Ingersoll under most favorable auspices. At the initial meeting the important subject discussed was that of obtaining a steady market for the output of cheese which had already grown to large proportions. At that time there were only a few buyers purchasing cheese for the English market and the factory-men seemingly were not satisfied with the arrangement. At this first meeting a resolution was adopted authorizing the sending of a representative to Great Britain to act as selling agent for the factories. So far as is known this policy was never carried out and the plan of selling direct to Canadian buyers or to the representatives of English importing houses as is done to-day was continued.

The new Association became most active at its very inception. In 1868 a provincial act to protect cheese and butter-makers against watered, skimmed or adulterated milk was secured. In 1871 the Association held the first cheese fair at Ingersoll. This was followed in 1873 by the establishment of markets for the buying and selling of cheese. In that year also the Association was incorporated and in the following year, 1874, the first Government grant to enable the Association to carry on its work

with more efficiency was obtained. In 1877 the industry had so developed that it was thought advisable to have two Associations in the province and consequently the original organization was divided into one representing Western Ontario and another representing Eastern Ontario practically as we have them to-day. Through these Associations the work of instruction has been carried on until the present year when some instruction work under direct government control has been inaugurated. To the Associations, however, and the work they accomplished is due in a very large measure the present high standing of our dairy products in the markets of Great Britain.

As the industry progressed it began more and more to receive the attention of the Governments, both Dominion and Provincial. About a decade ago a dairy school was established in connection with the Ontario Agricultural College. This was the first school of its kind started in the province and was followed later by schools at Kingston and Strathroy, all of which are prominent in dairy educational work to-day.

IN QUEBEC.

Up to the present our story has dealt with the beginning and development of the dairy or rather the cheese industry in Ontario, which to-day holds the premier place both as regards the quality and quantity of its products. But the industry has made considerable advancement in several of the other provinces of the Dominion, notably in Quebec. In fact that province lays claim to a beginning in co-operative dairy work, very shortly after the business was started in Ontario. The industry has made rapid progress in that province and it has to-day as many if not more cheese and butter factories than the premier province of Ontario. The factories, however, are smaller and consequently the total output is not so large. In one or two features the Quebec dairymen have set the pace for the other dairymen of the Dominion to follow. As far back as 1881 a dairy school was organized in the Kamouraska district under Government supervision, which is claimed to be the first dairy



An Ontario Creamery.



A Nova Scotia Creamery.

school in America. In 1882 the Quebec Dairymen's Association was organized and a summer dairy school opened at St. Hyacinthe. In 1892 the present well-equipped school at that place was opened and has continued to give instruction to about two hundred and fifty cheese and butter-makers every year since. In 1889 the first syndicate of factories for the purposes of instruction and inspection was organized. In 1901 there were 12 syndicates employing 12 inspectors who visited 840 factories. In these two features the Quebec dairymen have shown a keen insight into the needs of the educational requirements of the industry at the present time and have set an example which others might well follow, especially in syndicate instruction work.

IN THE OTHER PROVINCES

Co-operative dairying in the other provinces of the Dominion practically had its beginning in the establishment of the Dominion

progressive work done in improving the quality of the product. A dairy school was conducted at Charlottetown, P.E.I., last spring. In Nova Scotia at the present time a traveling dairy school is being conducted on similar lines to the one carried on by the Ontario Department of Agriculture several years ago.

THE CO-OPERATIVE CREAMERY.

Inasmuch as up to the present time we have dealt more with the cheese-making side of the business, the story of Canadian dairying would be very incomplete without a special reference to the butter-making features. The co-operative creamery made its appearance about ten or twelve years after the first co-operative cheese factory was started. But progress since that date has been rapid. To-day Canadian creamery butter takes a very prominent place among our exports of food products. In so far as quality is concerned it occupies nearly as prominent a position in

dairying. But they have largely been of more recent date and are therefore familiar to our readers. There is, however, one feature of the legislation enacted in the interests of dairying that is worthy of special attention just here, inasmuch as in the increased interest in the advanced educational methods of the present time, its value to the industry may be lost sight of. Though our dairymen in those early days, to which we have already referred, copied the American system of co-operative dairying, they were sufficiently careful of their future reputation to copy only that part of it that was helpful and to discard everything of a dishonest or unsavory nature. As the industry progressed stringent laws were enacted to prevent the making of skim-milk cheese in the factories, or spurious dairy products of any kind in the Dominion of Canada. So effectively has this legislation been enforced that it is our proud boast that not one pound of oleomargarine or filled cheese is manufactured in Canada to-day. To this fact, in a very large degree, is due the prominent position Canadian dairy products occupy in the British markets at the present time and the gradual displacement of the American article in the good opinion of the English consumer. Of late years our competitors to the south of the line have been endeavoring to retrieve their lost position, but while we wish them every success in their efforts to control the manufacture of "bogus" butter and "filled" cheese it will be many a day before they have attained to Canada's present proud position in connection with the making of honest dairy products. The dairymen of to-day owe then a debt of gratitude to the dairymen of those earlier days who instituted this legislation that has been so effective in enhancing our reputation for honesty in dairy methods and practice.

HONORS ABROAD.

But it is not alone in the honesty of his product that the Canadian dairymen has shown himself superior to his American rival. On three occasions he has measured his skill with that of his Southern competitor and come off with the larger share of the awards in the cheese classes. At the Centennial Exposition at Philadelphia, in 1876, there were 100 awards, of which Canada secured 49 and the United States 45. At the World's Fair at Chicago in 1893, Canada had 687 exhibits and secured 607 awards and the United States 586 exhibits and secured 54 awards. At the Pan-American in 1901 Canadians also won distinguished honors. They secured the only gold medal awarded for cheese, exhibited from July 10th to November 1st and also the silver medal for exhibits of butter and cheese.

THE TWO WEAK FEATURES.

A feature of dairy educational methods of to-day is the increased attention given to the improvement of the raw product and the



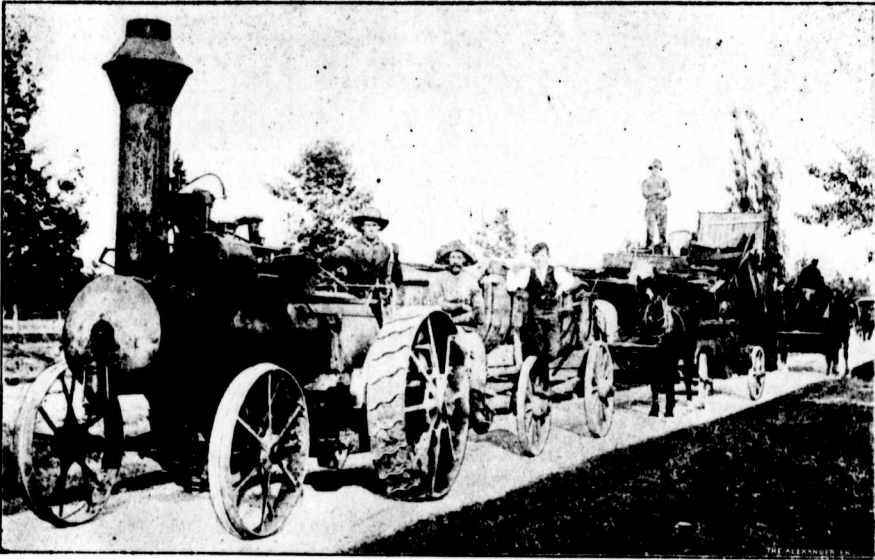
Picturesque Ontario.

dairying service at Ottawa in 1890. Previous to that date cheese factories had been in operation in the maritime provinces, but, with the exception of a few operated in the neighborhood of Antigonish, N.S., they had had a precarious existence. But after Prof. Robertson began his aggressive work at Ottawa, dairying in the outlying provinces began to make rapid headway. To-day in nearly all the provinces, outside of Ontario and Quebec, co-operative dairying has obtained a firm foothold and in many instances is the standby of the farmer. As the business became established the local governments took more interest in its development and in nearly all the provinces at the present time have assumed control of the educational work. At Winnipeg, Manitoba, and at Sussex, New Brunswick, there are dairy schools maintained by the governments of these provinces. Instructors are employed and ag-

gressive work done in improving the world's markets as that of cheese, while in quantity it is steadily assuming large proportions. In sizing up the situation in so far as these two branches of dairying are concerned, there is much more room for expansion in butter than in cheese. While Canadian cheese has about reached its zenith in so far as quantity is concerned Canadian butter is near the foot of the ladder. But there need be, nor is there any rivalry between these two branches. Since the inception of the winter dairying movement in 1894 these two branches have been brought into closer touch with each other and their interests made identical.

HONEST PRODUCTS.

Had we the space at our disposal it would be interesting to trace more in detail the movements, both governmental and otherwise, that have played important parts in the development of Canadian



James Watson's Threshing Outfit on the Road near Colinville, Ont.

curing and handling of the finished article. In earlier days these two ends of the business had not received the attention their importance deserved. The maker, and justly so, was looked upon as the important factor in our co-operative dairy system and consequently every attention was given to perfecting his methods of manufacture, to the neglect, he it said, of the patron's side of the business, and of the proper curing of the finished product. During the present season the establishment of central curing stations by the Dominion Government, and of two factory syndicates by the Provincial Government, opens up the way for greatly improving the methods of curing cheese and of bringing about more attention on the part of the patron in caring for the milk supplied to the factory. With these two features improved upon and placed in proper relation to the increased skill and knowledge of his business which the present day maker should possess, great advancement may be looked for during the next few years in the quality of the dairy products which the English consumers receive from this portion of the Empire's dominions.

WHAT OF THE FUTURE?

In this brief and necessarily condensed manner we have traced the chief events that have had to do with the development of Canada's most important industry—dairying. Our chief aim in placing these facts on record is to show that success in the past has only been attained by aggressive and determined effort, and if the dairymen of to-day wishes to carry the industry forward to still greater success he must ever continue to progress in his methods of making

and handling the product. There is no stopping place by the way in the march of good dairying. The watchword must be "forward." Any loitering by the way lessens our hold upon the British markets and places us in a disadvantageous position in so far as our competitors in other dairy countries are concerned. A better quality of milk delivered at the factories, better sanitary conditions and better equipment at our factories and better facilities for curing and carrying the finished product to the consumer are among the important features upon which improvement should be made at the present time. Every dairymen should bend his energies in this direction, and so co-operate with his neighbor and with others who are endeavoring to bring about this improvement, that the new era of good milk and good buildings and equipment may be ushered in at no very distant date. We trust that this simple story of what has been accomplished in the past will be an inspiration to him to go forward and perfect the superstructure of

good dairying erected upon the foundation so well and truly laid by the early pioneers in co-operative dairying in Canada. In the forward movement of the twentieth century their names should not be forgotten and should be held in reverence by every young man who is making good dairying the important feature of his life's work.

J. W. W.

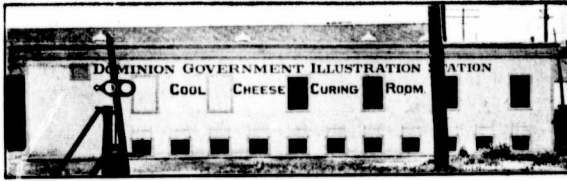
Curing Ring Bone

A Western exchange, in reply to a question, gives the following as a good treatment to apply to cure ring-bone:

Bimiodide of mercury, two drams; lard, one ounce; mix; apply well rubbed in for about ten minutes. Clip the hair and brush out all dirt from the place that is to be blistered. Tie up the horse's head so he cannot lay down or get his mouth to the foot for twenty-four hours; after the expiration of this time apply vaseline. Allow the freedom of the pasture for four weeks. Repeat treatment if needed.



After the Harvest. Barns Filled to Overflowing.



Government Cool Curing Station, Brockville, Ont.

The Government Cool Cheese Curing Rooms

By J. A. Ruddick, Chief of the Dairy Division, Ottawa

There are four of these cool curing rooms; one each at Woodstock and Brockville in Ontario and at Cowansville and St. Hyacinthe in Quebec. The ones at Brockville and St. Hyacinthe are cooled with ice, while at the other two mechanical refrigerations are employed.

The buildings are all designed on one general plan, but where ice is used there is a separate chamber, in which it is stored. The curing room proper consists of a basement 60 x 42 feet, 9 feet clear between floor and ceiling, and a little over half below the ground level. The stone walls, which do not rise above the surface of the ground, are laid with cement mortar, to make them waterproof. The



Dipping Cheese in Paraffin

floors are constructed of the best quality of Portland Cement Concrete. Inside the stone wall there is two ply of lumber and two ply of damp proof paper, with one air space. The walls above the stone work consist of 7 ply of lumber and 8 ply of paper, 4 ply of which are damp proof quality. The ceilings underneath the joists are made of 4 ply of lumber, 4 ply of paper and one air space. Above the joists there is a double flooring with 2 ply of paper. The spaces between the studding and joists are filled with planing mill shavings, except in the case of the Woodstock building.

The ice chamber is placed at one end of the building, but does not

go below the ground level, which brings the floors of this chamber about 4½ feet above the level of the floor of the curing room. The insulation of the ice chamber is rather better than that of the curing room, and differs in one respect, inasmuch as the concrete floor under the ice chamber is thoroughly insulated, and finally covered with galvanized iron to make it watertight.

The upper story of the building is not insulated except a compartment used for a boxing and shipping room. The rest of the flat is utilized for office, receiving room, storage of boxes, etc. The floor of the shipping room is on a level with the floor of a railway car standing on the track alongside.

The plan for utilizing the cooling power of the ice is simple and effective. Placed just above the floor level of the ice chamber and about 4½ feet above the floor of the curing room, are three openings 18" x 9", through which the cold air flows into the curing room. The warm air returns to the ice chamber through three flues 18" x 9", running the length of the curing room just under the ceiling and rising to the top of the ice chamber. There are several openings in these flues, which being fitted with slides enable those in charge to regulate the temperature so well that it does not vary two degrees in different parts of the room. The ice is not covered in any way, so that the air passing over it is readily chilled and purified to some extent. The insulation of the chamber is depended on to prevent undue waste of ice.

The mechanical refrigeration at Woodstock and Cowansville is effected with a vertical, double cylinder single acting ammonia compressor of the Linde British type, using the brine tank system for cooling. There are two of these tanks, 15 feet long, 3 feet deep and 1 foot wide, placed near the ceiling about the centre of the room. A wooden casing surrounds the tanks with openings at the top and bottom, through which the air circulates. The tanks are filled with a saturated brine that is chilled by direct expansion pipes submerged in it. The advantage of the tank system lies in the reserve of cool-

ing power which is provided after the compressor is shut down.

It is not my intention at this time to attempt to give any of these results of curing cheese in these cool curing rooms. That will be dealt with in an official publication later on when the season's operations are over. I may say that the temperature is kept at 55 to 58 degrees. We have found that as soon as the temperature goes above 60 the cheese begin to show something of the character of "heated" cheese.

I wish to emphasize one point. These buildings were not planned for cold storage purposes. If they had been the insulation would necessarily have been different from what it is. The cement floor would



One of Ontario's Beauty Spots

not be at all suitable for a cold storage room, a creamery refrigerator or other place where comparatively low temperature is required. It has a constant natural temperature of 55 to 60 degrees, which happens to be just the point we are aiming at in the curing of the cheese, but for lower temperatures it would act as a heater and make refrigeration both difficult and expensive. For the purpose of the cool curing rooms, however, it is very useful, and it assists materially in keeping the temperature down.

Sample copies of The Farming World will be sent to any address free of charge, upon request. Send us the name of a friend who does not subscribe and we will send the paper for two weeks free on trial. Address, The Farming World, Toronto.



A Group of two-year-old Steers, Property of R. McClements, Moore Township, Ont.

The First Importation of Shorthorns into the Guelph District

By Lieut.-Col. McCrae, Guelph, Ontario

Shorthorns are known the world over as the leading British breed of beef cattle, and here in America they still hold first place, though the Whitelaced Herefords and the well-fleshed "bonnie blacks" sometimes run them hard, both in the showing and on the block. Here in Ontario they stand first as a beef breed and none of their rivals are given a close second. They are the breed that gave Guelph and the County of Wellington a reputation for first-class beef cattle. They have made the Wellington district famous for good beef, not only in our own Province, but all over our Dominion and in lands beyond the seas. The coming of the Shorthorns to Guelph is the story now to be told, not, indeed, for the first time, for it is well known to many, while to others it may be new, it yet to all will help to show how much may be done for a district by one man's enterprise.

Guelph was founded in 1827, by John Galt, the agent of the Canada Company. He has told in graphic terms of his party making their way through the woods, seeking for the site where two streams, tributaries of the Grand River, met and mingled their waters. Of their losing their way, getting an Indian guide, and in the evening reaching the place and cutting the first tree on St. George's Day, 23rd of April, 1827. Some four years after there came to the new town a young Englishman, Roland Wingfield, who spent some time hunting and fishing and enjoying the life in the woods. He decided to remain and began farming and purchased in the Township of Pashinch, about five miles from Guelph, four hundred acres of finely-timbered land. Along one side of this property runs the River Speed, and just over the river is the farm of Woodlands, now the residence of Oswald Sorby, the well-known breeder of Clydesdales and Hackney horses. Having bought the land, the next thing was to get a clearing, and he began by having 20 acres sloping down to the river cut and cleared and let the contract for the section of a small log house and a log barn. This done, he went back to England for the live stock for the farm. In the early spring of 1833 he left Eng-

land with a full stock of the new Pashinch farm, horses, cattle, sheep, swine, poultry, etc. With the fittings and doors for his new house, doors of oak, heavily ironed to resist any sudden attack by Indians, iron window frames and bolts and locks of best quality. He had also some farmers and their families and stockmen to take good care of his cattle, etc.

The cattle were Shorthorns of the best and all pedigreed. In making his selection he is said to have had the help of Rev. Henry Berry, of Worcestershire, himself a breeder and one of the best judges of Shorthorns at that time in England. The ship was a small sailing vessel, and after a long passage landed the stock at Montreal, the first Shorthorns to reach that port as far as is known. Some seven years before, in 1826 or 1827, the New Brunswick Branch of Agriculture brought over four bulls to that province, but no females. Some had been brought the year before, 1832, from the U. S. One noted cow to St. Catharines and a pair to St. Thomas, but these did not remain in that country, but

were sold at once to United States buyers.

Rowland Wingfield was, therefore, the first to bring into Canada a good herd; six cows and two bulls of the Shorthorn breed. Landed at Montreal, they were driven on foot through the streets, and quite a procession they made, and out to Lachine so as to get above the rapids. There they again took boat and this time for Bytown, now Ottawa, and from this city they came through the Rideau Canal, then building to Kingston, and thence by flat-bottomed boats to Hamilton, at the head of Lake Ontario. From there they walked some 30 miles through the woods to their new home at Guelph. They were splendid animals, large, massive, broad backs, like tables. So say those who have seen them or heard about them from others. No doubt, they would seem very fine when compared with the few cows and working oxen then seen about Guelph, but the tale of many, is that they were the best that ever came to Guelph, and that is saying a great deal. Some were roans and, at least, two were red and white.

Mr. Wingfield did not keep them long. A few years after he went into politics, ran for Parliament, was defeated, and sold farm-stock and all to the late John Howitt, of Guelph. Meantime, the settlers in Guelph Township, in Eramosa, in Nichol, in Waterloo and other adjoining townships availed themselves of the new blood, and very soon a wonderful improvement in the cattle was seen. One of the first bull calves went into Waterloo, and in 1837 was bought by Mr. Tolton, of Eramosa, from the Waterloo farmer. It was the year of the rebellion and the paper currency was, by some, thought to be suspicious, and the seller stipulated that the price of this bull, \$127,



Canoeing on Muskoka Lakes

was to be paid in silver. He was willing to wait for his money, but he must be paid in coin. Mr. Geo. Tolton, of Guelph, well remembers his numerous trips with the silver tied up in a bag, and the boy sent time and again, as the money came in, taking it to the farmer in Waterloo, till all was paid. The price was thought to be an enormous one, but the result showed that the buyer was wise, as he made \$117 the first season in fees and prizes. This bull "Adonis" was a fine stock getter and was sold to the United States some years after.

Mr. Howitt kept the Shorthorns for many years. In those days, Lord Elgin was Governor-General and coming through Ontario, he stayed a night in Guelph, heard of the cattle, and early in the morning walked out to Mr. Howitt's farm from Guelph to see the Shorthorns. He was evidently a good judge and took a great interest in the cattle he saw. The following year there was a show at Niagara, and the Shorthorns were taken on foot to Hamilton, and thence by boat to Niagara. The

Governor, in going the rounds of the show with a party of Americans, when he came to Mr. Howitt's cattle, knew them at once, and called special attention to them. The result was, that very soon Mr. Howitt had customers from the blue-grass region of Kentucky.

The first Provincial Exhibition was held in Toronto in 1846. A report in the Cultivator, of November, 1846, says: "The show of thorough-bred Durham cattle exceeded the expectations of every man who visited the grounds. Mr. Howitt's stock, of Guelph, was admired by all, and was eagerly bought up by gentlemen from the various districts of the Province. A three-year-old heifer, owned by Mr. Howitt, was purchased by John A. Walton, of Peterboro, for which the latter gentleman paid the very handsome sum of £57-10s., and for a two-year-old £25."

The impetus given by this importation has been the means of making the Guelph district the best in the Dominion for best cattle.

For many farmers to see that the changed conditions make it imperative that to a certain extent they change their treatment of the flock. Some years ago cattle paid fairly well if wintered at a strawstack, and without other shelter; sometimes, in favored instances, to have a little hay during the last few weeks before they went on grass. But with the change in marketing conditions, cattle, in the grazing districts particularly, are treated very differently, getting much more care and attention. Ensilage, and grain as well, is fed liberally, and the cattle are comfortably stabled. This change was necessary in order to secure a profit from transactions in the feeding of cattle. And just as certainly it is necessary that the flocks have different treatment, yet it can be done with very much less expense and labor, no such expensive buildings are required for their protection. The work in attending them is much lighter. In fact, with reasonable conveniences, the work of attending a small flock of sheep is a very trifling affair.

It would be a mistake to have the sheep supplant the cattle and pigs on a farm, but keep a small flock for the pleasure of having something that will give a nice profit without too much labor and worry.

Canadian farmers are very fortunately situated in having at hand for a moderate price, the best specimens of the mutton breeds of sheep, to improve and build up their flocks, to be had anywhere, and to their credit be it said, they have largely availed themselves of the opportunity, even more so than with other breeds of stock, and it is an exception to find a flock of sheep not showing a preponderance of improved blood. Some, unfortunately, have done too much crossing or mixing of the breeds. Our Canadian climate, soil and herbage are such as to give the highest results from any one of the breeds, but disaster often follows too much mixing of those breeds. To be sure, grand results often follow the first cross. But stop there. When we go further, we must expect indifferent, and often disastrous, results. To be sure, if one has a flock of the long-wool type, and wishes to change them to the fine-wool grades, he can, by persistent crossing of the best of one of the fine-wool breeds, succeed without changing his foundation stock, but he must stick to the breed with which he starts to cross, and not use a Shropshire one year and an Oxford Down the next, etc. If he wishes a fine-wool flock changed to the long-wool type, and begins with a Cotswold, a Lincoln or a Leicester, continue with the kind commenced with.

A friend of mine who is a very close student of farm economy, and who has a farm, purchased a few years ago for \$80.00 per acre, and who for several years handled

Why Don't Farmers Keep More Sheep?

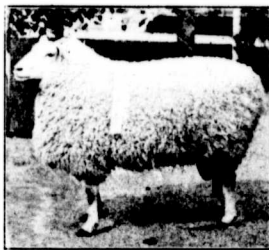
A Profitable Branch of Live Stock—Require Little Labor to Handle and Care For

By A. W. SMITH, MAPLE LODGE ONT

When one considers the chances of profit, the many advantages to be derived therefrom, and the comparative ease with which a flock of sheep may be handled on the ordinary farm, it seems difficult to understand the fact that the number of farmers at the present time, who keep a flock, has decreased very much during the last twenty years. Under present conditions, there are very few farms upon which a flock of sheep may not be kept with as much profit and less labor than any other kind of stock. And just now, the latter consideration is a very important one. Competent help on the farm is decreasing more rapidly than the flocks of sheep, so that four-fifths or more of our farmers are compelled to overcome the necessary work on the farm within their own families, or by co-operation with their neighbors. Viewed from this standpoint, it seems all the more difficult to understand the decrease in the number of our farm flocks.

There are drawbacks, or obstacles in the way of the best results from the sheep-fold that can and must be removed.

One of these, and a very important one, too, is the "dog nuisance." In this matter some enactment and enforcement of law to protect sheep from destructive curs is imperative. No matter how valuable a dog may be considered by its owner, the owner has no right to keep him as a public nuisance, or as a menace or



"Simon Smart" First Prize Leicester Ram at the Toronto Industrial, 1901, and at the Pan-American. Bred and Exhibited by A. W. Smith, Maple Lodge, Ont.

means of destruction to his neighbors' property. And the sentimentalism that he is "man's best friend," does not lessen the crime of keeping him at large if he is the neighbor's worst enemy.

Another drawback to the best returns from the sheep-fold is the care—or lack of care—and the treatment they too often receive. On many farms, both in Canada and several of the States, sheep have been kept as a kind of by-product, from which to expect all that can be got, with the smallest amount of attention or care. But through all the discouragements and ill-treatment they have persisted in being profitable. Years of training and habit are hard to overcome, and it seems so difficult

cattle for export on his farm, very profitably increasing his bank account each year, has for the past few years, been feeding sheep in preference, on a part of his farm, and he assures me, with more profit, when the cost of labor is considered.

good profit over their cost for keep, in wool alone, and even now, the wool goes a long way towards paying for the winter feed of the flock.

The demand for mutton, and especially for lamb, has increased enormously in America, and with

ness, every effort has been put forth by the Live Stock Associations to give assistance in the problem of transportation.

The endeavor has been 1st to induce the railway companies to reduce the rates to the lowest possible point, and 2nd to give assistance so that animals sold in single lots, to different individuals, could be gathered together in car lots, where the point of delivery is a long distance from the place of sale. By the association taking charge of these shipments and assembling them into car lots the different shippers obtain the benefit of the car load rate. The live stock in the car receives proper attention from the attendant in charge and the animals are delivered in as good condition as when loaded. In order that the cost may be as light as possible to the different shippers, the car is started at the farthest point along the line on which stock is to be loaded and is consigned through to the farthest point at which any of the stock is to be unloaded. Arrangements are made for the necessary stops for loading and for unloading at intermediate points. Stock not already at a point on the direct line is shipped to the nearest junction point for loading, and stock to be delivered at some point off the direct line is reshipped from the nearest junction.

As an example of the saving to individual shippers, the freight on a bull under six months, shipped in one of the association cars to the West, would be \$8.00, \$9.00, \$10, (not including stops) to Winnipeg, Moose Jaw, and Calgary, respectively, while if billed through as a single shipment it would cost \$18, \$29.30, and \$35.50 to the same points respectively not including the expense of man in charge.

The concessions obtained from the railway companies are as follows: In 1897 the classification for pure bred cattle, in less than car lots, in Ontario, was reduced about one third. The railway companies also agreed to carry pure bred stock without a man in charge be-



Stocker cars at Peterboro, Ont., ready for shipment in the Association Car for British Columbia.

Photo kindly loaned by C. H. Hadwin, the Associations' Western Representative.

And then, undoubtedly, Canada is to be the breeding ground for the stock sheep of this continent, and possibly to some extent South America as well. Our great natural advantages for raising the highest type of sheep of the mutton breeds especially, give us the advantage Great Britain has enjoyed in supplying the world with breeding stock.

A few years ago sheep paid a

the present prices, comparing very favorably with the extraordinarily high price of beef and pork. The cost of production is much less, and the fleece is to the good. With the tremendous decrease in the numbers of sheep produced, rendered necessary by climatic conditions in Australia and other places, surely we may reasonably look for an increase in the flocks kept in our own country.

The Dominion Live Stock Associations

Some Important Features of Their Work. Reduced Railway Rates for Pure Bred Stock.

By A. P. WESTERVELT, SECRETARY.

The Sheep Breeders' Association was organized in March 1889, the Swine Breeders' Association was organized in September 1889, and the Cattle Breeders' Association in April 1892; it was reorganized in 1895. The membership of these associations in ten years has grown from 134 to 2,204. Before their organization live stock men were scattered units throughout the country, while at the present time they consist of a strong corporate body composed of all the breeders of pure bred stock in Ontario, and are in a position to advance their interests in every respect.

There is a broad field in the development and extension of trade and every effort is being made to assist this work. One of the most important considerations in connection with trade and commerce is the question of transportation. As to whether it is possible to work up a trade in certain branches and in certain localities depends in many cases on the transportation facilities, the profit in many lines depends to a great extent

upon the cost of transportation to the point of final delivery, and it is not only a matter of delivery—it is



Photo loaned by C. H. Hadwin.

Stocker Calves for British Columbia Awaiting Arrival of Association Car.

a matter of delivery in good condition. Realizing the importance of this feature in the live stock busi-

ness, every effort has been put forth by the Live Stock Associations to give assistance in the problem of transportation. The endeavor has been 1st to induce the railway companies to reduce the rates to the lowest possible point, and 2nd to give assistance so that animals sold in single lots, to different individuals, could be gathered together in car lots, where the point of delivery is a long distance from the place of sale. By the association taking charge of these shipments and assembling them into car lots the different shippers obtain the benefit of the car load rate. The live stock in the car receives proper attention from the attendant in charge and the animals are delivered in as good condition as when loaded. In order that the cost may be as light as possible to the different shippers, the car is started at the farthest point along the line on which stock is to be loaded and is consigned through to the farthest point at which any of the stock is to be unloaded. Arrangements are made for the necessary stops for loading and for unloading at intermediate points. Stock not already at a point on the direct line is shipped to the nearest junction point for loading, and stock to be delivered at some point off the direct line is reshipped from the nearest junction. As an example of the saving to individual shippers, the freight on a bull under six months, shipped in one of the association cars to the West, would be \$8.00, \$9.00, \$10, (not including stops) to Winnipeg, Moose Jaw, and Calgary, respectively, while if billed through as a single shipment it would cost \$18, \$29.30, and \$35.50 to the same points respectively not including the expense of man in charge. The concessions obtained from the railway companies are as follows: In 1897 the classification for pure bred cattle, in less than car lots, in Ontario, was reduced about one third. The railway companies also agreed to carry pure bred stock without a man in charge be-

tween points east of Fort William, At the same time the freight rates on car lots for pure bred cattle,

sheep and swine from Ontario to Manitoba and the Northwest were reduced to the following: Winnipeg \$72.00, Regina \$90.00, and Calgary \$114.00. The rates in force before that time were, Winnipeg \$130, Regina \$164, and Calgary \$202. It was also arranged that stock need not be loaded at one point but that stock might be picked up at different points on the direct line for a nominal charge for each stop. The same arrangements were made for unloading in the West. These rates and arrangements make it possible to conduct systematically the shipments of the association cars, particulars regarding which have been given. The above rates to Manitoba and the North-West are the rates now in force.

In 1898 the rates on registered cattle, sheep and swine were further reduced. The estimated weights were returned to the original classification which was used previous to 1897, but it was arranged to accept live stock for shipment at one-half the regular tariff rate. The rate to British Columbia was also reduced to \$251. There is nothing which has been of more benefit to breeders of pure bred stock in this province than the rates obtained at this time.

In 1899 the rate to British Columbia was reduced to \$190. Arrangements were also made with the railway companies that registered calves, sheep and swine, when shipped in lots of over three, might be loaded in a car without being crated, simply being penned in one end of the car.

In 1900 the rate to British Columbia was reduced still further, the rate at the present time being \$150 to the coast, unless it is necessary to make part of the route by water, in which case an additional \$25 is charged. This is the rate now in force.

These rates have been the means of bringing far away markets closer to breeders who have stock to sell in Ontario, and during the past few years have given the trade in pure bred live stock a great impetus. With the organizations now existing in the different provinces for procuring and filling orders the trade is now on a much more systematic and satisfactory basis than ever before.

Eastern Poultrymen

The Eastern Poultry Association met at Ottawa during the exhibition, when the prize list for the coming winter show was discussed. The entrance fee was raised from 25 cents per entry to 50 cents. Messrs. Sharpe Butterfield and Wm. McNeill were appointed judges on poultry and Mr. Chas. Waggoner judge of pigeons. It is the intention to have the poultry show in connection with the live stock sale. Mr. F. C. Hare, chief of the poultry division, Department of Agriculture, Ottawa, addressed the meeting as to the needs of the export poultry trade.

A Benefit to Farmers

The benefits that will undoubtedly result to farmers from the recent incorporation of the International Harvester Company which took over the business of the five leading harvester manufacturers have probably not been considered by a large portion of the farming community.

The economical necessity of a consolidation of the interests of manufacturers and those of their farmer customers must be apparent to any one who understands the present situation.

The increased and increasing cost of material, manufacturing and selling—the latter in consequence of extreme and bitter competition between manufacturers and their several selling agents—has made the business unprofitable.

The two alternatives left for the manufacturers were either the increasing of the prices of machines or the reduction of the cost of manufacture and sales. The latter could only be accomplished by concentrating the business in one company.

As can readily be seen, the forming of the new company was not a stock jobbing operation but a centering of mutual interests. There is no watered stock; the capitalization is conservative and represented by actual and tangible assets. There is no stock offered to the public, it having all been subscribed and paid for by the manufacturers and their associates.

The management of the International Harvester Company is in the hands of well-known, experienced men.

The officers are: President, Cyrus H. McCormick; Chairman Executive Committee, Charles Deering; Chairman Finance Committee, George W. Perkins; Vice-Presidents, Harold F. McCormick, James Deering, Wm. H. Jones and John J. Glessner; Secretary and Treasurer, Richard F. Howe. The members of the Board of Directors are as follows: Cyrus Bentley, William Deering, Charles Deering, James Deering, Eldridge M. Fowler, E. H. Gary, John J. Glessner, Richard F. Howe, Abram M. Hyatt, William H. Jones, Cyrus H. McCormick, Harold F. McCormick, George W. Perkins, Norman B. Ream, Leslie N. Ward, Paul D. Cravath.

The International Harvester Company owns five of the largest harvester plants in existence, The Champion, Deering, McCormick, Milwaukee and Plano—plants that have been producing nearly or quite 90 per cent. of the harvesting machines of the world.

It also owns timber and coal lands, blast furnaces and a steel plant; it has a new factory in the process of construction in Canada.

It is believed that the cost of producing grain, grass and corn harvesting machines will be so reduced that the present low prices can be continued, and that consequently the results cannot be other than beneficial to the farmer.

To maintain the present prices of these machines means to continue and increase the development of the agriculture of the world, for no one cause has contributed or can contribute more to this development than the cheapness of machines for harvesting grains.

Early Maturity of Hogs.

That the hog is one of the most profitable products of the farm to-day is a fact that none dispute, and when considered as a partial by-product of the dairying industry the profits of hog raising are still more apparent.

Early maturity is the most important point to be considered in the raising of hogs for profit. If a hog becomes stunted or crippled from over-feeding he will suffer a serious setback that will retard his growth and materially reduce the margin of profit to the feeder. The Ingersoll Pork Packing Company, of Ingersoll, Ont., say that their experience goes to show that by the use of Herbageum when feeding hogs a thrifty growth may be maintained, and that much less time is required to bring them to a marketable condition. Many practical farmers report that they have found Herbageum to make at least one month's difference in the maturity of hogs, or to put it in their own words, 'It makes five months' feeding equal to six.'

Quite an interesting experiment was made along this line recently by Mr. J. J. Newton, proprietor of the Hollywood Hotel, of Norval, Ont. Mr. Newton carried on a wholesale butchering business in Toronto for some years, and his report of the matter may therefore be considered as coming from a man who has a knowledge of these things. His report is as follows:—

NORVAL, Ont., July 7th, 1902.

"I had sixteen pigs that were off their feed, they seemed to be completely stunted, their backs were bumped up, their hair stood straight up and they were in such bad shape generally that I offered the lot of sixteen at \$45.00, but was unable to sell them even at that price. My hostler advised me to feed them Herbageum, saying that he had known similar trouble to be overcome by its use. I consented to make a test of the matter and in a few days the pigs were feeding all right. In a short time they took on a thrifty appearance, and at the end of sixty days of feeding Herbageum I sold the lot for \$168.00. I am prepared to make affidavit as to the correctness of this statement."

JOHN J. NEWTON.

The Beaver Manufacturing Co., of Galt, Ont., are the manufacturers of Herbageum, and they guarantee that Herbageum does not contain arsenic, antimony, copperas, saltpetre, resin or any drug that acts directly on the system of the animal, but that it is purely aromatic and simply an aid to digestion.

The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep and Swine Breeders' Association, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders', \$1; Sheep Breeders', \$1; Swine Breeders', \$2.

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and profitable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the next condensed form.

A. P. WESTERVELT, Secretary,
Parliament Buildings, Toronto, Ont.

List of Stock for Sale.

DOMINION CATTLE BREEDERS' ASSOCIATION.

Shorthorns.

Smith, J. J., Enniskillen.—1 bull.

DOMINION SHEEP BREEDERS' ASSOCIATION.

Shropshires.

Malcolm, James, Collingwood.—20 lambs, both sexes.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

Wanted—A man and wife to work on a farm in Muskoka. Man must be sober, trustworthy, reliable and capable of looking after the work; do general farm work; look after the horses and help with milking; a good ploughman required and one with some experience of farm machinery preferred. Wages \$17 per month or \$200 per year board included. Wife to help with house work for board. Three of family. No. 128. b.

Wanted immediately a good, steady, reliable man who has had experience in care of Shorthorn cattle to act as herdsman. No. 124. b.

Situations Wanted.

Wanted.—A situation as housekeeper in a small family. Single man or widower preferred. Applicant experienced, capable and trustworthy. Can supply good references. No. 606. a.

Domestic Help Wanted

Wanted—A servant girl to do general house work on a farm. For full particulars apply to John Dick, Britton, Ont. No. 129. b.

N.B.—Where no name is mentioned in the advertisement, apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

Farmers' Institutes.

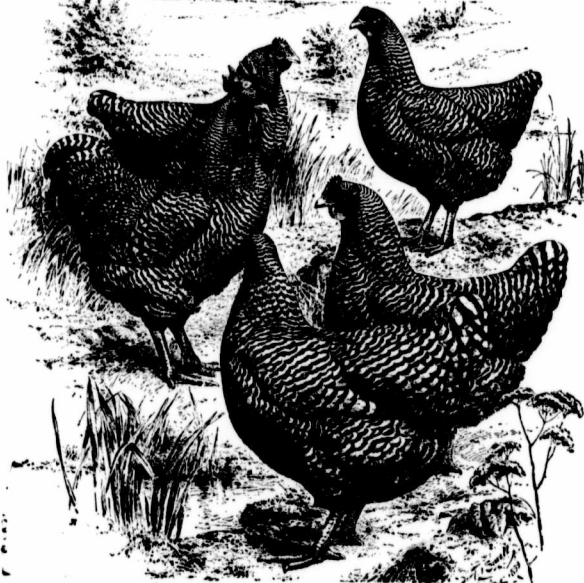
Under this head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instructions to secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institute that has carried on the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes

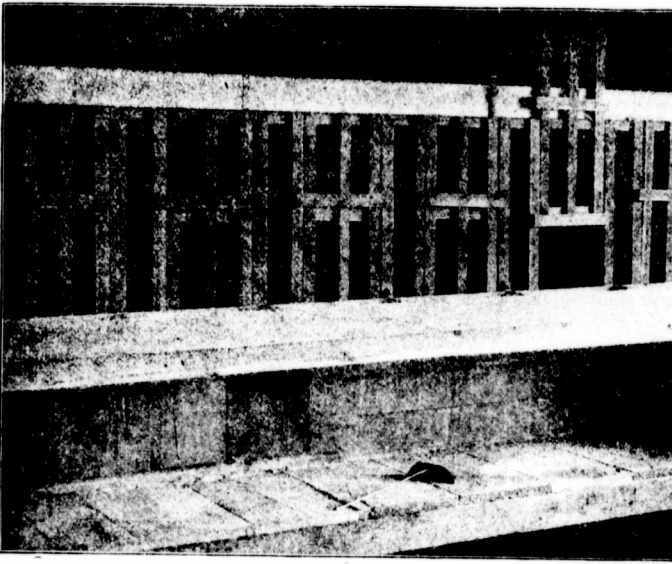
Tent of Farmers' Institutes and Live Stock Associations at the Toronto Fair.

A tent for the accommodation of members of the Farmers' Institutes and Live Stock Associations will be located, as usual, near the cattle ring on the grounds of the Toronto Industrial Exhibition, September 1st to 13th. Mr. G. C. Creelman, superintendent of Farmers' Institutes, and Mr. A. P. Westervelt, secretary Ontario Live Stock Associations, will be in the tent each day from 1.00 p.m. to 5.00 p.m., and will be pleased to meet any one connected with the Farmers' Institutes of Live Stock work.

The tent will be provided with seating accommodation, and will be at the disposal of the Agricultural and Live Stock Associations for the purpose of meetings.



A Good Farmers' Fowl. The Pullets are Good Winter Layers, and the Cockerels Fatten well.



Poultry Fattening Crates, in use at the O.A.C.

Writing supplies will be provided, and it is hoped that those interested may make their headquarters while attending the exposition.

The following Meetings will be held in the Institute tent:

Tuesday, Sept. 9th, 2:00 p.m., Executive Committee of the Canadian Association of Fairs and Exhibitions.

Wednesday, September 10th, 11:00 a.m., Executive and Editorial Committees of the Ontario Fruit Growers' Association.

Wednesday, Sept. 10th, 3:00 p.m., Board of Control of the Experimental Union.

Thursday, Sept. 11th, 11:00 a.m., The Turkey Club.

Poultry Notes

A Visit to the Poultry Farm of G. R. Cottrelle, a Member of the Farmers' Institute Staff.

It was our pleasure last week to call and inspect the premises of Mr. G. R. Cottrelle, of Milton. He is one of our regular poultry lecturers on the Farmers' Institute staff. Mr. Cottrelle, although being a general farmer and having one of the cleanest and best cultivated farms in the county of Peel, has given a great deal of his attention to poultry raising, and in his Farmers' Institute work has devoted his entire time to the subject. Mr. Cottrelle is a man who combines absolute practical experience with the most up-to-date theories and ideas on poultry business. He has several breeds of chickens on his farm. From the Mediterranean classes he produces in winter and early spring a large number of eggs when the markets are good and with the Barred Rocks and Wyandottes he supplies the market with a first class quality of poultry flesh.

In order that his incubator work and his hatching may be as successful as possible Mr. Cottrelle has his best selected breeding stock placed in small breeding pens on different parts of the farm. This insures absolute purity of breed and Mr. Cottrelle thinks by isolat-

ing them and having them in smaller numbers he gets a greater number of fertile eggs and a larger percentage of healthy chicks than having all his poultry in one yard. At the present time in order to get his birds ready for exhibition purposes the mature stock are almost entirely fed on bran and water, this non-heating food causes the hens to stop laying in the fall when the eggs are low priced, and as they start moulting earlier are in good shape for exhibition purposes.

The young stock, not kept for

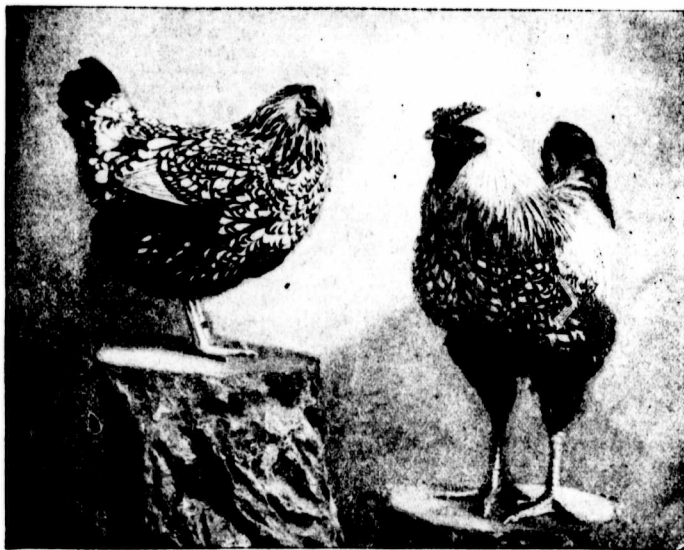
breeding purposes, are at present being fattened in crates. These birds are about three and a half months old when put in and are then forced for three weeks at which time they are ready for market. They are fed on a mixture of two parts of oat-meal to one of corn meal, mixed with milk; this is placed in a trough three times a day and the chickens are given all they will eat of it so that none is left over to sour. In the fattening process Mr. Cottrelle aims to keep the chickens growing rapidly from the time of hatching and does not give them the run of the farm; they are kept in a moderate size yard and fed all they will eat. In this way the birds do not develop a great deal of bone and at the time of fattening they possess a maximum of tender flesh with a minimum of bone. For these Mr. Cottrelle has been able to obtain the highest market prices, prices indeed which might perhaps surprise farmers who do not take the trouble of fattening their chickens in the proper way. The house where the fattening coops are kept have the windows darkened so that the chickens are kept as quiet as possible. To keep them free from vermin the crates and the whole of the interior of the poultry house is sprayed every week with a mixture of crude carbolic acid, one cup full to a pail of water.

The general stock are given the run of an orchard of from two to three acres, and it might be said in passing that this orchard is loaded with the finest crop of clean fruit, the freedom from insects being due no doubt to a great extent to the work of the chickens about the trees. Just before going to roost the chickens in the orchard are given wheat from the sheaf. This gives them exercise in scratching at the wheat and sends them to roost with a full crop.

This information given by Mr. Cottrelle on our short visit is just the sort that should be valuable to our farmers all over the country. No doubt many of our readers have had the pleasure of hearing these matters discussed at Farmers' Institute meetings. Early next month Mr. Cottrelle leaves for a two months' trip to the Western provinces and to British Columbia where he will act as poultry judge at the fairs and as Farmers' Institute lecturer along poultry lines.



A Good Trio of Silver Grey Dorkings. A Splendid Table Fowl.



A Pair of Well-Shaped Wyandottes.

A New Era in Dairying for Ontario

By G. C. CREELMAN

One would have thought that when this country reached the stage whereby it produced twenty-five million dollars' worth of manufactured dairy products it had overcome pretty nearly all the difficulties in the business. It was rather surprising therefore, to the uninitiated who attended the annual meetings of the Eastern and Western Dairymen's Associations, held at Whitby and Woodstock in January last, to learn that there were enormous quantities of poor butter still made in the Province of Ontario, and hundred of tons of cheese that were not quite up to the mark.

WHO IS TO BLAME?

The consensus of opinion at the Dairy Conventions seemed to be that there were two reasons why our dairy products were not of better quality when they reached either the home or foreign market. The first cause for complaint was with the makers. Many were either inexperienced or old fashioned, and were not making a good product. In the second place the patrons were to blame. The cows were not of the right stamp; were not properly fed and cared for; the utensils in which the milk was handled were unclean; the milk was kept in unsanitary places, or the milk was tampered with. At any rate in several sections of Ontario our dairymen reported that our cheese was going off in flavor, and that the people in the Old Country were beginning to complain about it.

AN EXPERIMENT IN METHODS OF INSTRUCTION.

The two Associations have for

years been sending instructors as far as their means would allow, to the different factories in Ontario. The instructors, however, in many instances acted more often in the capacity of a detective than a teacher. Each man had also, as a rule, so many factories under his jurisdiction that it was impossible to visit them more than once or twice a year. Realizing all the difficulties in the way under the present system the Department of Agriculture decided to try an experiment, and before the factory season opened the Hon. Mr. Dryden had made arrangements for instruction in all creameries east of Toronto by Mr. J. W. Hart, superintendent of the Eastern Dairy School at Kingston, and all creameries in Western Ontario were placed under the supervision of Mr. Archibald Smith, superintendent of the Western Dairy School, Strathroy. In cheese matters it was decided to select a small district, comprising not more than twenty-five factories, and place one man in charge. Mr. G. G. Publow, of Perth, was selected for the Eastern Division, which comprises the factories in the electoral districts of Lanark and Brockville. A similar arrangement was made in Lambton County, and Mr. Geo. H. Barr, of the Guelph Dairy School, was placed in charge.

PRACTICAL RESULTS.

The following extracts from letters received from the above named gentlemen will show to some extent how their work is being appreciated. One commission merchant in the Old Country writes one of our cheese exporters in Montreal as follows:

"We have your cable offering 2,000 Perths. Cannot understand why there are so many of them. We hope you are not drawing in more outside factories. What we want of Perths are only those under the direct supervision of Mr. Publow."

Satisfactory reports are also coming in from Lambton District. A commission man of London in a recent letter writes:

"The quality of cheese from the factories under Mr. Barr's supervision has very much improved. He is not only helping the makers to produce a finer and better flavored product, but he is following up all "off flavors" and tracing them to their sources. He is also doing much to bring the patrons to understand just how much they are responsible."

Dairy Instruction in Eastern Ontario

Owing to various defects in the methods of instruction most commonly in vogue throughout the province, it was decided by the Department of Agriculture to make a change this year, with a view to getting over these difficulties.

The first step towards improvement was the placing of an instructor over a limited number of factories. The reason for this move was that when a large number of factories were under the supervision of one man the visits were few and far between, and very frequently the maker could not secure the services of an instructor at the time when he was most needed. Consequently a great deal of inferior cheese was made. The object the department had in forming this Model Syndicate was that makers, buildings and output of cheese, should be raised to a standard as near perfection as possible.

The method that I have adopted to try to bring this about is the visiting of the factories as frequently as possible, giving instructions to the maker in the manufacture; showing the patrons the necessity



A Good Breast. Just the type for Fattening.

of delivering their milk in proper condition; pointing out any defects in the out-building or equipment, and showing the necessity for improvement. The most effectual way that I have discovered to reach the patrons and give them this necessary instruction is by holding meetings for them, and inviting them to meet me at the factory during the process of manufacture, where I am able to give them some practical information.

The result of this work up to the present time shows a very great improvement in the general condition of the factories, a marked improvement in the milk, and a more uniform quality of cheese. The effect of this is that quite a number of the factories in this syndicate are now receiving from 1-8 to 1-6 cent per pound above the market price.

The patrons and factory owners seem to be taking a great deal of interest in this new system of instruction and many of them have already gone to considerable expense to improve the general condition of their factories. But there is still much need of improvement along this line, especially in the matter of better curing facilities and sanitary conditions.

Yours truly,

G. C. Pellow,

Instructor.

Dairy Instruction in Lambton County

The work of instruction in this district commenced the second week in May. There are fifteen factories in the district, and up to the present time I have been able to visit each factory once in three weeks. During the month of June an effort was made to hold a meeting of the patrons at each factory. Ten meetings were held, the attendance being from ten to sixty-five. At the other five factories, on account of indifference of the proprietors and patrons, nobody turned out. At all the meetings a lively interest was manifested and interesting discussions were held on the proper care of the milk and the cow.

The majority of the factories in the district are small, and in some cases are not in a fit condition in which to manufacture cheese, or to cure the cheese properly after being made. To put them in a first-class condition would mean considerable expense, and as they are not paying expenses not it would be impossible to get the proprietors to do anything in the way of improvement. This is a serious question for the patrons who are sending milk to these poorly equipped factories, as some of them have suffered losses on account of heated cheese, and the makers are unable to do the best work for lack of proper utensils and general equipment.

The work of instruction in the factories is quite encouraging the makers, in nearly every case, entering heartily into the work of improving the quality of the cheese

and having the milk delivered at the factory in better condition. The curd test has been a wonderful revealer of hidden trouble and has helped greatly to locate flavors and gas which were giving the makers trouble. Where it was possible the patrons sending tainted or gassy milk were visited, and much valuable information has been gained as to the causes of taints and gas. When it was not possible to visit the patrons, a card was sent to them, stating the condition of the milk, and the causes, and giving information as to how to overcome the trouble. I am sorry to say that in some cases this help and information to the patron has not been received with very good grace, some even threatening to stop sending their milk. Yet I do not see any other way to improve the quality of the milk than by the said methods, and I must say that after four months steady work among the factories and patrons I find that nine-tenths of the difficulties the cheese-makers have to contend with in making a fancy quality of cheese, are caused by improper care of the milk after it is drawn from the cow, and before it is delivered at the factory. This is where there is tremendous room for education and improvement, and the best results can only be obtained by the hearty co-operation of the instructor, maker and patron.

The improvement made at some of the factories in keeping the inside of the factory clean, and the surroundings tidy, is quite marked. The buyers say the quality of the cheese is very much improved. The fault most frequently found by them is the flavor, and in that case the patrons are to blame.

It is impossible to overcome the difficulty in one season, but surely the information given to the patrons this season cannot fail to bring good results, and in the future all interested in dairying shall reap the benefits of the present grading.

Geo. H. Barr,

Instructor.

Dairy Instruction in the Ottawa District

BY S. G. LAWSON, INSTRUCTOR

While there are some very good and well-equipped factories in the Ottawa District, the greater number are far from being of that class. A great many of them are out of repair and so poorly constructed that it is utterly impossible to control the temperature during the hot weather. We are therefore compelled to make a cheese of a much firmer nature than we would, had we better constructed curing room. Competition is also very keen in some sections thereby causing a number of small factories to start up where there was scarcely enough milk for one, and in nearly every case the buildings were poorly constructed and equipped, for the reason that they do not pay well enough for the

owner to invest much money in them. This is a very serious drawback to the improvement of our cheese industry. As a rule cheap men are employed and everything has to be run as cheaply as possible, and not only that but they will often accept milk which is out of condition for fear of offending their patrons or losing their patronage.

I find that nearly all the makers are doing good work, but there are careless ones that do not pay much attention to cleanliness, both as to their own appearance and that of the factory. I find that wherever there is a dirty factory the cheese is invariably of poor flavor.

At some factories I found that there was considerable bad-flavored milk, and upon visiting the patrons found that the milk stands were too close to the barnyard or pig pen, and on removing the milk to some place where the air was pure there was no further trouble.

Drainage also requires more attention. I have found in a number of cases that owing to bad drainage the water supply had been ruined and new wells had to be dug. It is certain that if we want to improve the quality of our cheese we must have larger, more substantial and better equipped factories with up-to-date curing rooms also good water supply and drainage. The factory must be under the management of a thoroughly competent maker who will insist strongly on his patrons supplying him with nothing but good, pure-flavored milk at all times. Without a strictly fine quality it is impossible to manufacture first-class cheese.

In the Peterboro District

BY R. W. WARD, INSTRUCTOR

I might mention there are 45 factories in my district which I would classify as follows: 23 first class, 9 second class, 9 third class and 4 very bad. A few are defective in location, but with proper drainage would be greatly improved. The water in most cases seems to be satisfactory, and the general surroundings very fair. I find, however, a few defective in utensils, but on the whole a well-kept and equipped lot of factories, with good makers.

The great necessity for improvement seems to me, to try and reach the producer of the milk; for upon careful examination of the milk and cans as delivered to the factories one is led to wonder that our cheese turns out as well as it does. Very few cans are cleaned as they should be, and some actually filthy.

I also find a great improvement could be made in a large majority of the curing rooms, by the introduction of properly constructed sub-earth ducts.

And another feature of great importance would be to get the patrons of factories together at least twice a year to talk over and discuss their business, their needs and requirements, and how money

could be saved. By adopting a method of this kind they will naturally become more interested in the promotion of the dairy business

as well as their own individual interests.

Yours truly,
R. W. Ward.



2 YRS. OLD
"ABUNDANCE" PLUM
PLANTED AS A 1/2 IN. OLD TREE

FIG. 44 A.

It Pays to Spray

Advances in Horticulture During the Year

BY THE SECRETARY

It cannot be said at the present time, as was done a year or so ago that horticulture is not receiving the attention and encouragement throughout the Province that it should receive. During the year many distinct advances have been made along these lines of work. The Ontario Fruit Growers' Association is the oldest society in affiliation with the Department of Agriculture, but age is here no indication of lessened energy nor of halting progress. The work of our Farmers' Institute system which formerly applied to dairymen, stockmen, fruit growers and farmers as a whole, has been specialized into different departments so that sections of the country engaged almost entirely in one branch of agriculture may receive special attention and the people residing therein the information which they

most require. For this reason in our fruit sections our Farmers' Institutes have become more or less fruit institutes where speakers are supplied who are experts in the fruit business and capable of giving the fruit growers definite practical information.

FRUIT INSTITUTES

During the past spring many organizations have been formed throughout the province under the name of Local Fruit Growers' Associations. To these associations at the time of organization or soon after were sent experts who gave instruction in orchard management. Many of these associations were formed because it was found that the Horticultural Societies of the cities and towns, which were formed under the provision of the Agriculture and Arts Act, did not ap-

ply thoroughly to practical fruit growing conditions. The Horticultural Societies have devoted most of their energy to work in floriculture and along the line of civic improvements. This dividing of the work will no doubt be a distinct advantage to both the Societies and the Local Associations, in that each may be able to devote itself more particularly to its own line of work.

PRUNING AND SPRAYING DEMONSTRATIONS

During the spring many fruit institutes were held, and deputations were sent to the orchards where the subject of pruning was taken up and rules were given for the correct trimming of trees, and illustrations given before the fruit growers assembled. In this way many learned the theory and practice of pruning who had not been able to handle their orchards successfully before. As the season advanced the work of spraying was taken up and the details thoroughly explained, and object lessons given in the orchard.

FRUIT EXPERIMENT STATIONS

In our orchard demonstration work we found we could make our work still more valuable to the people by having the annual meeting of the Farmers' Institutes take the form of a basket picnic on the grounds of the local Fruit Experiment Station. In this way the different varieties under cultivation could be seen growing side by side, and it could be easily seen which were the best varieties to grow for market or home purposes. To make the work still more valuable we were assisted by some of the professors of the Agricultural College who gave addresses and answered all questions in reference to the growing of fruit, the destruction of insects, fungous diseases, etc.

THINNING FRUIT

Still later in the season when the fruit was pretty well advanced it was found advisable to hold orchard meetings in the apple sections for instruction in summer orchard management and the thinning of fruit. At these meetings we were assisted by Mr. Alex. McNeill, Ottawa, Acting Chief of Fruit Division, and several members of his staff. At these meetings discussions also came up on the Fruit Marks Act and the question of the proper grading and packing of the apples for home and foreign markets.

At the present time it has been found practicable to still further advance the work and to combine it with the educational work being done by expert judges at the fall fairs. Prizes have been given for fruit by many of the Fair Boards. Besides giving prizes for fruit some of the Fair Boards have given prizes for the judging of fruit, to encourage young men to know the varieties of their district, and be able from a collection to pick out and name correctly varieties of domestic and export value.

HORTICULTURAL SOCIETIES

Our Horticultural Societies likewise have not only been holding their ground but have been making distinct advances. During the last season lecturers were sent out to all societies applying for them and expert information was given along the lines of floriculture, improvement of private residences, parks and boulevards.

INTERESTING THE SCHOOL CHILDREN

In connection with the lecture work of the Horticultural Societies it was arranged with the secretaries that the school children should be given a talk along the line of Nature Study. This was sometimes given in the schools and sometimes in the Town Hall, or some large public building, where the pupils of the public, separate and high schools, were assembled and also those from the neighboring rural schools. In this way the children were encouraged to study the plants and flowers about them and also something of the birds and insects which play such an important part in connection with fruits and flowers.

**Official Programme of the
Whitby Model Fair**

To be Held in the Fair Grounds of the Agricultural Society, Whitby, September 23rd, 24th and 25th, 1902.

NEARLY \$2,000 IN PRIZES

This year the Whitby Fair Board has made sweeping changes in its arrangements and equipment for holding its annual Fair, and visitors will not recognize the exhibition as the same old show.

EDUCATIONAL FEATURES

The special attractions this year will consist of educational features. In other words the best products of the farm and garden will be so displayed that every visitor will be able to receive and take home valuable lessons that should be stimulating and profitable.

LIVE STOCK

The first prize has been so arranged that those breeds of live stock that are most profitable and most generally produced in the district shall have the preference, and in such classes the most liberal prizes are offered.

Expert judges have been secured, and these judges will be prepared in every instance to give their reasons for making the awards.

As will be seen below arrangements have also been made for a series of talks on the different classes of stock shown, and with the live animals before them experts will show to the people the desirable and undesirable points of the different specimens on exhibition.

POULTRY

As this business has become one of the profitable features in farming it will be given due prominence.

A competent judge will make the awards, and an exhibition will be given of killing, plucking, dressing and packing chickens for the home and foreign markets. Chickens will also be exhibited in fattening crates, and instruction given in the best methods of rearing and feeding fowl.

GRAINS, GRASSES AND ROOTS

Whitby Fair takes the credit of having started this year an object lesson of an entirely new kind to our people. One half acre of land on the Exhibition grounds was plowed, cultivated and sown in the spring, and later small plots of our principal grains, grasses, forage crops and roots were planted. These will be at their best during Exhibition week and should prove a special attraction indeed.

APPLE PACKING

An expert apple packer will be engaged to give special demonstrations each day on the best methods of grading and packing fruit. Boxes are now being used by our best fruit men for packing and shipping peaches, pears, plums and the softer varieties of apples. Samples of the best kind of packages will be on exhibition.

WOMEN'S WORK

The Women's Institute of South Ontario will co-operate with the Fair Board, and have made arrangements for practical demonstration of foods. Each lesson will be illustrated and explained and all ladies are invited to make the Women's Institute tent their headquarters while visiting the Whitby Fair.

quarters while visiting the Whitby Fair.

SCHOOL CHILDREN

The Public School Inspector for the county has been most active in organizing exhibits by the scholars of the different school sections. Splendid prizes have been offered for the best collections of grasses, grains, flowers, leaves, insects, vegetables and fruits. A number of school sections have long since begun the work and a most interesting exhibit is expected.

PREPARATION DAY

Tuesday, September 23rd.—All exhibits to be shown in the Main building (including fruit, flowers, grain, vegetables, dairy produce, domestic manufacture, ladies' and children's work and fine arts) must be in place by 3.00 p.m. We advise all exhibitors to be on hand much earlier than that hour, as it is likely the building will be crowded and those coming early will have a better chance to secure good accommodation and so display their exhibits to the best advantage.

Tuesday evening, 8.00 p.m., public meeting in Opera House, Hon. John Drayden, chairman.

1. Address by the chairman.
2. Address of welcome. His Worship the Mayor of Whitby.
3. Music.
4. Address. Dr. James Mills, O.A.C., Guelph.
5. Address. Miss Laura Rose, Guelph.

(Continued on next page.)

Fall Fairs for 1902

And List of Expert Judges who will Judge all Live Stock and Give Reasons for their Awards.

Division I.

Judges:—Horses—W. F. Kyll, Simcoe.
Dairy Cattle—M. Cumming, Guelph.
Beef Cattle—G. B. Hood, Guelph.
Sheep—M. Cumming, Guelph.
Swine—G. B. Hood, Guelph.

Fair	Society	Dates	Judging
Oakwood.....	Mariposa Agrl. Society.....	Sept. 16 and 17	Sept. 17
Bowmanville, W. Durham Agrl. Soc.....		Sept. 17 and 18	Sept. 18
Port Perry.....	Scugog	Sept. 17, 18 and 19.....	Sept. 19
Orillia.....	East Simcoe.....	Sept. 18, 19 and 20.....	Sept. 20
Ancaster.....	Ancaster Agrl. Society.....	Sept. 23 and 24.....	Sept. 24
Smithville.....	S. Grimsby Agrl. Soc.....	Sept. 24 and 25.....	Sept. 25
Meaford.....	St. Vincent Agrl. Soc.....	Sept. 25 and 27.....	Sept. 26
Warton.....	Amabel and Albemarle.....	Sept. 26 and 29.....	Sept. 27
Tara.....	Arran Agrl. Society.....	Sept. 29 and 30.....	Sept. 30
Listowell.....	Listowell and Wallace.....	Sept. 30 and Oct. 1	Oct. 1
Lucknow.....	Kinloss Agrl. Society.....	Oct. 1 and 2.....	Oct. 2

Division II.

Judges:—Horses—Henry G. Reed, Georgetown.
Beef Cattle—John Campbell, Woodville.
Dairy Cattle—R. McCulloch, Snelgrove.
Sheep—John Campbell, Woodville.
Swine—R. McCulloch, Snelgrove.

Fair	Society	Dates	Judging
Tavistock.....	South Easthope	Sept. 16 and 17.....	Sept. 17
Walkerton.....	South Bruce	Sept. 17 and 18.....	Sept. 18
Palmerston.....	Palmerston & N. Wallace.....	Sept. 18 and 19.....	Sept. 19
Harrison.....	W. Wellington.....	Sept. 22 and 23.....	Sept. 23
Ripley.....	Huron.....	Sept. 23 and 24.....	Sept. 24
Teeswater.....	Culross.....	Sept. 24 and 25.....	Sept. 25
Wingham.....	Turnberry.....	Sept. 25 and 26.....	Sept. 26
Flesherton.....	East Grey.....	Sept. 30 and Oct. 1.....	Oct. 1
Ridgeway.....	Bertie.....	Oct. 2 and 3.....	Oct. 3



Good Pruning and Clean Cultivation.

Division III.

Judges:—Horses—E. W. Charlton, Duncrief.
 Dairy Cattle—R. S. Stevenson, Ancaster.
 Beef Cattle—E. W. Charlton, Bancroft.
 Sheep—Andrew Elliott, Galt.
 Swine—Andrew Elliott, Galt.

Fair	Society	Dates	Judging
Port Colborne, Melara and Wood		Sept. 22	Sept. 22
Sundridge	Strong Agrl. Society	Sept. 22 and 23	Sept. 23
Huntsville	North Muskoka	Sept. 23 and 24	Sept. 24
Emsdale	Perry Agrl. Society	Sept. 24 and 25	Sept. 25
Bracebridge	South Muskoka	Sept. 25 and 26	Sept. 26
Stisted	Stisted	Sept. 26 and 27	Sept. 27
Magnetawan	Chapman Agrl. Society	Sept. 29	Sept. 29
Bark's Falls	East Parry Sound	Sept. 29 and 30	Sept. 30
Gravenhurst	Muskoka & Gravenhurst	Sept. 30 and Oct. 1	Oct. 1
Utterson	Stephenson Agrl. Socy.	Oct. 1 and 2	Oct. 2
Bolton	Verdian Agrl. Society	Oct. 2 and 3	Oct. 3

Division IV.

Judges:—Horses—J. M. Gardhouse, Highfield.
 Beef Cattle—A. W. Smith, Maple Lodge.
 Dairy Cattle—Wm. Jones, Zenda.
 Sheep—A. W. Smith, Maple Lodge.
 Swine—Wm. Jones, Zenda.

Fair	Society	Dates	Judging
Brantford	South Brant	Sept. 23, 24 and 25	Sept. 24
Barrie	West Simcoe	Sept. 24, 25 and 26	Sept. 25
Lindsay	South Victoria	Sept. 25, 26 and 27	Sept. 26
Wallacetown	West Elgin	Sept. 30 and Oct. 1	Oct. 1
Watford	Harwich	Oct. 2 and 3	Oct. 3
Otterville	South Norwich	Oct. 3 and 4	Oct. 4
Parkhill	W. Williams	Oct. 6 and 7	Oct. 7
Burford	Burford Agrl. Society	Oct. 7 and 8	Oct. 8
Southwold	Onida Indian Society	Oct. 8, 9 and 10	Oct. 9

Division V.

Judges:—Horses—Geo. Gray, Newcastle.
 Dairy Cattle—D. G. Hammer, Mt Vernon.
 Beef Cattle—J. E. Brethour, Burford.
 Sheep—D. G. Hammer, Mt. Vernon.
 Swine—J. E. Brethour, Burford, and Peter Christie, Manchester, occasionally.

Fair	Society	Dates	Judging
Cornwall	Cornwall District	Sept. 4, 5 and 6	Sept. 6
Newington	Stormont County	Sept. 10 and 11	Sept. 11
Alexandria	Glengarry County	Sept. 11 and 12	Sept. 12
Vankleeck Hill	Prescott County	Sept. 15, 16 and 17	Sept. 16
Metcalf	Russell County	Sept. 16 and 17	Sept. 17
Aylmer	Wright County	Sept. 17 and 18	Sept. 18
Perth	South Lanark County	Sept. 18 and 19	Sept. 19
Richmond	Carleton County	Sept. 22, 23 and 24	Sept. 23
Almonte	N. Lanark County	Sept. 23, 24 and 25	Sept. 24
Renfrew	South Renfrew	Sept. 25 and 26	Sept. 26
Shawville, O.	South Pontiac	Sept. 30 and Oct. 1	Oct. 1
Chapeau, Q.	North Pontiac	Oct. 1 and 2	Oct. 2
Beachburg	North Renfrew	Oct. 2 and 3	Oct. 3

Arrangements have also been made to send judges to the following Fairs:
 Peterboro.....Sept. 8th to 12th.....Judging.....Sept. 11th and 12th.
 Whitby.....Sept. 23rd to 25th.....Judging.....Sept. 24th and 25th.
 St. Catharines Oct. 8th to 9th.....Judging.....Oct. 9th

5. Address. Prof. C. A. Zavitz, O.A.C., Guelph.
7. Music.
8. Address. Miss Agnes Smith, Hamilton.

CITIZENS' DAY

Wednesday, September 24th.
 Gates open at 8.00 a.m.

All entries in poultry and Live Stock must be on the grounds by 10.00 a.m., and remain until the close of the Exhibition.

10.00 to 12.00 a.m. Judging commenced in all departments except dairy cattle and light horses. Judges of Live Stock, where required, will give their reasons for prizes awarded.

10.00 a.m. Demonstrations in Apple Packing and Grading near Experimental Plots.

12.00 a.m. Feeding Chickens in fattening crates.

1.00 p.m. Judging of Live Stock continued. An adjournment will be made at 2.00 p.m. in order that all may witness the polo match.

2.00 p.m. Polo Match. For this game the Toronto Polo Club will bring their well-trained polo ponies.

2.00 to 4.00 p.m. Cooking Demonstration. Miss Agnes Smith, Graduate of the School of Domestic Science, Hamilton, will give a practical demonstration in the preparation of foods. A special tent will be erected for this purpose, under the direct supervision of the South Ontario Women's Institute. All ladies are invited to make this tent headquarters while visiting the fair.

3.00 p.m. Experimental Plots. Prof. C. A. Zavitz, O.A.C., Guelph, will give a talk on grains, grasses and forage plants for Ontario, using the experimental plots on the grounds to illustrate his address.

4.00 p.m. Poultry. Prof. W. R. Graham, O.A.C., Guelph, will deliver an address on Poultry Culture using live birds to illustrate his remarks. Mr. Graham will be pleased to answer any questions in reference to the raising of farm poultry.

4.40 p.m. Apple Packing and Grading. Demonstrations will be given near the experimental plots.

Wednesday evening, 8.00 p.m. Public Meeting in Opera House.

1. Address by the chairman.
2. Address. Prof. G. E. Day, O.A.C., Guelph.
3. Music.
4. Address. Prof. Jas. Fletcher, Experimental Farm, Ottawa.
5. Address. Prof. H. H. Dean, O.A.C., Guelph.
6. Music.
7. Short address by the judges.

FARMERS' DAY

Thursday, September 25th. Gates open at 9.00 a.m.

9.00 a.m. Judging concluded in Live Stock classes begun on Wednesday.

10.00 a.m. Judging Light Horses and Dairy Cattle; judges giving their reasons for awards when requested.

11.00 a.m. Lecture on Poultry Raising and Feeding, by Prof. W. R. Graham, O.A.C., Guelph.

12.00 a.m. Feeding Chickens in fattening crates.

1.00 p.m. Judging Light Horses and Dairy Cattle concluded.

2.00 to 3.00 p.m. Lectures on Live Stock at the ring side, by Prof. G. E. Day and others.

3.00 to 4.00 p.m. Lecture on Experimental Work, at experimental plots, by Prof. C. A. Zavitz, O.A.C., Guelph.

2.30 p.m. to 3.30 p.m. Women's Institute meeting. Miss Agnes Smith, Hamilton, will give a practical demonstration of cooking, accompanied by a talk on Domestic Science work. 4.00 to 4.30. Apple packing and grading. Demonstration will be given near experimental plots.

Winter Wheat Experiments at Guelph

By C. A. ZAVITZ, EXPERIMENTALIST, O.A.C.

Winter wheat experiments occupied one hundred and eighty-eight plots at the College, and six hundred and three plots throughout Ontario in 1902. On the whole, the wheat came through the winter well and the yield of both grain and straw was satisfactory. The weak strawed varieties were badly lodged, and, owing to the wet weather, some grain was sprouted before it was harvested. The damage done by the Hessian fly was very slight, the plots at the college being practically free from the ravage of this insect in 1902.

Varities. Ninety-five varieties of winter wheat were grown at the college this year. The ten varieties giving the greatest yield of grain per acre, starting with the highest were as follows: Extra Early Windsor, Dawson's Golden Chaff, Imperial Amber, Pedigree Genesee Giant, Prize Taker, Economy, New Columbia, White Golden Cross, Early Ontario, and Johnson. The Extra Early Windsor very closely resembles the Dawson's Golden Chaff variety. Those varieties possessing the stiffest straw were the Dawson's Golden Chaff, Extra Early Windsor, Clawson Longberry, and American Bronze.

Experiments have shown that the sprouting of wheat greatly injures it for seed purposes as well as for flour production. All of the varieties at the college this season were more or less sprouted before they could be harvested. Those varieties which sprouted the least were the Red Cross, McPherson, Wisconsin Triumph, and Reliable, and those which sprouted the most were the Pedigree Genesee Giant, Early Arcadian and Oregon. Fifty-seven varieties were sprouted less and thirty-seven varieties were sprouted more than the Dawson's Golden Chaff. The varieties without beards were sprouted as badly as those with beards, and the hard wheats were sprouted slightly more than the softer varieties. The white wheats, as a class, however, were sprouted much worse than the red varieties.

A deputation of ten persons from the Dominion Millers' Association

visited the college during the past summer, and, after examining the different varieties of winter wheat, recommended that the following varieties be grown extensively in Ontario: Red wheat; Michigan Amber and Turkey Red, and white wheat; Early Genesee Giant and Bulgarian.

Selection of Seed. The average results of six years' experiments show that large plump seed yielded seven bushels fifty-one pounds of wheat per acre more than the shrunken seed; and six bushels thirty-three pounds more than the small plump seed. Sound wheat produced five times as great a yield of both grain and straw as seed which had been broken in the process of threshing.

Treatment for Stinking Smut. In the average of four years' tests, seed wheat infested with smut spores produced grain containing the following number of smut balls per pound of wheat: Untreated, 456; treated with potassium sulphide, 11; treated with copper sulphate (Bluestone), 2; and treated with hot water, 1.

The copper sulphate (Bluestone) treatment consisted in soaking the seed for twelve hours in a solution made by dissolving one pound of copper sulphate in 24 gallons of water at 132 degrees F. After each treatment, the grain was spread out and stirred occasionally until dry enough to sow.

Quantities of Seed. From sowing one, one and one half, and two bushels of winter wheat per acre for each of six years, average yields of 40.2 bus., 43.3 bus., and 43.9 bus. per acre, respectively, were obtained. As two varieties of wheat were used each year, these averages represent twelve distinct tests.

Methods of Sowing. Winter wheat which was sown broadcast by hand gave practically the same results as that which was drilled in which a machine in the average results of tests made in each of eight years. The land was in a good state of cultivation in every instance.

Dates of Sowing. Winter wheat sown at the college during the last week in August or the first week in August or the first week in September yielded better than that sown at a later date in the average results of tests made in each of the past eight years. In 1902, the highest average yield was obtained from sowing on September 2nd, 1901.

Preparation of the Land. In an experiment conducted for four years, winter wheat grown on land on which a crop of field peas was used as a green manure, produced an annual average of 22.1 per cent. more wheat per acre than on land where a crop of buckwheat was plowed under. In another experiment which was carried on for one year, winter wheat grown on land prepared from clover stubble produced 20.7 per cent. more wheat per acre than on land prepared from timothy stubble. In a two years' test with commercial fertil-

izers, an application of 160 pounds of nitrate of soda per acre increased the yield of wheat 18.8 per cent.

Value of Seed from Wheat Cut at Different Stages of Maturity. For seven years in succession, five plots of each of two varieties of winter wheat were sown at the same time in the autumn, and cut at five different dates in the following summer—a week being allowed between each two dates of cutting. Seed from each of the seventy cuttings was sown and the crop therefrom was harvested when ripe. In the average results of these tests, it is found that the heaviest weight of grain per measured bushel and the largest yield of both grain and straw were produced from seed taken from the crop which had become very ripe by remaining uncut for the longest period of time.

RESULTS OF CO-OPERATIVE EXPERIMENTS

In the autumn of 1901, five varieties of winter wheat were distributed throughout Ontario for co-operative experiments. The average yields per acre of the co-operative experiments are as follows:

Varieties	Total Straw	Bushels of Grain per Acre
Dawson's Golden Chaff.....	3.2	32.7
Imperial Amber.....	3.2	32.0
Early Genesee Giant.....	3.1	29.5
Michigan Amber.....	3.3	27.5
Turkey Red.....	3.1	26.9

The popularity of the varieties with the experimenters is represented by the following figures:—Dawson's Golden Chaff, 100; Imperial Amber, 78; Early Genesee Giant, 55; Michigan Amber, 50; and Turkey Red, 47.

DISTRIBUTION OF SEED FOR EXPERIMENTAL PURPOSES

Material for any of the four experiments here mentioned will be sent free to any Ontario farmer applying for it, if he will conduct an experiment with great care and report the results after harvest next year. The seed will be sent out in the order in which the applications are received as long as the supply lasts.

1. Testing Hairy Vetches, Crimson Clover, and Winter Rye as fodder crops, 3 plots.
2. Testing three varieties of red winter wheat, 3 plots.
3. Testing five fertilizers with winter wheat, 6 plots.
4. Testing autumn and spring applications of nitrate of soda and common salt with winter wheat, 5 plots.

The proper size of each plot is one rod wide by two rods long. The material for either of the first two experiments will be forwarded by mail, and for each of the other two by express. Each person wishing to conduct one of these experiments should apply as soon as possible, mentioning which test he desires; and the material, with instructions for testing and the blank form on which to report, will be furnished free of cost until the supply of experimental material is exhausted.

GOMBAULT'S CAUSTIC BALSAM

**A SAFE, SPEEDY . .
AND POSITIVE CURE**

**Supersedes
All Caustery or
Firing and Cures**

**Founder
Wind Puffs
Thrush
Diphtheria
Skin Diseases
Removes Bunches
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**Blemishes
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Strained Tendons
Ring Bone
Pink Eye
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All Lameness
from Spavin .
Quarter Cracks
Scratches
Poll Evil
Parasites**

**SAFE FOR ANY
ONE TO USE**

WE GUARANTEE that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horse-men say of it.

Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard Veterinary Remedy . . .

ALWAYS RELIABLE SURE IN RESULTS



PREPARED exclusively by J. E. Gombault, ex-Veterinary Surgeon to the French Government Stud. Impossible to produce any Scar or Blemish. The safest, best blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses or Cattle. As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

None genuine without the signature of
The Lawrence-Williams Co.
Sole Importers & Proprietors for the
U.S. & CANADA. CLEVELAND, O.

CAUSTIC BALSAM ALL THAT IS CLAIMED

ANTIGONISH, N.S., April 30, 1902.
The Lawrence-Williams Co., Toronto, Ont.
I can say that I have been using GOMBAULT'S CAUSTIC BALSAM for the past three years, and have found it to be all that is claimed for it, and have in a great many instances recommended it to others.
K. D. KIRK.

CANADIANS APPRECIATE CAUSTIC BALSAM

BERKELEY, ONT., Nov. 26, 1901.
The Lawrence-Williams Co., Cleveland, O.
I have been selling GOMBAULT'S CAUSTIC BALSAM for a number of years and it is giving my customers the best of satisfaction. I have also used it myself on different ailments with the best of results. Too much cannot be said in its favor.
W. T. PRICE.

N. W. TERRITORY HEARD FROM
ELKTON RANCHE, DEWINTON, ALBERTA,
N.W.T., CANADA, Nov. 13, 1900.

Having had very satisfactory results from GOMBAULT'S CAUSTIC BALSAM I thought it might be worth while writing to you and asking you whether you have any representative in this part of the world.
C. DAVIDSON

REMOVED RINGBONE

OIL SPRINGS, ONT., April 4, 1900.
I purchased a bottle of your GOMBAULT'S CAUSTIC BALSAM to remove a ringbone from a valuable driver. I have removed it in fine shape. No lameness or enlargement of any account.
JOHN MCCARTER.

GREATEST MEDICINE EVER MADE

MAPLE CREEK, ONT., Sept. 14, 1900.
Enclosed find express order for \$3. for which please send me two bottles of GOMBAULT'S CAUSTIC BALSAM. Have been a constant user of this for a number of years and think it is the greatest medicine ever made.
W. A. DOUGLASS

Sole Agents for the United States and Canada

THE LAWRENCE-WILLIAMS CO.

CLEVELAND, OHIO

TORONTO, ONT.



Walter Harland Smith

Fifty Years of Service to Canadian Horse Breeding

With New Buildings and Equipment Grand's Repository Makes a Fresh Start

Half a century in the history of a young country like Canada counts for more than two centuries in older lands. We make history fast in this continent, great changes take place and sudden developments are recorded that testify to the go-ahead-tiveness of our character and the progressive ideas that prevail.

Even in Toronto, with its population of a quarter of a million there are not many of its present business houses that were established 50 years ago, but one of the most noteworthy of those that were is Grand's Repository which since 1852 has been doing business with the public. The founder, "Uncle" Joe Grand as he was called, was a thorough Englishman from his heels up and a tip-top horseman, and though he had other interests to engage his attention it is little wonder that he drifted into the horse business as a side issue. In course of time, however, that branch extended so rapidly that it became the most important of his enterprises, hence the establishment of Grand's Repository first on Wellington street West, afterwards on Adelaide and Bay sts. Not even Tattersalls in old London is better known than Grand's in this city and country, and this is largely due to the personality of "Uncle" Joe its founder. Joe, the oldest boy, was a rare good judge and splendid whip. Walter is now manager of the big American Horse Exchange in New York and has blossomed into a bloated capitalist. Douglas, or "Dug" as he is better known, is one of the best stock auctioneers in any country, and has made a lot of money in that business in England within the past few years.

As the sons branched out and sought wider fields of labor, the

old business passed into the hands of Walter Harland Smith, who from 1882 until the year 1892 was the once manager of the concern. In the latter year he assumed sole control and each year since then has recorded a marvellous growth in the business. The old Repository on Adelaide street was at one time considered altogether too extensive an establishment for the needs of this city, but the rapid development of Toronto and the energy that now characterized the management of the business soon necessitated enlargements and extensive additions were from time to time provided. New departments such as for carriages, harness, robes, etc., were added until it actually became impossible to extend the accommodation any more and this finally necessitated a change of base, hence the erection of the present immense establishment on the corner of Simcoe and Nelson streets.

It is scarcely necessary in conveying an idea of the magnitude of this modern repository to do more than state the bald facts, that starting on the corner of the two thoroughfares it has a frontage of

over one hundred yards on Nelson street, or to be precise 350 feet. The corner building of red pressed brick and stone is four stories in height, surmounted by a cupola, the main entrance door opening on the corner leads into the largest and handsomest fitted carriage, harness and saddlery show rooms in Canada. The best work and newest designs of the leading carriage manufacturers of Canada, England and the United States are kept in stock.

The stock of harness, saddlery, robes, horse clothing, whips, etc., is equally noteworthy. The whole of this department is under the supervision of Mr. Bert Smith a brother of the proprietor. The west end of this show room is fitted for offices which are thoroughly up-to-date in their appointments. The presiding genius in the department is Mr. O. J. Face who though always busy is nevertheless courteous and obliging.

Westward from the front building our first halt is in the sales ring 100 feet square and a clear 40 feet to the glass roof. A balcony extends along the two side walls that will accommodate 500 people, and from this vantage ground buyers can closely scan the action of the horse or pair they may desire to buy. It supplies a modern sale mart to which breeders and dealers can consign their stock confident that if it will bear inspection it has every possible surrounding advantage to tell in its favor. Room to gallop and jump a horse under the saddle, space to drive a tandem or a four-in-hand and a perfect flood of light over everything. The arena is lit by eleven arc lights for use either for evening sales or riding school purposes, and any lady or gentleman desirous of practically testing the manners of a horse before trusting him in the public thoroughfares, is invited to use it and a repository groom will extend any needed attention. Through an archway is a department used for cleaning carriages at one end and at the other a sort of waiting room for horses going into the sales ring. From this we enter the stable proper. It contains stalls for 100 horses, and they are constructed on the most modern principles. One of the most important requirements, that of a perfect system of drainage, has been secured at a great expense. Granolithic floors are in use, while the system of lighting is the Auer Arc, each cluster of four of these is equal to 1000 candle light, and



Grand's New Repository, Simcoe Street, Toronto.

when these are turned on they render every corner of the big stable light as day. The floors above the stables are used for the storage of feed and second hand vehicles awaiting the day of sale.

Thus though this description is necessarily brief, it is sufficiently explicit to show the splendid equipment Mr. Smith has provided for his large and growing trade. Farmers and others having horses to sell will find him an eminently painstaking man; he gives personal attention to every detail of his



great business and aims to meet the wishes of even his most exacting customers.

Special attention is given to the demand for draft horses, expressors and general purpose, and a stock of fresh, sound, young horses of these classes are generally to be found at the repository.

Though Grand's Repository has reached a ripe old age, it has now started afresh with all the vigor and ambition of youth, and under the proprietorship and go ahead management of Mr. Walter Harland Smith, it not only far outclasses all other institutions of its kind in the Dominion, but takes rank with the big establishments of a similar character in New York and other American cities.

Handling Heavy Draft Stallions

The stallion is to be handled daily, exercised fully, given at least six miles on the road every day and treated in such a manner that his attendant will also be his friend and master without brutality or profanity. A horse understands his attendant and if he gets the better of the man it is because he has no respect for him. His box stall should be light, airy, clean, comfortably bedded and cheerful. A stallion should not be handled like a prisoner. He wants to know that he is living and what is going on about him. He is to be curried daily and his legs, mane and tail kept clean by washing and then rubbing absolutely dry with sawdust. His feed is to be oats, bran, hay and fodder, with a few ears of corn in the coldest weather of winter but not a bite of corn in summer. Carrots, beets and a weekly hot mash will not hurt him in winter. In the summer his diet is to be sufficient but light and cooling. He is to have clear, cool drinking water, always before meals but not immediately after. A stallion so handled needs no medicine of any sort. Salt should be before him at all times, but no condition powders. Plenty of exercise and good grooming, together with healthful surroundings and wholesome food, will maintain him in the best of condition for service and show also. Treat him sensibly.—American Veterinarian.

Windsor Salt

PUREST AND BEST

Ask your grocer for it and take no other.

Awarded Silver and Bronze Medals at Paris Exposition, 1900.

The Canadian Salt Co., Limited
WINDSOR, ONT.

Tolton's NO. 1 Double Root Cutter

Points of Merit :

1. To change from pulping to slicing is but the work of a moment.
2. There are two separate wheels, one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels, and does not choke.

The Only Double Root Cutter Manufactured.

Fitted with Roller Bearings, Steel Shutting, and all that is latest and best in principle, material and construction.



TOLTON BROS., - Guelph, Ont.

THE DANIELS' INCUBATOR

IS THE STANDARD HATCHER OF THE DOMINION

Eight 220 Egg Daniels' Incubators are used by the Dominion Government, in their experimental Stations in Ontario, New Brunswick and Quebec. Not how CHEAP, but how GOOD, should be your guide in purchasing an Incubator.

The eight 220-Egg Daniels' Incubators in use at the four Illustration Chicken Hatching Stations conducted by this Department have given every satisfaction, and are perfectly reliable.

F. C. HARE,
Chief of Poultry Division,
Department of Agriculture, Ottawa.

When buying an Incubator you want a reliable Brooder to go with it. It's no use hatching the chickens unless you can raise them.

Our **Storm King Brooder** is the only safe Brooder, and one that will raise 98 per cent of the chicks.

Fattening Coops, Poultry Shipping Crates, Cramming Machines.

Bone Mills, Clover Cutters, Poultry Meats and Meals of every kind, Mica Grit, Oyster Shells, Leg Bands, Lice Killer (Powder and Liquid); in fact, a full line of Poultry Supplies.

OUR NEW CATALOGUE will be ready about December 1st. Register your name at stand and you will be sure to get one.

C. J. DANIELS, - 190 to 200 River St., TORONTO, ONT.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially
Representing the Farmers' Interests

Edited by JAMES FOWLER

Sugar Beets.

Plenty of sunshine will increase the sugar in the beets.

Increase the value of your beet crop by raising beets of higher sugar contents.

To raise the standard of your beets you must carefully prepare your soil.

To properly prepare your soil you should carefully follow the instructions given you by experts.

The value of a sugar beet is determined by the amount of sugar in it, and the purity.

What a deep root crop receives from the soil is generally replaced by a grain crop.

A farmer should know the composition of his own soil, and knowing it, should exercise his knowledge, and plant only such crops as are suitable to that particular piece.

Dresden.

The work at this point is progressing favorably. Work upon the beet sheds is well underway and the masons have started the flumes. Within a short time a night force will be put on and the work rushed to completion. A strike amongst the workmen was nipped in the bud, and has not delayed the work. No particular trouble was experienced in getting help and many who were inclined to strike were only too glad to continue.

The reports from beet crop are very satisfactory.

Warton.

The brick and stone work of the Warton sugar factory is completed and workmen are busy putting on the roof. Machinery is arriving constantly and will be rapidly put in place. Unlike most factories, the machinery and building are not going up together. Very little, if any machinery in the main building will be put into position until the building is completed. New building arrangements have been made to run the cars with machinery into the building, and it will be unloaded and placed in position direct from the cars. It is thought that work would proceed more rapidly this way, than in the usual way. Then the building being of stone and brick instead of a steel structure necessitated different mode of handling. There is a tremendous amount of work to be done and it is not expected the factory will be ready to run before the middle of November.

The beet crop has wonderfully improved and will be sufficient to run the factory through the season.

In another month, it will be time to harvest the beet crop, now is the time to prepare for doing it. Engage your help, see that your waggons are ready for hauling the crop to the factory.

Do not feed the tops or leaves, allow them to remain on the ground, arrange to feed pulp instead.

The factory should give you one half ton of pulp for every ton of beets you deliver.

You will do well to take all the pulp the factory will give you. If you can't feed it, you can spread it on the land, and it will be worth dollars to you as a fertilizer.

Selection of Mother Beets and Seed Production

The production of sugar beet seed is an important branch of the experimental work at Ames, Neb., and gratifying progress has been made.

For the purpose of next year's work some 4,000 mother beets were selected and placed in sand silos over winter.

The mother beets selected were classified according to sugar content into three classes: Fourteen to 16 per cent, 16 to 18 per cent, and 18 per cent, and over, and kept separate in the silos. These beets will be planted next spring.

In the spring of 1901 about 7,000 mother beets were planted three feet apart each way and cultivated as is usual in the case of corn. The result was about a ton of clean seed of excellent quality. The best of this seed will be planted this year for beets from which commercial seed is to be produced the following season.

It is believed that by careful selection good seed for factory purposes can be produced at home and a large part of the cost of importation done away with. It is hoped, too, that this seed will be better adapted to home conditions and that more uniform results may be secured.—Nebraska Agricultural Experiment Station.

Spreckels Sugar Co.

Incorporation of the Six Million Project to be Announced.

Application has been made for the incorporation of the Federal Sugar Refining Company, Limited, and the next issue of The Canada Gazette will contain the announce-

ment that incorporation has been granted. Claus A. Spreckels, the millionaire sugar man, who has figured so prominently in connection with Hawaiian affairs, is behind the application. His name appears at the head of the list of incorporators, which also includes William W. Cook, councillor at law, New York; R.D. McGibbon, Thomas Chase Casgrain and Edouard Fabre, Surveyor, Montreal. Spreckels, Cook and McGibbon are the provisional directors. It is proposed to purchase, manufacture, refine and sell sugar and molasses and to construct, lease and operate sugar factories in Canada. It is also proposed to develop land for the cultivation of sugar beets and carry on the manufacture in all its various processes. Montreal will be the headquarters of the company, and the capital \$6,000,000 divided into sixty thousand shares of \$100 each.

The principal business of this company will be to refine imported raw sugar by a new process, for which great things are claimed. We quote from the Philadelphia Grocery World, who claim to have inside information regarding this company, as it is organized in the United States:

"The amended charter provides for \$25,000,000 of preferred stock, bearing 6 per cent. interest, and the same amount of common stock. Much is expected of the Federal Refining Company because of a new process which it claims to control, and which, if its description is not exaggerated, will work a revolution in the manufacture of sugar. Bone black is not needed, neither are a number of other chemicals which have hitherto been considered indispensable to the manufacture of sugar. Sulphuric acid is the principal ingredient in a cleansing composition which operates directly on the sugar and both whitens and cleans it. One of the objects of the new company is to establish a chain of refineries at various places. Already one plant is about to begin operations at Yonkers, N. Y., and samples of the sugar made by the new process were to have been shown last Tuesday, but were not. There is a general expectation that the Federal Company will undersell the trust, because its cost of production will be less. A considerable suspicion is growing that the Federal concern is behind the new Philadelphia refinery now going up where the old Pennsylvania sugar house was. This plant expects to start up by October next.*** The method involves an entirely new mode of refining sugar. It refines all grades of raw sugars which the present refineries cannot handle to advantage. The new process also refines molasses. Under the new

process all the sugar comes out as pure white sugar, and none of it as brown sugar or syrup. This new mode can refine sugar under this new process for at least \$5 a ton cheaper than under the present process. This saving is due to several causes. First, the Federal Company's plant for refining sugar under the new process is quickly and cheaply built. They claim to be able to build in three months, at an expense of about \$750,000, a plant which will refine between 6,000 and 7,000 barrels of sugar a day, whereas a refinery of the same capacity under the present system requires a year and a half in building, and costs over \$2,500,000. Second, they get from raw sugar all the saccharine matter there is in it; whereas, under the present refining process, a considerable portion of the pure sugar is lost. For instance, in sugar that contains 96 per cent. of pure sugar the present refineries are liable to get only 90 per cent. of pure sugar, the remaining 6 per cent. of pure sugar being lost in the process of refining. Their labor bill will be only one-half of that involved in the present mode of refining sugar. By the new process refined white sugar is turned out three hours after they start with the raw material; whereas under the present processes it requires two weeks to completely refine a batch of raw sugar. The new process consists in the use of a certain composition which has an attraction for all the impurities in sugar and an antipathy to pure sugar itself. It is cheaply and quickly made, and when once made is used over and over again. The mode of using it is so simple that it is unnecessary to describe it. The Federal Company have named a price of 4.40 net for granulated, which is 1-100 cent below the trust's price. They will sell sugar through brokers.

Maritime Agriculture

Prof. Robertson, Agricultural and Dairy Commissioner, returned last week from an extended trip through the Maritime Provinces. He reports a noticeable improvement in the agriculture of that part of Canada. In Prince Edward Island where they have forty cheese factories in operation the land is becoming more productive. The systematic cultivation of crops for the feeding of cows has greatly increased the fertility of the land. In Nova Scotia the apple crop is largely a failure, many growers reporting only between 25 to 50 per cent of an average yield of apples in their orchards. In New Brunswick the farm crops are quite up to the average, although from eight to ten days later than usual.

The maritime people are quite enthusiastic over Sir Wm. C. Macdonald's announcement that he would provide in each of the provinces object lessons of an improved and consolidated rural school. In Prince Edward Island this school will be located in the Pownal district; in Nova Scotia at Middleton and in New Brunswick in Kingston, King's County.



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— AND —

ORGANS

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MUSICAL PEOPLE OF CANADA
AND ABROAD. THEY ARE
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THE LARGEST MAKERS IN
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The Farm Home



A Spinning Frolic in Rural Nova Scotia.

Farm Life in Nova Scotia

HOW THE "GUID WIFE" MAKES BUTTER
—SPINNING AND WEAVING FOR
THE CHILDREN

Such a talky old High-Scotch woman as Mrs. C. was. The first one I've met who was really willing to tell me her way of making butter. Settling herself and spreading out her large calico apron, she began, "Och, yes! and I'm sure you'll be thinking it's a queer way we have of doing things. You see we're but plain folks and have never gone about much, and so we have just kept on in the old ways our mothers taught us.

"My neighbors all about here keep from five to eight cows apiece. They make and sell quite a bit of butter and put by some for winter use, for not many make much butter in the winter.

"I have only two creamers, so I set those in the well and the rest of the milk I put into pans. I have two dash churns, and the cream from the pans I put into one churn and the cream from the cans into the other churn. When I have enough gathered in the churns, I churn them separately.

"It's my own notion that the butter from the creamers is sweeter and nicer than what comes from the pans, whatever, and that we keep for our own use and sell the other; not but what it's clean and good too. But I always was over-particular about butter, and faith, its little I eat out of my own house. Land! miss, if you could see how some set their milk in wooden dishes, and don't skim them until the cream begins to turn blue, you wouldn't wonder I had no fancy for their butter. There are but few wooden dishes—keelers, we Scotch people call them—used now, I'm glad to say.

"You ask me how I wash and salt the butter? Och, and I'll be bound it's not your way, for I was for hearing you never so much as put your hands near the butter. You'll laugh at me I know, but it's God's truth I'm telling you all the same. Well, after I have churned and the butter is in a lump, with my hands I lift the butter from

the butter-milk into a cooler, and perhaps you don't know what that is whatever. It's just a shallow, wooden tub.

"Then I pour on some water and knead the butter-milk out of the butter, pouring off the water and putting on some fresh until I have the butter clear of butter-milk. It's great for giving you rheumatiz in your shoulders, having your hands in the cold water. After it is washed, I sprinkle over what salt I think it needs and work it in with my hands. Next day I give it another working and pack it into a wooden firkin, or make it into round prints for the table."

When I told this good old lady a churn was a bad place in which to gather cream, and butter was best not touched by the hand, she said: "I believe it's right you are, though I never gave it a thought before at all."

Driving through the country, I have a splendid opportunity of coming in close contact with those living in isolated farm homes. I find the women simple and kind, paying little attention to fashion, and living a life particularly free from care and strife—at least, so it appears to me. While their faces show signs of exposure and hard work, they are not worried looking, and few have grey hair.

On entering a Nova Scotia home, the first thing that will take your eye will be the hooked mats. In all my travels in other lands I never saw their equal.

One sees no rag carpet, but will find the entire floor of the rooms covered with mats of all sizes and designs. Some are three yards square, and it is not uncommon to see the hall and stairs covered

with strips of hooked carpet. Many mats are especially pretty, both in design and coloring. It is seldom you see an animal outlined—flowers and scrolls being the styles.

Frequently a woman will show me her mats that have never been on the floor. You'll find them rolled up behind the parlor door, or at the foot of the spare-room bed. It is with pride she will tell you, she dyed all the rags or yarn herself. Often they are made of all good, new yarn. The other day I was admiring the rich shades of brown in a conventional border in a mat.

"That's dyed with croddle," she said. I was as much in the dark as ever, so off she sent her daughter for some. It was just the thick, grey moss that grows so abundantly on the beech and maple here. This is boiled and a little copperas added. The more copperas, the deeper the brown, and so from other simple things they make other colors.

An art which has almost become extinct in our Western Provinces is still flourishing here—that is spinning and weaving.

When the sheep are sheared, the women wash the wool, and it is taken to the mill to be carded. Then for a month or two in every farm home may be heard the buzz of the spinning-wheel. Occasionally a woman will have a spinning frolic, then all her neighbors bring their wheels and all day long they gossip and spin.

Lately, a lady over ninety years old took me to the out-house, where her wheel and loom were, and there she spun and twisted some yarn, just that I might see her. She was such a sweet old lady, smart on her feet and with a mind as clear as a bell. (I will put Nova Scotia against the world for vigorous old people.) She gave me a ball of lovely, fine yarn of her own spinning, to knit a pair of stockings from.

Such a lot of weaving as they do. Besides weaving what they call woollen carpets, they make all their blankets and other cloth for their own dresses, and the men's clothes.

They are wonderful knitters, too, and think nothing of knitting whole suits of underwear for the men, as well as for themselves and the children.

"You see," said one young, married woman, "we have so little ready money, I cannot afford to buy nice flannel for my little ones,



Heatherton, Antigonish County, a Typical Nova Scotia Village.

but we have plenty of wool, as the price we get hardly pays us to sell it. I spin it into yarn, and knit little shirts and skirts and can keep the children comfortable and warm."

Truly the N. S. farmers' wives are honest, frank, hard-working women, and withal, never appear in a hurry or in a hurry of it.

Their wants are few and simple and they are so capable of supplying them, without calling upon the aid of the busy, bustling world which seems so far removed from them.

Laura Rose,
Tracadie, N.S., Aug. 14, 1902.

Hints by May Mantou

WOMAN'S TUCKED BLOUSE 4209

Deep tucks, that are arranged horizontally, are seen upon many of the newest waists and have a distinct charm of their own. This attractive blouse shows them on the body and the sleeves and is both stylish and generally becoming. As shown it is of white louisine silk stitched with cortecli silk and made with collar and cuffs of Irish lace, but the design suits all soft silks and wools and all the lighter cotton and linen fabrics.



4209 Tucked Blouse,
32 to 40 bust.

The lining, or foundation is smoothly fitted and closes with the waist invisibly at the centre back. The blouse consists of front and backs each of which is laid in three deep tucks. The sleeves in Hungarian style, are snug at their upper portions, where they also are tucked to form continuous lines with the blouse, while the soft circular puffs fall over the elbows, their full lower edge being gathered on to straight cuffs. At the neck is a regulation stock.

The quantity of material required for the medium size is 5 yards 21 inches wide, 4½ yards 27 inches wide, 3¼ yards 32 inches wide or 3½ yards 44 inches wide with ¾ yards of all over lace for collar and cuffs.

The pattern 4209 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

WOMAN'S ROUND YOKE WAIST 4188

To Be Made With or Without The Fitted Lining.

Dainty waists made with fine tucks and either lace or needlework are in the height of style and are always charming. This smart example is made of handkerchief lawn combined with Valenciennes lace and beading threaded with black velvet ribbon, and is unlined, but the design suits soft silks and delicate wools as well as linen and cotton fabrics and the waist can be made over the fitted foundation, either with or without a transparent yoke when such treatment suits the material.



4188 Round Yoke Waist,
32 to 40 bust.

The foundation or lining is smoothly fitted but closes with the waist at the centre back. The waist proper consists of the round yoke, tucked backs and a slightly full tucked front. As illustrated the yoke and low collar are joined by the beading, but the stock can be made separately if preferred. The sleeves are in elbow length, tucked in clusters and trimmed to match the waist and are finished with deep lace-edged frills.

To cut this waist in the medium size 4 yards of material 21 inches wide, 3¼ yards 27 inches wide, 2½ yards 32 inches wide or 2 yards 44 inches wide will be required with 8½ yards of insertion and 12 yards of beading to trim as illustrated; or 5 yards of insertion 10 yards of beading and ½ yards of all-over lace or inserted tucking for yoke when such material is preferred.

The pattern 4188 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

The price of the above patterns post-paid is only 10 cts. each. Send orders to The Farming World, Confederation Life Building, Toronto, giving size wanted.

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JAMES MILLS, M.A., President

Guelph, July, 1902.



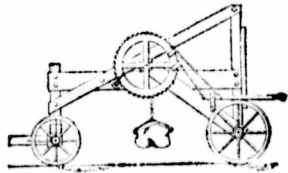
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THE NEW STONE AND STUMP EXTRACTOR BREVETED BY LEMIRE.—Capable of lifting 18,000 lbs. Has no equal for lifting and carrying stones, etc., for placing stones so as to build up fence to 5 feet high and leave the ground in a condition fit for mowing and reaping machines. After the hoops are adjusted on the stones, the only thing to do is to pull the lever. You can lift up a thing, carry it and place it on a stone fence in 10 minutes. The agricultural societies and clubs of farmers should all buy it. Price moderate. For complete details, address to A. LEMIRE, Prop., PLESSISVILLE, QUE., or PLESSISVILLE FOUNDRY, SOMERSET, QUE.

This Stone Extractor is guaranteed for the extraction and transportation of 40 to 50 stones a day, fixed in fence.

Guaranteed as mentioned above. Agents wanted. A. LEMIRE, Prop., WOTTON, QUE., or PLESSISVILLE FOUNDRY, SOMERSET, QUE.

A Summer Romance

Oh, it came to pass that Timothy
Grass
Loved winsome Mistress Clover;
He gazed and sighed, and his fate
he tried
Over and over and over,
But the more he plead she tossed
her head,
Saucy and quite flirtatious,
And romped with the breeze and
the bumble-bees
In a style, the minx, audacious.
Still his passion grew, till the fields
all knew,
As well as the larks o'er-poising.
Sang the bobolink: "Say, what do
you think?"
Alar the gossip noising.
Yet his heart held stout amid gibe
and pout,
And true as the stars above him;
And one eve, through the moth, she
gave her troth—
"Tell Timothy I—I love him!"
How zephyr and bird spread wide
the word!
How crickets piped their praises!
Till, a month scarce gone, they
were wed at dawn
In front of a throng of daisies.
And the groom, by the aid of the
reaper's blade,
Sir Timothy Hay was knighted,
While Clover Hay is the charming
way
Her name must now be cited.
—Edwin L. Sabin in Smart Set.

A Clambake

An experienced cook gives the following directions for a successful clambake:
"Select a dozen or more large, round stones. Of these make a level floor something like a city pavement; pile the wood on them; and make a good brisk fire to heat the stones thoroughly. The time will depend upon the wood, and the wind, and the size of your bake. When the stones are hot enough to crackle as you sprinkle water on them they are ready. Brush the embers off, letting them fall between and around the stones. Put a thin layer of wet seaweed on the hot stones to keep the lower clams from burning and to make steam enough to begin the cooking. Have the clams well rinsed and free from all sand and grit. It is better to do this in the salt water, if at the beach. Pile them over the stones, heaping them high in the center. Put in with them any other edibles that are to be steamed, such as corn, fish, etc. Cover with a thick layer of seaweed, and then on top of this cut a piece of canvas, blanket, carpeting, or wanting any of these, you may use a layer of dry leaves to keep in the steam. The time for roasting will depend upon the size and quantity of the clams. Peep in after half an

When washing greasy dishes or pots and pans, Lever's Dry Soap (a powder) will remove the grease with the greatest ease. 25










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These Young People

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DENCE DEPARTMENT, which includes 12 complete courses
of instruction.






















































































































hour and try those on the outer edge. If the shells will open easily the clams are done, but sometimes it is safer to keep the middle of the heap covered longer that all may be well done. If underdone they will open hard, will not skin easily, and are lacking in flavor. If overdone they will be dry, hard, and sometimes burned."

Mary and the Meat Trust

Mary had a little lamb,

With mint sauce on the side;
When Mary saw the Meat Trust's bill,

It shocked her and she cried.

Mary had a little veal—

A cutlet, nicely broiled;
Her papa, to pay for that veal,
All morning sorely toiled.

Mary had a little steak—

A porterhouse, quite small;
And when the bill came in, she sighed,
"No dress for me next fall."

Mary had a little roast—

As juicy as could be;
And Mary's papa simply went
Right into bankruptcy.

Mary isn't eating meat;

She has a better plan;
She vows it's ladylike to be
A vegetarian.

Mary and Her Damm

Mary had a little "damm"—

At least she told us so;
In everything that Mary wrote
The "damm" was sure to go.

This little word to Mary brought

Much lucre and renown;
So Mary and her little "damm"
Are coming soon to town.

So if you wish to famous be

In the land of Uncle Sam,
Just try to imitate the ways
Of Mary and her "damm."
—Exchange.

"Children, said the teacher, while instructing the class in composition "you should not attempt any flights of fancy, but simply be your selves, and write what is in you. Do not imitate any other person's writings or draw inspiration from outside sources."

As a result of this advice, Johnny Wise turned in the following composition:

"We should not attempt any flites of fancy, but rite what is in us. In me there is my stummick, lungs, hart, liver, two apples, one piece of pie, one stick candy, and my dinner."—Exchange.

Here is one of Fenmore's stories: "Look 'ere, Bill, canst tell me what a hanthem is?" "No, Jack, but I can hexplain. If I says to 'e, 'Jack, hand me that er marling-spike,' that's all right, but if I says to 'e, 'Jake, Oh, hand, h-a-n-d to me that ere, that er mar, that er mar, mar, marlin', hand to me that ere m-a-r-l-i-n-s-p-i-k-e,' that would be a hanthem, Jack."—New York Press.

Wise Ways of Women.

No "prizes" offered with common soaps will long tempt the wise woman to use common soaps. The wise woman soon sees she has to pay dearly for "prizes" in the low quality of soap, in the damage common soaps do her clothes and her hands. The wise woman considers her health—so soon ruined if she were to continue breathing the steam of adulterated common soaps. The wise woman recognizes the difference between such soaps and Sunlight Soap—Octagon Bar. 212



Baby enjoys his bath

all the more, and his sleep is the sweeter when you use

BABY'S OWN SOAP

It softens and soothes all skin irritations, keeping it healthy and fresh.

Don't use imitations on Baby.

ALBERT TOILET SOAP CO., MFRS.
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The Average Gentleman

finds our special 125 size watch the most sui able for general wear — we have them in silver cases from \$10 upwards — gold-filled cases from \$13.50 upwards — 14k gold cases from \$30 upwards.

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A Good Opportunity

The announcement is made that during September and October settlers' rates will be in effect on the Southern Pacific and its connecting lines through Ogden and El Paso to California, from Omaha, Kansas City and other Missouri River points, \$25.00; St. Louis, New Orleans and Mississippi River points, \$30.00; Peoria, Ill., \$31.00; Chicago, \$33.00.

This rate becomes effective September 1st and is open to the public. Stop over checks will be given at various points in California. A booklet called "California for \$25" will be of value to intending home-seekers and other literature published by the company will be helpful to those proposing to winter in California. The general office in Chicago or San Francisco will furnish it free. The wonderful Western State is very prosperous.

The Goldie & McCulloch Co. Limited

Galt, Ont., Canada

Recently received the following unsolicited testimonial which speaks for itself.

Toronto, Aug. 6th, 1922.

The Goldie & McCulloch Co., Galt, Ont.

Gentlemen,—

In our recent fire, which as you know was a total wreck, and of which we are sending you a photo by this mail, we had two Goldie & McCulloch safes in which we kept all our books. They have come through the fire in remarkable shape and we feel that our praise for your safes cannot be great enough. This fire was an extremely hot one, the locality in which these safes were, being surrounded by hay and grain as well as large quantities of packages, barrels and boxes. We might say that everything was burned to a crisp, heavy iron being twisted and melted into frightful shape. We had almost given up all hope of being able to get the books and documents from the safes in such a manner as to make them of any use to us, which we can assure you would have been a very serious matter. We were agreeably surprised, however, on reaching them. While we found the safes somewhat warped and bent on the outside, yet all our books and documents came out in such a manner that we can get everything from them all right. This, without a doubt was an extremely hot fire, and the way in which they came through it leaves no room for question as to the manner in which they are made and the stuff they are made of.

Again congratulating you on the safes which you turn out, and trusting that we shall have the pleasure of purchasing from you when we again rebuild, as we know of none better, we are

Yours truly,
F. McINTOSH & SON.

Dic. R. K. McL.

Send for Catalogue. Address Dept. N.

QUESTIONS AND ANSWERS

Horse Interfering

C. M. Norfolk Co., writes: "I have a mare that interferes in her two hind legs especially when speeding. I have had interfering shoes put on her but she still does the act. Can she be cured of this trouble, and what shall I do?"

As a rule, interfering in horses may be obviated and often entirely cured by a judicious method of shoeing. There are cases, however, that baffle all attempts to remedy, and these are in nearly all instances due to an unnatural muscular development. We find that shoes when changed from a light to a heavy weight always have a tendency to not only increase but actually bring on the trouble. This is most seen in cases where the horse has been recently shod with new shoes, when the fetlocks get quite sore, but when the shoes have become worn and quite thin the wounds heal and the trouble entirely disappears. This goes to show that light weight decreases while heavy increases the trouble. Looking at it from this point of view, we would advise you to try the use of very light shoes, say about six or eight ounces, governed to some extent by the size of the feet, and if this does not accomplish the desired result, then have the shoe made thicker and heavier one-quarter of the distance from the center of the toe to the heel on the inside. This is best accomplished by welding a small, flat calk on the web of the shoe; and also have the outside heel a little lower than the inside. A horse in interfering always rolls and toes in and this you can to some extent overcome.

W. C. H., New Brunswick, writes: "A yearling heifer of mine has become very lame in the right hind foot and ankle. When first noticed it was a slight swelling. About the sixth day the foot and ankle were swollen tight and very feverish. About this time the left ankle had begun to swell. It now looks like grease heels on a horse, a thick yellowish substance oozing out. She almost refuses to walk and is failing in flesh very fast."

If but one foot were affected the trouble might be traced to some injury from a sliver or thorn. On general principles, after searching for a foreign body and removing same if found, poultice the part with hot flaxseed meal until inflammation subsides. Mix an antiseptic in the poultice and wash ankle with same each time poultice is renewed. If there is a discharging sore or "pipe" inject into it twice daily a 10 per cent. solution of protargol. Where simple foul in the foot is present, and the horn is not diseased or underrun, poulticing followed by applications of pine tar upon oakum placed between the digits and kept in place by means

of a narrow bandage will usually suffice. All decayed or loose horn should be removed by knife before applying the oakum. If there is merely an inflamed, raw condition of the skin apply benzoated oxide of zinc ointment twice daily after poulticing as advised above.

A Bitless Bridle

We have had several enquiries regarding the bitless bridle described in The Farming World of August 19th last. This bridle is made by The Porter Humane Bridle Co., Boston, Mass., from whom we presume full particulars can be obtained. The information we gave regarding it was taken from an American exchange which gave no details as to cost, etc.

The Western Fair

The Western Fair for 1902, which opens at London on Sept. 12th next, promises to be one of unusual interest. This Fair is located in the centre of the best agricultural section of Ontario and draws largely, both in exhibits and attendance, from the whole Western Peninsula. It has had a successful

record for a quarter of a century and from what we learn, this year's show will equal, if not excel, all previous ones, both as to the quality and quantity of exhibits.

Poultry and Eggs

Advertisements under this head one cent a word. Cash must accompany all orders under \$2.00. No display type or cuts allowed. Each initial and name for counts at one word.

BROWN Leghorns, Prolific early layers; Strain won at Pan-American. Stock for sale—Minorcas, Barred Rocks, Choicest Strains, Eggs in season. JOHN B. PETTIT, Fruitland, Ont.

BUFF ORPINGTONS, imported this season from England, 8 birds costing \$125. Solid buff eggs \$3 per 13. Also breeder of Brown Leghorns, continuous layers, Barred Rocks, E. B. Thompson's White Wyandottes, Indian Games, true black type for export. I won leading prizes and sweepstakes at the Ontario and Bradford shows. Incubator eggs \$2.50 per 100. J. W. CLARK, Importer and Breeder, Oranodge, Ont.

BUFF ORPINGTONS—For sale, choice breeding stock. Prices on application. Also Cockerels of value to breed with ordinary farm fowl, especially Barred Rocks. Price \$1.50 each. K. F. HOLTERRMANN, Bradford, Ont.

MUNDRED'S Pheasants for sale—Goldens, Silver, Swinbos, Versicolor, English, Chinese, Amhersts and Reeves. Send stamp for price list. CANADIAN PHEASANTRY, Hamilton, Can.

GET Free Catalogue on Fattening Poultry. MORGAN'S INCUBATOR WORKS, LONDON.

Profit Finding

As a labor-saving device, as a waste preventer and as a profit-maker, a cream separator stands without a rival in the successful dairyman's outfit. A visit to the dairy building at the Industrial Fair, Toronto, on opening day, we confess, somewhat of a revelation. Here we found gathered the latest and most up-to-date devices mechanical skill and inventiveness could produce in perfecting dairy products. Among these we noted the Empire Cream Separator, manufactured by the U. S. Butter Extractor Co., Bloomfield, N. J. Their exhibit, which is placed alongside of the Model Dairy, attracted general attention. This machine is looked upon as a standard of excellence in the United States, and its maker claims that

their output has more than doubled within the last two years. The outstanding features of the Empire hand separator are its easy running qualities, accounted for: 1st, by the three-ball step bearings with which each machine is equipped. 2nd, Its durability, the perfect simplicity of the machine with its single bearing accounting for this feature—any farmer able to handle a screw driver and a monkey wrench can adjust any part of the Empire. 3rd, The friction clutch attachment, which is a device similar to the well-known bicycle coast break, renders it extremely convenient and as the release of pressure on handle stops all the mechanism, except the bowl and a worm gear, the friction and wear are reduced to a minimum. 4th, An ever ready shell for pails and an attached bowl vice is a further advantage. Altogether, for simplicity, durability, ease of operation and convenience the Empire deserves the serious consideration of every cow owner.

The milk is run through the separator immediately after milking, giving warm, sweet skim milk for feeding or other purposes, and leaving only the cream to be taken care of. Truly great is the cream separator and a visit to the Empire's display will amply repay every visitor to the Exhibition. A handsome catalogue is yours for the asking. Mr. H. C. Sparling, Canadian representative, who is in charge, will gladly show the working of the machine and quote prices. The company will push the business in Ontario, shipping from Toronto.



The Model Fair

In the Gazette Department this week is published the programme of the Model Fair to be held at Whitby on September 23rd, 24th and 25th. This Fair has been taken hold of this year by the Superintendent of Farmers' Institutes, the Secretary of the Live Stock Associations and the Dominion Live Stock Commissioner, who, in conjunction with the regular Board of Directors, will conduct it entirely free from special attractions of any kind, other than those of a purely educational character. Expert judges will be engaged, who will give the reasons for their awards, and lectures will be given by prominent authorities on agricultural topics. The desire is to make this a Fair that others can copy from. There should be a large attendance from all parts of the province.

Proposed Legislation re So-Called "Woollen Goods"

BY ALFRED MANSELL, SHREWSBURY,
ENGLAND
(No. 4.)

With this object in view, the Hon. Chas. H. Grosvenor, at the request of the National Live Stock Association, recently introduced into the House of Representatives of the United States, a Bill to provide for federal inspection of mixed goods and the proper marking of the same, which is known as H. R. 6565. The purpose of this Bill is to make it possible for the consumer to know what he is purchasing by having the goods stamped so as to indicate whether it is all wool, or if not, then the percentage of shoddy or waste. There is no objection made to the use of cotton waste, mungo, shoddy, etc., etc., in the manufacture of textile fabrics, when the fact is made known to the consumer, and where fraud is not perpetrated by selling these mixtures as all-wool fabrics.

As an epitome of the measure, the following is extracted: "All manufacturers of goods or fabrics of any kind whatsoever made in imitation of woollen goods or fabrics, or goods which when so made are calculated or intended to be sold as woollens or woollen goods, not made wholly of new or unused sheep's wool, shall so mark, label, or tag such goods, as that they may be readily distinguished from genuine wools or woollens, as defined in the first section of this Act. That such mark, label or tag shall be so attached to such goods or fabric so that it cannot be detached except by design, and such label shall accurately state in plain printed letters or figures the constituent fibres or other materials or substances of which it is composed, or the relative proportion per cent. of each." The penalty for non-compliance with the provisions of the proposed law are thus set forth: "That any manu-

facturer, merchant, importer, or other person who shall wilfully, recklessly, or carelessly mark incorrectly any cloths, goods or fabrics, or any article manufactured, or in the process of manufacture therefrom, required by this Act to be labelled or marked, so as to show a larger per cent. of wool or a smaller per cent. of shoddy, or cheaper fibre or material, in any manner than will, or is calculated to, deceive or mislead the purchaser thereof, shall be guilty of a misdemeanor, and shall be fined not less than \$50.00, and not more than \$5,000.00 for each offence."

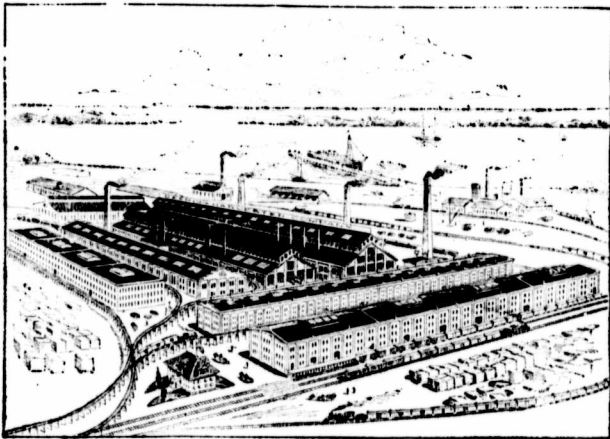
The National Live Stock Association points out that "There are several classes of shoddy. The best is made from the sweepings of tailor shops, and the emptyings of ragbags in civilized countries. The worst, which constitutes the

greater part used in America, is from the rotten cast-off rags of beggars and the lazar and pest houses of Europe, having in them all kinds and amounts of filth and disease. These are gathered by rag-pickers from the slums and alleys and sent to America in shiploads, where they are purchased by a certain class of manufacturers, who, in order to take the curse off the name, term the stuff 're-used wool fibre.' It must be remembered, however, that in most instances, when tearing this shoddy to pieces, preparatory to again weaving it into cloth, it is found to be so rotten and dead, that nothing is produced but dust, and in order to get two ends, so that it can be spun, a minimum portion of wool or cotton is mixed with it, in order that it may be held together. The next step after weav-

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ing carries it to unscrupulous dealers, who sell this production to the laboring men, and, in fact, to all classes of society, for 'pure wool,' thus getting for a suit worth three or four dollars, more than three times this amount. To encourage such a fraud is simply putting the lousy rags of European paupers in competition with the sheep and wool growers of America and elsewhere, and robbing the consumers who wear woollen garments by selling them the stuff under misrepresentation. If the foregoing statements are facts, and it is scarcely likely the Live Stock Association would publicly state them unless they were true, it can be readily seen that, apart from the fraud and misrepresentation in the matter, there is a considerable source of danger to the public health through infection.

It will, I believe, be readily admitted that some shoddy is better than many low grade wools, and when made into cloth, would make a better article than the short, staple, low-grade wool; but this is one of the anomalies one has to contend with, and should not be a stumbling block to legislation on the question.

Strenuous efforts will, no doubt, be made in all countries where legislation is proposed to prevent the consideration of the subject, but the difficulties in the way of formulating a workable enactment cannot be unsurmountable, and I sincerely hope that this paper may do something to hasten the object we have in view.

Ottawa Exhibition

(Continued from page 210)

family sold by Mr. W. S. Marr, of Upper Mill, at the last Chicago International Show, was bought by Mr. Edwards for \$6,000. The Rockland calves were extra good, and in color representative of the breed. First place was given the red, second the white and third the roan. The latter, by the Marquis of Zenda, is a big growthy calf, and was the favorite of the herds-men, but was not in as good bloom as the other two and will likely be a bigger and stronger type with more prominent hook bones. To the red calf was awarded the gold medal as best female, any age. She is a very smooth calf, a good size, in color a deep red with a little white hardly seen on the underline, very smooth and well fleshed. The white is a good one and many judges were in favor of her as the best of the lot, handling well and with good, well-fleshed top. For aged bulls, Chas. W. Holmes, Amherst, had the second prize animal, a roan, and for yearlings there were two good ones shown by Hon G. A. Drummond, Point Claire, Que. First was awarded to "Cicelys Pride" (78549), a roan bred by The King, Sandringham, Norfolk. He was shown twice at local shows in England, winning first both times, and the sweepstakes prize at Nor-

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<p>The E. B. Eddy Co., Limited</p> <p>PARLOR Hull, Canada MATCHES</p>	<p>DON'T Experiment with other and inferior brands, Use EDDY'S</p>	<p>OUR BRANDS</p> <ul style="list-style-type: none"> ..King Edward" 1000s ..Headlight" 500s ..Eagle" 100s and 200s ..Victoria" ..Little Comet" <p>For Sale Everywhere.</p>
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folk. He is by Pride of Collin (75248), out of Cicely. The prize offered by Hon. Sidney Fisher of a gold medal for best herd of dairy Shorthorns had no entries, as, indeed, until classes are established for this class the offer of a medal would not be likely to bring out any exhibitors. Galloways were represented by 16 head, entered by D. McCrae, of Guelph. The bull "Cedric IV.," twice champion in Britain and again at the Pan-American at Buffalo, is at the head of this herd and some very fine females of good beef type and with plenty of hair upheld the claims of the border breed of blackskins. Herefords were shown by H. D. Smith, Compton, Que. He shows Prince Ingleside at the head of this herd of white faces, well brought out for a three-year-old with 2100 lbs. Chatterbox, by Mark Hanna, was the female that was clearly a first and well won the diploma as the best Hereford female. In Polled Angus, Walter Hall, of Washington, Ont., had the only ones shown. Lucretius is his bull, six years old, now to be replaced by one in quarantine from the herd of Dalmeny, owned by Lord Rosebery. His cow, Lady Gladstone, is a good animal and carries a wealth of thick flesh. Fat cattle were a small show. Richard Clark, Merivale, had the only steers shown in the older classes, and the yearling steers were represented by a white pair shown by J. R. Coates, Napan, N. S. The fat cows were a Shorthorn from the W. C. Edwards' herd, and two Polled Angus shown by Walter Hall. The Shorthorn won this prize.

SHEEP

There was, in some classes, not very close competition in the sheep. This was reversed in Southdowns, where there was a close contest amongst very good even animals. Hon G. A. Drummond and F. E. Came, St. Andrews, N. B., were the owners. The latter had some of the best pens from the Royal Show of England at Carlisle and won most of the first prizes. For aged ewes, however, the Quebec flock was first and second and the imported ewes only third place. It was an excellent show of Southdowns. In Shropshire Down, Messrs. Lloyd Jones & Sons, Burford, Ont., and Norman F. Wilson, of Cumberland, had a close fight with the former, winning the most firsts and the two flocks dividing the money evenly. N. F. Wilson had rather the best of it in lambs, his first-prize ram lamb being a very square, short-legged, blocky fellow, wool to the heels. John Kelly, of Shakespears, had some excellent Hampshires, and he also had the winning Leicesters. One Leicester shearing ewe being especially good, with a back and loin very seldom seen in any breed. In Dorset Horns, Lt.-Col. McGillivray, of Toronto, had out his flock in very good shape and won all the firsts. John A. Richardson, South March, only

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Who Are Broken in Health
Whose Vitality is Wasted

Whose Backs are Weak
Who are Old While Young
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Men and women with Back Pains, Rheumatism, Nerve Weakness, Indigestion, Constipation, Liver, Kidney or Bladder Troubles.

My Electric Belt has restored health and strength to thousands of nervous, debilitated and pain-worn men and women. You also can be cured if you will grasp the opportunity I offer. Electricity, as furnished by my Belt, cures by giving back to the weakened nerves, muscles and organs the vitality they have lost, reducing inflammation, developing the full vigor of health and removing the effects of overwork, exposure to weather and long-continued sickness.

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is the weak man's friend. "Worth its weight in gold" has been said of it thousands of times by rejuvenated men and women. It is a certain cure. It warms the heart, expands the vitality, drives out disease, and makes health and strength. Try it and be happy.

Thousands Will Tell You the Same.

Your Belt has done for me what doctors failed to do. My heart, stomach and nerves were all wrong; I had no appetite for anything, but in a very short time your Belt relieved me.—MRS. J. CHALLENGER, Cedarville, Ont.

It gives me pleasure to let you know that I am a well man, entirely cured by your Electric Belt. I am satisfied.—JOHN NOBLE, jun., Hanover, Ont.

The Belt drives the pain out of my back. I can tell you that I am cured in one month more. The Suspensory is a grand thing to build up the parts. I have the greatest faith in your Belt, and I must say you are the most honest man I ever dealt with.—GEO. A. MADGETT, 178 Stanley Ave., Hamilton, Ont.

I am willing to take all the chances of curing your case, and if I fail you will have the satisfaction of knowing that one of the best and strongest electric appliances in the world has failed. All you lose is your time. My confidence in my method enables me to offer any man or woman who will secure me the use of my Belt at my risk and

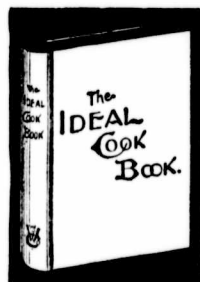
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captured one second and two thirds. In Oxford Downs J. H. Jull, Burford, had his flock in good shape and won all but the aged ram class. In Merinos W. M. Smith, Scotland, Brant Co., and R. Shaw & Sons, Glanford Sta., pretty well divided the awards, the former having most of the first prizes. The long wools, Cotswolds and Lincolns, were represented by eastern flocks, A. Denis, St. Norbert and others. There were few fat sheep shown. John Kelly won for long-wooled wether, Geo. A. Drummond for short-wooled, and for shearing wether Lloyd Jones and J. H. Jull had the only ones favored, the former winning.

SWINE

For Berkshires in a good show, Wm. Wilson, Snelgrove, had the best of the awards, with R. Reid & Co., Hintonberg, also showing some good ones and winning for aged boar. The show of Yorkshires was fair, but not extra in quality. C. W. Ross, Douglas, Renfrew Co.; D. Barr, Jr., Renfrew, and J. G. Clark, Ottawa, were the chief prize takers. W. M. Smith, Scotland, had Poland Chinas and Doroc Jersey Reds, and he also showed a few Tamworths, as did also R. Reid & Co. and John A. Richardson. There was a good show of Chester Whites.

JUDGING LIVE STOCK

The contest for best judges of live stock was a most interesting one. These prizes were especially donated by the Massey-Harris Co., Limited, for the benefit of the agricultural community and with a view to increase the interest in the Ottawa Fair. The competition was confined to farmers or farmers' sons, not over 25 years of age. Judging had to be done by score card under the guidance and direction of the judges. There was a very large number of young men (all residents of Canada), who tried in this competition and the awards were made as follows:

Beef Cattle.—1st, Norman F. Wilson, Cumberland; 2nd, J. C. Ready, Rosette, Lanark Co.; 3rd, Fred Barnett, Rockland; 4th R. J. Downing, Fenaghvale, Renfrew Co.
Dairy Cattle.—1st, James Ferguson, Spring Hill, Ont.; 2nd, N. F. Wilson, Cumberland; R. J. Downing, Fenaghvale; Geo. B. Rothwell, Ottawa, equal.

Sheep.—1st, N. F. Wilson, Cumberland; 2nd, R. J. Downing, Fenaghvale; 3rd, J. C. Ready, Rosette; 4th, Geo. B. Rothwell, Ottawa.

Swine.—1st, H. Barton, Vanckleek Hill; 2nd, Geo. B. Rothwell, Ottawa; 3rd, J. C. Ready, Rosette; 4th, R. J. Downing, Fenaghvale.

Keep your eyes open and be sure that when you ask for Perry Davis' Painkiller you get just that and nothing else. Use it promptly to cure cramps, diarrhoea and all other bowel complaints in summer.

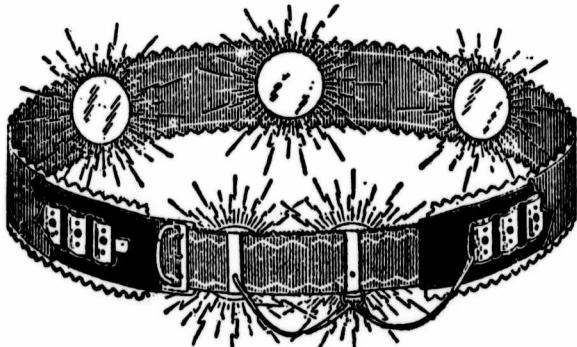
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The Morse Belt is made exclusively in one grade—the very highest possible to manufacture, and this fact has been taken advantage of by medical men to rob the public by exorbitant prices. The Genuine Morse Alternating Current Electric Belt demonstrates the grand power of Electricity to weak, worn-out, debilitated men and women. An Unfailing Cure for all disorders of the Nervous, Muscular, Seminal and digestive systems. Instantly relieves Rheumatism, Neuralgia, Headache, Lumbago, Fever and Ague, Asthma, Kidney Troubles, Dyspepsia, Liver Disorders, Throat Troubles, Catarrh, Constipation, Sciatica, Pains in the Back, Sleeplessness, Nervous Debility or Exhaustion. For Paralysis and Constitutional Weakness it has no equal. For the quick and positive cure of all diseases that arise from a diminution or lessening of the vital power, which Electricity alone can restore and increase, the Morse Electric Belt is absolutely guaranteed. For a Weak and Deranged Nervous System the Electric Belt gives splendid results. It stops losses, repairs waste, strengthens every tissue and muscle, and the whole body feels the good effect. Weak Men, Sufferers from Lost Manhood, Lost Vigor, Lack of Development, Varicocele, etc., are restored with the prompt cure and regeneration derived by the use of the Morse Belt, which we sell under our positive Guarantee to impart more Vigor, Strength, Energy and Soothing Effect in all physical ailments than any Electric Belt on the market. Every Belt is furnished with Electric Suspensory (not shown in cut).

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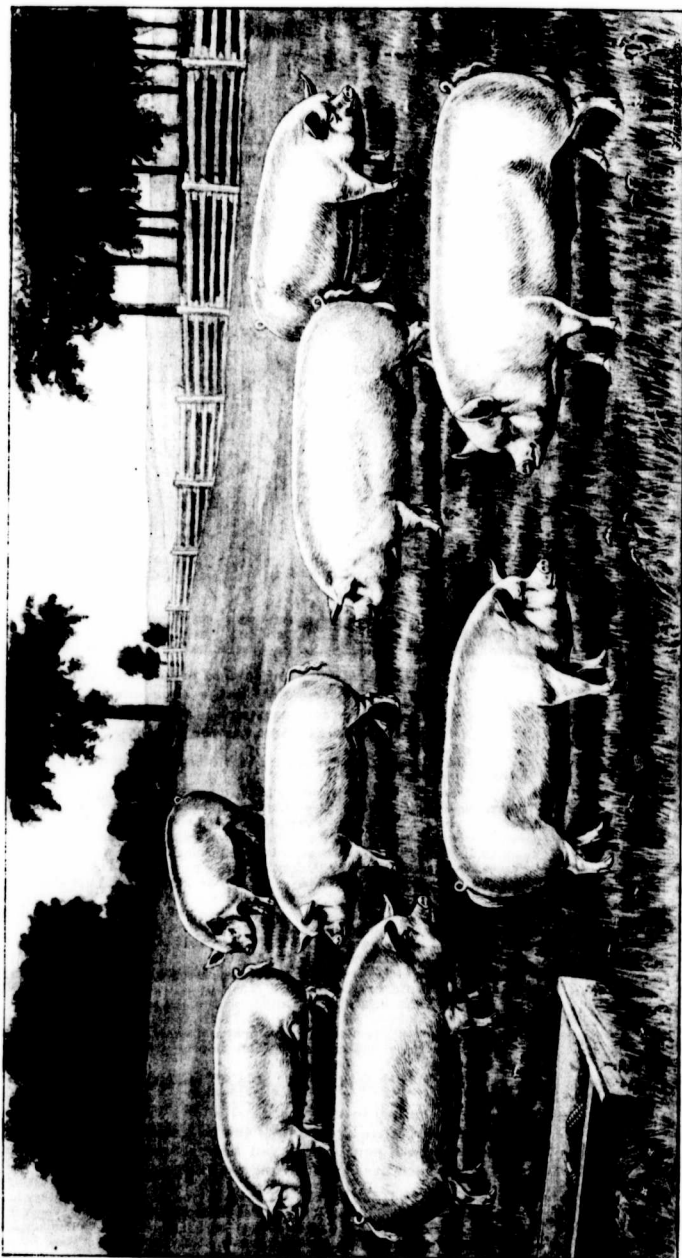
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**Representative Group of Some of our Breeding Stock—Winners at
Pan-American, Buffalo, and Toronto and London Fairs.**

Large English Yorkshires, Imported, and Imported Foundations, Lengthy with Deep Sides
Our Breeding Stock is noted for size and production of large litters.

One of our sires has a record to his credit
which is the greatest of any living Yorkshire.

IRA JOHNSON,

- -

Balmoral, Ont.

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.


Horses

Special attention is directed to the announcement of Smith & Richardson, Columbus, Ont., which appears in this number. Mr. Fred Richardson of that firm returned from Scotland last month with an importation of six Clydesdale stallions including "Hopewell" 11375, full brother of the great Glasgow winner "Hiawatha", Lavender—11349—out of the same mare as "Royal Cairnton" the Chicago three year old winner in 1901, and "Pioneer"—11131—sired by Sir Arthur, owned by the Whitby Clydesdale Association. He also brought with him a pair of young mares for Mr. George Gormley, Unionville, Ont. This splendid importation cannot but greatly improve the breeding of horses in Canada. The horses included in this importation are among the best, and the mere mention of their names is sufficient to show the high breeding of the animals brought over.

The Scottish Farmer, referring to some recent shipments of Clydesdales to Canada says:

The Donaldson Liner, Tritonia, which sailed on Friday, 8th inst., had on board a large shipment of Clydesdales for different buyers. Messrs. Smith and Richardson, Columbus, Ontario, shipped six colts and two fillies. Of the colts, Pioneer (11131) was purchased from Mr. Wm. Anderson, Saphock, Old Meldrum; the big horse Scotland's Chieftain (11180) from Mr. James Relph, Stainton, Perth; Lavender (11349) is from the Messrs. Montgomery, and other three colts, with one filly were purchased from Mr. Peter Crawford, Dargavel, Dumfries. The colts purchased from Mr. Crawford are Hopewell (11375), Laird of Craigie (11084), and Sir Tain (11572). A choicely bred filly was also purchased from Mr. Hugh Todd, Harperland, Dundonald. She was got by the Sir Everard horse King's Cross (10070), and her dam was by the Glasgow premium and champion horse Lord Erskine (1714). The breeding of these colts as an examination of their pedigrees will show, is of the highest order, and combines some of the best blood recorded in the Stud Book. One of the horses named is own brother to the champion stallion Hiawatha (10067), which four times won the Cawdor Challenge Cup, and was himself got by the champion Prince Robert, out of the well-known Stranraer champion mare Old Darling (7365). Another was got by the well-known Keir stud horse Ethiopia (5750), out of

a mare by Prince of Albion, which won prizes at the Highland four years in succession; and yet another is by the well-known breeding horse Prince of Johnstone (9006), whose stock have won numerous prizes at Dumfries and the shows in Perthshire, while the grand of the same colt was by the celebrated Young Duke of Hamilton (4122), which gained the Glasgow premium in 1887. Altogether, Messrs. Smith & Richardson are to be congratulated on their selection. Messrs. Dalgetty Bros., London, Ontario, have also shipped twelve stallions and two fillies. Of these may be mentioned the purchase from Mr. Alexander Scott, Berryyards, Greenock, of the big prize winning horse Prince of Cowal (10849), one of the biggest and most powerful Clydesdale stallions shipped to Canada for a long time. He was got Mr. Riddell's prize horse Gallant Prince (10552), winner at both the Highland and Glasgow, and out of an own sister to the champion Sir Everard (5353). The second, Montrose Chief, was purchased from Mr. Wm. Meikle, Newbigging, Montrose, and was got by Mr. Webster's noted breeding horse Lord Fauntleroy, whose produce were gaining first prizes at the recent Angus Show. Three were purchased from Mr. James Drummond, Pitcorthie, Dundermine two being two-year-olds. One was got by the noted Clackmannan and Fifeshire premium horse Borland Pride (10318), a son of the celebrated Baron's Pride (9122), while the second in the same lot was by the noted Kinross premium horse Prince of Roxburgh (10616), and was out of the same dam as the noted Glasgow premium horse Casabianca, and got by Macgregor (1487). The remainder of the Dalgetty Bros.' shipment was purchased from Mr. Peter Crawford, Dargavel, Dumfries, and included a colt got by the Cawdor Cup champion horse Prince of Carruchan (8151), which was never beaten at any show of the H. and A. S. Society, where he won three years in succession. Prince Shapely, the Pute, Dumfries, and Duke of Portland's premium horse, bred by Mr. James Kerr, and the well-known breeding horse Royal Champion (6356), sire of many prize horses in Cumberland. It is some years since Mr. Oswald Sorby, Guelph, Ontario, visited Scotland, and his return is welcomed by his many friends. His shipment includes nine horses and one mare, all of them purchased from Messrs. A. & W. Montgomery. The mare is the famous prize winning Montrave Geisha (14584), bred by Sir John Gilmour, and got by the noted



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to give satisfaction.

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CAUSTIC BALSAM

A safe, speedy and
positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases of Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a **HUMAN REMEDY** for Rheumatism, Sprains, Sore Throat, etc. it is invaluable.

Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

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NO SPAVINS

The worst possible spavin can be cured in 45 minutes. Ringbones, Curbs and Splints just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners.

Write today. Ask for pamphlet No. 204


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ROCK SALT for horses and cattle, in ton and car lots. **Toronto Salt Works, Toronto**

NO HUMBUG I PROTECT MY STRUTTING!

Honorable Sewer V. Stock Market and Calf Detector. Shows whether all men from rooking. Makes different ear marks, all sizes, with game blade. Extracts Horse, Testimonials free. Price \$1.00 or send \$1 for trial. All works sent balance Paid U. S. Money, 92 for 100. Canada Post 17, 92, 1898. FARMER BRIGHTON, Fairfield, Iowa, U. S.



ONTARIO VETERINARY COLLEGE, Limited

Temperance St., Toronto, Can.

Affiliated with the University of Toronto.
Patrons: Governor General of Canada and Lieutenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Fees, \$60 per session.

PRINCIPAL PROF. SMITH, F.R.C.V.S.,
TORONTO, CANADA

THE BEST BUTTER

Can only be secured by close attention to every detail. Much of the paper sold as vegetable parchment for wrappers is only imitation, and quite liable to impart a bad flavor to butter. We import large quantities of the genuine article direct from Germany. We supply it plain or printed. Write for samples and prices.

Sentinel-Review Co. Ltd.,
Box 724, Woodstock, Ont.

£1,000 horse Montrave Mac (1935), out of the practically unbeaten prize mare Montrave Gay Lass, whose dam again was one of the best mares exhibited for many years—Lass o' Gowrie. This is an uncommonly well-bred mare, and will be remembered as one of the Montrave fillies which was shown at the principal shows as a yearling, and two-year-old in 1898 and 1899. Amongst the stallions is the successful breeding horse Black Rod (10509), to which was twice awarded the Lanark premium, and also the premium for the Duns district of Berwickshire. He stood well forward in the prize list at the Highland Society Show at Edinburgh in 1899, and was got by Baron's Pride from a Prince of Wales mare; also Pride of Morning (10838), winner of numerous prizes in Bute and elsewhere. He also is a son of Baron's Pride (1122), and his dam is well known in Bute as the Bruchag prize mare, Roseleaf. Another of the shipment is Gallant Roy (11044), which was a premium horse during the past season. The others are Florist (11337), Orpheus (11447), Pedestrian (11450), Baron McAdam (10943), and Baron's Peer (10979). A promising big two-year-old horse is by the well-known Strathbegie and Lockerbie premium horse Blacon Macgregor (10163). It is impossible to give in detail the prizes won by these horses, but an examination of their breeding will show that both sires and dams in several cases have been noted prize winners. For example, the dam of Baron's Peer was the celebrated Lady Diana, which was unbeaten as a yearling filly. Another of the colts is by Black Rod, already referred to as included in the shipment, and undoubtedly one of the best breeding sons of Baron's Pride. This shipment will fully maintain the traditions of Mr. Sorbie's shipments in former years. Mr. Wm. McHarey, also from Canada, has also one in the shipment—Prince Fuchus (11143), a three-year-old horse bred by Mr. J. D. Fletcher, Roschaugh, and got by the well-known prize horse Prince Albert of Roschaugh, from the good breeding mare Fuchsia (1275), bred by Mr. Wm. M'Turk, and winner of numerous prizes as a yearling and a two-year-old both in the South-West of Scotland and in Ross-shire. This horse has travelled Aberdeenshire during the past season, and we understand gave great satisfaction.

Callie

The Brampton Jersey herd whose announcement appears in this issue is the largest herd of registered Jersey cattle owned in Canada. It is headed by Brampton's Monarch (imported) 52866, A.J.C.C., bred on the Island of Jersey, sired by Castor's Pride, one of the best sons of Golden Lad; his dam Canada's Queen was also imported to Canada after winning two first prizes on Jersey Island, and in Canada she has taken the sweepstakes twice at the Industrial Exhibition at Toronto, and has given 50 lbs. of milk

RAPIDS FARM AYRSHIRES

Reinforced by recent importations of 2 bulls and 60 cows, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows last year. Imported Douglassdale of Dame of Aber, champion at the Pan-American, heads the herd. Representatives of this herd won the first herd prize at the exhibitions at



Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Toronto, London and Ottawa in 1900, and at the Pan-American in 1901

Come and see or write for prices.

Robert Hunter, Manager

for W. Watson Ogilvie, Lachine Rapids, Quebec.

SCOTCH SHORTHORNS

Imported and Canadian bred bulls, cows and heifers, including such families as Village Maids, Fairy Queens, Broadhooks, Golden Rose, and other Scotch sorts. Herd headed by Bapton Chancellor, Imp, and the Lovat bred bull, Viceroy.

LARGE WHITE YORKSHIRES

A choice lot of Boars ready for service from imported stock. Also imported and Canadian bred sows in pig to imported boars. Young pigs from six weeks to four months old. Pairs supplied not akin.

Address **H. J. DAVIS, Woodstock, Ont.**

Importer and Breeder of Scotch Shorthorns and Large White Yorkshires.

Pine Grove Shorthorns and Shropshires

150 | Our herd comprises over 150 females, including our last importation of thirty head. | 150

The following celebrated families are represented:

Misses, Nonpareils, Brawth Buds, Orange Blossoms, Butterflies, Lancasters Secrets, Clippers, Amaranths, Mayflower, Roan Lady, Minns.

Headed by the famous Marquis of Zinda 157854, own brother to the \$6,000 Marr imported Missie 153, assisted by Sittytion Champion 1660076, Lord of the Manor 166060, and Village Champion (by Scottish Champion). Our new Catalogue will be sent to all applicants.

Our flock of Shropshires is a large one, and choicely bred. We have on hand and for sale a grand lot of rams, also a few ewes, all bred from imported stock.

For further information address--

Manager,
JOS. W. BARNETT.

W. C. EDWARDS & Co.,
Rockland, Ont.

The Typical Dairy Breed

Good Animals of Both Sexes for Sale



ALVA FARM GURNSEYS

SYDNEY FISHER, Knowlton, Que.

AYRSHIRES AND YORKSHIRES

FOR SALE

I have a number of choice cows and heifers, 2-year old heifers in calf, and bull and heifer calves sired by "Blair Athol of St. Annes." Breeders will find this a rare opportunity to get choice Ayrshires at low prices. I have three choice litters of Yorkshire pigs, six weeks old, ready to ship. Quick buyers will get bargains.

JOHN H. DOUGLAS, Warkworth, Ont.

OAK LODGE YORKSHIRES



Years of CAREFUL BREEDING have made the OAK LODGE YORKSHIRES the Standard of Quality for IDEAL BACON HOGS.

The championship against all breeds has been won by this herd for 4 years at the Provincial Winter Fair, on foot and in dressed carcass competition.

Prices are reasonable
J. E. BRETHER, Burtford, Ont

STOCK

DAVID McCRAE, Janesville, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

HERMANVILLE TAMWORTHS—Largest breeder and exporter pure bred Tamworths in America.—Hermanville Farm Co., Hermanville, P.E.I.

Chester Whites and English Berkshires

Choice Young Stock of both breeds, six weeks and older. Write for prices.

TILLMAN E. BOURMAN, Berlin, Ont.

JOHN DRYDEN

BROOKLIN, ONTARIO

BREEDER OF

CRUICKSHANK SHORTHORNS and CHOICE SHROPSHIRE SHEEP

Choice Young Bulls and Ram Lambs for sale. Write for prices.

QUEENSTON HEIGHTS SHORTHORNS.

Scotch and Scoten-topped choice young cows and heifers for sale at moderate prices.

HUDSON USHER,

Queenston, Ont.

Shropshires For Sale.

Registered

Six ram lambs, four shearing rams, one two shear ram, one stock ram, ewes all ages. Extra good blood. Prices reasonable.

J. F. BRUNTON, Tara, Ont.

Large English Berkshires

LONG BACON TYPE

C. R. DECKER, Chesterfield, Ont.

J. A. RICHARDSON,

SOUTH MARSH, ONT.

BREEDER of Holsteins, Dorset-Horned Sheep
Tamworth Swine

E. PENNEBECKER,

Fairview Farm Hespeler, Ont.

BREEDER OF REG. HOLSTEINS. STOCK
FOR SALE.

OXFORD SHEEP

Sheep all ages. Shearing Rams for Stock Headers and Raising Purposes. Yorkshire pigs all ages. Plymouth Rocks.

John Cousins & Sons,
Harrison, Ont.



BRANT'S OXFORD DOWN SHEEP

Yearling rams and lambs. Ewes all ages. First class stock. All registered. Extra type and style. Prices to suit the times.
Brant Stock Farm
J. H. JULL & SON,
Burlford, Ont.
Burlford Station
Telegraph & Phone



per day. His stock have been noted prize winners at many of the leading Canadian fairs.

The Jersey cattle imported from the Island this season have proven a very valuable addition to the Brampton Jersey Herd. One of this importation that gives special promise is a daughter of Jennie Gedder, a high tested butter cow, sired by Eminent 2d, who with his get won such high honors at the recent show on the Island.

The Brampton Jersey Herd began its exhibition tour on August 21st, headed by Belvoir King, 40297 and may be seen at the leading fairs of the province.

No Canadian breeder has made a closer study of the dairy cattle trade than Mr. A. C. Hallman, Breslau, Ont. He was one of the pioneers in the breeding of Holstein cattle and has stood by this well-known dairy breed ever since. He has at present over forty head which he reports as being of better quality than anything he has ever had. All his stock are in good shape and Mr. Hallman will make an exhibit of fifteen head at the Toronto Industrial Fair this week and next, where he will be pleased to meet his old friends. This show stock are all of Mr. Hallman's own breeding and sired by the noted bull Judge Akkrim Dekol 3rd, 2nd prize in his class at Toronto last year. Though still handling Tamworth swine on a large scale Mr. Hallman is paying special attention just now to Holsteins. He reports a splendid demand for breeding stock and especially for young bulls which are apparently very scarce in the country.

The Dentonia Park Farm's winnings for Jerseys and Guernseys at the Central Canada Exhibition, Ottawa, totalled \$110 cash and six diplomas, comprised as follows: Jerseys, five firsts, sweepstakes for male and female, one second prize and one third prize. Guernseys, three firsts, sweepstakes for male and female, and one third prize.

The Dentonia Farm, which is an experimental farm instituted by the late Mr. W. E. H. Massey, and situated in East Toronto, (Coleman, P.O.), is open to visitors any day of the week except Sunday. It is the wish of the present proprietor that the experiments conducted there may be of benefit to the farming and dairying community generally.

Swine

Mr. Ira Johnson, breeder of large English Yorkshires pigs, Balmoral, Ont., whose advertisement appears on another page of this issue, writes as follows: "I have found that advertising in The Farming World, brings in big returns and that it is the best advertising medium bringing enquiries from the best farmers in all sections, from Nova Scotia to the North West. The following are a few of the many sales I have made recently.

Young boars to Edmund Caverley, Sine, Ont.; C. C. Brown, Nanticoke, Ont.; John Gilliland, Pitts-

Maple Lodge Stock Farm

Scotch Shorthorns, Choice Milking Strains, Prize Winning Leicesters, Young Stock for sale—imported and home bred.

A. W. SMITH, Maple Lodge P.O., Ont.

Live Stock Ear Labels

Send for circular and price list and tack it up on the wall, where you can see it when you want it.

R. W. JAMES,
Bowmanville, Ont.



Southdowns

and

COLLIES

Robt. McEwen, - **Byron, Ont.**

ton, Ont.; J. A. and A. B. Smith, Creemore, Ont.; John Bonsfield, Jarvis, Ont.; A. Harris, Walpole, Ont.; Wm. Thomas Miller, St. Helens, Ont.; Geo. Wharton, Decewville, Ont.; Mr. Brown, North Cayuga, Ont.; R. W. Smith, Oneida, Ont.; Geo. A. Holland, Upper Ontario, and J. C. Fuhur, South Cayuga, an extra fine young boar for exhibition purposes; and sows to the following:

Geo. A. Holland, Upper Ont.; C. J. Smeller, Selkirk, Ont.; Darwin Bartlett & Sons, Smithville, Ont.; Mr. Alman, Rainham, Ont.; J. Strohm, Decewville, Ont.; A. Ferryberry, Willow Grove, Ont.; James Williamson, Erie, Ont.; R. McDonald, Balmoral, Ont.; Geo. Diles, Gaget, Que.; J. Peart, Hagersville, Ont.; J. Stadder, Walpole, Que.

My breeding stock are doing extra well, and my breeders that were winners at the Pan-American, are going on well, producing large litters of very fine young stock, with lots of size with length and deep sides.

Visitors who have inspected the leading herds of the day say that I have the finest collection of young stock they have ever seen either in the show ring or out of it. One of my sows which has been a 1st prize winner at Toronto, London, and Ottawa, in 1899, and also a winner at the Pan-American recently gave birth to a litter of 15 pigs.

This is a grand lengthy sow of great size. She has proven herself to be a wonderful sow in producing, not only large litters, but they are of the up-to-date bacon type. This litter is sired by Commoner, 1st prize at the Pan-American and also reserve number for the championship. He was also 1st at London under 1 year. He was pronounced by competent judges to be the best Yorkshire boar in America. He also has the honor of being the highest priced Yorkshire

ever sold in America, prior to Nov. 15th, 1901.

Special mention might be made in regard to our imported stock. The boars are developing into grand hogs and they are having large litters of the right kind of pigs, combining length and size, with good feeding qualities. It has been said by expert judges, that they are some of the best blood that crossed the water last year. I am offering some grand young things from our imported stock. They are good enough to win in any show ring."

Mr. Spencer has sold a large white boar to Mr. Davis of Woodstock, Ont., Canada, one of the foremost breeders of large white pigs in the Dominion. These five pigs are included in the one hundred and thirty-six boars, sows, and gilts which Mr. Spencer has sent out for breeding purposes during the months of May, June and July. The whole of this large number of pigs were bred in the Holywell Manor herd save two boars which were bought to introduce new blood into the herd and put to two or three of the best sows, but on the produce coming the sires were cast. This shows how difficult it is to obtain a really good out cross on a herd which has been bred for forty years mainly within itself.—North British Agriculturist.

Wants Ontario Stock

Mr. S. W. Paisley, Secretary of the British Columbia Live Stock Association, is in this province looking for Ontario live stock. Mr. Paisley has been commissioned by British Columbia stockmen to purchase a large number of pure bred animals including Shorthorns and Ayrshire cattle, Shropshire and Oxford Down sheep and Yorkshire swine.

The Value of the Hog's Time

Frank Nye, the Minneapolis lawyer, recently told a story to show that farming should be based on, at least, some scientific knowledge. He spoke of an agricultural college graduate who went to work for one of those ignorant old farmers who prides himself on being self-instructed. The farmer was about to give the hogs their morning meal of dry bran, when the student suggested that the stuff ought to be wet.

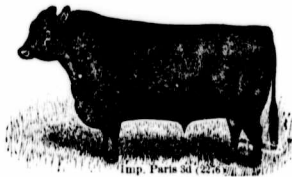
"What fer?" asked the farmer with a contemptuous air.

"Why!" eagerly replied the young man, glad of this opportunity to show what an agricultural education had done for him, "hygienic science tells us that bran will digest more quickly if moistened before being fed to animals."

"Humph!" grunted the farmer, as he dumped the dry bran into the trough, "what's a hog's time worth anyhow!"

GALLOWAYS

D. McCrae, Guelph.



PRIZE WINNERS OF BOTH SEXES

The Galloways grow the best of Beef. Fine Robes. Are easily kept. Very hardy and great rustlers. They are unexcelled for Ranching and for excellent Marbled Beef.

THE BRAMPTON JERSEY HERD

The largest herd of **Pure-bred Jerseys** in Canada. An inspection of our herd or our record in the show ring proves the quality. See our exhibit at the fairs. We have what you want.

C. P. R. and G. T. R. Stations

Address— **B. H. BULL & SON, BRAMPTON, ONT.**



Sale! Ingleside Herefords.

Young Bulls, Cows and Heifers of most up-to-date type and breeding. If you want **good Herefords** at **good-value** prices, send for Illustrated Catalogue and state your requirements. Also $\frac{1}{4}$ and $\frac{3}{8}$ bred Hereford Cows and Heifers.

H. D. SMITH,
Compton, Que.



FRED. RICHARDSON

of SMITH & RICHARDSON
Columbus, Ont.

Will return from Scotland about August 20th with six Clydesdale Stallions, including "Hopewell" (11375), full brother of the great Glasgow winner, "Hiawaba," and "Lavender" (11349), out of the same mare as "Royal Cairnton," the Chicago three-year old winner in 1901, and "Pioneer" (11131), sired by "Sir Arthur," owned by Whitby Clydesdale Association, and a pair of young mares for Mr. George Gormley, Unionville.

Spring Brook Holsteins

Will again be exhibited at Toronto.

Meet me there and inspect my herd and compare stock and prices. A very select lot of Holsteins and T. m worths on hand.

A. C. HALLMAN,

BRESLAU, Waterloo Co., Ont.

For Sale Chestnut Hackney Stallion. Langton's Vanegelt 91 C. H. S. B., 336 A. H. B. By Langton's Performer—(4844), E. H. B. 242, G. H. B. Dam Lady Vanegelt (8036) and 720. Bred by F. C. Stevens, Maplewood, A. U. C. A., N. Y. **Edw. C. Attrill, Goderich**

DORSET HORNED SHEEP

JOHN A. MCGILLIVRAY, - UXBRIDGE, ONT.

The finest and largest flock of Show Sheep in Canada. Winners of the highest honors at Canadian and American Fairs during 1901. May be seen in East end of Sheep Building, Toronto Exhibition.

Market Review and Forecast

Office of The Farming World, Confederation Life Bldg., Toronto, Sept. 4th, 1902.

The trade outlook continues bright and wholesale men are very confident regarding the future. The recent rise in C.P.R. stocks shows something of this confidence in Canada and Canadian securities. The same confident feeling prevails in the United States where trade conditions are said to be ideal if it were not for the coal strike which is causing some uneasiness in business circles. Money seems ample for all legitimate demands at 5 per cent. on call.

Wheat.

The wheat situation is on the whole weaker than a week ago. The market gained some early in the week only to lose it again at the close. The new crop is beginning to come forward a little more freely, though in the Western States the movement of winter wheat is only normal. The Manitoba crop is being gathered in as quickly as possible and where threshing is done large yields are reported. Locally the market is dull. Dealers here say that prices recently paid have only kept up because of the demand from millers, and that the export trade does not warrant these prices. New red and white is quoted here at 67 $\frac{1}{2}$ c to 68 $\frac{1}{2}$ c east and middle freights and goose at 67c. Manitoba No. 1 Northern is quoted at 73 $\frac{1}{2}$ c and No. 2 at 71 $\frac{1}{2}$ c Fort William, Sept. shipment. On Toronto farmers' market new red and white brings 68c to 71c, goose 65c to 67c, and spring 65c a bushel.

Oats and Barley.

The oat market keeps on the down grade and last winter's high prices no longer prevail. The English market, however, rules strong under light stocks. The market here is dull and new white oats are offering freely at 30c a bushel at outside points. On the farmers' market old oats bring 48c to 49 $\frac{1}{2}$ c and new 33 $\frac{1}{2}$ c to 35c a bushel.

The barley market is quiet and prices nominal. Quotations here are 38c to 40c at outside points for car lots. On Toronto farmers' market barley brings 43c a bushel.

Peas and Corn

Though the market for peas is reported quiet prices rule high at 84c to 85c for new peas afloat Montreal and 74c to 76c at Ontario points.

The American corn market is reported to be somewhat nervous awaiting the outcome of the crop in Iowa and Illinois, where unfavorable weather has prevailed. Otherwise weather conditions are favorable. Canadian is quoted at Montreal at 70c to 70 $\frac{1}{2}$ c in car lots. Here the market is easy, Canadian selling at 62c west, and American No. 3 yellow at 68 $\frac{1}{2}$ c on track, Toronto.

Poultry and Eggs Wanted

CHICKENS
DUCKS
TURKEYS
GOOSE

Empty crates forwarded on application.

Highest market prices paid.

Correspondence solicited.

Toronto Poultry and Produce Co.

Office 470 YONGE ST., TORONTO

Bran and Shorts

Ontario bran is quoted at Montreal at \$16.00 to \$16.50, and shorts at \$22.00 in car lots on track. City mills here sell bran at \$16.50 and shorts at \$22.00 in car lots l.o.b. Toronto.

Potatoes and Beans.

The potato market is stronger owing to lighter receipts. At Montreal sell by the load at 75c to 80c per bag of 90 lbs. Here the demand is steady and the market firm at 35c to 40c per bag. On the farmers' market here potatoes bring 40c to 50c per bushel.

The bean market has been somewhat irregular at Montreal with sales reported at \$1.35 to \$1.40 for primes in large lots. The market here is steady to firm at \$1.35 to \$1.45 per bushel for hand picked and 5c less for unpicked.

Seeds.

Prices for seeds remain unchanged at Montreal at \$14.00 to \$17.00 per cwt. for alsike, \$9.00 to \$10.50 for red clover, and \$8.00 to \$9.00 for timothy. Farmers in many parts of the country report this as a very poor year for clover seed which may be a scarce article later on.

Hay and Straw.

The hay market rules steady at lower quotations for new hay. At Montreal old hay is quoted at \$9.50 for No. 1 timothy, \$8.00 to \$8.50 for No. 2 and \$7.50 to \$8.00 for clover. Here offerings are large and trade fairly good at \$8 for car lots of new on track Toronto. Baled straw is quoted at \$5.00 to \$5.50 for car lots on track. On Toronto farmers' market old timothy brings \$14.00 to \$15.00, new \$10.00 to \$14.00 and sheaf straw \$10.75 per ton. The English crop is estimated to run about 7 cwt. per acre more than last year's crop. This will probably have some effect upon Canada's exports to that country as hay is the chief crop in the old land.

Eggs and Poultry.

Our exports of eggs so far this season show a decided falling off from those of last year. Glasgow and Liverpool quotations are 8s. 6d. to 8s. 8d. per 120, which figures dealers claim are not high enough to admit of a profitable business being done in Canadian eggs. At

Montreal prices keep firm at 15 $\frac{1}{2}$ c to 16c for fresh fall eggs in a jobbing way. There are larger offerings here and the demand is not as strong excepting for really choice lots which are firm at 15c to 16c. On Toronto farmers' market new laid bring 14c to 19c, and held stock 14c to 16c a dozen.

Receipts of dressed poultry do not increase very fast and there is not enough of the right quality to supply the demand. In a jobbing way dressed chickens and ducks bring 55c to 70c per pair, and live ones 10c per pair less, and turkeys 11 $\frac{1}{2}$ c to 12c per lb. for choice young birds. On Toronto farmers' market live chickens bring 40c to 70c, dressed 50c to 85c, and ducks 50c to 90c a pair, and turkeys 10c to 12c a lb.

Until further notice the Toronto Poultry and Produce Co., 470 Yonge street, Toronto, will for poultry and eggs pay the following l.o.b. at shipping point:

Chickens (this year's) per lb. 9c, chickens (last year's) per lb. 5c, turkeys (this year's) per lb. 10c, ducks per lb. 7c, eggs per doz., 13 $\frac{1}{2}$ c. Empty crates, egg cases and butter boxes are supplied free of charge, the outgoing charges being paid. The net express charges are paid on butter and eggs.

Fruit.

Reports from the fruit centres indicate a smaller percentage of No. 1 quality of apples than was expected earlier in the season. There is a big apple crop with a large share of it spotted and inferior in quality. The English crop is reported light and also that of the continent, so there should be a good demand in Great Britain for our No. 1 apples if sent there in proper shape. On Toronto fruit market apples sell at 75c to \$1.25 per bbl., peaches 20c to 90c, pears 20c to 40c, and plums 25c to 50c a basket.

Cheese

Though from a statistical standpoint the cheese situation is strong the market is quiet and easier. Buyers in view of the large fall make are inclined to hold off expecting to get their supplies cheaper later on. The English market is easier owing to large receipts. The market at present is quiet though there is considerable busi-

ness doing. The stocks in store are only about one half of what they were at this time last year while factories are sold out pretty well up to the hoop. There is a lull in business just at the moment owing to a temporary stand off between the English importers and the Canadian dealer awaiting further developments. At the local markets prices have ruled steady at about 9 $\frac{1}{2}$ c, though 9 11-16c and 9 $\frac{3}{4}$ c are reported at some points. Montreal quotations are 9 $\frac{1}{2}$ c to 9 $\frac{3}{4}$ c for finest Westerns, and 9 $\frac{1}{2}$ c to 9 $\frac{3}{4}$ c for finest Easterns.

Butter

The butter market continues dull and easy. Large stocks are accumulating and buyers are becoming more cautious. Russia is becoming a competitor with Canada in the British market, where a further decline of 2s. is reported. The reported shortage in the Australian make may help prices later on. Though the market is reported dull quite a lot of business has been done at country points at from 17 $\frac{1}{2}$ c to 18 $\frac{1}{2}$ c as to quality for creamery. Here the demand for choice quality of both creamery and dairy keeps good, though the poor stuff is a drug on the market. Creamery is selling well at 19c to 20c for choice prints, and 18c to 18 $\frac{1}{2}$ c for solids. Choice dairy tubs sell at 15c, and pound rolls at 15c to 16c in a jobbing way. On Toronto farmers' market lb. rolls bring 16c to 20c, and crocks 14c to 18c a lb.

Wool.

Though a better feeling is reported at Montreal in wools it does not apply to Canadian which is quoted there at 17c to 17 $\frac{1}{2}$ c for pulled, 14c to 15c for washed and 10c for unwashed. There is some activity here. Local dealers quote 14c for washed and 7 $\frac{1}{2}$ c for unwashed.

Cattle

Clay, Robinson & Sons, in their report of last week's market at Chicago, say:

"Recent receipts have included a good many cattle showing good quality but which have been fed only three to four months. These are hard sellers, coming directly in competition with the rangers, which are preferred by buyers, as they cost from 50 cts. to \$1.00 per lb. less and dress more beef per 100 lbs. live weight than the short-fed natives. Hence where a man has cattle of the right sort that have been fed four months or less, we believe it will pay him to feed them 2 or 3 months longer; thus making them good enough to meet western competition,—which will be considerably lessened by the time they are finished. Some of these short-fed cattle shipped for beef have been sold as feeders to go back into the country, for more money than the killers would give. We look for good corn-fed cattle to sell well right along, and believe the right sort of steers can be held and fed to a finish with profit."

The receipts of live stock on Toronto cattle market on Tuesday of this week were made up of 908 cat-

tle, 400 hogs, 600 sheep and lambs and 25 calves. The quality of the export cattle was only medium, there being only a few good lots offered. Butchers' cattle were of a higher average quality. Trade in shippers showed no improvement over that of last week, while butchers' cattle were firm at quotations. The bulk of exporters sold at \$5 to \$5.75. First-class, heavy, well-bred feeding steers are in good demand with prices, firm at quotations. Many farmers are looking for the class but cannot get enough and are compelled to buy lighter ones. Good quality stockers sell fairly well. Good veal calves are scarce with prices firm.

Export Cattle.—Choice loads of heavy shippers sold at \$5.75 per cwt., medium exporters \$5.00 to \$5.25. Heavy export bulls sold at \$4.50 to \$4.85 and light ones at

\$4.00 to \$4.50 per cwt., choice export cows sold at \$4.00 to \$4.35 per cwt.

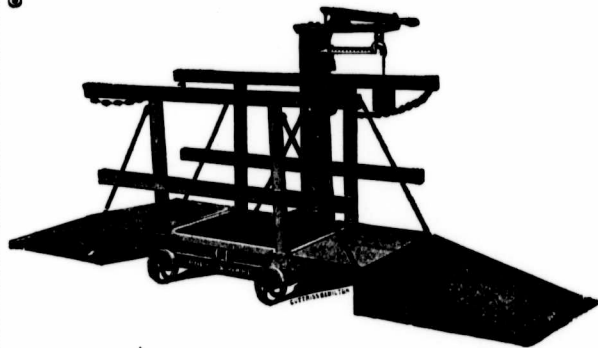
Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,075 to 1,150 lbs. each sold at \$4.85 to \$5.30 per cwt. Choice picked lots of butchers' heifers and steers, 950 to 1,055 lbs. each sold at \$4.25 to \$4.80, good cattle at \$4.00 to \$4.65, medium at \$3.65 to \$4.00, and inferior to common at \$2.50 to \$3.00 per cwt. Loads of butchers' and exporters' mixed sold at \$4.50 to \$4.75 per cwt.

Feeders.—Steers, 1,000 to 1,100 lbs. each, are worth \$4.50 to \$4.75 per cwt., and light feeders, 800 to 900 lbs. each, \$3.75 to \$4.25 per cwt.

Stockers.—Well bred young steers weighing 500 to 700 lbs. each, are worth \$3.25 to \$3.50, and off colors

Scales FOR EVERY PURPOSE SPECIAL PRICES EASY TERMS

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and those of inferior quality at \$2.50 to \$3.00 per cwt.

Calves.—At Toronto market good to choice calves bring \$3.50 to \$5.00 per cwt. and \$3.00 to \$10.00 each.

Milch Cows.—These sold at \$30 to \$47 each.

Sheep and Lambs

Owing to the light run of sheep and lambs prices were firmer at \$3.40 to \$3.60 per cwt. for ewes and \$2.50 to \$2.75 for bucks. Spring lambs sell at \$4.25 to \$4.50 per cwt.

Hogs

The run of hogs was not large and consequently last week's prices were maintained at \$7.25 per cwt. for select bacon hogs and \$7.00 for lights and fats.

For the week ending Sept. 6th, The Wm. Davies Co., Toronto, will pay \$7.37½ for select bacon hogs, \$7.12½ for lights and \$7.12½ for fats.

The Montreal market is easier and lower. Packers there are paying \$7.00 per cwt. for bacon hogs.

The Trade Bulletin's London cable of August 28th, re Canadian bacon, reads thus:

"Notwithstanding liberal receipts from Denmark the market rules firm at an advance of 1s for Canadian."

Horses.

The local trade in horses at Montreal is reported dull, only a little business is doing. High class animals are reported scarce and dear. A few draught horses sold there last week at from \$400 to \$450 per pair. High class carriage and saddle horses are in good demand in the United States.

The horse market here is a little upset because of the Exhibition. However there was a very good sale at Grand's on Tuesday when the horses of the J. D. King estate were disposed of. These were a mixed lot and brought varied prices. A pair of good working horses 6 and 7 years old weighing 3,100 lbs. sold for \$280 for the pair. A number of farmers have been buying working horses here as they claim they can get them cheaper here than in the country.

Keeping Up the Milk Flow

Keeping up the milk flow will not be a hard task for the dairyman this season. What with abundance of rain and cool weather there should be plenty of succulent pasturage for cows. The provident dairyman, who last spring made ample provision for supplementary feed to tide his cows over the usual dry period of July and August, will find little use for a large share of this this season. The excessive moisture that has kept up the supply of pasturage would also help to make the crop of supplementary feed extra large. There has been, therefore, abundance of good food for the cow from various sources, and if she does not return her owner good value for it all something is wrong in the management.

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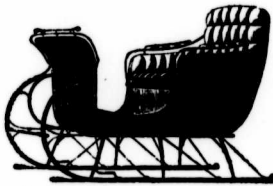
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5,000 sets sold last year

This season is an exceptional one, and must not be taken as a precedent for future action. Next year the dry period of July and August may come along again just as it has for the past decade, and the dairyman who has not provided against it will find himself the loser. Even this year, this supplementary, if not needed at the usual time may come in later on. It would, therefore, be good policy to preserve it in some way for future use. If the peas and oats, usually sown for this purpose, are too ripe to use as green fodder they are worth saving for winter feeding.

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Matriculation Examination will be held on Saturday, September 21st, at 9 a.m. : : Lectures commence 23rd September, Calendar giving full information of the course sent on application to

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1. Jennys & Sons, New York, handsome square piano in elegant case. 7 $\frac{1}{2}$ octaves, carved legs, altogether a beautiful instrument. Regular price \$350. Our special price \$175. \$10 cash and \$6 a month.
2. Steinway & Sons square piano, rounded corners, carved legs and lyre, 7 $\frac{1}{2}$ octaves, in elegant condition. Manufacturer's price \$550. Our special \$185. \$10 cash and \$6 a month.
3. Kranich & Bach square piano, in handsome case, beautifully carved and in good condition. Manufacturer's price \$475. Our special price \$175. \$8 cash and \$6 a month.
4. Gerhard Heintzman square piano. In fine condition. A beautifully toned instrument. Manufacturer's price \$375. Our special price \$150. \$10 cash and \$5 a month.
5. Chickering & Sons square piano, magnificent instrument, with the beautiful Chickering tone. Handsome case. Manufacturer's price \$500. Our special price \$165. \$10 cash and \$6 a month.
6. New York Fiesher piano, in good condition. A rare bargain. Manufacturer's price \$475. Our special price \$100. \$8 cash and \$5 a month.
7. Stoddart square piano—thoroughly overhauled by our work people. Manufacturer's price \$325. Our special price \$75. \$7 cash and \$5 a month.
8. Stoddart square piano—good instrument for practice. Manufacturer's price \$275. Our special price \$50. \$6 cash and \$4 a month.

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1. Newcombe upright piano, medium size, walnut case, carved panels and continuous hinges, 7 $\frac{1}{2}$ octaves and 3 pedals. Manufacturer's price \$385. Our special price \$250. \$10 cash and \$6 a month.
2. Heintzman & Co. upright piano, medium size, elegant case, carved panels, 7 octaves. Almost good as new. Regular price \$350. Our special \$245. \$10 cash and \$6 a month.
3. Stoddart upright piano, large size, fancy rosewood case, beautifully carved panels, 7 $\frac{1}{2}$ octaves. Manufacturer's price \$475. Our special \$255. \$12 cash and \$5 a month.

4. Gerhard Heintzman upright piano, medium size, handsome walnut case, carved panels, 7 $\frac{1}{2}$ octaves. Almost as good as new. Manufacturer's price \$375. Our special price \$250. \$9 cash and \$5 a month.

5. Empire upright piano—almost new—beautiful walnut case, large size, 7 $\frac{1}{2}$ octaves. Manufacturer's price \$350. Our special \$235. \$10 cash and \$5 a month.

6. Heintzman & Co. upright piano—almost as good as new—in handsome walnut case. Regular price \$400. Our special price \$275. \$15 cash and \$5 a month.

Bargains in Organs

1. Karn organ, high back, mirror, 5 octaves, 9 stops, 3 sets reeds, treble and bass couplers, 2 knee swells. Regular price \$115. Our price \$47. \$6 cash and \$4 a month.
2. Karn organ, high back, 7 stops, 5 octaves, grand organ and knee swell, 3 sets reeds. Regular price \$100. Our price \$42.50. \$6 cash and \$4 a month.
3. Wilcox & White, high back, 11 stops, 5 octaves, 3 sets reeds, treble and bass couplers, grand organ and knee swell. Regular price \$125. Our price \$45. \$7 cash and \$2 a month.
4. Karn organ, high back, 12 stops, 5 octaves, 5 set reeds, treble and bass couplers, grand organ and knee swell. Regular price \$150. Our price \$39. \$6 cash and \$4 a month.
5. Dominion organ, high back, 8 stops, 4 sets reeds, octave couplers, 5 octaves, grand organ and knee swell. Regular price \$95. Our price \$39. \$5 cash and \$3 a month.
6. Dominion organ, high back, swelled ends, 9 stops, 5 octaves, 4 sets reeds and sub-base, octave couplers and knee swell. Good. Suitable for Sunday School. Regular price \$115. Our price \$40. \$6 cash and \$4 a month.
7. Goderich organ, piano case, 6 octaves, 11 stops, 4 sets reeds, treble and bass couplers, grand organ and knee swells. Not used 6 months. Regular price \$135. Our price \$79. \$10 cash and \$5 a month.

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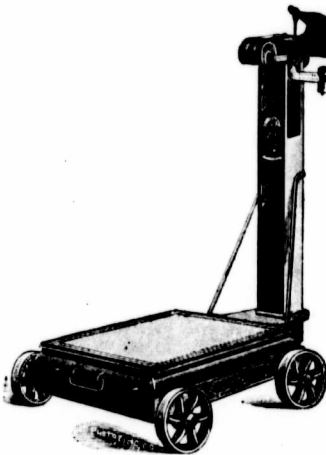
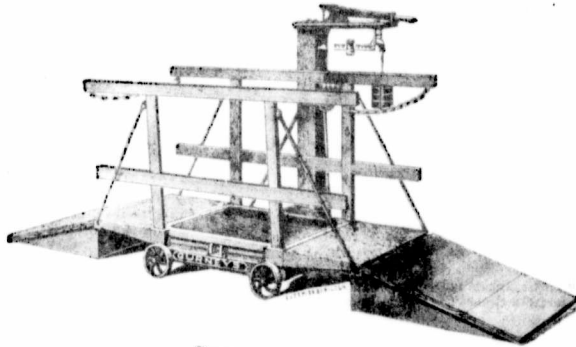
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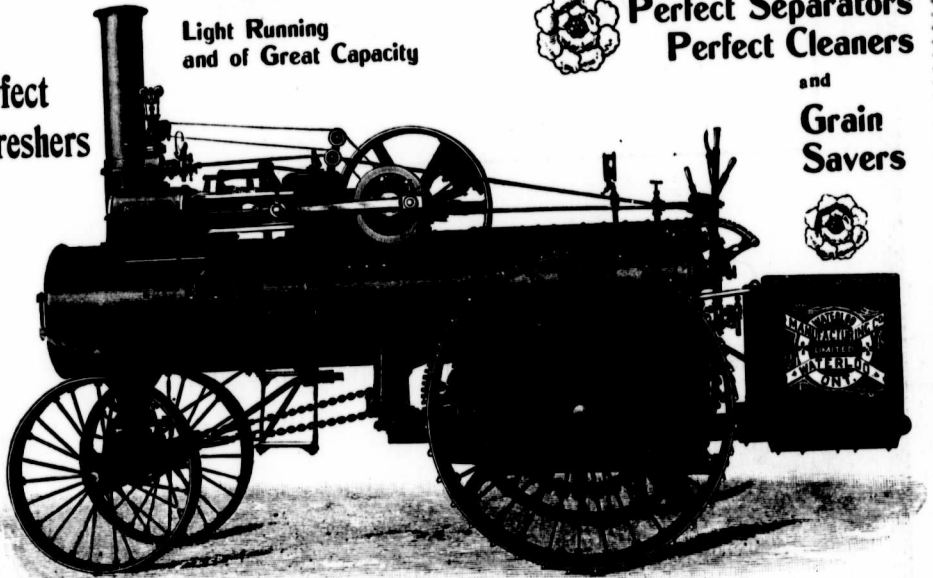
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