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VOL. LI.

LONDON, ONTARIO, AUGUST 31, 1916.

No. 1249



You pay for service

and you get it when you buy Brantford Roofing. This is because we firmly believe **service** is greater than all else, save quality; and since service depends upon quality, we put **quality** into Brantford Roofing and it gives everlasting service.

All Brantford Roofing is built on a foundation or base of long-fibred, pure wool felt. This is then saturated under great pressure with asphaltum. The surface coating is of crushed rock, silicate or mineral rubber, depending upon the roofing we are preparing. In any case nothing but reliable materials are used.

Brantford Roofing

is admirably adapted to all buildings having either steep or flat roofs. It may be laid from gable to gable or from ridge to eave; the former we consider the better. The ends of the roll are well protected, and in the core of each roll are placed sufficient nails and cement to lay it. Once on, Brantford Roofing requires no attention. It will not crack, it will not melt, it will not rust, it will not leak, and it will not blow off. It is the roof of quality, and the roof for **service**.

May we send you samples and a copy of our free roofing booklet?

Brantford Slates on the other hand are very suitable for roofing bungalows, garages, club houses or public buildings. In fact they may be used on any building requiring an artistic and durable covering that will harmonize with its surroundings.

Brantford Slates are made from pure wool felt, asphaltum and crushed rock particles. They may be had in the natural rock colors of green, red, black, grey or slate. They are very pliable and therefore fit neatly around gables and into the angles over dormers, bay windows and porches.

Brantford Slates

are easily and quickly laid and form a continuous roof without seams, joints or gaps. They add much to the value of any building by giving it a well-built, solid appearance. They are fire-resisting, fadeless, attractive and do not require painting. They will not warp, curl nor split. Once you have Brantford Slates laid, they are permanently "on the job."

Send us the dimensions of your buildings and we will gladly submit estimates without charge or obligation.

The Brantford Roofing Company, Limited, Brantford, Canada

Branch Warehouses: Montreal, Que. and Toronto, Canada

PEERLESS PERFECTION



FENCE

Does all you could wish for a poultry fence and more. Built close enough to keep chickens in and strong enough to keep cattle out. Even small chicks cannot get between the close mesh of lateral and vertical wires. The heavy, hard steel top and bottom wires together with intermediate laterals, will take care of a carelessly backed wagon, or an unruly animal and spring back into shape immediately. The wires are securely held together at every intersection by the Peerless Lock. This is not a netting but a real fence—built in line with our usual good standard of excellence.

Peerless Perfection Field Fence is Strong—Yet Springs as a Bed Spring.

Animals can't break through it no matter how hard their attacks. It simply can't be broken. Just springs back in shape like a bed spring. It's made of heavy Open Hearth steel galvanized wire with all the impurities taken out and all the strength and toughness left in. Will not corrode or rust. Top and bottom wires are

extra heavy. Will not sag. Requires less posts than ordinary fence. Absolutely guaranteed.

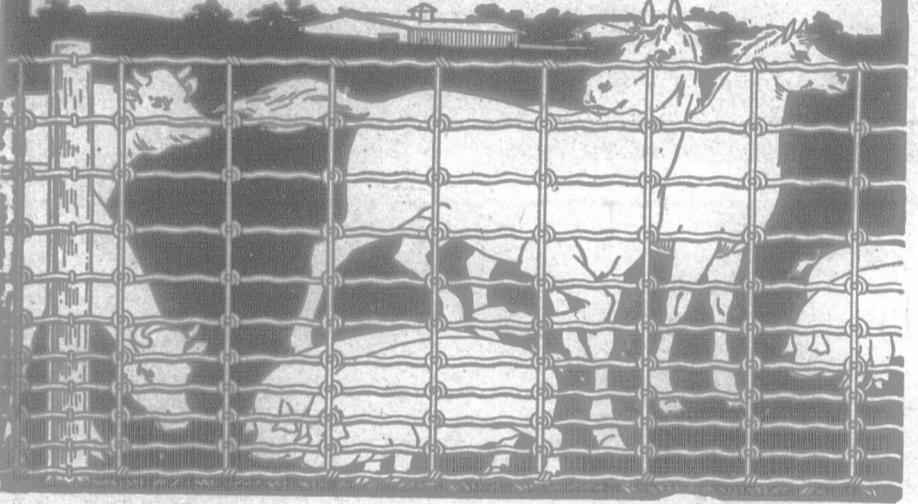
Peerless Ornamental Fencing

accomplishes two great purposes. It beautifies your premises by giving them that symmetrical, pleasing, orderly appearance, and it protects them by furnishing rigid, effective resistance against marauding animals, etc. We make gates to match, that are equally attractive.

The Fence that never needs repairs. It is the cheapest fence to erect, because, owing to its exceptionally heavy top and bottom wires, but half the usual amount of lumber and posts are required.

Send for Literature and address of nearest agent. We also make a complete line of farm and ornamental fencing. Agents nearly everywhere. Agents wanted in unassigned territory.

THE BANWELL-HOXIE WIRE FENCE CO., Ltd., - Winnipeg, Man., Hamilton, Ont.



SAFETY-SERVICE-SATISFACTION

Does this appeal to you?
If so, get a

GILSON ENGINE



New Features and Latest Improvements:

The new Gilson 100% Service Engines, 4 1/2 h-p. and upwards, are equipped with our new friction clutch pulley with five interchangeable rims, each of a different diameter. Change to the proper speed for every job in a few minutes—A NEW AND EXCLUSIVE GILSON FEATURE. These engines are also equipped with a magneto, without batteries or coil, with spark retarder, and oil attachment.

We also make 60-SPEED engines in 2 1/2 and 3 1/2 h-p. sizes, mounted on truck with shaft-line, and five interchangeable pulleys

Drop us a card to-day, and we will send you full descriptive literature.

More Value—More Service—More Satisfaction

Does money saved in repairs and expense bills, time, equipment, etc., mean anything to you? Get Gilson Facts, and find out how the Gilson 60-SPEED and 100% Service Engines do the greatest variety of work—give the maximum satisfaction—are trouble-proof and fool-proof. Their scientific design makes them absolutely safe—they are approved by the National Board of Fire Underwriters. No insurance troubles.

We are making special prices to the first purchaser of one of these engines in every locality.

Write NOW. Agents wanted.

GILSON MFG. CO., LIMITED, 179 York St., Guelph, Can.

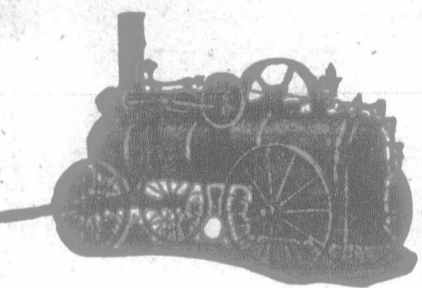
The Light Running GILSON Silo Filler SIMPLY CAN'T BE CLOGGED

The simple, scientific, carefully worked out construction of the Light Running "Gilson Silo Filler" makes it absolutely impossible to clog throat or blower, no matter how fast the corn is thrown in. The Gilson is rightly called

The King of Ensilage Cutters

because of its remarkable elevating powers, absolute safety, durability, strength and simplicity—it stands supreme. It has convenient and quick knife adjustment; solid steel-bound cutting wheel; patented safety reverse—and is guaranteed to cut and elevate MORE ensilage with the SAME power than ANY other ensilage cutter IN THE WORLD. Write to-day for catalogue and proof. Manufactured and guaranteed by

GILSON MFG. CO., LTD., 199 York St., Guelph, Canada

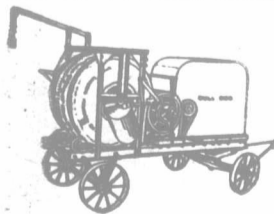


Rebuilt Portable, Traction Engines and Threshers

A number of good rebuilt Portable and Traction Engines suitable for silo filling and Threshing, also a few good separators for sale cheap.

The Robt. Bell Engine & Thresher Company, Limited

SEAFORTH ONTARIO



London BULL DOG Batch Mixer Capacity, 50 cubic yds. per day. Just the machine for small jobs. Pays for itself in 20 days' use. Built to last a lifetime. Send for catalogue No. 1 B.

LONDON CONCRETE MACHINERY CO., Ltd.

Dept. B, London, Ontario

World's Largest Manufacturers of Concrete Machinery

Do not fail to see our exhibit at the Western Fair, London

CHURCH BELLS

CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY

FULLY WARRANTED

McSHANE BELL FOUNDRY CO.,

BALTIMORE, Md., U. S. A.

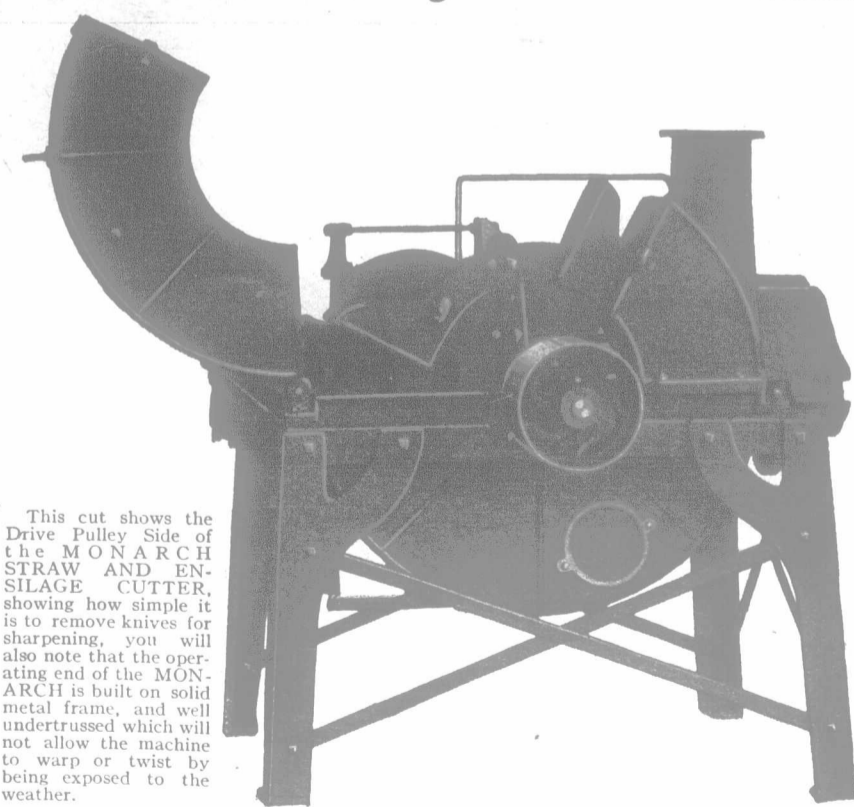
Chicago Office: Room 64, 154 W. Randolph St. Established 1856



Tile made from stone and cement, from 4 inches up to 18 inches; assorted car lots, prices on application. Building Blocks for houses or barns. These make an ideal garage. Window sills, lintels for prompt shipment. For prices, write or phone 31A.

A. DEVINEY, St. Mary's, Ont.

The Monarch Ensilage and Straw Cutter



This cut shows the Drive Pulley Side of the MONARCH STRAW AND ENSILAGE CUTTER, showing how simple it is to remove knives for sharpening, you will also note that the operating end of the MONARCH is built on solid metal frame, and well undertrussed which will not allow the machine to warp or twist by being exposed to the weather.

THE SATISFACTORY SILO FILLER is one that is Simple, Strong, Fast and Durable; therefore, look into the MONARCH LINE and be convinced that it is the BEST.

Write for our catalogue.

CANADIAN ENGINES Limited,

Dunnville, Ontario

See our exhibit at the Toronto and London Fairs.

CREAM WANTED

Ship your cream to us. We pay all express charges. We supply cans. We remit weekly. We guarantee highest market price.

Ontario Creameries, Limited
London - Ontario

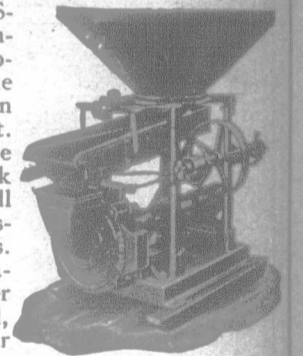
SEED WANTED

We are buyers of ALSIKE, RED CLOVER, ALFALFA, WHITE BLOSSOM, SWEET CLOVER, and TIMOTHY Seed. If any to offer send samples and we will quote you our best price F.O.B. your station.

TODD & COOK
Seed Merchants
Stouffville, Ont.

The Plates Make the Grinder

The "VES-SOT" Grinder is equipped with the best plates on the market. Look for the Trade Mark "S.V." on all genuine Ves-sot Plates. Often imitated but never equalled, they outwear all others.



Feed Grinder

Our Grinder is built in nine different sizes, so we can surely meet your requirements. Write for descriptive Folder to

S. VESSOT & CO.

Dept. A, Joliette, Que.

(Sole Manufacturers)

Sold by International Harvester Co. of Canada, Ltd.

Branches:—Calgary, Edmonton, Lethbridge, Estevan, North Battleford, Regina, Saskatoon, Yorkton, Brandon, Winnipeg, London, Hamilton, Ottawa, Montreal, Quebec, St. John.

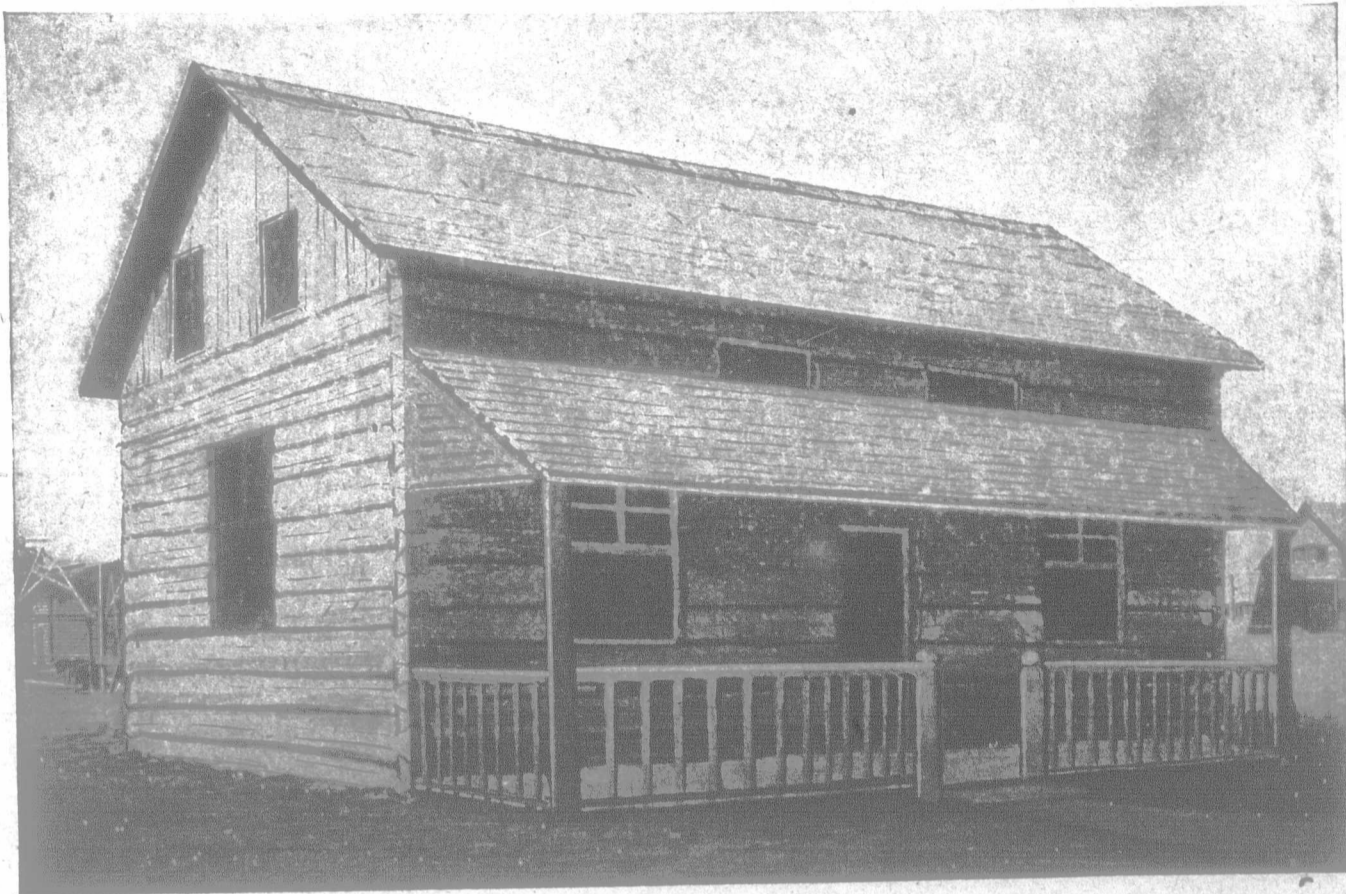
CREAM

Where are you shipping now? And what are you getting for your cream?

We want more individual shippers and more men to gather cream for us.

Write for our proposition.

Silverwoods Limited
LONDON, ONTARIO



See This Model of the Settler's Home at the
Toronto National Exhibition, Aug.-Sept., 1916

Millions of Acres of Fertile Land Waiting Settlers—It's Your Opportunity

Northern Ontario, the great new land of freedom and promise, comprises a region large enough to include half a dozen European countries or the six New England and four Middle States of the American Union. Within that region there is an alluvial tract of calcareous clay, comprising probably twenty million acres of fertile arable land fit for "mixed farming."

This land is divided into eight great districts: Nipissing, Temiskaming, Sudbury, Alframa, Thunder Bay, Rainy River, Jenora and Patricia. The vast resources of this great heritage are yet scarcely realized, it is but recently known and beginning in settlement.

It is safe to say that from 65 to 75 per cent. of the Clay Belt is good farm land, and that this percentage will be considerably increased by comprehensive drainage, which the rivers will aid in making easy. Aside from its immense resources in timber, mineral, water power, fish, game and scenery, Northern Ontario contains one of the greatest expanses of fertile territory in the world.

This immense region is connected with Southern Ontario by the Provincial Railway from North Bay to Cochrane, and is traversed from east to west by one of the finest railways in the world: the National Transcontinental Line, which runs from the Bay of Fundy to the Pacific Ocean. For twenty years the easterly part of it has been open for settlement, the land being sold to actual settlers at an almost nominal price.

What Settlers Think of Bush Life

The great preponderance of their expressed preference lies on the side of the bush. The following are some of their vigorous words:

"Yes, I had two years on the prairie and I would not return; one reason is that we can get out every day in the winter." "Bush land is more profitable; you have plenty of firewood and wood for repairing machinery, fence posts, lumber for building, etc., no blizzards in winter, no windstorms in summer; there is shelter for stock, and good water; we have better homes and not so great loss with frost and hail. The deadly monotony of the prairie is outdone by the varied forms of foliage, giving relief both to the eye and mind. There are beauties beyond description in the spring, only imagined on the long unbroken prairie; it has many advantages—scenery, shelter, fuel, lumber, pine, atmosphere, delightful walks, shaded; there is more employment in the winter months; one can manage with bush life without capital better than in the prairie; the bush has too many advantages to mention in short space; I would not think of living on the prairie as long as I could get a bush farm; the bush farm for me."

There are many other advantages, all of which are told in our free literature.

Many Million Acres of Fertile Land

Out of so vast an area there are, say, twenty million acres of agricultural land, most of which is good. There is what is called a Clay Belt, which extends westerly from the interprovincial boundary between Quebec and Ontario for over 400 miles, and which varies in depth, north and south, from 25 to 100 miles and more.

For free literature descriptive of New Ontario, Settlers' Rates, etc., write to:

H. A. MACDONELL, Director of Colonization, Parliament Bldgs., Toronto, Ontario
J. HOWARD FERGUSON, Minister of Lands, Forests and Mines

The Big Thing at Toronto Exhibition

CANADIAN NATIONAL EXHIBITION

Canada's Standard Car

Another Season's progress finds the 1917 McLaughlin even farther in the lead than ever before.

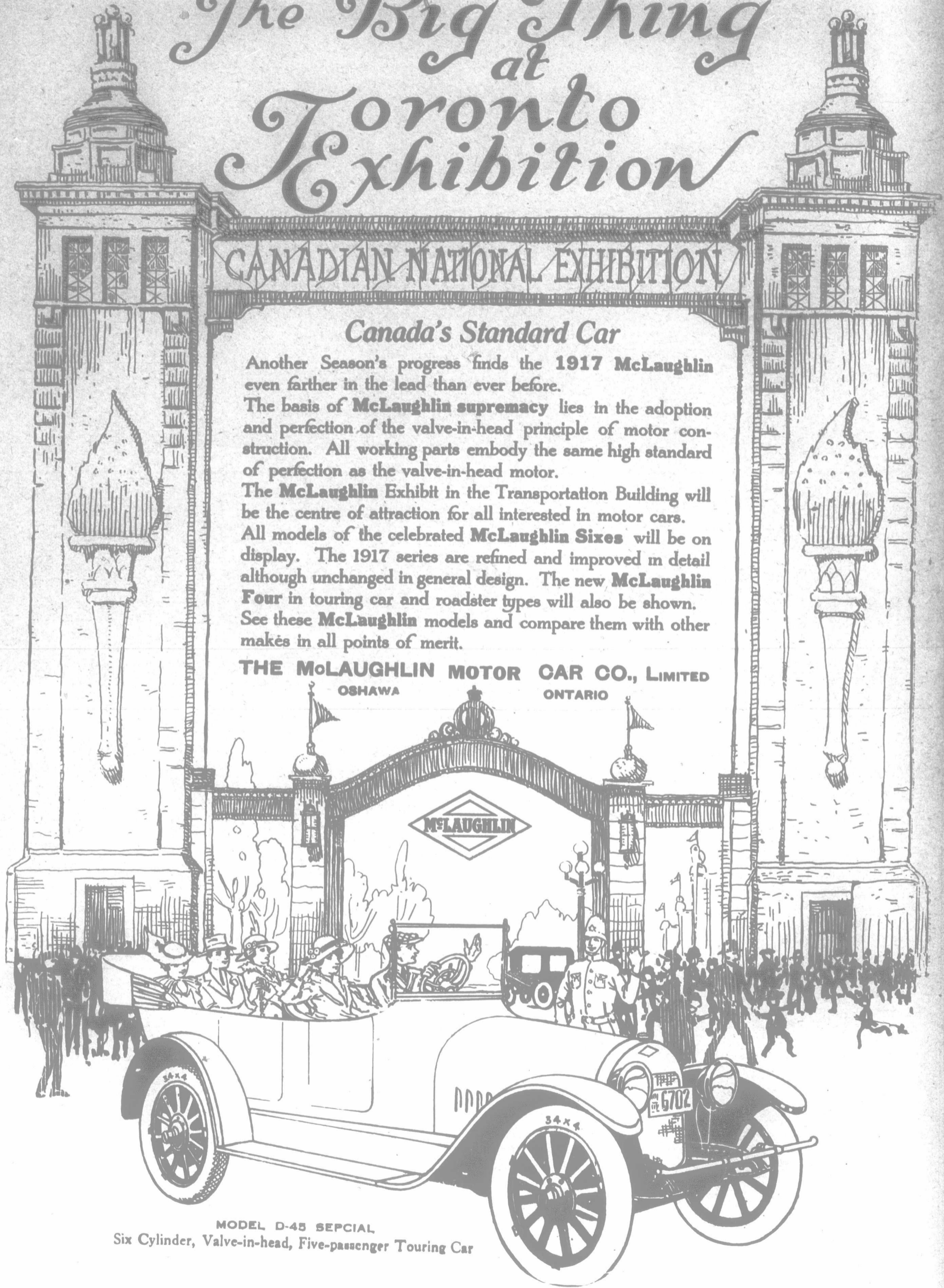
The basis of McLaughlin supremacy lies in the adoption and perfection of the valve-in-head principle of motor construction. All working parts embody the same high standard of perfection as the valve-in-head motor.

The McLaughlin Exhibit in the Transportation Building will be the centre of attraction for all interested in motor cars.

All models of the celebrated McLaughlin Sixes will be on display. The 1917 series are refined and improved in detail although unchanged in general design. The new McLaughlin Four in touring car and roadster types will also be shown.

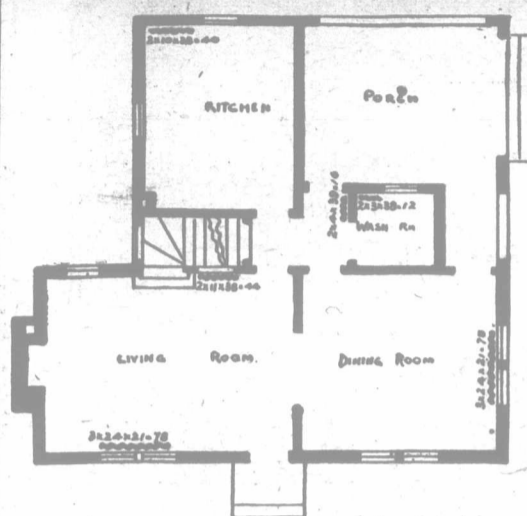
See these McLaughlin models and compare them with other makes in all points of merit.

THE McLAUGHLIN MOTOR CAR CO., LIMITED
OSHAWA ONTARIO

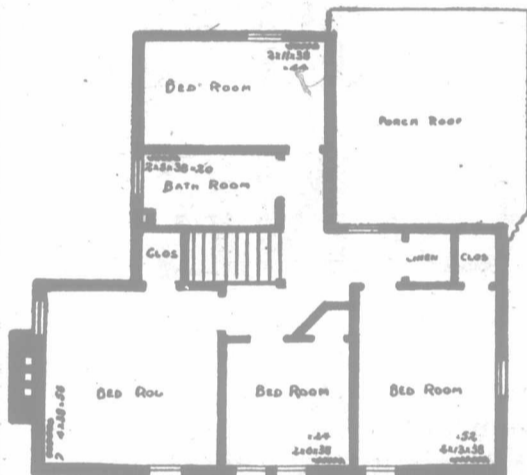


MODEL D-45 SPECIAL
Six Cylinder, Valve-in-head, Five-passenger Touring Car

Gurney-Oxford Hot Water Heating



Ground Floor—Every Room Evenly Heated



Bedroom Floor—Comfort at 6 a.m.

Guarantees "solid comfort" every hour of the 24, every day of the winter. Guarantees as much heat, or as little heat, and of the right kind as you need, or the weather demands, and at the lowest cost.

This is the kind of heat the best city homes have. Farm homes need it far more. No cold, dreary kitchen at 6 a.m. with Gurney-Oxford Hot Water Heating in your home.

The "heart of the home" lies in the heating system. Without proper heat you can't keep your health in the winter time. Your hired help drifts away—the boys and girls want to leave for the city as quickly as they can.

Now study the two plans at the left for a minute. They show the Gurney-Oxford System of radiators recommended for a house of this general layout. These radiators are all connected up with the Gurney-Oxford Boiler (generally put in the cellar) and the hot water is kept in constant circulation, filling every room with a natural summer-like warmth that doesn't dry out the air. You don't need a "water system." Put a few buckets of water into the pipes, etc., in the fall and the same water lasts all through until the spring. Boiler uses either coal, or up to 40-inch wood.

The Gurney-Oxford "Economizer," a patented and exclusive draft-controlling device, enables you or your boy or girl to regulate the heat to suit a change in the temperature outside. No other fire needed in the whole house except for cooking.

The Gurney-Oxford Boiler, the pipes, valves and radiators, etc., needed for these plans, with 448 feet of radiation, are specially priced at \$330 F.O.B. Toronto. At this price the equipment can be bought of any reputable, competent fitter. The freight and work of installation will be moderate extras.

We also make steam and warm air heating plants, stoves of all the best types, and will gladly see that you get prices on any heating system. Your home can be equipped as it stands with surprisingly little carpentry, if you are not going to build.

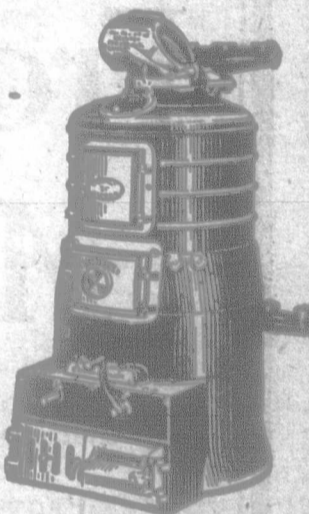
Our new illustrated booklet, "City Comfort for Country Homes," tells all about the Gurney-Oxford Hot Water Heating System. Write to us to-day for a copy.



GURNEY FOUNDRY CO., Ltd.

Dept 21 478-534 WEST KING ST., TORONTO, ONT.

Also at Montreal, Hamilton, Winnipeg, Calgary, Vancouver



70 Years of Success behind the Gurney-Oxford Boiler.

Visitors to Toronto National Exhibition should see the Gurney Foundry exhibit in the Process Building. Ask questions, then come see where the Gurney Stoves are made.

The Washing done before the day's begun

THE washing is done and out on the line before the day gets started. The Maxwell "Home" Washer saves such a lot of time. Just 10 minutes for a big tubful of clothes. Washing and cleaning thoroughly. No rubbing and scrubbing. The Maxwell does all the hard work. You'll feel fresh and bright—ready for ironing the same day.

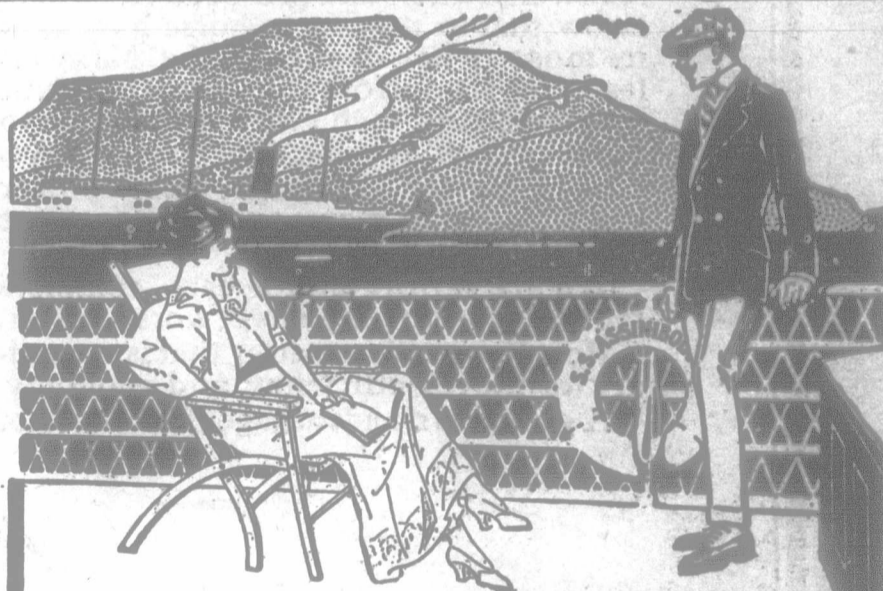
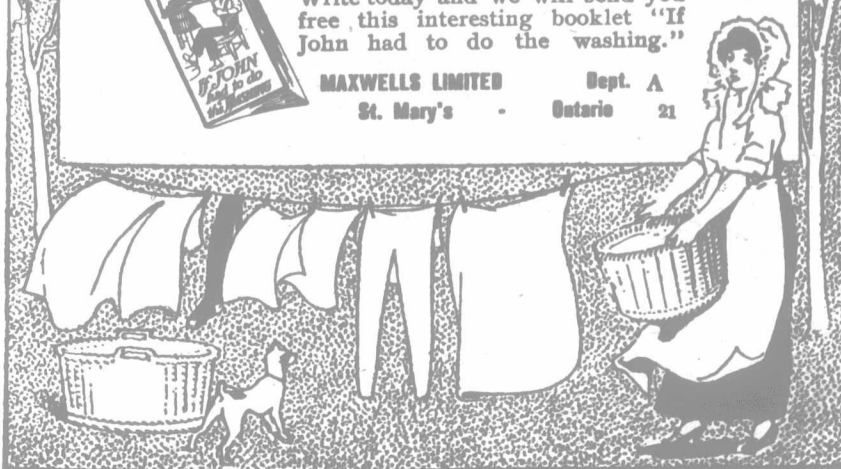
Maxwell
"HOME WASHER"

Makes wash days easy. Insist on seeing the Maxwell "Home" Washer at your dealers.

Write today and we will send you free this interesting booklet "If John had to do the washing."



MAXWELLS LIMITED Dept. A
St. Mary's - Ontario 21



A BRACING VACATION on the GREAT LAKES

Five days of rest amid the islands of Georgian Bay, the green banks of the St. Mary's River and the expanse of Old Superior. Breezes to brace you up and the perfect appointments and cuisine of the Clyde-built

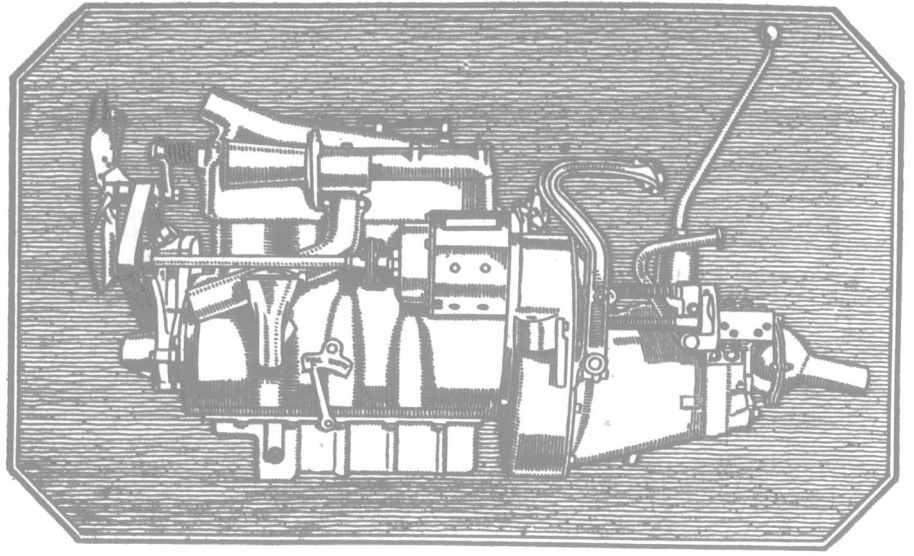
CANADIAN PACIFIC

Greyhounds, Express Steamers "Keewatin" and "Assiniboia" leave Post McNicoll every Tuesday, Thursday and Saturday for Fort William and Port Arthur. Round trip five days.



Tickets, information and reservations from Local Agent, or W. B. Howard, District Passenger Agent, Toronto, Ont.

33⁴/₅



Horse Power From This Powerful MAXWELL ENGINE

Almost 34 horse-power from this regular stock Maxwell engine!

34 actual, brake horse-power!

Proved by an accurate dynamometer test, made in the Maxwell laboratories August 10, 1916.

There has been a lot of talk about horse-power, and we just want to let Maxwell owners and prospective owners know that in respect to horse-power, as in most other respects, the Maxwell leads by a comfortable margin. Not that we attach such great importance to horse-power. We don't. We never have.

Horse-power—abundant horse-power—is *only one* of many superior features of the Maxwell.

We are selling motor cars—complete motor cars—not engines or horse-power.

Horse-power is a matter that is secondary to motor efficiency and economy.

A giant has no advantage if he does not

apply, or wrongly applies, his strength.

Maxwell cars have horse-power—all you want or need—probably more per pound of car weight than any other automobile in the world.

But we don't make any loud cry about it.

Because we have more than horse-power to sell you.

Because you are, and should be, interested in *results, the net effectiveness of power.*

We challenge competitive tests. We invite comparison.

Because we absolutely know that no car of its class or weight can surpass the Maxwell on speedways, on rough roads, through sand or mud, *anywhere.*

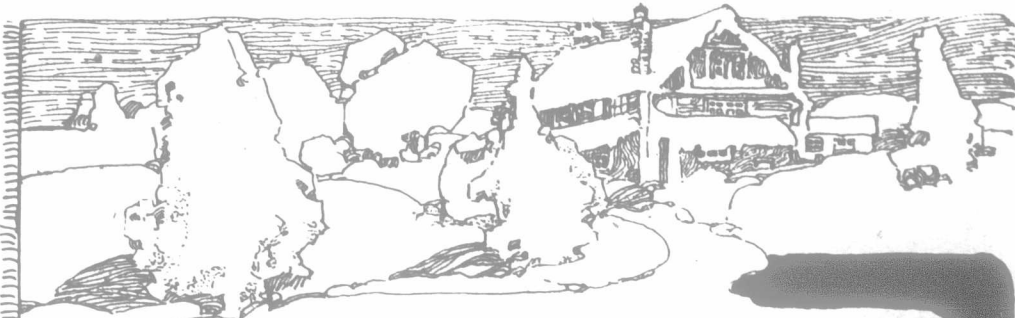
And because we know, *and you will know,* that, everything considered, *the Maxwell is the World's Greatest Motor Car Value!*

Maxwell

Motor Company of Canada, Ltd.
Windsor, Ont.

Maxwell \$850

Write for the New Maxwell Catalogue C-6



Every home should have FURNACE COMFORT

A fine heating plant costs so little that no home should be without it.

Every year thousands are learning that solid winter comfort can be had for very low cost. If you are considerate of the comfort and happiness of your family, you too should investigate the heating question.

A Hecla Mellow Air Furnace usually costs from \$90 to \$150.

More healthful or economical heating could not be purchased for treble that amount. That is because the Hecla VENTILATES as well as heats. It keeps the air pure.

The Hecla alone has the guaranteed proof against impure air. Fused Joints seal the passages for gas and soot. These joints are guaranteed not to leak. Gas and dust can never get into the house. This is health protection that you cannot overlook.

Moisture is another feature of Hecla Heating. The air is kept mellow by an abundant water supply. The dryness that comes from even the most expensive forms of heating is entirely absent in the Hecla heated home.

HECLA MELLOW AIR FURNACE

Consider now the fuel cost. No other furnace has the Steel-Ribbed firepot. This gives the Hecla triple heating surface. It saves fully one ton of coal in seven. Prove this statement. Ask one of the thousands of people who own Hecla heating plants.

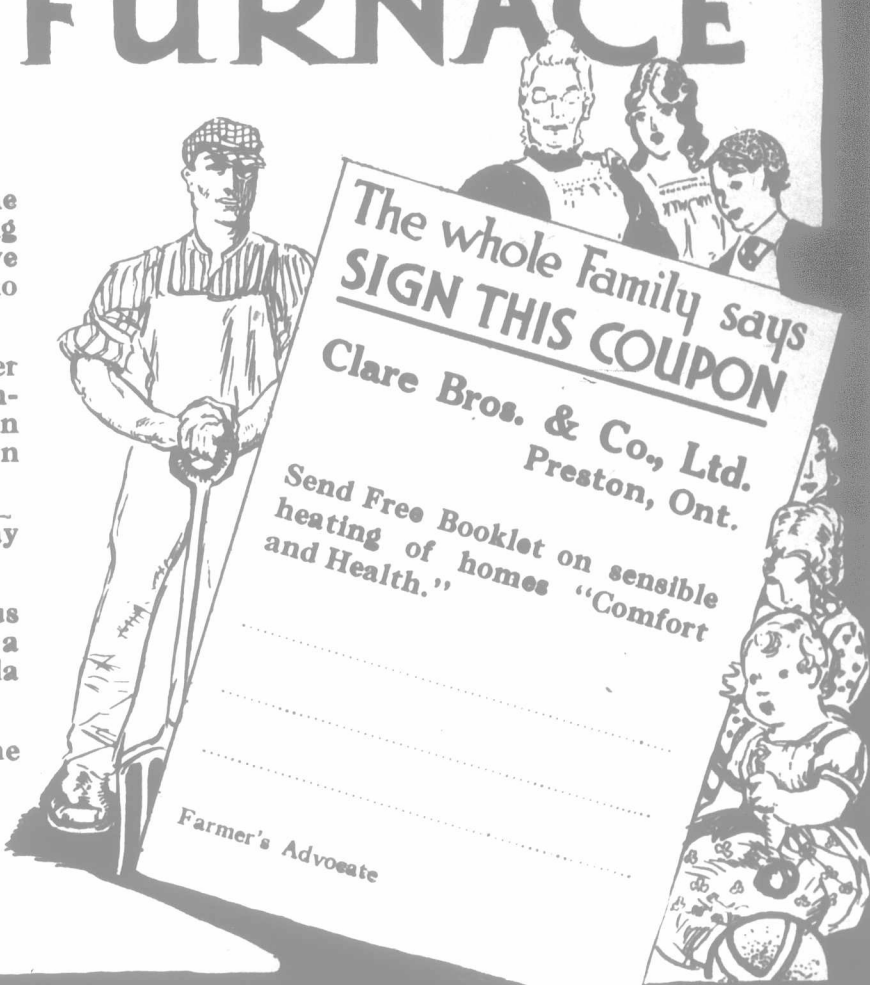
See the Hecla. Try to find fault with it. You never saw better workmanship. You never saw a more complete job. Look at the big door. That door will take in big knotty chunks of wood. Spring and fall you can burn up waste wood and save coal.

There is no sound reason why any man should delay securing the comforts of furnace heating.

Inquire into the cost to-day. Write to us and tell us about your house. Send a rough plan. We will plan a heating system for you and quote for installing the Hecla Mellow Air Furnace complete.

The booklet "Comfort and Health" explains the features of the Hecla very clearly. A copy will be sent to anyone interested.

Clare Bros. & Co., Limited
Preston, Winnipeg, Vancouver



The whole Family says
SIGN THIS COUPON

Clare Bros. & Co., Ltd.
Preston, Ont.

Send Free Booklet on sensible
heating of homes "Comfort
and Health."

Farmer's Advocate

Free Courses
at Macdonald
Institute

Free Poultry
Courses
at Agricultural
College, Guelph

Free Cook Books
and Magazines



Contests at
over 250
Rural School
Fairs
in Ontario

Open to Girls
between
12 and 17 years

Enter the Bread Making Contests at Rural School Fairs in Ontario

When the glad day of congratulations comes around, will your daughter's name be there? The winners of the free courses at Macdonald Institute and Ontario Agricultural College will doubtless be those who started in early to practise the making of bread with Cream of the West Flour. Your daughter has to-day as many chances to win as the happy girl illustrated in the picture. Get a full sup-

ply of Cream of the West Flour; give your daughter every chance you can to win; get the very best recipe you can find. Practise with Cream of the West Flour, and thus improve the chances of success every day you bake between now and your Rural School Fair! Remember that the prizes are offered for the best loaves of white bread which **MUST** be baked, according to the conditions described below, with

Cream^{of} the West Flour

the hard wheat flour guaranteed for bread

Ask your dealer for Cream of the West Flour. If he cannot supply you write us and we will tell you the nearest place to get it. Cream of the

West makes just the finest big bulging loaves of the whitest, lightest and most wholesome bread.

Here are the Splendid Prizes offered for the best loaf of bread baked with Cream of the West Flour. The following are offered at each local Fair:

1st Prize.—1 paid-up subscription to "My Magazine" for 1 year. This magazine is full from cover to cover every month with articles suitable for young people of all ages. It is published in England. Value \$2.50 per year.

2nd Prize.—6 months paid-up subscription to "My Magazine." Value \$1.25.

Extra Prizes.—When entries exceed ten a 3rd prize will be awarded of 6 mos. paid-up subscription to "My Magazine." When the number of entries exceeds twenty the judges at the fair will award 4th, 5th and 6th prizes of one year's paid-up subscriptions to "The Little Paper." This is a wonderful little publication issued every month in England. Its eight pages are packed with highly engaging information and stories relating to history, nature-study, animals, bird-life, etc.

Important—The winners of first prizes at the fairs automatically become competitors for the Provincial Prizes. The second half of the double loaf is sent to Ontario Agricultural College, Guelph, by the district representative in special container provided. The judging is done by Miss M. A. Purdy of the Department of Breadmaking and Flour Testing at the College.

Provincial Prizes—The winners of first prize at each local fair compete for following Provincial prizes. The first and second prizes, or third and fourth prizes will not be awarded in any one county:

1st Prize.—Short Course (3 months) in Domestic Science at Macdonald Institute, Guelph. The Macdonald Institute does not accept students under the age of 17 years; if the

winner be less than 17 we present her with a certificate entitling her to take the course when she reaches the right age. Value of course \$75.00, which pays for fees, room, board and washing. The winner lives at Macdonald Hall while taking course.

2nd Prize.—Short Course (3 months) in Domestic Science at Macdonald Institute, Guelph.

3rd Prize.—Short Course (4 weeks) in Poultry Raising at Ontario Agricultural College, Guelph. Girls taking this course do not live at the College, but good boarding houses will be secured for them in Guelph. Value of course \$35.00, which pays board of student in Guelph. (No fees are charged for course.)

4th Prize.—Short Course (4 weeks) in Poultry Raising at the Ontario Agricultural College.

5th to 29th Prizes.—The Famous Boston Cooking-school Cook Book by Fannie Merritt Farmer, latest edition (1914). There are 2117 thoroughly tested recipes and 130 photographic reproductions of dishes, etc., besides much special information.

Conditions of the Contest

Every girl may compete at the rural school fair in her district, whether or not she attends school, providing that her twelfth birthday occurs before November 1st, 1916, or her 17th birthday does not occur before Nov. 1, 1916. One loaf of bread must be submitted baked in pan about 7 x 5 inches and 3 inches deep, and divided into twin loaves so that they may be separated at the fair. The loaf *must* be baked with Cream of the West Flour. One half will be judged at the fair. The other half first prize loaf will be sent to Ontario Agricultural College, Guelph, to compete in the Provincial Contest. The local contest at the fair will be conducted under the same rules as all the other regular contests at your fair.

The standard by which bread will be judged will be as follows:

1. Appearance of Loaf..... 15 marks
 - (a) Color..... 5 marks
 - (b) Texture of crust..... 5 marks
 - (c) Shape of loaf 5 marks
2. Texture of Crumb..... 40 marks
 - (a) Evenness..... 15 marks
 - (b) Silkeness..... 20 marks
 - (c) Color..... 5 marks
3. Flavor of Bread..... 45 marks
 - (a) Taste..... 25 marks
 - (b) Odor..... 20 marks

Each loaf must be accompanied by the part of the flour bag containing the face of the Old Miller (important) and an entry form must be signed by the girl and parents or guardian stating date of birth, P.O. address, and giving name of dealer from whom Cream of the West Flour was purchased. The form will state that the girl actually baked the loaf entered in the competition. The forms will be provided at the time of the fair. The decision of the judges is final. Not more than one entry may be made by each girl and not more than one prize will be awarded to the same family.

No Competitions in Counties Named Below:

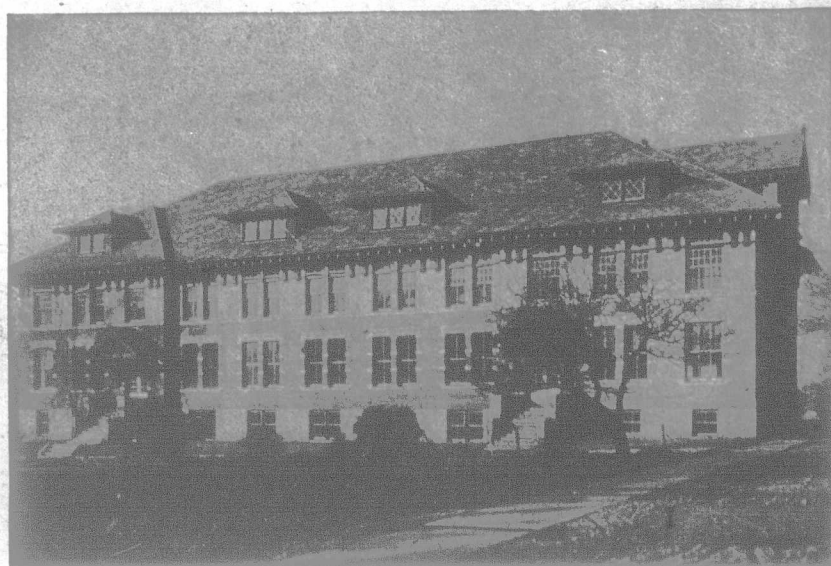
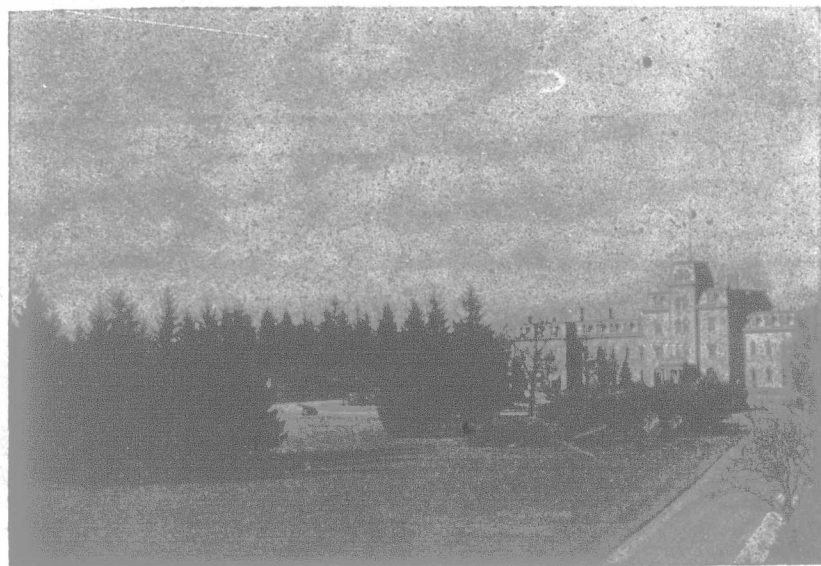
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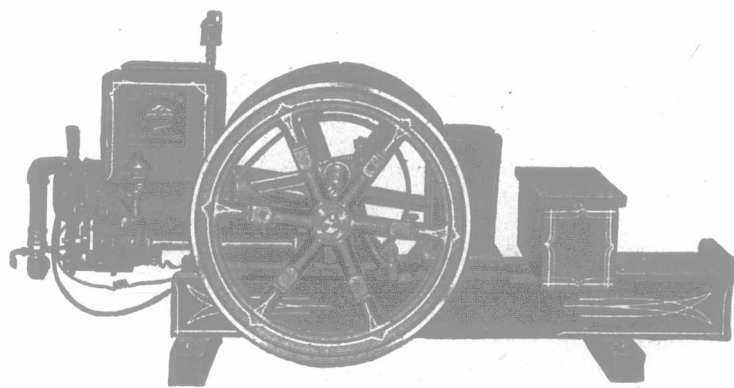
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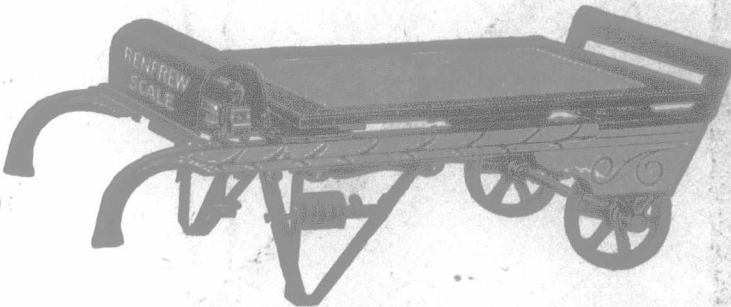
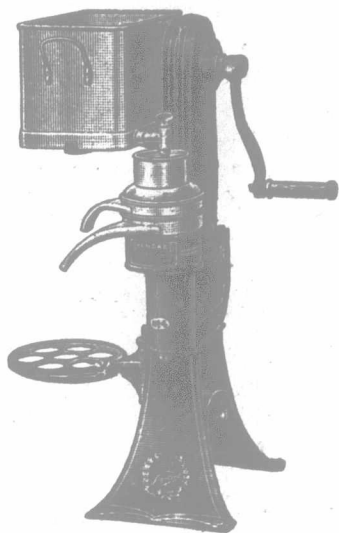
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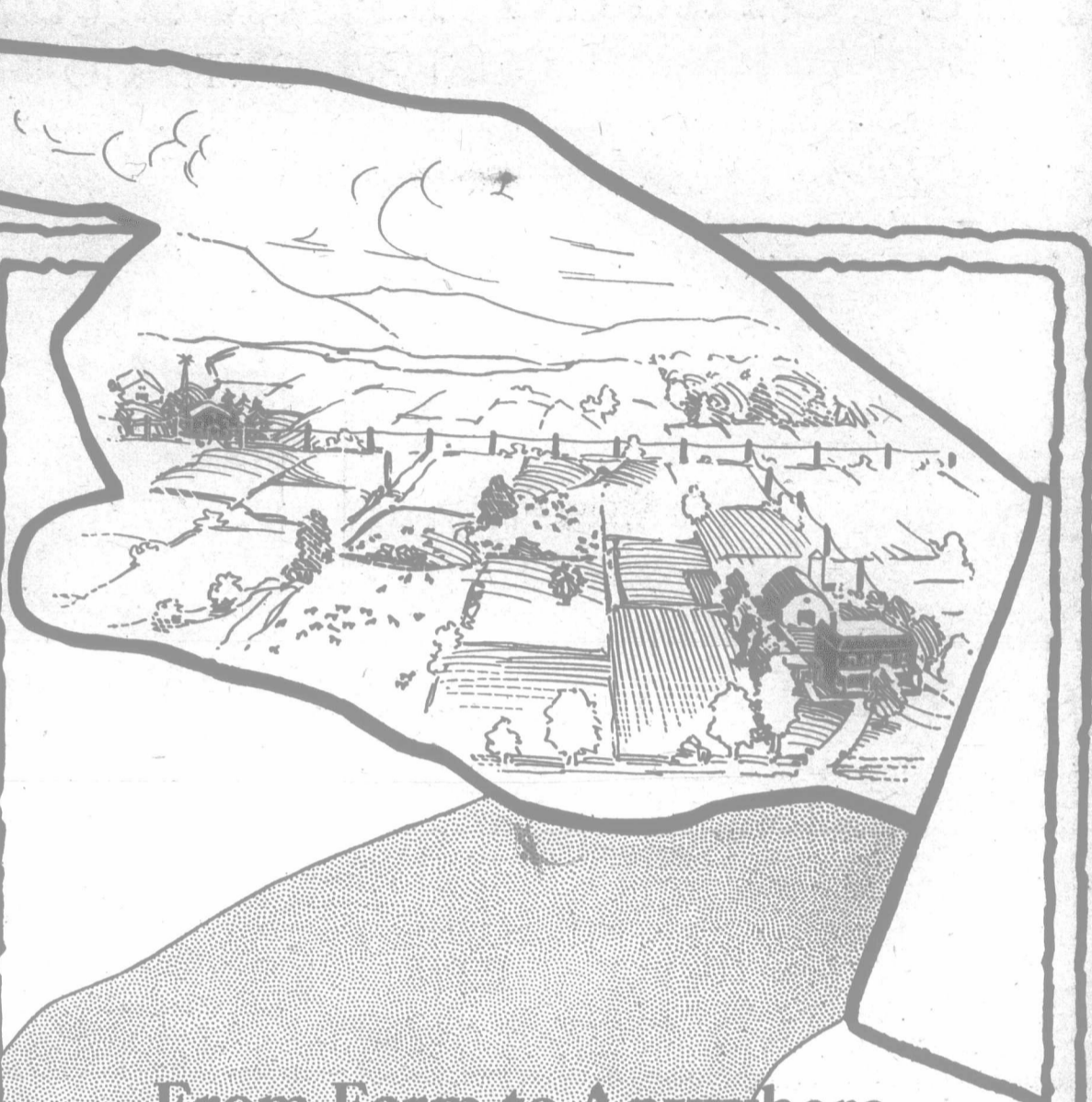
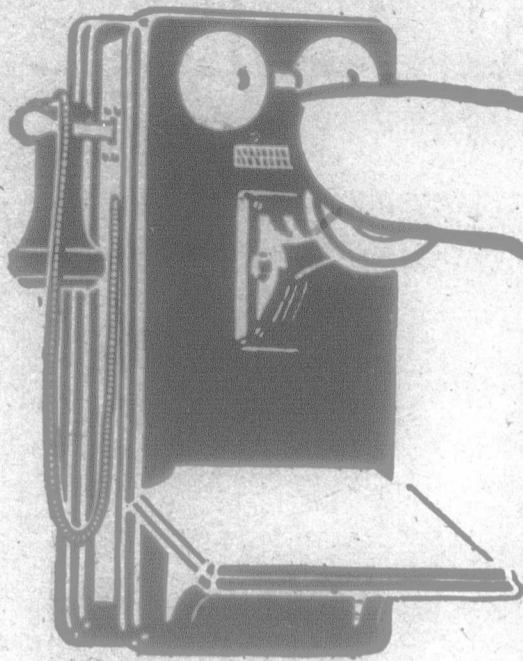


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LONDON, ONTARIO, AUGUST 24, 1916.

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EDITORIAL.

Everyone should learn something at the fair.

Some showmen lack training even more than their entries do.

Fads with no utility behind them are injurious to live-stock breeding.

Prof. Jas. Murray gives some interesting figures on tractor farming in this issue.

A lasting business can only be built up and maintained by straight-forward dealing.

A smaller crop but little or no waste of grain and straw will tend to balance 1916 and 1915.

Give the Devil his due. Germany has achieved distinction by a sneaking, under-seas campaign.

Never talk back to a judge. If beaten fairly or unfairly take your medicine. Your turn will come.

At what age do you breed your heifers the first time? Prof. E. S. Archibald gives you some ideas of value in this number.

Upon the judges who place the awards is a great deal of responsibility. Thousands attempt to breed toward the ideals set by the judge.

Don't fail to read in this issue the opinions of prominent live-stock breeders and exhibitors upon the value exhibitions have been to the various breeds.

Grouping of two or more breeds in one class is confusing to exhibitors, judge and spectators and injures rather than improves interest in the breeds so jumbled.

What the Kaiser thought he could do in three months he has not been able to accomplish in upwards of two years and his chances are weakening every day.

Facts and figures on poultry production are simmered down in the Poultry Department this week to such a point as to show how to make it pay to raise a chicken on the farm.

Live stock types change with demand, but no reader can fail to appreciate the illustrations of the present day, recognized type of the various breeds in this issue. They are worthy of study.

When the boys and young men of the farms can give our readers so many figures as proof of the profits from their undertakings surely more of the older men should be stimulated to keep accounts and write occasionally for the benefit of other farmers.

The fairs are good places to advertise, but do not forget that the reports published in "The Farmer's Advocate" make great "follow up" material by which to close sales, and the second and best final effort should be made in a regular advertisement in these columns. Results prove the truth of this statement.

The writer of the Hampshire pig section of our live-stock special this week gives a good hint to breeders of all classes of stock when he refers to the aim of breeders of his breed as "pork" not "belts." All live-stock and their characteristics must have an economic value and that first.

For Farmer and Stockman.

For several years "The Farmer's Advocate" has put out a feature issue during the first week of the Canadian National Exhibition and it has been known as the annual Exhibition Number. Special illustrations and special articles have been outstanding. Two years ago a decided "hit" was made when we published illustrations of practically all our live-stock advertisers—the men who breed, fit, show and sell all of Canada's best-known breeds of live stock to the number of nearly 140. Last year, four solid pages were given over to illustrations of past champions at Canada's big fairs. With these features went special articles, particularly on live-stock subjects. And this year we feel that our readers will be more than ever pleased with the short articles on all the breeds giving the ideas of breeders and with them are illustrated approved types of the various breeds of the different classes of stock from which the Canadian farmer makes a living and a little besides.

This issue might be called a live-stock number, and yet it contains more. No one should fail to read the articles dealing with the value exhibitions have been to the various breeds. There are many good points brought out in these. The Canadian horse-trade situation is discussed pro and con. But there is more than stock in the issue. Read the special articles in our two new departments. The young farmers are doing things, and automobiles and farm machinery must have attention. There is a right and a wrong age at which to breed the heifer, and a special article in the Dairy Department tells the right from the wrong. Dr. C. A. Zavitz gives an interesting and valuable account of the value big fairs have been to the grain and seed end of farming. It should be read. And then if you want to know something about poultry read "Does it Pay to Raise a Chicken?" Prof. Graham says, yes, but there are limitations. Find out what they are.

It is well to know something of the history of earlier shows in Britain the real home of the live-stock exhibition. There is a special illustrated article on these in this issue.

After reading all the articles, and particularly those referring to live-stock and the exhibitions, no one can deny that the larger fairs and shows have filled no uncertain place in the progress of Canada's live-stock industry. As a general thing the single-judge system is favored and the judge has an important task, for he is a big factor in setting type, a variable quantity because judges and demands differ. The selection of the judge should be carefully made, but fortunately Canada has a fairly large number of competent judges for most breeds. Although not emphasized in the articles by breeders themselves we think it is a mistake to have a judge place two or more different breeds, especially where the work is hurried and the classes are strong. Each judge should be a better judge of a breed if he has bred that breed or been intimately acquainted with it, and he should not be called upon to place two or three breeds the same day as is sometimes done at some of our larger fairs.

Breeders should avoid fads as pointed out in Mr. Galbraith's and in Mr. Hastings' articles. Fads are ruinous in the end. Where at all possible, Fair Boards should not group two or more breeds in one class. This is always unsatisfactory to the exhibitors, gives an unfair task for the judge and is not of educational value to the spectator. Each breed should have its own classes or none at all. Read the articles on the various breeds for all the good points.

The man who prepares anything for exhibition has a better knowledge of that particular thing than he could otherwise obtain. He sees the little things, and details are important.

Type Worship and Faddism.

A moderate or even generous observance of breed type is advisable and necessary in the breeding or judging of live stock, but when the value of an animal is decided wholly by its conformance or nonconformance with a few minor points in the description of the breed it develops into type worship which may result in permanent injury to that particular class of stock. There must be a balance of all parts of the animal in order to make it commercially useful, and if the breed cannot be utilized by farmers its breeding is a hobby and its maintenance useless. The ultimate purpose of all live stock is to supply mankind with something to eat, something to wear, or a means of transporting us, or our products, from place to place. A grand champion which cannot produce good feeding steers and heifers, a profitable litter of feeding pigs, lambs that can put on flesh and give a clip of wool at a profit, or sire a useful horse, according to the class of live stock to which it belongs, is comparable to a note issued by a defunct bank. The note may look as good or a little better than another note, but it cannot be exchanged for gold. Similarly the winners at our exhibitions must represent something of usefulness on the farm and they must be bona fide. A good stockman admires beauty, style, balance and other points which characterize different breeds, but with these points of excellence the meat animals must have the ability to store up flesh, the dairy cow must yield a profitable quantity of milk, and the horse is expected to draw heavy loads or a carriage at a reasonable rate of speed. These are the ultimate duties imposed by man upon the live-stock bred throughout the country. The type of a breed should consist in a correlation of all the points that make for usefulness and beauty, and the former should not be sacrificed to any degree to please the fancier or the man with a hobby.

Thirty-five years ago Oxford-Down sheep were grey in the face, bare of wool on the shank, and had only a tuft of wool on the forehead. Many of the rams were used by ranchers in Canada and the United States with which to top their range ewes, largely Merino. This latter breed were quite well covered on the face, and Western ranchers looked for a similar characteristic in the bucks they purchased. This demand has had its influence on the Oxford, for we now find them with considerable wool on the face and more wool on the shank. Relative to this change an Oxford-Down breeder of 40 years experience says: "I have noticed that a well-covered face is not always accompanied by a well-fleshed back and loin, and I believe judges have often overlooked the back and loin of the Oxford-Down in order to obtain type and a woolled face."

The Shropshire is descended from hill blood and half a century ago it had scale, plenty of flesh and was almost bare of wool about the head. Importations made into this country about 1880 were larger than the present type and they did not take. Canada and the United States have worshiped the muffled face and the woolled legs in this breed and they still adhere to those points, but the Old Country breeders now complain that the Americans and the Canadians have lured them into poor pasturage through their demands for less size, the small, nice brown ear, the thickly covered face, and legs well-wooled down. The farmers in Britain desire more scale and pay less attention than the American to the woolled face. They look upon that characteristic as a fancier's not a farmer's point of interest. The fact that the Royal Show winners this year were larger than formerly is direct proof that some consideration is being given the local demand for rams in that country which feature of the trade really influences type to a very appreciable extent. The experience and history of these two breeds of sheep suggest that size and thick fleshing over the important parts of the animal frame may not be compatible

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with excessive wool covering on the head and face. Whether this be true or not it is meat and wool that sheep must produce and breeders of the Down sheep have been able to increase the amount and density of the fleece by breeding it on to the face and legs. The point to consider here is, that the face covering in itself is nothing more than a fad if the breeder or judge should stop at that; it must be reinforced with a dense fleece, a full leg of mutton, and a strong, thickly covered back and loin. Wool is important and if flesh and fleece receive their due consideration when rams are being selected it seems possible to obtain the required amount of wool and still retain the heavy fleshing proclivities. The judge or breeder who looks only to the face and shanks is a faddist.

Swine breeding has been, and still is subjected to a certain amount of type worship and faddism. The Yorkshire was formerly obliged to carry a dished face, without it it could not be a "typey" hog. Nowadays that idea is being blown away, and long straight sides with smooth shoulders and hams, which have some economic significance, are being recognized. The Hampshire pig must be decorated with a white belt, which in itself does no good and no harm, but the fanciers have a tendency to breed belts instead of hogs and they too often disregard the essential features which are required to maintain a good bacon breed. There was in America a black hog known as the Berkshire. Briefly it was a lard or fat hog of great size and weight. We had them in Canada, but since the advent of the bacon industry and since we came to appreciate what it means to this country, breeders began to lengthen their Berkshires, to curtail their shoulders and hams, and, in brief, to make them a bacon hog. Now what is Berkshire type? The International Live-Stock Exposition at Chicago and the Guelph or Ottawa Winter Fairs give one a contradictory reply. The matter simply resolves itself into this: type is a combination of those characteristics that the farmer desires in the class of live stock he rears, and upon which he depends for revenue to pay his taxes, meet his living expenses and put a little money by. Dished faces or belts are a secondary matter with him.

A certain race of people bred a class of draft horses that were noted for their quality and with it nice feather

below the knee and hock. The feather is of doubtful value, but the type has been so worshipped that in some parts of this country substance has been sacrificed in order to obtain more quality in bone and hair. It is the Cyldesdale breed of which we write and judges must be able to see beyond the show-ring fence to the broad farm lands, the large cities where heavy loads must be drawn, and to the prairies where heavy implements are used, or they will do injury to an excellent horse through an exaggerated devotion to a type that was conceived in another country.

Ayrshire breeders developed a cow, very beautiful in lines, aristocratic in bearing, with upturned horns and an udder which was indeed worthy of praise, but they neglected to consider the farmer and his family who must sit down and draw the milk from teats which were indisputably too short. This was a very practical point of much economic significance which the breeders and fanciers failed to consider. The teats were very evenly placed and much time and effort it cost to make them so, but when the farmer had his say the breeders realized that appearances were not sufficient, so they set to work and produced something to correspond with the public's demand for utility.

Shorthorns in former years suffered from a color craze. They must be red; whites and roans were not fashionable. The absurdity of such an idea is now apparent to all. Type signifies more than feather on the leg, wool on the face, particular color markings or other traditional traits. It represents what the farmer finds most adaptable to his conditions and most profitable under his circumstances. Type is not a fixed or settled thing. The agricultural, transportation and packing industries of the country dictate largely what is needed and the exhibitions should pass the ideas along.

On the other hand there is a danger of some popular movement getting such a grasp on the breeding and judging fraternities that some exceedingly important feature of a breed may be overlooked to satisfy the popular demand. If the blocky, lowset, fleshy and early maturing qualities of the Shorthorn were sacrificed for too much milk a grave injury would be done to what was originally and is essentially a beef breed. There must be a generous observance of type when it signifies utility, but no one point indicates a breed and stockmen must of necessity balance one part against another until they have combined and correlated those component parts into a useful and serviceable animal.

The Secret of British Arms.

As the Great War moves on its relentless course to the inevitable end, people sometimes wonder what is the spirit that sustains the cause of the Allies. In a word it is the fixity of purpose that justice shall be done. This generation knows now, as it never knew before, something of the atrocity and wastage of warfare and such considerations tend to becloud the minds of some to the issues of righteousness in the dealings of nations with each other, and of liberty, involved. But these things are supreme. In the final analysis, it is not men and munitions, indispensable as these are, that sustain throughout the arms of Britain, but the spirit of leaders and of men. There exist some remarkable parallels, between this conflict and the American Civil War half a century ago. The central powers, led by Germany, began this war because of greed; the South fired upon Fort Sumpter at the risk of destroying forever the Union in order to perpetuate the slavery of the black race by whose blood and sweat and virtue their owners were enriched and gratified. At the bottom of slavery was greed. All the apologies, the twistings and turnings made on behalf of the South have again done duty for Germany.

Though at the outset unprepared for fighting, the North possessed like the Allies the advantage of numbers and resources. The South had more of the military spirit and the choice of positions. Like the Central Powers too, they forced the fighting at first. The North had to bear up against many disasters just as Great Britain has done, but the South, despite the evil of their cause, never descended to the depths of infamy that have characterized the aggressors in the present war. The Allies, it must be conceded, have had the best sense and sympathy of the United States with them to a greater extent than the Union cause enjoyed from England, at least during the earlier stages of the American conflict. With supremacy at sea the North was able to tighten a strangling grip upon the resources of the South and here again the parallel holds good. The North was beset with lukewarmness,

and divisions amounting almost to rebellious devices at home, and surely Britain has suffered enough in the latter way. The losses of the North were severe, and premature pleadings for an indecisive peace continued.

Northern generals were in no way enamoured of the glory of war, though there were furious and perhaps brutal fighters like Jackson and Sheridan or remorseless ones with the lives of men like General Sherman who once said "We will lose four thousand men before we take Vicksburg and we may as well lose them here as anywhere else." "I expect you on any and all occasions to make bloody results." Whether he actually said it or not he certainly acted as though he believed that "War is Hell." General Meade, hero of Gettysburg, declared "I like fighting as little as any man," Even General Grant by nature was not a combative man and George Henry Thomas one of the noblest and most efficient generals in the Union army declared that he "had taken a great deal of pains to educate himself not to feel." General Lee, commander-in-chief and the very soul of the Southern armies confessed: "It is well that this is so terrible or else we might grow fond of it."

President Lincoln and his generals realized, however, that the war had to go on to an absolutely decisive finish. Fortunately, the North had at its head such an inflexible and clear-visioned man as Lincoln, who was inspired and sustained by profound religious convictions and faith in the Divine over-ruling of human history. This was the secret of the North and the Northern cause just as a great moral principle is the secret of the cause of the Allies to-day and to-morrow and until the victorious end. In the public mind, something of human invincibility and implacability has been associated with Lord Kitchener, who brought into being the many-millioned armies of the Greater Britain, but an indomitable will and a religious soul dwelt within his iron frame. One who was privileged as few were to know the real Kitchener relates that after his tragic death there came to light upon the wall of his inner sanctum the motto, "By Prayer We Conquer," expressing the deep governing principle and reliance of his life.

Nature's Diary.

A. B. KLUGH, M. A.

At this time of the year we sometimes come across a caterpillar of the largest of all our moths—the Cecropia. And a very big and peculiarly ornamented caterpillar it is. It is pale bluish-green, with large orange, black-dotted tubercles on the second and third segments, yellow tubercles on the back of all the other segments except the first and last on which they are turquoise blue, and turquoise blue tubercles on the sides of each segment. It is over three inches long and about three-quarters of an inch in diameter. This is the fourth dress in which this larva has appeared in its existence as a caterpillar. When it first hatches from the egg it is about a quarter of an inch in length and is black, each segment bearing six spiny tubercles. After its first moult, which occurs about four days after hatching, it looks quite different, as it is now dull orange with black tubercles. After six or seven days it moults again, and is now yellow with large orange-red tubercles on the second and third segments, and greenish-blue tubercles with blackish spots and spines on all the other segments except the eleventh, which has on top a single yellow tubercle ringed with black. Then in five or six days it moults into the dress in which we now find it, and though it moults once more before spinning its cocoon it does not pursue its "lightning-change-artist" exhibition further, but reappears in the same costume. This large larva is an excellent one on which to observe the structure of a caterpillar. The spiracles (breathing-pores) show plainly along the sides, the three true legs with their sharp claws on the thoracic segments are easily studied, and the eyes and mouth-parts show to advantage. The pro-legs on the sixth, seventh, eighth and ninth segments, and the pair on the thirteenth or last segment, with their suckerlike discs at the ends, are conspicuous, and their action as the caterpillar crawls along is most interesting to watch. It moves its pro-legs very much after the fashion of an elephant.

This insect is one of the so-called Giant Silkworms, and as we watch one of these larvæ we often see it spinning long threads of very strong silk. This is spun from a gland opening on the lower lip and is the material out of which it weaves its cocoon. When the larva is full-grown it takes up a position on the underside of a branch and makes a framework of a few strands of silk. It then makes a loose net-work upon these supporting strands, and begins laying on the silk by moving its head back and forth leaving the thread in the form of figure 8's and M's. This is as far as the process of the weaving of the cocoon can be followed, as by this time the larva is hidden by its silken screen. The completed cocoon is made of two walls of silk, the outer one thick and papery, the inner one thin and firm, between the two being a matting of loose silk. While most of the silk is laid on cross-wise that at one end is laid length-wise thus making a valve through which

the moth can push its way when it emerges in the spring. The pupa within the cocoon is compact, brown, smooth and oval, with the ability to move but very little when disturbed. The cases which contain the wings are folded down like a cape around the body. The moth emerges in May or early June, and is at first a very bedraggled and crumpled looking object. But the wet wings soon expand, dry and harden, the feathery antennae spread out, and the body becomes dry and fluffy. It then appears as a most beautiful moth, with an expanse of from five to six inches. The ground-color of the wings is grayish-brown, a white, wavy stripe runs across both wings, bordered on the outside by a reddish margin. The outer edges of the wings are clay-colored, and just inside the edge are fine, wavy

black and white lines. Near the centre of each wing is a white crescent-shaped spot, bordered with red and margined by a narrow black line. Near the apex of the front wing is a dark red spot. The thorax is red, with a white collar, and the abdomen is red banded with black and white lines.

The adult does not feed at all as the mouth-parts are incomplete. The larva feeds on a great variety of vegetation—trees, shrubs and herbs, in this respect being quite different from the majority of caterpillars which eat only the foliage of a single species of plant or of plants belonging to a single Family. It is never abundant enough to cause any material damage.

The season of bird-song is over and the season of insect music is at its height, the grasshoppers, locusts

and crickets taking the places of the now silent feathered musicians. The only birds which still sing persistently are the Wood Pewee and the Red-eyed Vireo. The song of the former is a plaintive, lackadaisical "Pee-a-wee." This species is about six inches in length, clive above, and whitish, tinged with yellowish-olive, below. It is one of the fly-catchers and may be seen perched on a limb in an erect hawk-like attitude, and making frequent darts into the air to secure flying insects. The Wood Pewee is found in eastern Canada as far west as the prairies. It is late in arriving and leaves early, as it does not appear until the middle of May and migrates southward early in September.

The Pros and Cons of the Canadian Horse Business.

Since the war broke out the Canadian horse business has been in rather a peculiar and unsettled position. No one seems to know what is going to happen next but speculation has been rife, and some have been accused of being "knockers" when they attempted to size things up as they have appealed to the Canadian farmer loaded up with horses, while others have been branded as over-enthusiastic optimists because they have painted rosy pictures of the future of the Canadian horse trade. A little further discussion of the pros and the cons of the case may not be amiss. One thing, now practically agreed upon, is that before the war or for several years previous to 1915, at least, the natural increase in the number of horses over the greater part if not all the world where the horse holds sway was not as great as expected. For some reason, whether the automobile or gas tractors had any effect, not so many mares were bred. Horses were high in price, and they remained high in almost every country after the war broke out. For some reason, which we do not need to discuss here, buying in Canada was curtailed, and an embargo was for a time placed on the export of horses from Canada to certain neutral countries. Naturally, such conditions had an unsettling effect upon the Canadian horse trade. Farmers with too many horses for their own use and not caring to sacrifice them became a little panicky, and the breeding industry was in line to suffer. Naturally, many with more horses than they could use profitably hesitated about attempting to raise more colts until some assurance of improving conditions presented itself. It still remains for each man to use his own judgment and act accordingly, but the signs now point to a world-shortage of horses after the war, and these signs must be read and interpreted correctly. The aim of this article is to aid horsemen to properly weigh the matter and start on the right road to surest gain. No one can dictate what should be done. None can foresee the future clearly enough to say this breed or that type will positively be most profitable to the Canadian breeder under all conditions, but there are indications which must be considered. There has been an immense horse wastage which is continuing, and breeding has been curtailed.

No definite figures are available as to the losses of horses in the war. It is said that during the first eleven months France lost 31 per cent. of her horses, or 1,104,000 of her 3,331,000 animals. When the war broke out it was estimated (Agricultural War Book) that the Central Powers had 8,700,000 horses, the Allies 48,260,000, and neutral states 36,800,000, a total of 93,760,000. Great Britain had, without the colonies, 2,150,000. Canada had 3,000,000, and Australia had 2,400,000. Russia is the greatest horse country with 33,000,000, and the United States is second with 21,000,000. Let us see what has happened. If France lost one-third of her horses in the first year of war and the 260,000 of Belgium were practically annihilated, Germany's 4,500,000 must have suffered greatly, and Austria-Hungary's 4,200,000 must have been heavily drawn upon. Russia was unable to use cavalry to advantage for a long time, but used up numberless horses in transport and artillery work, and her millions of men are now using millions of horses. Let us bring the figures nearer home. We have said that the Canadian market was upset and little business was done for some time, nevertheless, 60,000 horses were sent overseas before June of the present year. This is only two per cent. of our horses, but coupled with curtailed breeding operations will have an effect which should be markedly apparent after the war. During the 21 months ending June 1, 1916, the United States exported 611,790 horses and 167,387 mules for the most part to the war. The total value of these exports was \$169,142,411. We give these figures simply that readers may draw their own conclusions as to the outlook. We cannot estimate losses in the war. The losses of France and Belgium may be used as a basis, but other countries may not have lost horses in such heavy proportion. The fact stands out, however, that when the war ceases the world's loss in horses will be numbered in the millions. Already America has sent (Canada and the United States) nearly a million horses and mules to the European catastrophe—a million out of twenty-four millions. This itself would eventually give the horse market an upward tendency. But far greater than this are the losses in Europe, losses which Europe may seek to replace in the neutral countries and Canada. At the present time it is worth taking a chance that such will be the case, and there is less chance than surety in it.

So much for figures. If the reader decides that horse-breeding is going to be profitable in this country, what breed or breeds or class of horses should he breed?

We are considering only farmer horsemen. In the past we always advised the farmer to breed the draft horse and we are not going to change one iota, but if a man have a real good driving mare, a carriage mare, or one or two good lightish general-purpose mares, in view of the fact that there is and may continue a demand for the right type of light horse, it might prove more profitable to breed these mares to a good sire of one of the recognized breeds of light horses.

Canada's light-horse trade has not been such as to encourage the extensive breeding of this type of horse by farmers. Around 1900 and 1901 light horses became a drug on the market, and undoubtedly an element of carelessness crept into the breeding work. Some ceased breeding and others, because of the difference in service fees, bred to grade or scrub sires, and left little encouragement for the owners of good, pure-bred stallions. There was a period, however, of about five years, from say 1903 to 1908, that light horses were in demand, but Canada was prosperous and the advent of the automobile in large numbers worked havoc with the light horse trade, and carelessness again crept in. Little breeding was done, and the light mares bred were for the most part carelessly mated. Is it any wonder, then, that when army buyers started out two years ago to buy suitable army light horses or remounts from 5 to 9 years of age they were forced to turn down many of the offerings brought before them, and good, light horses were found to be scarce? Many were found undersized and many lacked quality. There is no use of attempting to get around the fact that Canada, on the whole, is deficient in light horses. The question is, will it pay to improve? Undoubtedly, yes. This answer does not mean that farmers should make a specialty of breeding light horses, but it does mean that where a good light mare or team of mares is in use on the farm there is money to be made by breeding these to a light horse of the right kind.

What is the right kind of light horse for this country? Our stallions have been criticized for smallness and poor conformation, but particularly for being undersized or not prepotent enough to throw large, sound colts of high quality. Is there something in it? There may be. One thing is certain, mare owners have not always used the best judgment in mating. There is no use of expecting uniformly good, light horses from indiscriminate mating, neither can cull mares produce the desirable class of light horses.

What is the desirable class? John Bright, Live Stock Commissioner, says: "The only light horse that bids fair to be wanted is the good, big roadster, a square trotter of good conformation and sound, weighing from 1,050 lbs. up." We would accent the "up," for we believe a horse should have some size even though he be in the light-horse class. A good cavalry horse must be from 15 to 15.3 or 16 hands high, and should weigh 1,000 to 1,150 lbs. In Great Britain, the weights are put at from 950 to 1,250 lbs. Now, what class of stallion will produce these horses when mated with the best of the common light, cross-bred mares in Canada? We would say select big, strong sires of the Standard-bred, Hackney and Thoroughbred breeds. A number of the speediest sires in the first-named breed are too small for use on the average farm light mare. They are all right in breeding for the track, which is their place. Some pony-sized Hackneys throw colts altogether too fine, and little, cull Thoroughbreds should be avoided. Keep in view the fact that you want a horse from 1,050 lbs. up to say 1,250 lbs. or more, that can trot straight and true, that has the heart which comes of good breeding, that can go on the buggy, the light wagon, the delivery wagon, or could be used as a remount if occasion arose, or might be used on the scuffler, the corn cultivator, or as third horse on harrows or binder as the case may be. We would call him a big, light horse or a neat, trim, perhaps rather small, general-purpose horse. If you are going to breed light horses at all, and if you own a good light mare you stand to gain by breeding her, this is the type which gives most promise of being in demand.

When you get the horse how much should he be worth at four or five years old? The army will pay from \$175 to \$200 or up to \$225. The British army puts the limit at \$175. Good drivers or expressers should be worth \$175 to \$225, with fancy up to \$250, but the demand will likely be limited. This fall or next spring is the time to start breeding in the right direction; select only pure-bred sires with substance and quality.

Light horses have been discussed at length, because there is something wrong with the class of Canadian light horses. Bear in mind that we are

not placing the light-horse business ahead of draft horse breeding for the Canadian farmer. The real future for the farmer in horse breeding is with the draft horse, but, at the same time, he might as well make the most of the light horses he has and must essentially continue to have. The Live Stock Commissioner says: "Start now to breed good draft horses, sound, of good conformation and as large as possible." Again we notice that size is one of the big considerations. It is a fact that fads and fancies have, in the past, really injured certain breeds of live stock, and it is possible that certain breeds of horses have suffered. Whatever may be the case no one wants a horse that is all quality and hasn't sufficient weight and middle to do the work required of him. Neither does anyone want a big bundle of horse meat set upon coarse, boggy, poor-wearing legs, with little, narrow, shallow feet stuck straight-up-and-down on the ends. Size and quality have been emphasized many times in these columns. The opinions of noted breeders are given in this issue. In the beginning of this article figures are compiled to give horsemen some idea of the situation. It looks as if drafters would be profitable. To get the right kind use the best available sires. Avoid cross-breeding or putting well-graded-up mares of any breed to stallions of another breed. Keep size and conformation firmly fixed in your mind, and remember that, provided all are of equal quality, there is always a premium placed upon weight. It is the big gelding that brings the big price just as it is the big filly that meets most ready sale. Never use a scrub, a grade or an undersized horse because he is "cheap." He is really in the end the "dearest" horse in the neighborhood. Mate carefully, handle carefully, feed well.

Will it pay to produce drafters? Certainly, provided the right kind are produced, the brood mare is used to do the farm work, and the colts are put to work at an early age. Every farm brood mare should do her just share, within reason, of the farm work. Every colt should start work at three years of age or a trifle before. This means, of course, in the case of both mare and colt that they be worked judiciously. No mare should be "slugged through" while carrying or nursing a colt, neither should a newly broken colt be slaved and stunted by overwork. Keep the colt growing. The market demands a fairly mature horse. He must be four, preferably five to seven, years old. The right class of gelding should bring the farmer from \$175 to \$250 at the best age. Most of them, possibly, would come in the class between \$180 and \$225. Fillies sell about \$25 to \$50 higher for the same quality and weight to be used as breeders. Provided the farmer uses his mare and colt to work, these prices should pay fairly well if the demand is keen and sales are readily made.

There is a point right here which we might consider. Dealers claim that farmers ask too much for their horses. That is, they ask prices which will not leave a sufficient margin for the dealer when he has to sell the horses to other farmers. Or, to put it another way, the farmer, buying horses, cannot afford to pay too high prices because he must figure on making interest on his investment. A case was recently cited where a man paid \$475 for a team and then hired a high-priced teamster to drive the outfit, which he let out at \$5.00 per day. Figuring investment, wages and wear and tear he was losing money every day. The dealer claimed his team cost too much money. Probably such a good team might have been more profitable in some other line of work than teaming by the day. But the fact remains that the ultimate purchaser must get his horses at a price at which he can make them pay, and the dealer, if horses are sold through him, must be remunerated. No man can expect the dealer to work for nothing. It may cost him from \$10 to \$20 for transportation, feed, etc., before he can turn the horse over, even if quickly sold. The real trouble has been where dealers have beaten farmers down because they knew they had to have money, and have made rather large profits on the transactions. This has caused farmers to set a higher price to dealers and to hold out for it. Our advice would be to use a little printer's ink when you have a horse to sell. If it is a pure-bred, by all means use the agricultural press with its wide circulation among stockmen. It will add dollars to your selling price. If it be a grade, use the local papers in your district. Let the people know what you have for sale, and sell all you can direct to the ultimate user.

This is the situation as it appeals to us. There seems to be more "pro" than "con" in it. If it strikes you in the same way start now to breed some good horses.

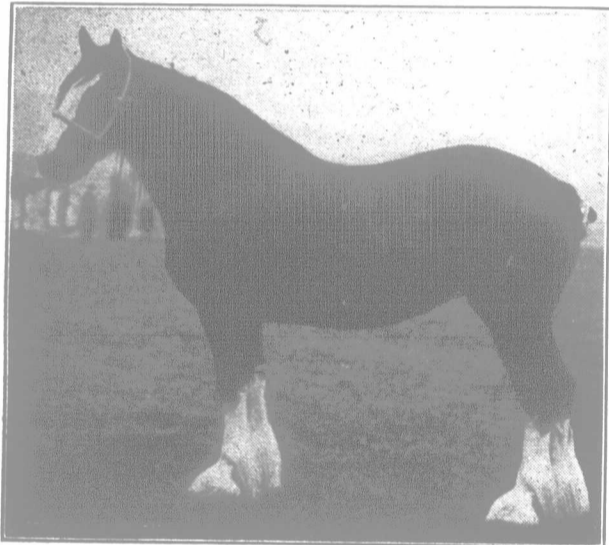
What Exhibitions Have Done for Your Favorite Breed.

Clydesdales.

Alex. Galbraith.

No one will dispute the statement that the fairs have done far more than any other organization, individual or collective, in stimulating interest perennially, and crystallizing the most intelligent public opinion on the subject. They have been the means of bringing face to face every year the best acknowledged representatives of the breed in keen but friendly rivalry. They have educated the public as well as exhibitors in the essential and desirable points of the draft horse, and in doing so have not only increased public interest in show-yard gatherings, but have been by far the most important and valuable factor in popularizing the Clydesdale breed in Canada.

Think for a moment what would have been the present status of the breed had there been no annual fairs or exhibitions during the last half century! No opportunity for comparison of animals, no real guide as to the proper type or the essential qualifications of a model draft horse! It seems to me that a condition of something resembling chaos would have existed but for the educational and ameliorating influence of the provincial and district fairs throughout the Dominion. Each breeder or owner would doubtless have contended with more or less persistency that his animals and his methods were superior to all others, and there being no higher court of appeal the matter would have had to remain unsettled. Of course, one great benefit resulting from the competitions at fairs has been the unwritten adoption of certain standards of excellence which have been accepted as guide posts by judges and exhibitors with perhaps varying regularity. The judging of Clydesdales, in common with the judging of all other live stock, is, of course, not an exact science. It is but the expression of an opinion given by one man, or two or three men, who have been chosen to place the awards on account of their familiarity with the best specimens of the breed, or their successful experience as breeders themselves. These men, however well qualified for their task, are far from being infallible, and doubtless some mistakes have been made in the past and will



continue to be made in the future. To my mind the greatest danger at the present time lies in the tendency to imitate too closely the extreme fashions of the Scottish show-yards without considering sufficiently the demands of the Canadian market, and the necessity of combining strength, substance and weight with that superlative quality for which the modern Clydesdale breed stands unequalled. The fashion or "fad" to which I refer particularly is the production of long hair over the feet, and which is commonly produced by blistering or artificial means. To some people it may look well and even disguise a short, upright pastern, but I consider it nothing better than "a delusion and a snare." Another fashion that should be guarded against is that extremely close all around action which necessitates a very narrow chest and poorly muscled thighs. Breeders should remember that there is a medium in all things, and that when every-day utility is left out of consideration we are on dangerous ground.

In my opinion, at least, ninety per cent. of the recognized Clydesdale judges are thoroughly competent, and a still larger per cent. are absolutely honest. This being the case, the awarding of prizes at the principal centers of the Dominion annually for open or local competition cannot be regarded as otherwise than highly beneficial to the Clydesdale breed.

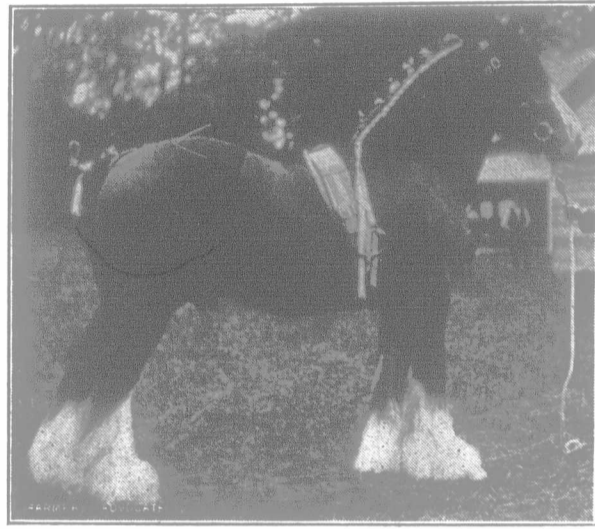
Shires.

J. M. Gardhouse.

With regard to Shire horses, J. M. Gardhouse expressed the opinion that through their annual appearance in the show-ring the breed has been favorably influenced in Canada. Generally speaking, the Shire does not possess quite so much feather as formerly, the bone is flatter and cleaner, and the animal is not quite so weighty. Exhibitions have stimulated trade and brought the Shire horse before the people, which condition applies to the West with more force than to Eastern Canada. There are more importers of Shires west of the Great Lakes than in the East, and heavier horses are required to operate the large

implements and handle the class of work imposed upon the draft breeds. "Calgary Show is a Shire stronghold in Western Canada," remarked Mr. Gardhouse. "I have seen classes of Shire mares and stallions there, mares particularly, that were exceptionally good as regards feet, pasterns, action and quality, and they would compare very favorably with the exhibit of any draft breed brought into the show-ring."

The reason why more and larger importations are not made into Eastern Canada was explained in this way: In England good Shires are priced very high, and after adding to the initial cost the expense of buying and transportation, the price that could be obtained in Canada would not warrant the transaction. With

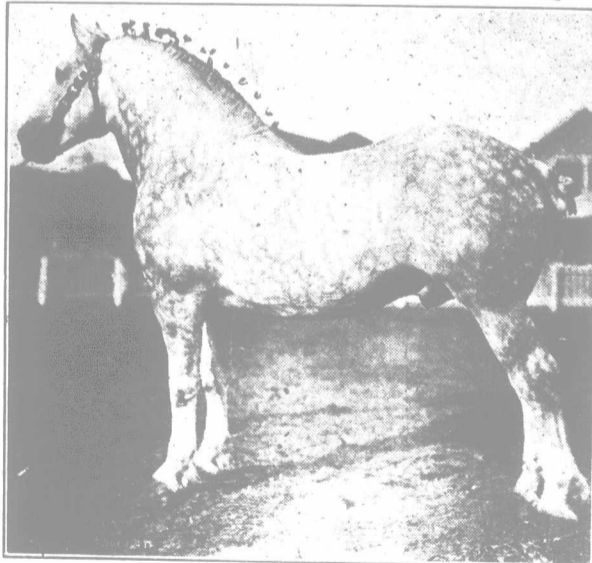


other breeds it is different; they can be obtained more cheaply, and the profits resulting from the turnover are more satisfactory. This condition of affairs existing in Canada and the source of supply has discouraged large importations, especially into Ontario and the East. However, the exhibitions have continued to foster the breed and keep it before the public as a draft horse with desirable draft qualifications.

Percherons.

J. B. Hogate.

The relationship existing between exhibitions and the Percheron breed is explained by J. B. Hogate in the following thoughts: Percherons were not known at first and farmers looked upon them with suspicion, until through the influence of the exhibitions and the activities of the importers and breeders they began to see and appreciate the good points of this draft animal introduced from France. Exhibitions emphasized the good points and discountenanced the bad. Crooked hocks, poor feet and bad action, which are defects found in all breeds, were "shown up," and the practice of importing poor horses, which could be bought in their home land at the buyer's price, was discouraged. The Percheron in France is an excellent horse, but a few dealers, in a hurry to make money, brought out cheap animals and made a bad impression. However, good ones, as well, were imported, and visitors at the ring-side could see specimens of the breed that had good legs and feet and were able to travel straight without paddling. Nevertheless, I have seen judges, actuated by ulterior motives or an excessive feeling of good fellowship for some exhibitor, depart from the straight and narrow way and award honorable positions to entries with crooked hocks, paddlers and horses with other defects,



when better individuals in the same class went unplaced. Fair boards and exhibitions can help Percherons most by giving them a fair deal as regards accommodation and having them judged by good horsemen whose sympathies are with the breed and who will place them according to their qualifications, with utter disregard for personal feelings or any influences that may be brought to bear. The one-judge system is preferable every time, for then the responsibility for any and all decisions cannot

be shifted from one to another. One man and only one makes the award, and it is easier for one to give satisfaction than it is for three.

Thoroughbreds.

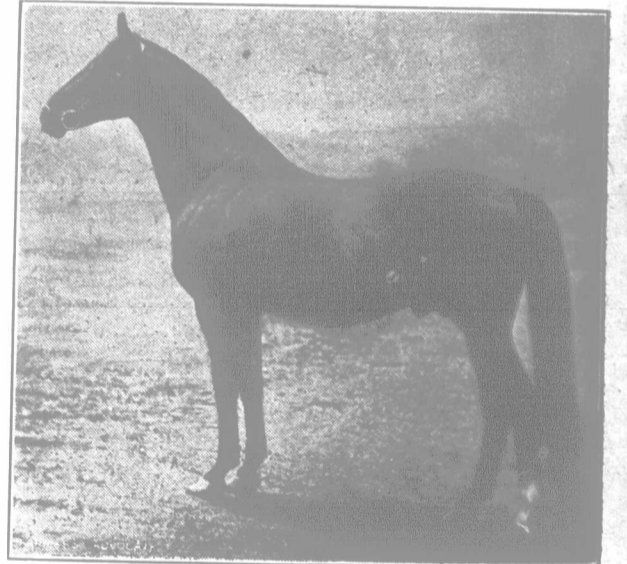
T. Macabe.

What are the outstanding features in the work that the shows and exhibitions have done for the Thoroughbred industry, wherein have improvements come through the exhibition work, and where might the exhibitions be improved to further aid in strengthening the breed?

These questions, as applied to the Thoroughbred horse, are very important at the present time, and I venture to say, taking into consideration the present prevailing conditions in Canada, and perhaps more important still Canada's ability to meet in the near future, the demand to be made by European buyers for light horses, the veins of which must contain over 50 per cent. of that blood from the Thoroughbred sire, is not by any means the least important matter for the light-horse breeders of Canada to consider at the present time. It is the opinion of those in closest touch with the markets for young light horses that the demand will exceed the supply when the European countries seek to replenish their loss sustained through the war.

Outside of the axiom that competition is the essence of all trade, to a very large extent the exhibition performs the work of an educator, besides assisting materially in marketing at that time and throughout the year the stock of the exhibitor. What greater important feature, therefore, could be rendered to any live-stock industry than that of exhibitions?

The direct effect of exhibitions upon the Thoroughbred stock is somewhat less conspicuous in this young country compared with more early established countries like England and the Thoroughbred breeding States of the United States, where breeders are to be found whose entire livelihood depends upon the industry, and where the governments have recognized the importance of liberally offering premiums to all classes of mares, sires and their progeny as well as to the produce of the Thoroughbred sire, and the half-bred mare as an animal most suitable for army re-



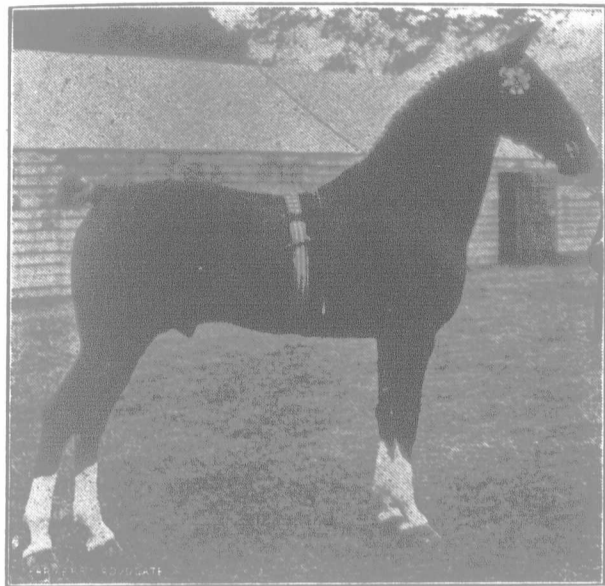
mount purposes. One cannot forget the timely action of His Majesty, King George IV, in sending as a gift to Canada his Derby candidate of 1913, "Anmer," as a sire most suitable to improve the stock in this country. This alone is suggestive of the strained conditions in light horse affairs in England at the present time. The British Government is taking every means to preserve their native stock, and in their taking over Mr. Hal. Walker's stud, one of England's most successful breeders, at a considerable outlay of money for these times, one cannot overlook the great importance of breeding all the best available mares in a young country like Canada.

As a suggestion to any exhibition with respect to aiding and strengthening the breed, no better evidence can be found regarding the increase in entries than the wisdom of increasing the amount of the premium. The classes for Thoroughbred stallions standing for public service, to which the Canadian National Exhibition offers prizes of \$125, \$100, \$50, \$40, \$30 for 1st, 2nd, 3rd, 4th and 5th, bears witness to the fact. Those who have witnessed the increase in numbers and quality of horses exhibited for the past few years will be able to affirm the statement that they have been one of the best ever gathered together, greatly exceeding the entries of a similar class at the National Show in New York. The Canadian Thoroughbred Horse Society are to be congratulated upon increasing, this year, their grants to live-stock exhibitions for Thoroughbred stallions and their get from half-bred mares to produce a type suitable to become remount horses. A good horse of this type is and will be sought for some time to come for commercial purposes as well as for saddle, hunter and remount purposes, and enjoys a reputation of which the Province of Ontario may be proud. We may take pride in the quality and number of horses raised in past years, and which have found their way to the stables of the most extensive hunter studs in the United States.

Hackneys.

Robert Graham.

During the last ten years Hackneys have acquired more quality, remarked Robert Graham, and their get have been doing exceptionally well in all the large horse shows. At the New York Horse Show 90 per cent. of the winners in the harness classes were Hackneys or got by stallions of that breed. Half-bred Hackneys are showing well under the saddle, "and incidentally," said Mr. Graham, "the highest jumper in the world was got by a Hackney sire." They are breeding for more style and they are getting it. The thick, short neck is being lengthened, which improves the grace and bearing of the animal. In

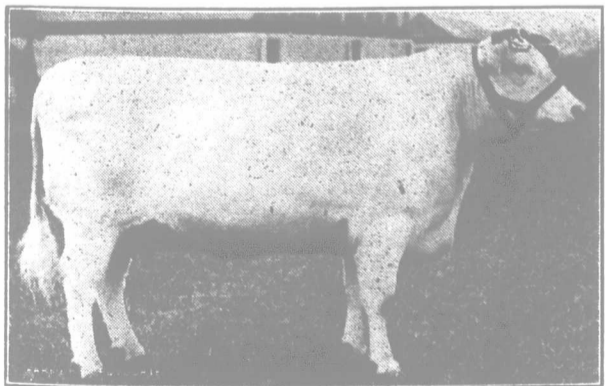


reply to the question "Do you consider the present-day Hackney in this country large enough to cross with ordinary mares and get a serviceable type of horse?" Mr. Graham replied, "If they can win 90 per cent. of the harness classes in a large horse show it would appear that they are sufficiently large for the purpose."

Shorthorns.

John Watt and Son.

Shorthorns in the early days, said John Watt & Son, were broader backed, had wider hook bones, were not so evenly fleshed and were a little slower maturing than representatives of the breed that enter the show-ring at this time. The present-day Shorthorn is a shade finer all through, and perhaps matures a little earlier. There were just as good individuals years ago as one sees at present, but the slight difference just described obtains in a general way. Size has been sacrificed to some extent, for in this era we do not see as large cows and bulls in the ring as was the case 20 years ago. A breeder takes his good animals to the fair, and, in the younger stock, they are the ones that are the best and usually the earliest matured. In this way the exhibition has exerted an influence over the size and quality of the breed, and while the low-set, blocky type, which is evenly fleshed and matures early, is desirable, we like plenty of size. With regard to the market classes the fairs have been influential to a large degree. The Aberdeen-Angus has been quite successful in these classes, but the total results have popularized the Shorthorn for they have demonstrated that size is equally important, and to get a high-class bullock it must have a strong infusion of Shorthorn blood. Steers and heifers, red, white and roan, predominate, and the public cannot help but see that the Shorthorn is indeed the dual-purpose cow. These and



other virtues of the breed have been kept constantly before the people through the instrumentality of the show-ring.

The large fair associations could encourage the small breeder, declared Mr. Watt, if more honor were conferred upon the breeder of prize-winning animals. "Any man with money can go out and buy a show herd, but every one cannot stay at home and raise one." The Shorthorn breed would receive an impetus if this feature of the show world received more consideration. It is the man who stays at home and breeds good cattle who deserves more credit than he gets.

"There has been a change," said Mr. Watt Sr.,

"in the way show cattle are prepared for exhibition. We did our farm work, our feeding and our fitting. We fed our cattle three times each day and worked with them what spare time we had, but now every up-to-date herd has its herdsman who does little else besides feed and fit the stock. In this way they can put the entries in better condition for the show-ring."

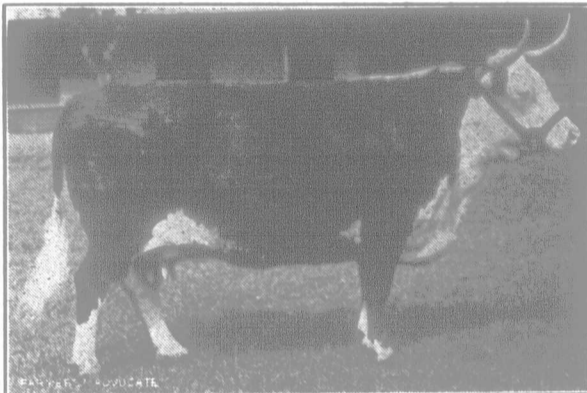
Herefords.

H. Dudley Smith.

"I have a better calf than that at home." Most of us who have followed the show-ring have heard the above remark, how many have taken the trouble to go and see that wonderful calf at home? How many have even taken any stock of the remark? Where these "better ones" do exist in the hands of an unenterprising owner, what a chance to "keep the boy on the farm," and the calf would pay the way.

As an example of incentive from the show-ring, read the splendid article in "The Farmer's Advocate" issue of August 3rd, "America's Greatest Hereford Establishment." The great results accomplished by Hereford cattle breeders, as shown in said article, were accomplished chiefly through energy and skill continually displayed in the show-ring for the past twenty-five years.

Live-stock exhibitions, besides being educators and one of our greatest means of improving Canadian live stock through competition, are promoters of good fellowship, and incidentally educators in the art of "dipping down in your pockets" with a determination to win out next year. Only those who have been through the ring have realized the pleasure, and under-



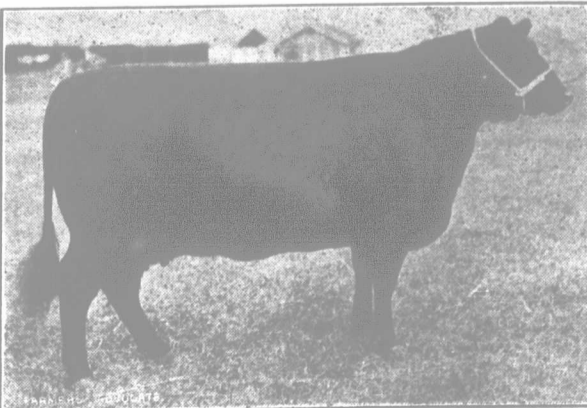
stood the saying that "the best is none too good." "The proof of the pudding is the eating." Let any breeder, interested in his work, who classes himself as one of those "who has to sell his good stock at a low price" try the show-ring as an advertiser. He will soon see that not only will his business increase but the prices obtained will increase in ratio to his success in the show-ring. Herein lies one of the greatest incentives to the improvement of our live stock, and it is the direct means of bringing the best stock into our country. Further, every breeder who has been showing at our principal fairs and has for some reason missed showing even a single season has felt the result at once. The breeder who has become well known in the show-ring and quits showing may as well quit breeding. As an advertiser that gets results you cannot beat the show-ring.

Aberdeen-Angus.

John Lowe.

The experience of John Lowe as an exhibitor of Aberdeen-Angus cattle led him to remark: "The shows have always emphasized the blocky, low-down type, and if there has been any change during recent years in this regard it has been for the better. The classes for young steers and heifers and baby beef, put on at the fairs and exhibitions, have increased the popularity of the Angus and have created a greater demand for bulls of this breed from which to get stock that will mature at the earliest possible age. The fat stock shows, particularly, have been a great factor for good, because they feature the finished steer and heifer. Meat is the ultimate purpose of all beef breeds, and when it comes to the final contest before going to the block the Angus is an exceedingly strong competitor. Such classes also induce farmers generally to give their calves and young stock better care, and this reflects back to the good of the Aberdeen-Angus as well as all other beef breeds."

Breeders and buyers are introduced through the medium of the show-ring, said Mr. Lowe, and many



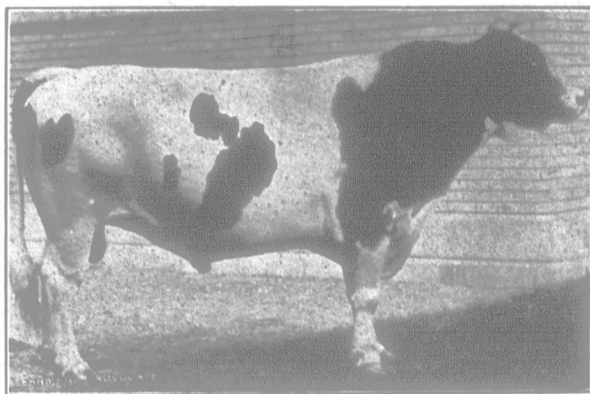
sales are made either at the fairs or subsequently. The breed is kept before the public constantly in this way, and farmers cannot fail to see and appreciate the qualifications of these black, polled cattle for raising steers and heifers that may be finished off for beef when still quite young. Considering the number of exhibitors who come out, this breeder continued, the money devoted to the Aberdeen-Angus cattle is quite liberal. The judging, too, has been satisfactory.

The one thing most needed now to enhance the popularity of the breed is for more breeders to bring their herds out and help to make a good showing. There are a number of good breeders who remain at home. The greater success of the Aberdeen-Angus breed requires that they bring their cattle into the ring and make larger classes, which in turn create a good impression.

Holsteins.

M. L. Haley.

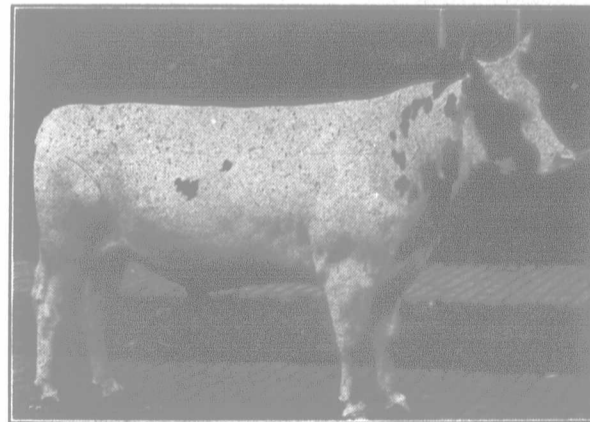
The progress the Holstein-Friesian cattle have made the last few years has been marvellous as producers of milk and butter-fat. The present system of official



testing, in order to demonstrate the great producing qualities and to obtain the confidence of the public as to the accuracy of the record achieved, is deserving of all the credit due to that department. But from the educational standpoint as to individual comparisons we must not forget the great importance of the exhibitions in bringing before expert judges cattle of both sexes, mature and young.

It will be an interesting study to note the cows in their official work of production in different classes at the present time. We will not mention any names. Take for instance some of the most prominent cows or heifers with 152 lbs. milk in one day, or 30 lbs. butter in 7 days for five consecutive years, also 29,000 lbs. milk in one year, and heifers with over 33 lbs. butter in 7 days, and many other great producers and winners of first prizes in dairy tests have, where they have had the opportunity of coming into the show-ring, won first money and those that have not been in a show-ring as individuals are of the ideal type. Some are daughters of champion bulls. Some of the bulls whose daughters are making the best averages in official R. O. M. and R. O. P. work are sons of cows that have won first place at the leading fairs, so the facts bear out the statement that quality and great constitution play an important part in mating for best results. The call for individuality in the animal that is a great producer is very marked, and the show-ring as a basis of comparison is an ideal place to note the defects and good qualities of the animal one wishes to choose.

The Association have recognized the fact that the breeder is at considerable risk in transporting his cattle on the show circuit, but, being desirous of bringing the breed before the public, both from an educational and advertising standpoint, have considerably increased their grants and great results are looked for.



Ayrshires.

W. W. Ballantyne.

Of late years the classes for Ayrshires at the various exhibitions have been particularly well filled. The number of breeders of pure-bred stock of this breed is increasing year by year and unusual interest is taken in the judging, as evidenced by the large crowd of spectators around the show-ring at every exhibition. That the shows have done a good deal to increase the popularity of this particular dairy breed is the opinion expressed by W. W. Ballantyne, a breeder and at one time an extensive exhibitor of the breed. You know, he continued, that people have an eye for the beautiful

and when they see a long line of Ayrshires in the ring showing uniformity of size, breed type and color markings, together with excellent indications of producing qualities, they are deeply impressed. The uniformity alone has influenced many dairymen in favor of Ayrshires. The shows have been a factor in establishing this trait. Breeders who see the type preferred by the judges select and breed to bring their herds to conform with the standard. Of course, the Ayrshire being a medium-sized animal, it may be possible to get uniformity more easily than with larger breeds. The test for milk and butter-fat has not as yet been coupled with show-ring appearance in awarding prizes at exhibitions. Perhaps that would be impossible, but, the test at Winter Fairs has done much to prove the merits of the breed. True, in competition with other breeds Ayrshires seldom win first place, but the large quantity of milk of good quality that they do produce commends them to dairymen.

A certain type of animal is looked for in the show-ring, but more attention is paid to the producing end of a cow than there was a few years ago. In this way Mr. Ballantyne considers that exhibitions have, to a certain extent, played a part in setting the type of the Ayrshires kept in this country. The cow with capacity, showing pronounced indications of milk production, is usually given the preference over a smaller, tidier animal, consequently the average size and weight is greater now than they were a decade ago. In regard to udder formation, the deeper one extending somewhat below the level of the under line is preferable, as longer teats are usually associated with it than with a squarer, close-veined udder. In this Canadian breeders differ from Old Country breeders. The winning type of Ayrshire in Scotland is a slightly different stamp of animal from Canadian winners. This change has been brought about partially by the judges combining indication of producing quality with form when awarding prizes. Without exhibitions every breeder would have a tendency to go his own way, and the breed would lose its uniformity and peculiar individuality.

If classes for animals in the R. O. P. test were added to the prize list at some of the leading exhibitions, Mr. Ballantyne believes it would be a step in the right direction. The value of the dairy breeds depends on their ability to produce. The single-judge system is preferred by this breeder, and, in close classes especially, the educational value of the show would be increased by the judge giving reasons for his decision. The finer points about an animal cannot always be seen by the spectators, and a little explanation would enlighten them as well as satisfy the exhibitor as to the point in which his animal was superior to the other. With the limited time at the judge's disposal he has no time to give elaborate reasons, but oftentimes a few words are all that is necessary to explain points wherein one animal excels the other. The breeder previously referred to preferred to see the graded prize list tried out a few times before he voiced his sentiments regarding it. However, he thought the principle was right, provided some provision is made to make the prizes for mature bulls worth while in case of a small class. Bulls are much more difficult to handle than cows or heifers. It is only fair to exhibitors that more money be set aside for a large class than for a small one in all but mature bulls. The shows are always an excellent medium through which the breeder can become acquainted with the public, and without them it is doubtful if the pure-bred business would have made the rapid strides that it has.

Jerseys.

D. O. Bull.

The highest ideals and the best results in almost all undertakings and developments are obtained through competition. In producing results, through competition, one of the main difficulties is that one is more or less tempted to emphasize one particular ideal and sacrifice all others. In speaking of the dairy cow, one used to use the terms show type and dairy type. Now, fortunately, in the Jersey breed, and I think in other breeds, the dairy type and show type



have become one and the same thing. This has been brought about by the appointment of competent judges at our leading exhibitions, and more especially so since our exhibitions have adopted the single-judge system.

It is a fact to-day that the majority of the cows that are taking the highest place in the R. O. P. work are also capable of occupying a similar position in the show-ring, and it is equally true that the cow

winning in the show-ring makes a good pail record. Thus the value of the show-ring to any breed depends more upon the judge than upon any and all other things combined.

Unfortunately, in this country, we have too many incompetent men that are apparently willing and anxious to undertake the judging of stock. It is unfortunate that this is so, as it is the judgment that is given at our shows that sets the type for the breed. That is, our breeders and exhibitors will endeavor to produce animals that will merit the judge's approval. Therefore, I say that any judge should carefully consider the great responsibility that rests on his shoulders when he undertakes to judge any breed, not only at our large shows but also at the county shows, as it is at the county shows that most breeders and exhibitors make their start.

To illustrate the beneficial and far-reaching effect on the Jersey breed in Canada of an exhibitor having heifer calves properly judged: about twenty-five years ago, when a certain well-known breeder knew less about Jersey cattle than he does to-day, he exhibited, in Toronto, a pair of heifers about one year of age. I do not think that there was any doubt that these heifers were the fattest and handsomest things at the show. When they went into the ring the judge was somewhat puzzled, but allowed his better judgment to prevail and did not award either of the heifers a place. The exhibitor asked the judge to be very frank with him and explain why his heifers were left out of the awards. The judge told him that these heifers were so high in flesh that all of their dairy qualities had been killed, and that when they came into milk they would not give enough to feed a calf. Therefore, any judge doing his duty could not do otherwise than throw them out. The heifers turned out as the judge said and went to the butcher. The exhibitor sent to the Island of Jersey and elsewhere and imported cattle that have been a credit to the breed, and have convinced their owner of the merit of the Jersey cow. Had the judge not had the courage of his convictions and had given these Jerseys the prize, the exhibitor would have become discouraged when they came into milk. Thus we see the importance of exhibiting and also of having a capable judge.

A careful study of the result of the Canadian Jersey Record of Performance report will show that the animals that have made the best records are either show cattle or descended from show cattle. The Canadian Jersey Cattle Club gives a prize of twenty-five dollars for the cow giving the largest number of pounds of milk, and also for the one giving the largest number of pounds of butter-fat in each of the four classes. In the mature class "Sunbeam of Edgely" gave 18,774 lbs. of milk and 92½ lbs. of butter-fat. This cow was sired by Brampton King Edward, a bull that had won more than a dozen Grand Championships in Canada. His dam was also a show cow and prize winner. The sire of the dam of this record was Brampton Monarch, also a Grand Champion bull at the Toronto Exhibition. The record four-year-old for milk was Viola of Avelreagh, also descended from this Champion Brampton Monarch, whose dam was twice the Grand Champion Female at the Toronto Exhibition. The prize-winning four-year-old for butter was Brampton Merry Daisy, an imported show cow. The first-prize three-year-old for both milk and butter was "Springbank Butter Girl," her sire being Brampton Ruby Fereror, also a first-prize winner at the Toronto Exhibition, and from Brampton Ruby, likewise a first-prize winner. The winning two-year-old for milk "Brampton Gomboge Ixia," and for butter "Fanny of Edgeley" were both bred from imported show stock. Thus it will be seen that the exhibitions have not had a tendency to substitute a handsome type at the sacrifice of dairy quality but quite the reverse, thanks to a series of judges who had insisted on a combination of show and dairy qualities.

While we all know that exhibiting cattle is more or less of a hardship and greatly disorganizes other farm work as well as greatly interfering with R. O. P. work; yet it is worth the effort for the good of the herd, as nothing so advertises any breed as a good showing at the exhibition.

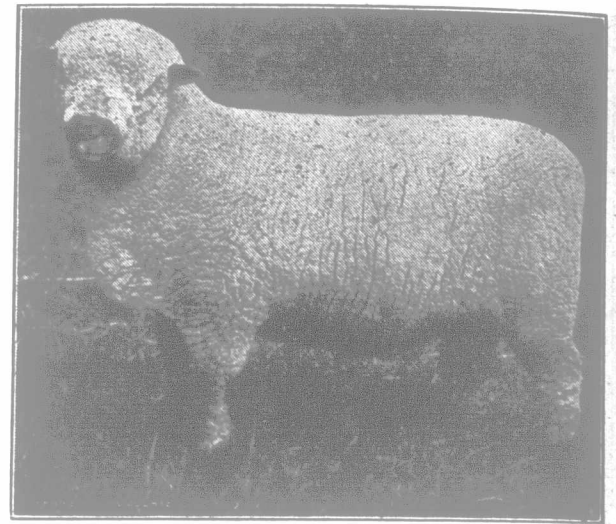
The benefit derived from exhibiting is by no means local or are those who attend the fairs the only people who know what is happening in the show-ring, but thanks to the press, more particularly the agricultural press of our country, hundreds of people who never attend a large show treasure the press reports of judging and can talk familiarly of the winning animals of their favorite breed for years past.

Shropshires

John Miller.

In the opinion of John Miller the exhibitions in this country do not influence the type of sheep so much as do the Old Country fairs. However, since his first importation of Shropshires in 1882 there has been considerable change in type, but the demand has been largely responsible. Our first importation, said Mr. Miller, were large sheep. They would do nothing now, and in fact they did not take them. The breeders now desire a closer-built Shropshire with a good covering of wool on the head and face, and a small, nice brown ear without speckles. The Royal Show winners this year were a shade larger in the ear than usual, and represent a very slight reversion to the larger type. The exhibitions in this country reflect the nature of the demand and what is being done in Britain. In this way they may change or fix the type to a certain extent, but the

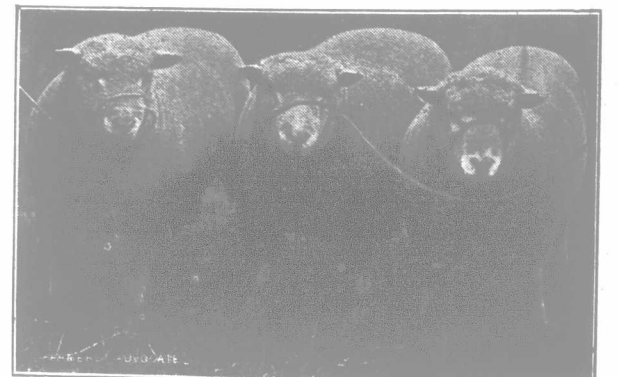
cause is to be found elsewhere. The exhibitions advertise the breed and the breeder, but the way to do the most for the Shropshire breed is to breed good rams and distribute them over the country so sheep-raisers can produce good lambs. Rams are the important thing in sheep husbandry, and by raising good ones a breeder can help his chosen kind of sheep. The Shropshire has received some good publicity through the fairs, particularly in the West, and, generally speaking, the breed has been well looked after.



Southdowns.

Robt. McEwen.

To deny that exhibitions have had a good effect upon the live-stock industry would be to put our opinion up against the whole show-going fraternity and would deservedly receive little consideration. Live-stock shows have become firmly established in all countries where progressive ideas in animal breeding prevail. Not to be thrown aside even in our present distracting times for the very good reason that show-ring competition is the best incentive to the breeder to develop, within himself, that constancy of purpose through which, by the regular and judicious feeding of his animals, he is enabled to present them before the judge and (don't forget also) the public at the rail, in that form recognized as most attractive. Show form is important, and as it is the display of the breeder's ideals of his chosen breed they should be well brought out and attract the business of the onlooker. Except this is accomplished the prospective customer turns to another animal, or it may



perhaps be another breed. In this way operations have been extended along certain lines through the attractions made in the show-ring, and in Canada at least it now becomes a question if any of the domestic animals can long maintain a high standard of merit without the stimulus and example of the exhibition. So much in a general way but now more particularly regarding show-ring effects upon Southdowns. The older of your readers will recollect in comparison with our former day show specimens that we have now a lower-down, more compact sheep, indicative of good fleshing and feeding qualities, and it will also be observed that the absence of bare heads and bellies has brought in better and materially heavier fleeces. Exhibitions have aided in bringing about these improvements, and enable Southdowns to maintain their prestige in competition with other mutton breeds of sheep.

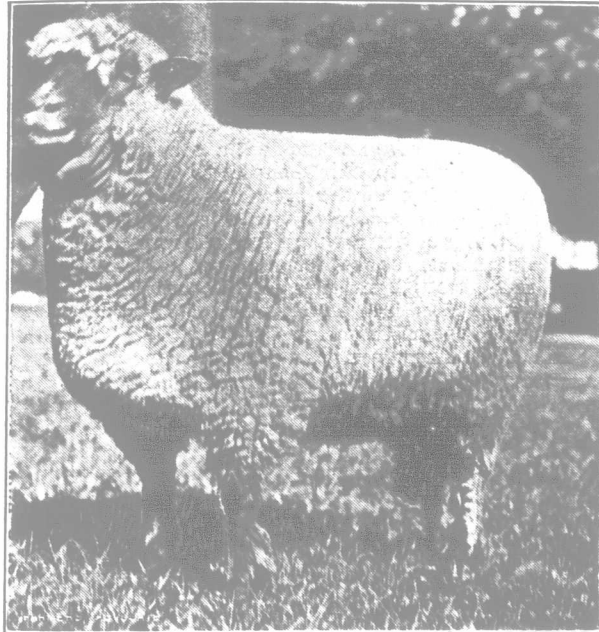
Oxford Downs.

Henry Arkell.

During the last three decades there has been considerable change of type in the Oxford Down sheep, and although the breeders have been influenced by the demand, the people at large have depended upon the show-ring to reveal to them the most important features of a typical animal. The judges have been either breeders or men in touch with the trade, so it would be natural for them to judge according to the changing demands of the times. In this way a change of type has been brought about as a result of market requirements, but the show-ring has been the medium through which it was accomplished. Henry Arkell, who has known the Oxford throughout this transition period described the original type thus: "They were bare on the legs (without wool) below the knee and gamble joint, they had only a tuft of wool on the forehead, and the face was grey with a

white spot on the top of the nose. About 1890 the face began to take on a darker color, and during the last 10 years more covering of wool has been found on the face and legs. The face is now much darker, but occasionally the white spot will crop out."

Anyone in close touch with the breed is aware of the liberal amount of wool on the face and head of the present-day Oxford. The chief reason for this, said Mr. Arkell, has been the demand in the Western States, where breeders and fanciers know the Merino which is used extensively on the ranches. When selecting rams with which to top these range ewes they have desired ample covering, for that was a characteristic of their flocks. Old Country breeders

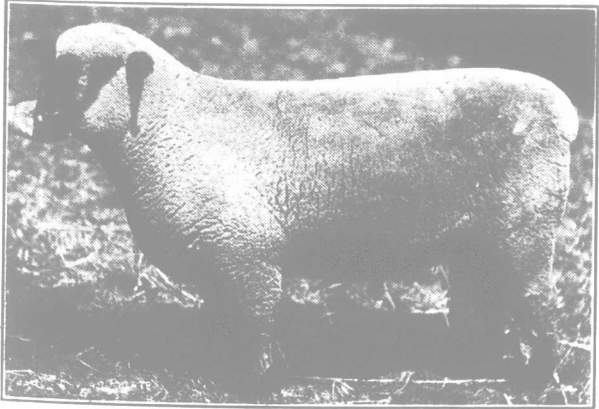


have complied with the requirements of the rancher, and the additional wool on the face and legs is a concession to the overseas' demand. Formerly, great stress was laid by buyers on imported stock which, owing to the proximity to salt water and a climate permitting outdoor feeding during a long period of the year, possesses a superiority as to bone. The progeny, however, when reared under inland conditions in Canada or the United States, does not inherit this qualification to a degree that makes the imported parentage so important, and the demands for imported stock are less persistent. In Mr. Arkell's opinion a good covering of flesh on the back and loin does not always accompany a face and head well covered with wool. Too often, he said, judges have overlooked a poor back and loin in order to place a typey sheep near or at the top. For 30 years this breeder followed the show circuit and thought it a good method of advertising, but he upheld the farm press as one of the most efficient of all mediums for making sales.

Hampshires.

Geo. L. Telfer.

The Hampshire sheep has been for a comparatively short time before the public, but during that time the breed has made many friends. One of the strong points in favor of this breed is that they are able to so nurture their offspring that lambs dropped in March will, with good care and feeding, reach from 75 to 100 lbs. in three months. The Hampshire has proved capable of making good on the highest-priced lands, and in England they are particularly adapted for close folding. Their value as sires on grade stock is readily acknowledged by all.



It has remained for the exhibitions to bring out this grand breed. In the early years the Hampshire was a very poor specimen of a mutton breed, but during later years the breed has been developed so much that to-day the Hampshire exhibit is probably the best of mutton breeds in England, quality and quantity considered. A great deal of this has come through the annual exhibitions, when men have put forth great efforts to not only win in the show-yard, but also to develop this truly wonderful breed. This proves that our fall fairs are, perhaps, the greatest factor in developing our various breeds of live stock to the benefit not only of the exhibitor but to our country as well. When a country is strong in live stock we see development along all other lines.

Dorsets.

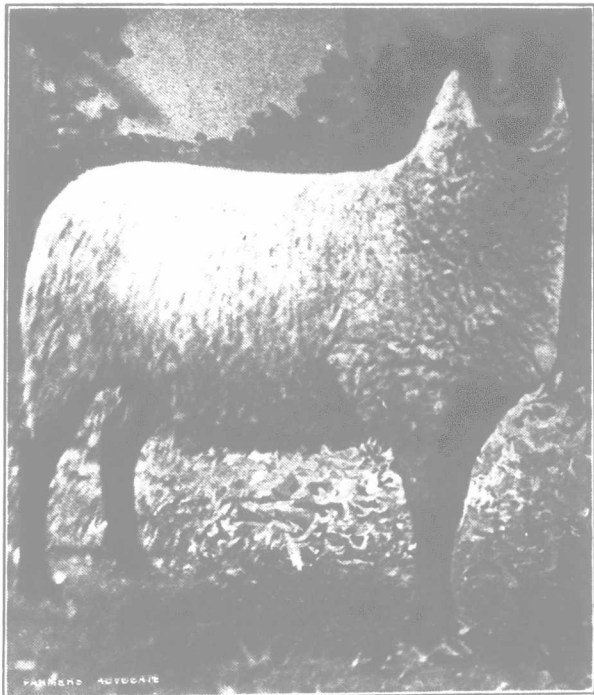
R. H. Harding.

Exhibitions are of untold value to all classes of live stock, and none the less to the Dorset breed of sheep. They are the great testing stations to the exhibitor, and practically the only opportunity the general public has of comparing flocks and of seeing



wherein their own flocks can be improved. We often meet men who are so wrapped up in their own flock at home that they have the idea that none could beat them. To such the exhibitions are of untold advantage. The showman himself can carry home from the exhibitions some valuable lessons. This is an age of advancement and none are too old to learn, and perhaps the best thing that can happen to any of us occasionally is to have some one drop into the show-ring with some things that will spring a surprise by winning some of the most coveted prizes. It causes the right kind of a showman to see wherein his flock lacks, and to proceed to remedy the defects.

Perhaps the writer cannot better describe the benefit the exhibition has been to the Dorset sheep than to cite some of the first impressions gained and taken advantage of by himself 25 years ago. The first important lesson that I carried home from the show was that the more compact the body, coupled with shortness of leg, the easier the sheep was put into show form; but possibly the impression that was of greatest value and was taken advantage of the most was the value of wool covering to the show sheep, and if to the show sheep of double value in the breeding flock, because that is the source of supply. The Dorset sheep bare on cheeks and legs is very likely to be pretty scant of wool underneath, and I consider such should get very little consideration from the judge unless the others in the competition are badly off type. I consider type is the first point that should be taken into consideration, and I consider wool covering a strong point. Possibly right here some judges are at times led astray, as it is perhaps difficult to turn a plain, off-type animal in good flesh aside and put in its place one of desired type if it is lacking in flesh. At the same time if that same judge were to decide which one he would prefer to take home he would without any hesitation take the one of good type. Herein lies the great work of the judge, to establish type for the new beginner or inexperienced, that "improvement" may be the watchword.



Suffolks.

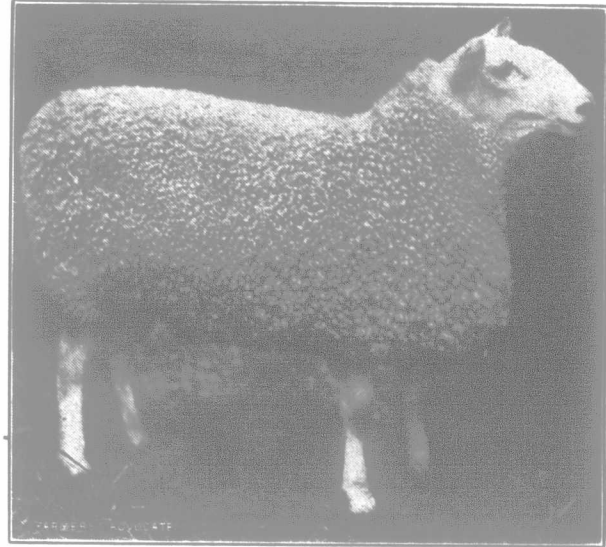
There are few breeders of Suffolk sheep in Canada, but the larger exhibitions are classifying the breed on a par with the other leading breeds, and the exhibitions are serving to bring the old breed, but comparatively new breed to Canada, before the people. The Suffolk has been developed into a first-class mutton sheep, recognized as such in the Old Country. We illustrate a last year's winner at the larger Canadian shows.

Leicesters.

W. Whitelaw.

"If we did not believe in exhibitions we should not have stayed with the game as long as we have."

In these words W. Whitelaw expressed his appreciation of the show-ring as a very beneficial factor in the betterment of the breeds. The chief improvement in Leicesters, he pointed out, was in wool covering on the belly and underneath parts of that particular breed of sheep. "We used to be able to show a ram bare underneath and win on him, but it cannot be done nowadays. In 1906 we imported a ram that was particularly well covered. His progeny inherited that good characteristic and were a better class. During the last 10 to 15 years there has been a considerable change for the better, and the fairs have induced Leicester breeders to look for good covering on their show stock. This had its influence on the breed generally, and now we find the Leicester much improved in this regard." Except for covering the breed possessed just as good type 40 years ago as it does to-day, but the attention paid to the underparts of the sheep has induced a better covering of wool.

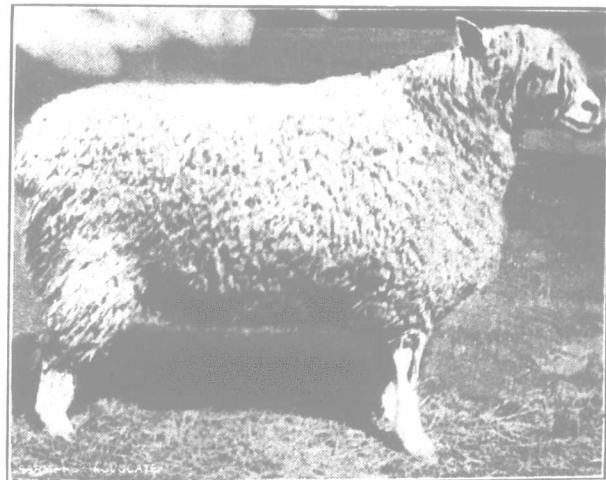


The influence of the exhibitions, said Mr. Whitelaw, which has resulted most profitably for the Leicester breeder has consisted in the men getting together and meeting others. It is a good means of advertising, for we usually sell some of our stock at the fairs and have many enquiries after the reports are read. Things are managed satisfactorily by the fair boards, and we get everything we ask for. Furthermore, no great improvement can be looked for in the judging as good sheep-men usually make the awards.

Cotswolds.

Wm. Smith and Norman Park.

"As I remember the breed in years gone by I question very much if the Cotswolds shown to-day could hold their own with those exhibited 25 years ago." In these words Wm. Smith, a patron of the breed, summed up the experience of the Cotswold in Canada, and gave expression to the opinion that, if memory did not fail him, the animals we now have are, perhaps, not quite so clean underneath and do not possess that clean-cut and trim appearance beneath the body that was found years ago. It is not a serious fault, said Mr. Smith, importations are not so large to-day as formerly, and consequently we do not see so many good ones from their native home. This breeder, however, gave exhibitions much credit for keeping his chosen breed of sheep to the front. "We cannot do without the exhibitions,"



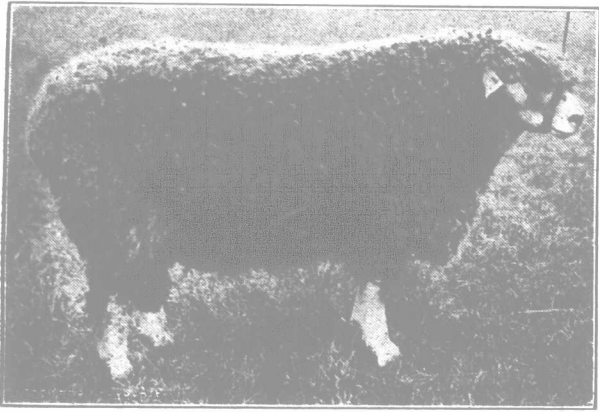
he declared; "If there were no fairs the pure-bred live-stock business would soon begin to lag. On some occasions other breeds have come out strong and we have been obliged to take second place, but the Cotswold always comes back to the front again and as popular as ever. The exhibition associations are fair with all breeds, and the Cotswold exhibitors have received just treatment. Individuals of the breed being uniform in type and conformation, judges have found it possible to make decisions that are fair and just, and the breeders have no occasion to complain." The Cotswolds get their share, Mr. Smith concluded, and through the medium of the show-ring much business is brought about.

Of course, all breeds are benefited by exhibitions, said Norman Park, and if it were not for the exhibitions our breeds would very much deteriorate. The fancy-priced rams and ewes that have crossed the waters from the motherland have been bought at a long price, for winners, at the large fairs, and afterwards used for producing stock, although some of these fitted animals have not proven the best of stock producers; while again some of them have proved great sires and dams, and have raised the standard of our breeds. Not only this, but the exhibitor who goes in to win will not spare any cost or pains to secure the best individuals, not only for the show-ring but also for breeding purposes, that he may maintain his place in the front rank in the show-ring. In this way the breed has been greatly improved by many breeders. Many spectators are influenced to purchase a ram, or possibly a few ewes, that their flock might be improved, and so the improvement in the different flocks will probably be effected by the selection of a good stock ram, purchased from some of the breeders while at the exhibition, for many are the sales made to parties from all over the Dominion, while exhibitors are at the fairs, and for the sole purpose of improving other flocks.

Lincolns.

Herb. Les.

What have live-stock exhibitions done for the Lincolns? In a broad sense and not to particularize the answer would be—what they have done for the several breeds of sheep and the sheep industry. The Bible tells us of sheep, but not of live-stock exhibitions, nor does it define the breeds—such as Southdown, Shropshire, Lincoln, etc. We learn from that Great History that sheep, in olden times, were plentiful but nothing of live-stock exhibitions, consequently we read of no breeds. History tells us that live-stock exhibitions were first inaugurated because they were regarded as essential to good agriculture. As a nation's prosperity rests on agriculture, as farmers prosper, so will the nation. By establishing exhibitions breeders of sheep were enabled to exhibit their animals and compare standards, and in that way they assisted them to discover the best, and there is no doubt that the great progress which has been made in breeding is due to their existence, and that they have helped wonderfully to perfect the different breeds.



The exhibitions have always served in an educational way to persons interested in live stock, and to the breeders themselves the comparison of standards has worked a wonderful stimulus toward improvement, and with regard to the Lincoln—the greatest of all longwools—he is a better sheep to-day than at any former time. Instead of a sheep of long, coarse carcass, hollow back and flat ribs, with a coarse fleece; due to exhibitions, a radical alteration has been made in the type of this sheep, and to-day the Lincoln matures early with a level back, a broad and well-filled loin, deep and well-filled thighs, well-sprung ribs and a great quantity of an outstanding quality of long, lustrous wool. He is a great sheep when bred within himself, and also for crossing purposes. As to the breed's merit I can say that at every exhibition of the great International, held at Chicago, every championship in the grade long-wool classes has been won by sheep sired by Lincoln rams, and one breed (the Corriedale) recognized as the best in New Zealand, owes its merits to the Lincoln. A country without live-stock exhibitions has no breeds—just sheep.

Yorkshires.

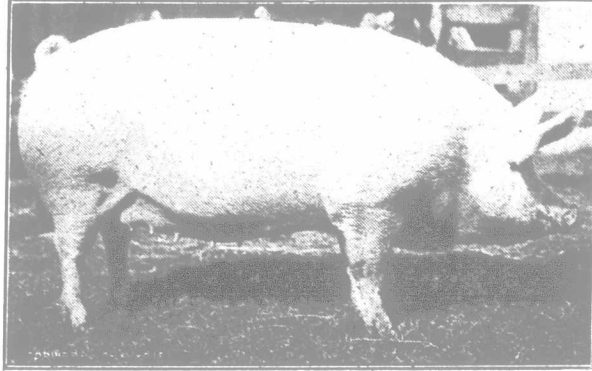
J. I. Flatt.

For eighteen years the writer has been breeding and exhibiting pure-bred Yorkshire hogs, and when I look back and remember almost as many different types represented in the show-ring as there were hogs and compare those conditions with the present uniformity of type, I freely admit that some decided improvement has come about, and I can think of nothing so responsible for that improvement as our live-stock shows and exhibitions.

The successful exhibitor of live stock is usually looked upon as an authority upon that particular line of live stock that he may be breeding, and as he distributes that better class of breeding animals throughout the country, gradually that type and character is being established upon our farms, and, as the breeders who do not exhibit at our larger exhibitions bring their stock out at the county fairs and try conclusions with their neighbors, this competition stimulates the exhibitor to feed better, breed

better, and give his animals better care than he otherwise would were it not for the live-stock exhibitions and fairs.

The swine judges at our larger exhibitions seem pretty well agreed upon an established type for the Improved Large Yorkshire, and to-day, when you meet a load of long, smooth, attractive-looking, white hogs going to market, you make no guess when you say there must have been a Yorkshire boar somewhere in the neighborhood. At one of our leading winter fairs recently the writer, who was judging the Yorkshire hogs, ventured the remark that he never saw such uniformity of type from so many different herds. The reply came from a leading exhibitor that Mr.



— had been judging the hogs there for several years and exhibitors knew well the type he desired, hence such uniformity and so many good ones. This again demonstrates the value of our exhibitions as live-stock improvers.

The live-stock men of Canada fully appreciate all that our governments are doing for the agricultural interests, and we sincerely hope that their wisdom and better judgment will prompt them to do even more to foster the industry upon which the prosperity of a nation depends.

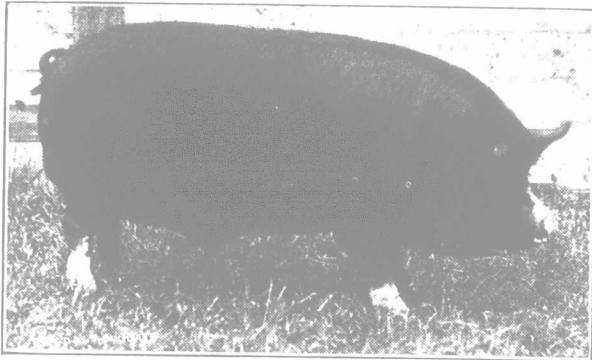
Berkshires.

J. D. Brien.

"What breed of hogs are these? A new breed you are introducing?"

To all modern exhibitors of Berkshire swine the above two sentences will be well known. As the crowds surge through stock pens at any of our large exhibitions, and as numbers among them stop to look at the different breeds of live stock, discuss their merits or argue their types, one will often hear farmers asking the question, or looking in the pens containing the present type of Berkshire, if these are not a new breed of swine. These questions, to the modern student of animal husbandry, to the far-seeing intelligent Berkshire breeder are very significant indeed. They go to show that a marked change has taken place in the type of Berkshire during the last few years. Some twelve or fifteen years ago, when we began to see the possibilities of a great bacon trade with Great Britain, provided we produced the kind of bacon she desired, the Berkshire breeders of the country, and particularly of Ontario, set about to change the type of their favorite hog in order to produce, at the least possible cost, prime bacon for export. From the short, thick-shouldered, fine-boned, dimpled darling of the Berkshire of fifteen years ago there evolved the long, deep-sided, smooth-shouldered hog that is the delight of the large packing houses to-day, and a source of profit to the man who breeds and feeds him. How has this change in type been brought about? The great reformation in types was secured by the exhibiting and expert judging at our large exhibitions.

For some few years a state of chaos resulted from the attempt to get a bacon hog that would successfully compete with other bacon breeds. But, by careful selection of judges, by consideration,



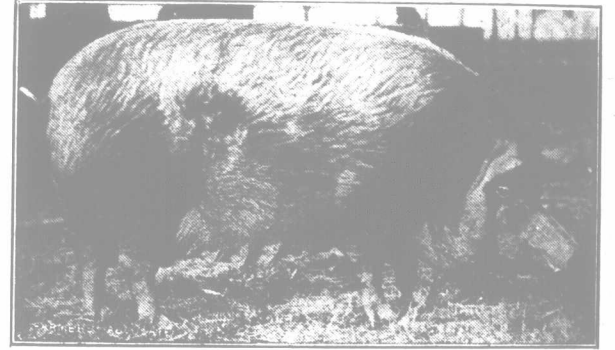
patience, and perseverance on the part of the exhibitor, there came into being the grand breed of present-day bacon hogs—the Berkshire. The large exhibitions have set the standard for the smaller county shows, and through the educational work done by our exhibitors, and the painstaking care of our breeders and judges, the Berkshire has come to be recognized as the peer of all bacon breeds of swine. It is highly important that the farmer breed a type of hog that is demanded by the present-day markets. Where hams and high-class bacon are demanded more than any other product of the hog, the smooth, handsome, uniform Berkshire, with his proud carriage and marked evidences of belonging to the most aristocratic of swine families, fills the requirements. Rapidly this type is being perfected by our exhibitors.

Tamworths.

A. A. Colwill.

Undoubtedly the exhibitions have inspired more men to better breeding and better feeding than any other one thing I can think of. As a lad of sixteen I attended Toronto's first Industrial Exhibition, and a few years later Kingston Provincial Exhibition, and I got ideas of what stock should be when at its best that have never left me. I got my first idea of what a true Tamworth hog should be at Toronto Exhibition over twenty years ago; the very best the country brought out in the pink of good form, by many of the best breeders of Ontario, made a lasting impression upon my mind, but I always fancied that there was room for improvement in the Tamworth. At that time Tamworths appeared to me to stand a little too high on their legs, but possessed lots of bone and sinew. I thought I could foresee how they could be improved, and to-day the Tamworth has made a name all over the continent as a typical bacon hog, many times landing the highest honors in keen competition with other breeds.

My suggestion to fair boards to assist breeders in the improvement of the breed, and also in securing larger and better exhibits, would be to make their prize lists more attractive, the grounds and pens more convenient for exhibitors and exhibiting, and secure first-class judges to award the prizes, and try to create a greater interest in the hearts of the visitors by inviting them to take part in discussions and inquiries regarding awards here and there. This keeps up an interest, especially with the young men who are exhibitors. Some of our county and township fair boards do not prepare a suitable pen in which to place a big, strong hog, and hence exhibitors prefer to leave their stock at home rather than take the chance of accidents happening to their stock, attendants or spectators. But I am pleased to say that most of the boards of the larger fairs are providing for us well in this respect.

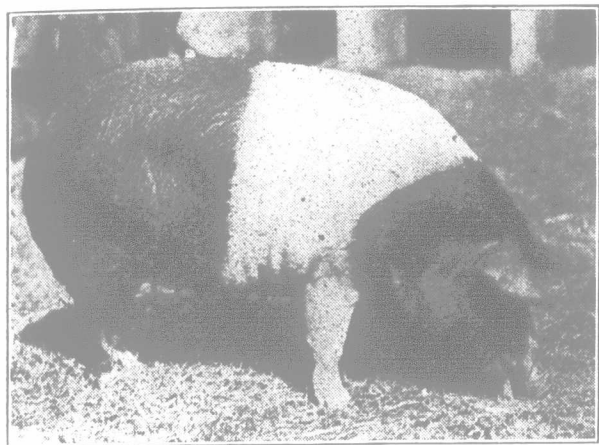


Hampshires.

Alex. Hastings.

Hampshire hogs have been the subject of more adverse comment than have any other breed or class of live stock, and the promoters of no other breed have been laughed at more than the Hampshire men. When these "belted" hogs, as they were called, first began to be shown at the fairs people looked at them in wonder and then looked about for the owner, to see, if perchance, he bore any outward indication of idiocy, and, having satisfied themselves, moved on to some of the other breeders to question them as to the merits of the breed. The Hampshire would not be driven out by the jeers of mankind and the promoters of other breeds of hogs in particular, and, since having to compete with other breeds and in winning their way to the top, they were at last given a class at the larger fairs, so that now, even a Yorkshire man will once in awhile admit that certain specimens are good hogs. Notwithstanding the fact that no other hog has gained in public favor here, and especially in the United States, in recent years more rapidly than the Hampshire, there is still a mistaken idea in the minds of most people as to the requirements of the Hampshire hog. This is my note of warning that ought to be pondered over by every Hampshire breeder having the future prosperity of the breed at heart, the suggestion to breed hogs rather than belts, the trouble being with the buying public rather than the breeders. There is the mistaken idea of the buyer who comes to your place. If he sees a pig, probably one-half belted, he forms the opinion that you are using something not pure-bred. Now, so long as this idea prevails among men not familiar with the characteristics of the breed, the breeder has no other choice but to breed belts whether he breeds hogs or not. We have got to convince the buyer who would buy a poor individual well belted in preference to an exceptionally good individual not so well belted. The fact stands out that when a sow fails to produce all belted pigs the buyer is dissatisfied, and very often discards the sow as not being pure-bred. Now, it doesn't follow that the belt must be entirely sacrificed in the effort to grow good hogs, but there is a very strong probability that if hog quality be made the standard there will in the very nature of the case be some sacrifice along that line. As the matter stands it takes great vigilance to keep the belt. I am not arguing that such an ideal is the correct one, but one exceedingly difficult thing to accomplish, and one comparatively few men have succeeded in accomplishing is to conduct any business contrary to the public demand. That the Hampshire business ought to be on the basis

of pork production as well as belts admits of little doubt. Our aim ought to be to please the farmer in the feed lot, and if the change from belts to hogs is made will we please the fancier? We ought to please both. Can we do it? Now just when the Hampshires were coming to be recognized, the axe falls. The class is cut off at Toronto and put along with Poland China, Duroc Jerseys, etc. Now I would advise all Hampshire breeders not to show at Toronto, as the Hampshires have graduated from the "Any-Other-Breed" class. Is it for lack of competition? If so, why leave some of the other breeds on the list? Is the object quantity rather than quality? I can say for the Hampshire, as well as the other breeds lacking in competition at Toronto, that there is a reason quite plain to those capable to judge that if there was a place for the outsider to win he would be there.

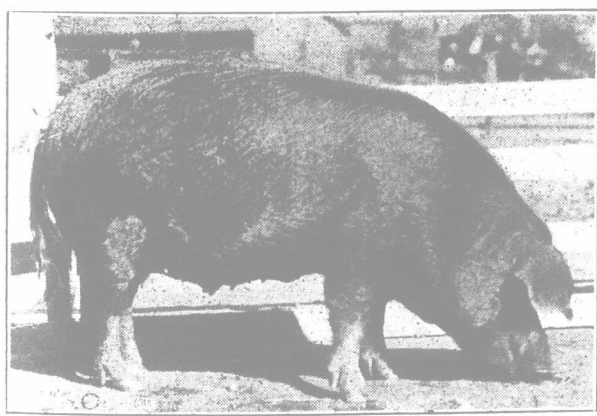


We look for Toronto to have the best, as the people go there expecting to see better than is to be seen at our local fairs.

Duroc Jerseys.

Geo. Campbell.

Our large exhibitions have been a great stimulus to the Duroc breed of swine, and indirectly been the cause of compelling importers to import nothing except it be of good length and conforming to our ideals as shown by the placings at these exhibitions. So great has that care been exercised by importers that at our Winter Fairs the Duroc compares very favorably with other butcher breeds, and the comment "thick fats" is not heard. One of the chief drawbacks to exhibitors of Durocs at some of our leading Ontario fairs is the bunching or classing of several breeds collectively in the same class, with the result that there are quite different types before the judge, and, although his placings may be quite satisfactory, the arrangement does not appeal to the fanciers of the different breeds. The placing of a distinct class for Durocs by the management of these exhibitions would undoubtedly draw a large entry and would be a very large factor in standardizing the type and maintaining an excellence of quality among the importations which are growing annually to such an extent that it has been proposed by some breeders prominently identified with the interest of the breed in the United States that the National Duroc Jersey Swine Breeders' Association and the American Duroc Jersey Swine Breeders' Association grant assistance at their next annual meetings to be devoted to Duroc classes at several of Canada's leading fairs, and for the publicity of one of America's most popular breeds through the press of the Dominion.



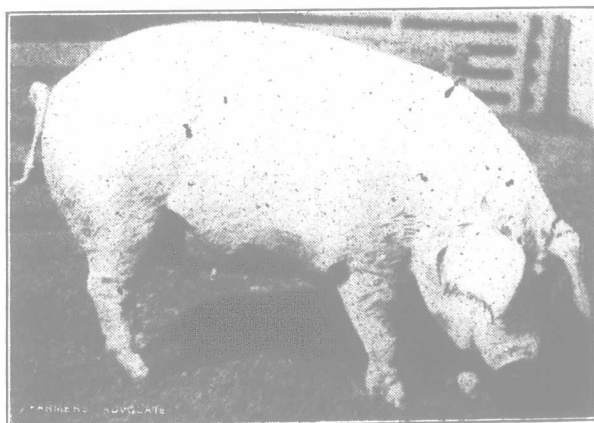
Chester Whites.

W. E. Wright.

That if it were not for the live stock exhibitions there would be a tendency for breeders to neglect breed type and conformation, was the opinion expressed by W. E. Wright, a breeder and exhibitor of Chester White hogs. If the stock is not right up to the mark in type and finish they do not win and a few defeats curtail the sales, consequently the exhibitors keep a breeder on his mettle. He is always looking for suggestions to perfect his stock in order that they may compete favorably with other herds. This benefits the breed as a whole, as stock is continually going out from the show herds to head herds, or else lay the foundation for new ones. The standard for type and conformation is set more by the Old Country

shows than by the Canadian shows, and breeders endeavor to maintain their standard, but, without an inducement and opportunity of bringing the different herds together for comparison Mr. Wright believes there would be a tendency for each breeder to have a standard of his own, consequently there would be a lack of uniformity in type, size and quality in the different herds of the breed were it not for the shows. This would have detrimental effects.

Chesters have many points to commend them, and the shows have given the public in general an opportunity of seeing their good qualities. With all breeds gathered at one point a comparison can readily be made. Young men contemplating starting in pure-bred stock, size up the various breeds and select the one that they believe will be the most profitable for them to keep. In this way the exhibitors have aided in making the breed more popular. There is nothing like the show-ring to keep the breeder up-to-date. In order to keep out of a rut it is necessary to run up against men in your own line of business. The show-ring affords splendid opportunities for breeders to compare notes and to see what breeders are accomplishing in other parts of the country. Mr. Wright considers that no breeder of pure-bred stock can afford to neglect entering his animals at the exhibitions. They give a breeder a chance to make sales or secure prospects. Then, too, the reports given by the agricultural papers bring the exhibitor in touch with stockmen in all parts of the country which results in sales during the year.



Poland Chinas.

Geo. G. Gould.

The exhibitions, like "The Farmer's Advocate," are one of the chief factors in the improvement of all breeds. Some years ago the Poland China was represented by varied types from the little, thick, quality chunk that was favored by some breeders across the line to the large, coarse, harder-feeding hog, a relic of the days gone by. The exhibitions have helped establish a more uniform type more in harmony with existing conditions than either of the extremes of the past—one that will produce a fairly good carcass at a minimum cost. As they are very easy feeders and of choice quality they are the easiest of any breed to exhibit, and any herd should be able to put up a good exhibit on one day's notice or to take advantage of a favorable market. If, in producing hogs of this class, farmers would use some judgment as to feeding and exercise, and market at a correct weight there would be no complaint of the "butcher type" hog; as at the last Guelph Show these butcher class hogs in proper condition sold for \$1.10 per cwt. above the winning bacon class.

The exhibitions have also helped to introduce them where they are not so well known as here in the "Canadian Corn Belt," where they are the most numerous of any of the breeds and where hog raising is the chief source of revenue with most farmers. It may be of interest to mention the extent of



this industry here. As an instance, I have seen 49 cars picked up in crossing Essex County (32 miles) by one train, and every car was loaded with hogs. As to improvements, each breed should have a separate class at the leading exhibitions, and I also think provision might be made for barrows, and sows with litters, while the sows over one year that are not producers should be eliminated from these interesting contests.

Canada's Opportunity in the Meat Trade.

From the Agricultural War Book for 1916 we take the following paragraph: "In France alone, in that part invaded by Germany, it is estimated that 610,000 horses, 1,500,000 head of cattle, 1,600,000 sheep, 700,000 pigs, and 3,000,000 fowls have been destroyed. In Belgium the damages to agriculture amount to over \$280,000,000, including about \$130,000,000 for cattle and other domestic animals slaughtered." While these figures are purely estimates, the losses have been so enormous that slight differences in either direction are inconsequential. Europe has been, without a doubt, depleted of live stock to such an extent that supply and demand for several years cannot regain a normal relation one to the other. The armies will continue to consume large quantities of meat, and the civilian population, well paid, will do likewise. Furthermore, the habit of eating considerable meat is not easily broken off, and for several years after peace is restored there will probably be a liberal consumption of meat products coincident with a live-stock census showing a diminution in numbers in all countries. North America is in a particularly favorable position to cater to such a demand, and we have already profited by Europe asking for food in enormous quantities. Canada has developed a name for bacon which should be carefully guarded, but our cattle are not finished in such a way as to please the Smithfield Market buyer, while our mutton exports sink into insignificance when we look at the other side of the page and learn that for every pound of mutton exported we import three pounds to feed our own population.

The enormous wheat crop of 1915 sold at a good figure, and prices for this season's crop are being tossed about in such a way that the grower may expect handsome returns. So long as the war lasts and Russia's granaries remain sealed, wheat growing should tend to consolidate many Western homesteaders in their recently acquired positions. When the Dardanelles become less hostile to Russian commerce we can then look for as strong a bear tendency in the wheat pit as the bulls are engineering at the present time. While we cannot recommend that all wheat growers should erect buildings, fence their farms and purchase live stock, we suggest to them a thorough consideration of the matter and the adoption of methods that will result most remuneratively throughout the decade to follow.

Annually millions of bushels of wheat are shipped abroad. True, we don't need the flour, but the by-products of the milling process should be retained at home to stimulate the live-stock industry of this country and to conserve for Canada, as a whole, the fertility which is being so recklessly depleted.

Leaving the three Prairie Provinces out of the matter, so far as they may be concerned in raising grain or cattle, it is evident that the older portions of the Dominion are moving very slowly towards meat production, for their accomplishments in no wise correspond with the possibilities that are ours. In 1913 Quebec had about 2.3 horses, 4.7 milch cows, 4.3 other cattle, 3.7 sheep, and 4.1 swine, or a total of 19.1 per holding. These figures were compiled by Prof. H. Barton, who comments on this average as an increase during the 10 years prior to 1913 in other cattle and hogs, but a decrease in milch cows and sheep. Ontario farms averaged 26 head, and showed an increase in horses, milch cows and swine, but a decrease in other cattle and sheep. The Maritime Provinces are awakening to the necessity of growing more grain and clover, and keeping live stock in order that the soil fertility may be conserved for their special crops. The whole situation is such as to suggest more cattle, more sheep, and more swine. The farms will maintain them and the market demands them. The exhibitions provide excellent opportunities for selecting foundation stock for pure-bred herds, and becoming acquainted with the types that modern market conditions require. The shortage of meat animals is not a local condition, the whole world has been shaken by the European war and trade has experienced many changes. Canada could well increase in her exports of beef and bacon, and decrease largely her imports of mutton. This season's crops in Old Ontario have not been up to standard so far as the coarse grains and straw are concerned, but with a good yield of hay and some purchased millfeeds farmers should be able to keep their breeding herds up to strength, and prepare to increase the live-stock output from their farms.

The world wheat crop is short this year. The amount of old wheat held in some of the countries which grow a large acreage may serve to keep the price from soaring to an exceptional level, but at present it looks like fairly stiff prices for wheat.

It is not often that the exhibitor has a better calf at home than the one he is showing, but he may tell you so and it may pay you to see the one at home and draw your own conclusions, for sometimes the best breeders are not shown.

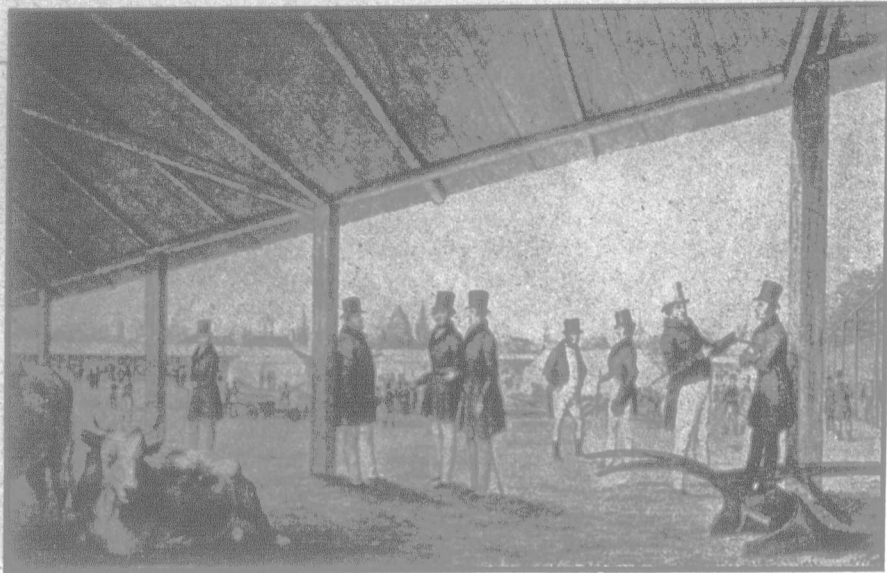


Fig. 1—The English Agricultural Society's Showyard at Oxford, 1839.



Fig. 2—The Royal Agricultural Society's Showyard at Cambridge, 1840.

Some Early British Agricultural Shows.

By Ernest H. Godfrey, F.S.S.

In the house of the Royal Agricultural Society of England, Bedford Square, London, hangs a rare steel engraving after George Garrard of a sheep-shearing scene in 1811 at Woburn Abbey, the Duke of Bedford's seat in Bedfordshire. On the frame of this picture is the legend: "The germ of the Royal Agricultural Society of England." The famous agricultural exhibitions of this Society have now been held annually since 1839, with only one break, caused by the great cattle plague in 1865.

Earliest Agricultural Show Societies.

It is claimed that the oldest agricultural society in the United Kingdom, now holding an annual show, is the "Brecknockshire Agricultural Society," dating from 1755. The Bath and West and Southern Counties Society for the encouragement of Agriculture, Arts, Manufactures, and Commerce, whose annual show ranks second in England to that of the National Society, was established in 1777; and one of the very earliest English agricultural shows was the exhibition of fat stock, held annually in London just before Christmas by the Smithfield Club, established in 1798.

Annual Sheep Shearings.

But national annual shows for breeding stock trace their origin to the patriotic efforts of wealthy landowners, who instituted annual "Sheep Shearings" in the closing years of the eighteenth and opening years of the nineteenth century. The earliest of these gatherings appear to have been those instituted by T. W. Coke, M.P., at Holtham in Norfolk; they were known locally as "Coke's Clippings." Coke of Holtham, as he was familiarly designated, had made a remarkable success of farming by turning a somewhat barren property into a highly prosperous and thriving estate. His meetings lasted for 43 years. That of 1803 was attended by 278 visitors, including the American Ambassador, and the attractions comprised the offer of sweepstakes for accuracy in guessing the weight of one of Coke's wethers, the prize being taken by a competitor who guessed the exact weight, viz., 130 lbs.

Of greater importance, partly because held nearer the centre of the national life, but also because of the ability and enthusiasm of their promoter, were the Woburn Sheep Shearings, which reached their zenith of popularity in the time of Francis, the fifth Duke of Bedford, whose brilliant agricultural career was untimely ended by his death at the early age of 36. The Woburn gatherings were more important than their name would imply. The Duke's tups and ewes were let at certain fixed prices, choice, neat stock were exhibited, novel and improved implements were on view, wool was sold, and prizes were offered for competition. The Duke on these occasions dispensed unbounded hospitality, entertaining from 200 to 300 visitors at the Abbey for several days in succession. At the gatherings of 1800 the proceedings began with a public breakfast, after which the company inspected the shearing and the ewes and tups, and watched the awarding by the Duke of his prize of fifty guineas "to the person who, between the previous June and Christmas, should have expended the largest sum (not less than sixty guineas) in the purchase of breeding ewes or theaves of the New Leicester or South-down breed," the object being the introduction of these breeds into Bedfordshire. At 3 p.m. the Duke entertained some 200 "noblemen, gentlemen and yeomen" at dinner, after which toasts of "The King," "Success to Agriculture," "A Good Crop of Wheat," "The Fleece," "The Plough," etc., were duly honored. At 6 p.m. the company adjourned to the farmyard where they saw "a very fine hog, the property of Mr. Pickford, wagon-master, supposed to weigh about 100 stone" (1,400 lbs.) and "a very extraordinary, fat, three-shear wether of the New Leicester breed," 296 lbs. live weight, and admitted by the company to be the fattest sheep they had

ever seen. These gatherings usually lasted from the Monday to the Friday, and Arthur Young wrote of them as follows: "The first sheep-shearing celebrated by a numerous company was in June, 1797, and continued to be held in the same month every succeeding year, but with greater increasing numbers and éclat every year till it became at last the most respectable agricultural meeting ever seen in England,—that is the world—attended by nobility, gentry, farmers and graziers from various parts of the three kingdoms, from many countries in Europe and also from America."

Lord Somerville's Agricultural Show.

The gatherings promoted by John, fifteenth and last Lord Somerville, were rather in the nature of an annual agricultural show of cattle, sheep, pigs, etc.; they began in 1802 and lasted until within a few years of Somerville's death in 1819. They were held annually in March in London and lasted ten days, all the expenses being defrayed by Lord Somerville, who closed the proceedings with a dinner to some 300 or 350 guests of all classes. The value of the prizes awarded was about £100. Merino sheep at this time were the great hope of leading agriculturists, and at one of Somerville's shows the exhibits included broadcloth made from British Merino wool, a pair of worsted stockings of the usual size made from the same wool and so fine as to have both at once passed through a lady's ring, and a skein of Merino worsted yarn, a pound of which measured 27 miles in length.

National Shows of the Old Board of Agriculture.

For three years Lord Somerville was president of the old Board of Agriculture (1793-1822), of which for many years Arthur Young was secretary. During the closing years of the Board's existence an attempt was made to institute an annual agricultural show.

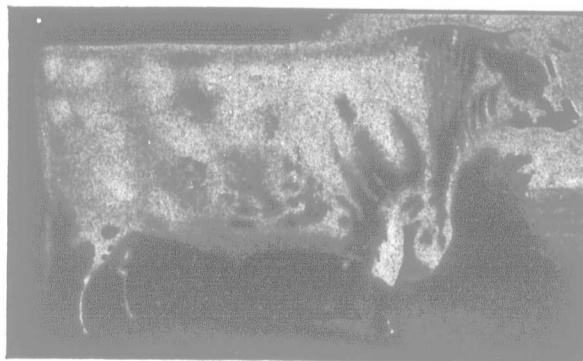


Fig. 3—First-prize Shorthorn bull, Duke of Northumberland, at Oxford, 1839.

and such a show was actually held in London on April 9-10, 1821, and April 22-23, 1822, the first agricultural show held in Great Britain under the auspices of a National Agricultural Society. The prizes in 1821 amounted to the value of £685. A curious exhibit at this show was a ram imported from Southern Italy. It was described as having "monstrous long horns, with a narrow back, flat, shaggy sides, and wool somewhat resembling the coat of a Polar bear," and appears to have been regarded as an object lesson to show how not to breed sheep. During the show a protest similar to many protests made at more modern shows was entered against the award of prizes to fat steers. The judges admitted their error in awarding the premium to a bull "which

was certainly too fat to serve," and that they had not paid "due regard to symmetry which was the merit to be appreciated in breeding animals."

A Glance Across the Border.

In Scotland, the Highland and Agricultural Society, which was preceded first by the "Society of Improvers" and next by the "Edinburgh Society," was established in 1783; but it was not until 1822 that on December 26 the first show was held at Edinburgh. The public were admitted to this show at a charge of one shilling each, and the total receipts from admissions were £51 10s. Prizes were offered for Shorthorn, Aberdeenshire, West Highland, Angus, Fife, Galloway and other breeds of cattle. Ramsay, in his history of the Society, states that the first-prize Aberdeenshire cattle were apparently horned. The show, which was for fat stock, continued to be held annually at Edinburgh until 1826, when it was moved to Glasgow. Between this date and 1829 the show was held at either Edinburgh or Glasgow; but in 1829 it moved to Perth, and succeeding shows were held at Dumfries (1830), Inverness (1831), Kelso (1832), Stirling (1833), Aberdeen (1834), Ayr (1835), and again Perth (1836); and so was begun the system of annual migratory shows which was copied with great success by the Southern Kingdom.

Two Early Victorian Shows.

After the dissolution of the Board of Agriculture in 1822, and the consequent lapse of the show it had started, there was an interval of 14 years, during which no national agricultural society or show existed in England. But with Queen Victoria's accession national activity revived in all directions, and again efforts were put forth, this time with permanent success, to establish a National Society for the holding of an annual agricultural show. Prominent landowners and agriculturists, together with leading statesman like the third Earl Spencer (better known as Lord Althorp, Chancellor of the Exchequer), the great Duke of Wellington and Sir Robert Peel, called a meeting, which was held at the Freemason's Tavern on May 8, 1838, and started the English Agricultural Society, which in 1840 received a Royal Charter under the revised title of the "Royal Agricultural Society of England." Profiting by the experience of the past and avoiding its mistakes, the new Society was organized upon a purely voluntary basis without state aid or control, and politics were rigorously excluded. The notice calling the inaugural meeting expressly cited the example of the Highland and Agricultural Society of Scotland; so that admittedly the Scottish Society "blazed the trail" followed in England.

The first show—or as it was then and is still officially called "Country Meeting"—of the Society was held at Oxford in 1839 (see Fig. 1) and was followed in 1840 by a similar show at Cambridge, the sister seat of learning, (see Fig. 2). The Oxford Show was held on seven acres of pasture land near the town, in the occupation of John Pinfold, a wealthy butcher having business connections with the college kitchens, who had for his guest the famous Shorthorn breeder, Thomas Bates, of Kirkleavington, Yorkshire, whose four exhibits were probably the greatest feature of the Show. They included his grand "Duke of Northumberland" (1940), which gained the first prize of 30 sovereigns, a roan cow (dam Matchem cow), afterwards named the Oxford Premium cow, a roan in-calf heifer, "Duchess 42nd," and a yearling red heifer "Duchess 43rd." The bull, so Bates told a fellow visitor, was descended from the breed of the celebrated Durham ox, admitted to have been the grandest specimen of the Shorthorn breed ever produced. From the bull "Duke of Northumberland" much of the best Shorthorn blood of the present day is derived. Railways being then in their infancy Bates did not trust them for the transportation of

his exhibits. They were driven from Kirkleavington to Hull, thence shipped to London, whence they were forwarded to Aylesbury by canal boat. From Aylesbury they were driven in one day ten miles to Thame, and the next day 13 miles from Thame to Oxford, the whole journey occupying three weeks, instead of the 24 hours by rail under conditions of the present day.

Reminiscences of Early Visitors.

A Shorthorn breeder (the late J. K. Fowler) who was present at this Show (1839) wrote as follows: "I shall never forget the grandeur of the bull nor the soft, feminine beauty of the females, and often when I looked years afterwards at my own 'Knightley' and 'Charmer' Shorthorns, I remembered the beauty of these cattle, and have no doubt it influenced me in putting as much Bates' blood in them as I could afford."

The show which was held on July 17 was a great success. Bell's Weekly Messenger, the agricultural journal of the day, reported that the crowd was so extensive that immediately the gates were thrown open the rush was so tremendous that many gentlemen had their coats torn from their backs. Altogether 20,000 persons attended the show, and the receipts amounted to £1,189 (\$6,000). Amongst the visitors was Daniel Webster, the celebrated American statesman and orator; he delivered a notable speech at the public dinner which closed the day's proceedings. This dinner was held in the quadrangle of Queen's College, roofed in for the occasion, and accommodation was provided for 2,450 guests, the price of the tickets being 10s. each.

Personal recollections contributed by visitors to these early shows are of human interest. I quote two by well-known veteran agricultural members of Parliament, the late Clare Sewell Read and the late Albert Pell. Mr. Read wrote: "My earliest recollections of the Royal Agricultural Society are connected with the Cambridge Show in 1840. I was then a schoolboy and I remember in my summer holidays driving my good father to Norwich, where he was joined by five relatives all bound for the great agricultural show. It was before the days of our London railway, so they started very comfortably in a roomy 'postchay' with four good horses and two postboys. These were no more horses than were needed, for they were such a sample of Norfolk yeomen as you

could hardly find in the country now—all save one standing six feet, and he made up for his want of stature by weighing over 16 stone." Mr. Pell wrote: "The two wonders of the show to my youthful mind were the hats of Mr. Richard Garrett, of Leiston, and Mr. George Turner, of Barton. They have never been equalled. Something of the kind was attempted, by my friend, the late Lord Berners, and there is even now a well-known hat from near Aylesbury that graces our shows and affects the antique; but it is far behind the great originals which literally awed me. I used to surmise what chance a skull under an ordinary beaver had against such commanding headgear." The "hat from near Aylesbury" was worn by the late John Treadwell, a celebrated breeder of Oxford Down sheep. In appearance he was a fine farmer of the "John Bull" type, and the hat was a large, high, white silk beaver.

Note.—The illustrations of the two show-yards, as well as many of the particulars in this article, are derived from papers in the Journal of the Royal Agricultural Society by my friend, Mr. (now Sir) Ernest Clarke, formerly secretary to the Society. The picture of the bull, "Duke of Northumberland," is from a photograph of an oil painting in the Society's possession.

Fighting the Fly.

House flies and outdoor flies, including the particular torment of dairy herds, the Texas Horn Fly have been particularly bad during the current hot season. The favorite breeding place for the first named is in heaps of garbage, kitchen refuse, fermenting vegetable matter, and also in stables, pig pens or yards where manure is allowed to collect, and they have a preference for horse manure. When work presses on the farm, as it has done this season, the stables are often not cleared of droppings and litter for several days at a time, and sometimes only once a week. They should be cleaned out every day and some slacked lime, or, if nothing else is handy, ashes scattered freely about. Chloride of lime has been very generally advised for use about out-buildings, but in a new English work on this subject, Hurstone Hardy, the author, recommends as an effective insecticide for exterminating the hatching flies in horse-stable

manure a solution of iron sulphate, two pounds in one gallon of water, presumably sprayed on, and this, it is said, will not deteriorate the value of the manure. The manure pile should be kept as far removed as possible from the dwelling. House refuse and dead animals, such as hens, are sometimes dumped on the stable manure pile exposed to heat and weather, and in such filth various species of flies breed in thousands in a short time. A single house fly is credited with laying four or five batches of eggs of 100 to 150 each time. It does not take them long to mature and begin laying again. It is worth while remembering that the detested blue bottle fly deposits her eggs on decaying flesh, dead fish, etc. Since the house fly (*Musca domestica*) and the lesser house fly (*Faunia canicularis*) and probably others, are fittingly described as the product of human insanitation, remorseless cleanliness appears to be the sovereign plan of campaign. Prevention is better than so-called remedies, poisons, screens and traps though these have to be resorted to. Keeping things clean indoors and out of doors and about the stables is the secret of a successful drive against these huns of modern life, which are not only a torment to man and beast but contaminators of food and conveyors of disease. House scraps, clotted milk, peelings, parings, etc., should at once be covered up and fed, or if there is absolutely no use for them, as may be the case in towns or villages, buried or burned, thus destroying at once both larvæ and pupæ. Speaking of various traps and poisons Major Hardy quotes formalin as the newest poison with the advantage of being a disinfectant. A tablespoonful of 40 per cent. formalin mixed with half a pint of milk and water exposed in a saucer does the trick. Some of the out-door varieties of flies are eager blood-suckers, being armed with a lance-headed trunk and needless to say they are detrimental to the health and productive vigor of animals. Various treatments, homemade and proprietary, have been and are still on trial or in use for the horn fly, which is reported particularly numerous and vicious this season. We have noticed in stables lately myriads of the horn fly, and also larger types at the same time tormenting dairy cows and other stock as well as the milkers. In "The Farmer's Advocate" for August 17 several homemade preparations were given, and it might prove helpful to others if readers would advise us now by card or letter what preparation in their experience has proved the most economical and effectual.

The Value of Exhibitions to Cereal Husbandry.

By Dr. C. A. Zavitz.

At this season of the year not only farmers, but people generally, are discussing the crop situation. The products of the farm have a direct bearing upon the farmers themselves, and upon practically all of the people of the country. Good crops tend to prosperity, and poor crops point to close economy.

At the close of the harvest the peoples' attention is directed to the agricultural exhibitions throughout the country. A large amount of Government money is expended each year in supporting these exhibitions. Farmers at the fall fairs have an opportunity of talk-over the work of the season, and of examining the products which are being exhibited. Practically all are interested in cereal production. In some instances they find exhibits of grain which have been entered in the regular way. In many of the fall fairs, however, the cereals are either missing altogether or occupy a very insignificant part of the display. Many of the exhibition directors have taken but little interest in this phase of the work, and have probably missed an opportunity for increasing the real value of the exhibition from an educational standpoint. This feature of the fall fair has been largely absorbed through other agencies in recent years. The Field Crop Competitions, the special Seed Fairs, the Judging Classes conducted at the Ontario Agricultural College and by the District Representatives in the different counties, and some of the larger exhibitions, such as the Canadian National and the Provincial Winter Fair, are doing a large amount of educational work at the present time on behalf of cereal husbandry. In past years a certain amount of value was undoubtedly gained through the grain exhibits at the county fairs. Farmers had the opportunity of comparing the cereals produced under somewhat different conditions. The value of the exhibits, however, was undoubtedly lessened by the admission of entries of a few men who exhibited artificially prepared samples purely for money prizes, by the neglect of the officers to have the varieties properly named, and by the employment of judges who did their work unsatisfactorily. Many of the agricultural fairs have allowed the cereal exhibits to become of very minor importance. The School Fair exhibits at a few of the exhibitions have been developed recently, and have become a feature of interest and of real service. It seems to me that at a fall fair the grain display should be made an important feature or should be dropped entirely. Many farmers undoubtedly appreciate the educational value of the cereal exhibits at the Canadian National Exhibition held at Toronto, the Provincial Winter Fair held at Guelph, the Eastern Ontario Winter Fair held at Ottawa, and the Provincial Corn Show held at Chatham. The agricultural exhibit of the Ontario Agricultural College, which has been placed in the Government Building at the Canadian National Exhibition, in each of the past few years has been largely visited by farmers who have taken much interest in the educational features.

It is probably safe to say that the old style of

grain exhibit at the county fairs, in which the cereals are grouped into general classes and are exhibited without any information whatever, even without the names of the varieties, is largely a thing of the past. A bag of grain with no information attached and in the absence of the grower is not likely to furnish much real service in crop production. This is particularly true if it is an artificially treated sample which is exhibited in a professional way throughout a circuit of fairs in the district. If the different entries, however, would convey information regarding the variety, the conditions of growth, and the approximate yield per acre, the exhibit would arouse interest and might furnish suggestions which would result in some good. As time advances it is quite probable that the District Representatives will assist the local fairs in making the cereal exhibits of real value. There are occasionally local conditions of much interest which might be emphasized in the cereal exhibits at the county fairs. If some special variety appears to be particularly well adapted to a district, liberal prizes might be offered for the best samples of the variety grown in the section. Accompanying each entry information could be furnished regarding the previous cropping of the land, the character of the soil, the date of sowing, the date of harvesting, the character of the straw, and the actual or approximate yield per acre. Interesting exhibits showing the results of selection of seed, of dates of seeding, of quantities of seed per acre, of treating grain for smut, etc., might be arranged through the co-operation of the Fair Board, the District Representatives and the farmers. In order to make the grain exhibits of actual worth in cereal husbandry it is necessary to adopt a definite policy at the individual fairs, with the object of creating interest amongst the farmers, and of supplying information which can be utilized.

The College Exhibit This Year.

In each of the past few years the Ontario Agricultural College has placed an exhibit at the Canadian National Exhibition which is held in Toronto. This exhibit has represented work conducted in ten departments of the College, of which one is cereal husbandry. In the space given to cereal husbandry a number of definite object lessons have been presented, different features being emphasized in different years. The College exhibit at the Canadian National this autumn is somewhat smaller than usual but furnishes some excellent information, and is being visited by a large number of farmers. In the cereal section both threshed grain and large sheaves are shown of about one dozen of the leading varieties of winter wheat, spring wheat, oats, barley, spring rye and winter rye. In addition to this there are tubes containing grain, and showing the results of experiments con-

ducted for a series of years in sowing grains at different dates and in different combinations.

In the variety exhibit particular attention is given to the O. A. C. No. 72 variety of oats, which was started at the Ontario Agricultural College in 1903 from one seed. This has made the best record of all the varieties grown at the College and in the co-operative experiments throughout Ontario. In connection with the Field Crop Competitions it took one first prize in 1913, twenty first prizes in 1914, and forty-eight first prizes in 1915. At the Provincial Winter Fair held at Guelph in December, 1915, there were four times as many entries of the O. A. C. No. 72 oats as of any other variety. In each of the past nine years it has surpassed the American Banner in the College tests. Both the threshed grain and a large sheaf of this variety will be shown at this exhibit.

Special attention is also drawn to the value of the O. A. C. No. 21 barley, which was originated at the Ontario Agricultural College from a single seed thirteen years ago. Of the forty entries of barley at the Provincial Winter Fair held in Guelph in 1915 not a single entry occurred except of the O. A. C. No. 21 barley.

The Marquis variety of spring wheat, which was originated at the Central Experimental Farm, Ottawa, is also exhibited. This wheat has made an excellent record in the Western Provinces, being early in maturity and a good yielder of grain of good quality.

The different varieties of rye are represented by the Mammoth White Winter, and the O. A. C. No. 61 Spring. The last-named variety has made an exceptionally fine record, giving a higher yield per acre than any other variety under test.

The O. A. C. No. 104 variety of winter wheat, originated at the Ontario Agricultural College by crossing the Dawson's Golden Chaff and the Bulgarian, is being introduced in connection with the co-operative experiments throughout Ontario this autumn for the first time. It has given a larger yield of grain per acre than the Dawson's Golden Chaff, and the grain is of better quality for bread production. Visitors at the exhibit should be sure to make enquiry in regard to this wheat which possesses qualities of special merit.

The presentation of the results from dates of seeding will be found to be both interesting and instructive. They show that the highest yields of grain have been produced from the earliest dates of seeding in the case of spring wheat and barley, that there is practically no difference in the results of oats sown at the beginning or at the end of the first week in which the grain can be sown; and that peas do not give as good results from the earliest date of seeding as from the sowing of a week later. As the average results of each of six dates of seeding will be presented for each of four kinds of grain for a five-year period they are worthy of notice and of study.

It will be seen from the results presented at the

exhibit that barley and oats of the most suitable varieties, when mixed in the best proportions, will give a yield of about two hundred pounds of grain per acre more than either grain grown separately.

An official is in constant attendance at the College exhibit to give additional information to those who make their wishes known. It is to be hoped that all farmers attending the fair will take advantage of this opportunity in gleaning information which will be of real value to them in their work in cereal husbandry.

Labor-saving Devices on Threshing Machines.

The majority of threshing machines operating in Old Ontario are now equipped with self-feeders and blowers. These two attachments save the labor of six or eight men. The grain elevator is another device that saves one and, in some cases, two men. However, this latter device is not in general use, although there does not appear to be any logical reason for not using it. A Perth County farmer has his own machine, and has built an elevator that gives entire satisfaction. It consists of buckets, similar to those used on a fanning-mill bagger, riveted to canvas belting, which revolves over a pulley at each end. The belt and cups are enclosed in a wooden case sufficiently large to allow them to work freely. This stands possibly fifteen feet high. The grain runs into a box at the bottom, is picked up by the cups, carried to the top and emptied into a spout which carries it by gravity to the top of the granary. Short spouts then take the grain to the



An Up-to-Date Outfit Threshing in England.

various bins. In this way every bin is filled without much exertion. There is always a shaft on a separator to which a pulley can be attached to drive the elevator. For best results the grain should be delivered at the top of the granary. To avoid sheaves or hay rendering this impossible a wooden spout can be built from the top of the granary to the edge of the mow. If the end is elevated three or four feet, grain

will slide down it. This may be built in permanently when the mow is empty, and then it is an easy matter to connect the grain elevator spout with the granary. Any handy man could secure the necessary material and build a satisfactory elevator for his own machine. The height to make it depends on the height of the granary, and also on the distance the grain must be carried.

Canada's Young Farmers and Future Leaders.

Young Men Interested in Pure-bred Stock.

Live stock is essential to a permanent agriculture. This fact has been proven time and again by individual farmers. Grain is necessary, but, continued growing and selling of grain in the bag eats the very heart out of the land. This fact is learned sooner or later by every tiller of the soil, consequently, in all the older settled portions of the country as much live stock is kept as the farms will carry. In every township are to be found one or more farms on which pure-bred stock is kept. In some sections practically all the stock is pure-bred, and these parts are looked upon as the most progressive in the country. However, taking the country over the vast majority of the live stock are grades. Pioneers started with grades and only a few of their descendants have purchased pure-bred females although they may have made several changes or crosses of breeds in order to find a grade that is best suited to their conditions.

There is a big demand to-day for pure-bred stock of high quality. Although prices of grades are high the price of pure-breds is proportionately higher. Good stock always commands a high price. What have pure-breds to commend them over grade stock, is the question some are asking. In the first place it is an indication that systematic breeding has been followed

and matings have been made with the aim of overcoming deficiencies and perfecting the breed type and conformation. This leads to greater uniformity in the herd and earlier maturity than is possible with grades. There is a double market for the stock, and the price is such as to give high returns for feed grown on the place. In the end the profits are bigger and because of the fact that the stock is well bred the owner takes greater care of them than he would if they were only ordinary grades. A good farmer may not always keep registered stock, but a breeder of pure-bred animals is usually a pretty fair farmer. Why is there not a greater number of registered stock kept? Practically every one admits that they pay better, but the difficulty is to make up one's mind to purchase foundation stock. The men who have farmed for twenty or thirty years may see advantages in good stock, but it takes nerve to make the change and it is doubtful if they ever will. They have got along fairly well with grades; they have made money; then why pay a big price in order to make a start with pure-breds? The present generation will make no radical change in their farming methods, but the young men or future farmers are seeing the advantages of improved methods of farming and of keeping the best stock. Times change, the world moves on and the man who would make the most of his opportunities must be up-to-date.

In Middlesex County, within a radius of six miles of Mt. Brydges there are a few pure-bred herds, but

in the opinion of practically every farmer there are by no means enough for the good of the community. While pure-bred sires are generally used there is too much crossing of breeds. Cows are bred to the nearest bull regardless of quality. There are instances of Herefords, Angus and Jersey blood being introduced into a herd that was originally Shorthorn grades. The results are a herd of many colors lacking in uniformity, size and conformation. In order to improve milking qualities some use a Holstein sire for a few years and then return to a beef breed. All are not so careless about the breeding of their stock. In the same neighborhood are many choice grade herds showing size and quality, but these herds are always headed by a good sire of the same breed as the females. If grade bulls could be eliminated and the crossing of breeds prevented the quality of stock would soon reach a high standard even if it could not be registered. For many years to come the grade stock will dominate numerically, but at the same time there is no logical reason why there should not be a greater tendency towards registered animals. In a class of about sixty-five young men, held at Mt. Brydges, only three per cent. came from farms where registered cattle were kept, about nine per cent. kept registered hogs and several had pedigreed mares. This is a prosperous community, and from a live-stock standpoint may be considered an average of the Province and yet with all the admitted advantages of registered stock only about three per cent. are in the business.

The agricultural classes are having a leavening effect. The young men are shown concrete examples of the advantages of good stock and good grain, and they gain an intelligent idea of the why and wherefore of the various phases of work they encounter daily. One result with the class previously spoken of is that twelve either have purchased registered sows of the bacon type or intend doing so in the near future, and five have purchased pure-bred Shorthorn cows or heifers for foundation stock. This is what members of one class are doing to increase the number of registered animals in the country. There are around thirty similar classes held each winter in Ontario. The results are far reaching.

Six Weeks' Course in Agriculture.

Agricultural education is giving young men a broader view of their work and many now see things in an entirely different light from that of their fathers. The course in agriculture held at Mt. Brydges with R. A. Finn, the District Representative, in charge, has awakened new desires in the young men of the surrounding district. The course of lectures, the addresses by experts, the practical work in stock judging and the visits made to farms where pure-bred stock is kept have proven to these men that there is something to be gained by keeping improved stock of all classes. A comparison of the animals they were feeding day by day with those they had seen clearly showed that it was possible to make better use of the feed than they were doing.

They also began to see that there is a reason why certain varieties of oats or wheat or corn do better on certain soils than others, and this year ten of them paid a big price to secure seed that had been selected for several years. This harvest the yield was considerably above that from their own varieties. Counting fifteen acres of oats to each one-hundred-acre farm, and an increased yield of five bushels per acre, some report higher, there are seven hundred and fifty bushels more oats than there would have been had the ten students not secured the good sample of seed. At fifty



Toward the Close of the Fishing Season.

cents per bushel this is an increase of three hundred and seventy-five dollars. If the entire class had secured a similar quality of seed it can be figured out what it would have meant to the district.

The class decided that much was to be gained by community breeding. From every view-point this method appeared to have many advantages over the system then in vogue, viz.—three or four breeds or crosses of cattle on one concession and as many crosses of swine. Their District Representative encouraged the members to discuss the problem from every angle before deciding on any one particular breed. The question was thoroughly threshed out, and the Shorthorn breed appeared best adapted to their conditions. When it came to deciding on a breed of hogs several circumstances influenced the choice. The points of the bacon and lard type of hog were carefully gone over and it so happened that a car load of hogs was being loaded that day. The class went to the stock yards and there saw a variety of types, sizes, colors and weights. There was no uniformity and the worst feature about it was that these hogs came from their own pens. They never before realized that so many types of hogs were being raised in their district. It was an object lesson that stayed with them, and a good start has been made toward breeding one type of hog. Instead of crossing and recrossing breeds a definite system will be followed from now on and many will supply the market with registered pigs. Those not for breeding purposes will go into the fattening pen.

The Young Men's Ideas.

All the members of this particular class are not in a position to secure pure-bred foundation stock. They have obstacles to overcome. In fact, several are not sure even yet that it would pay them to change the routine of the farm work for new methods. However, the majority see the benefit of keeping up with the times and breeding the stock that is in demand, or growing the crops that have won on their merits. An interview with several members of the class gives some idea of what the future tillers of Canada's fertile fields are thinking about.

Bert Bell, the secretary of the class, is making arrangements to start in pure-bred Shorthorns this fall. He had not realized there was so much difference between ordinary grades and pedigreed stock previous to attending the class. Now there is no doubt in his mind but that the good stock matures more quickly, shows better quality, makes greater gains on the same kind of feed, and even if they are for the block they are worth more than grades or crosses at the same age. A feeder looking for stockers can always pick out the best bred animals in the herd. It is difficult to conceal good breeding. The prospect of a double market for the beef breeds appeals to Bert. If a heifer or bull calf is not good enough for breeding purposes or if for any reason they fail to breed, they pay their way when sold as beef. When asked why they had not gone into pure-bred stock before he replied "The profit from pure-bred stock has been concealed by the cost in securing foundation stock. One-hundred-and-fifty or two hundred dollars seems a large sum to pay for a registered cow when a grade cow may be bought for ninety or one hundred dollars. One not accustomed to feeding and looking after highly bred stock is reluctant to make the venture. However, we will do it this fall."

Harry Brodie has kept pure-bred hogs and sheep for a number of years and knows the value of good blood. On the home farm grade Shorthorns are kept and a well-bred bull of good conformation used. The cost of securing pure-breds was too high and they failed

to see the chance for two markets. While in attendance at the agricultural class the benefit derived from keeping registered cattle was impressed upon him and the fact that this class of stock looked so much better under the same conditions as the home herd led Harry to purchase a pure-bred Shorthorn cow due to freshen in the fall. He says—"According to the markets a well-bred, carefully fed yearling calf is worth as much as three grades, if sold for breeding purposes. It costs very little more to feed a pure-bred than it does a grade consequently I cannot afford to market feed through grades when it is worth three times as much when fed to pure-breds. I can only afford to purchase one cow at present, but as soon as my circumstances will permit, nothing but registered stock will be kept on the place."

W. Wilcox is on the farm with his father and keeps a fairly good herd of grade cows. He is firmly convinced that pure-bred cattle are the most profitable, but the trouble is to get started breeding them. "No," he said, "it is not the expense of securing foundation stock that stands in the way, but it is hard to depart from the old line of breeding. If we purchased females it would be necessary to go to the expense of keeping a bull as the class kept in the neighborhood are not the kind we would care to use on the stock one would get."

Walter Clark, another member of the class who keeps registered mares has the idea that grade cattle are surer breeders than the pure-breds. From his observations there is too great a loss with pure-breds, and when one dies the owner feels it more than with the grades. There is more money invested. There is a suspicion that if they went into pure-bred stock the large breeder would "freeze" them out. The price would be lowered to that of grades. "As it is," he said, "we have good grades and find them profitable. There is a heavy demand for stockers, or we can fatten them and make a good profit. Of course, the pure-breds appeal to me, and we have thought of purchasing foundation stock, but the trouble is to find a good bull in the neighborhood. There are some good individuals near us, but they are bred to death when young, and by the time they are three years old they are not sure, consequently they are sold and other youngsters put in their place. The result is our stock is getting smaller and less rugged. It appears to me that a young bull cannot leave as strong offspring as one that is mature. If some system were followed whereby a bull would be taken care of when young, and then when he has been three or four years in one section he could be used in the adjoining section for a term of years instead of being slaughtered it would tend to improve the live stock. On this farm pure-bred pigs have not made any better gains than cross-breeds, consequently the hog nearest home is used in preference to taking a sow a distance to breed her to her own kind."

R. G. Thomas, although working his own place, was a regular attendant at the class and the lectures and demonstrations created an interest for the best in crops and stock. He is convinced that there is money in pure-bred stock once a herd is built up, but the beginner has difficulties to contend with. It seems that the best cow dies and one is loathe to put a lot of money into one animal. He says, "I have a grade heifer that to all appearances is as valuable as many pure-breds I see and leaves as good calves as some." In the near future Mr. Thomas purposes securing a Shorthorn cow or heifer as a foundation for a pure-bred herd. This breed appeals to him because there is greater possibility of having a dual-purpose animal than with most other breeds. There is a better chance of securing the services

of a good Shorthorn bull in the neighborhood than of any other breed.

W. Curtis keeps grade cows, but always breeds them to a registered sire. "Pure-bred stock is all right," he said, "but on a one-hundred-acre farm a man should have several sources of revenue. With pure-breds it is either all beef or all milk and I prefer a little of both. The grade Shorthorn comes nearest my ideal because it is possible to get a cow that will give a reasonable flow of milk, and at the same time produce offspring that looks good in the feeder's stable."

Some young men are out and out in favor of registered stock and purpose securing foundation stock as soon as possible. Others who have not the reins of management in their own hands are prevented from fulfilling their desires by their fathers. While they claim that registered animals are necessary to livestock improvement they are not in a position to invest in them.

Numerous members of the class had their eyes opened last winter to the advantages of keeping pure-breds. While only a small percentage of the young men have as yet secured foundation stock for a pure-bred herd of cattle, a large percentage of them are working to that end. From now on there will be no more crossing the breeds, and grade herds will be gradually improved through the use of good sires, until such times as they can be displaced with registered animals.

Value to the District.

Sixty-five young men, within a radius of six miles of a shipping centre, all aiming at better farming and improved live stock can exert a marked influence in shaping the destiny of the community. There are many such organizations and communities in Ontario. Only the future can reveal the cash value they will have on local districts as well as on the country as a whole. Not only are the men who have spent a few weeks studying agriculture during the winter, benefited, but example is a great teacher. The neighbors soon begin to follow improved methods.

It is safe to say that there will be twenty in place of ten sowing selected seed oats in the Mt. Brydges District next spring. The value of a good sire in the community cannot be estimated. With grade herds, calves from a well-bred sire are worth five dollars more when yearlings from a feeder's standpoint, than if they were sired by a poor animal or one of another breed. Some dealers consider there is much more than five dollars difference. They feed easier as a rule and show quality when finished. If a bull is bred to seventy-five cows in a season and all are in calf there is a value of three hundred and seventy-five dollars for one season if the calves are sold as stockers. A bull's usefulness extends over a number of years. There may be a difference of one hundred dollars in cost between an ordinary bull and a choice individual, but this is returned with over two hundred per cent interest the first year. Young men are beginning to look at stock breeding in a new light. Those who are purchasing females are doing so with the intention of supplying the market with some of the good bulls, that will be worth several times as much as the grade calves they are now raising. As those who have made the venture meet with success others will follow. It seems to be human nature to let the other fellow try out the new methods in the community. Sixty-five stock men within a radius of six miles, all bent on grading up their herds and five of the number laying the foundation for pure-bred herds, will exert a great influence in the district. Ten years from now there should be no difficulty in securing high-class stock in that section. What the Mt. Brydges young men are doing hundreds of others can do.

Automobiles, Farm Machinery and Farm Motors.

Killing the Carbon.

When you purchased your car last spring and took it out for an initial run, you doubtless had a number of friends with you who were as joyous over its pulling power and pick-up, as you were enthusiastic yourself. It has been running a few months now, and perhaps you have occasion to state that it does not seem to exercise the same "pep," does not respond as readily to the accelerator, and to make matters perfectly plain, is getting what is commonly known as a "touch of the slows." You cannot find anything particularly wrong with the car as all the working parts are apparently giving the utmost satisfaction, but nevertheless, your pride has been somewhat touched and you are not boasting as frequently as you did earlier in the season. Of course, you may have some mechanical difficulty, but if you decide that there is none, then you can immediately assume that the burning of the gasoline has carbonized the motor. If you have given your engine too much feed a mixture of carbon deposit cannot fail to form. Many people think that lubricating oil has a great deal to do with carbonization, but experts are convinced that while the oil may exert a minor effect, it is not in any sense largely responsible. The foreign matter removed from the engine indicates very clearly that there is less residue from oil than from other sources. When the carburetor draws air it has no system of removing those small particles of dust thrown up by the action of the front wheels, and so gritty atoms are carried to the cylinders and there form a pasty substance that adheres readily. The scaling, carbonization

or incrustation of a motor produces the same effect as a similar dirty condition in a steam engine. To develop maximum power you must have maximum cleanliness. I think that this statement will be apparent to everyone, and that you can carry the assurance that when a gallon of fuel fails to give you the mileage that it did on previous occasions, the blame can be placed upon the foreign matter in the cylinders.

There are many methods for removing carbon. At a first-class garage a flame, blown from a power tank, is found to be the most satisfactory and the most easily employed. This system requires a certain amount of expensive equipment, and so the farmer may not find it at all convenient. There are other methods, however, that give good results and do not require any great expenditure of money. Your first operation is to remove the cylinders, if the head is cast integrally with them or on removing the head if it is a separate casting. Having gone through these motions you have exposed all the parts that must be cleaned. There are some chemicals sold that will dissolve the carbon and allow it to be removed from the metal by a blowing-out process. Some of the mixtures have merit, but others possess no outstanding quality. It would be well, before buying any of these preparations, to secure the advice of some mechanical expert. When you utilize a solvent, the piston is turned up at the end of the compression stroke, and both valves are closed. Pour the solvent in through a valve cap or spark plug opening, and after all the cylinders have been treated from two to six hours, the starting of the engine will result

in an exhaust so smoky that there is no doubt about the carbon particles being discharged. Perhaps the most common form of removing the incrustation is by means of a scraper, which is no more nor less than a tool about two feet long having a handle at one end and a bent, flattened point at the other. By inserting this instrument into the cylinders through the spark plug holes the carbon can be loosened. The tool for such a purpose is easily made, as its purpose will be apparent to any worker in metal. Of course, you must remember that the end of the scraper should be built to conform to the size of the combustion chamber. After you have learned very thoroughly the system by which to kill carbon, we trust that you will not forget the necessity for chasing all other forms of dirt. Do not allow your valves to become sticky. They should always operate with the utmost freedom, as every ounce of added effort required of the motor, reacts upon the speed of your engine. Then, too, it is well to see that every operating wheel and crank-shaft is free from road dust and heavy lubrication. We could not put this idea more firmly into your mind than by taking you on a tour to one of the large automobile manufacturing plants, and you would see that the acres and acres of machinery used in the production of motor cars are as clean every morning as human hands and human brains can make them. Never is a particle of dirt allowed to interfere with the constant circulation of the oil. Another illustration of this point can be taken from the medical profession. Before any dressing is made the wound or abrasion is always thoroughly and immaculately cleansed in order that the anti-

operation to a minimum a head engineer was employed by the year whose business it was to see that all engines were operated to the best advantage during the summer, and to overhaul and repair them during the slack winter season. In this way the engines were all kept in at least as good running order as the average farm tractor.

The fuel cost per acre is high with both classes of power. In the case of steam engines this is due partly to the fact that the coal had to be hauled by wagon from 4 to 12 miles, as the steam engines had to be used where the supply of water was suitable for boiler purposes. This haulage cost an average of \$1.55 per ton. The cost of gasoline in 1913 was almost as high as it is this year, the average price paid being 35 cents per gallon in wagon tank lots. The amount of coal and gasoline used per acre may appear high, but it must be borne in mind that most of the land being fallow was, therefore, plowed from six to seven inches deep, and the plowing was done during the whole spring and summer when the land was frequently too dry to plow to the best advantage. It will be remembered too that either a set of harrows or a packer was hauled behind the plows.

One of the highest items of expense in both the steam and gasoline engines was the upkeep. With the steam engines this amounted to \$12.20 for each day's work done, and with the gasoline engines to \$5.20. This item includes oil in addition to the cost of all repairs. The latter includes in the steam engines the refueling of two engines, and with each engine its complete overhauling during the winter. The ordinary charge for repairs by the operator of a single engine usually covers only the actual cost of repair parts, and no charge is made for the time consumed in removing broken parts or refitting the new ones. Frequently too, a few days' tinkering at the engines from time to time are overlooked and not accounted for. In the charge here given all these items of expense are included. In a year's operations the total is of no mean proportions.

Another important item of expense not yet mentioned is that of depreciation. There is a wide divergence of experience and opinion as to the life of traction engines. Many do not last longer than four seasons, while others continue to be useful three or four years longer. Comparatively few have been in use ten full seasons. The term of life naturally depends not only on the construction of the engine, but also on the care that it gets and the amount of work that it does. Accurate data are not available;

any figures that may be quoted are the opinions of those who have used tractors for a few years. The U. S. Department of Agriculture, in a Bulletin issued in May of this year, gives some figures that are probably as reliable as any. The estimated average life of tractors in days of service is given as follows:

Size of tractor	Average life in days' work
2 plow	291
3 "	292
4 "	510
5 "	585
6 "	735

The number of days' work done by the steam engines here under consideration in 1913 was 88 days, and that of the gasoline engines 159 days. If we take the six-plow figures given above as the basis for reckoning the probable life of these engines, we find that the steam engines stand at nine years and the gasoline engines at less than five years.

A steam engine of the size used, 30 h.p. with a ten-furrow plow costs practically \$5,000.00. If the life of the engine outfit be assumed to be 735 days as given above, the depreciation per day would be \$6.80 or 37 cents per acre. The actual plowing cost per acre would therefore be increased by this amount and stand at \$2.54.

A gasoline engine rated at 30.60 h.p. with an eight bottom plow costs about \$1,200.00. The depreciation to be allowed in this case would, therefore, be \$5.71 for each day's work or, with 12.5 acres plowed per day, an acre charge of 45 cents to be added to the other costs. The total would, therefore, be \$2.92.

Unfortunately I have not available the figures giving the cost of plowing with horses, mules or oxen, but a general statement regarding these classes of farm power may be added. Horses and mules did not, on the average, do much more than 100 days' work in the year. This may appear low and indicate poor management of labor, but investigations conducted in both Canada and the United States show that this is a fair average. The number of days' work performed per horse has a direct bearing on the cost of each day's work. In estimating the cost of horse plowing per acre a man must consider the cost of food consumed by the horse on the idle days as well as on those spent in harness. Even taking this into consideration it is rare indeed to find plowing by horses more expensive than that done by tractors when all the expense of the latter is taken into consideration. Just what his horse plowing does cost

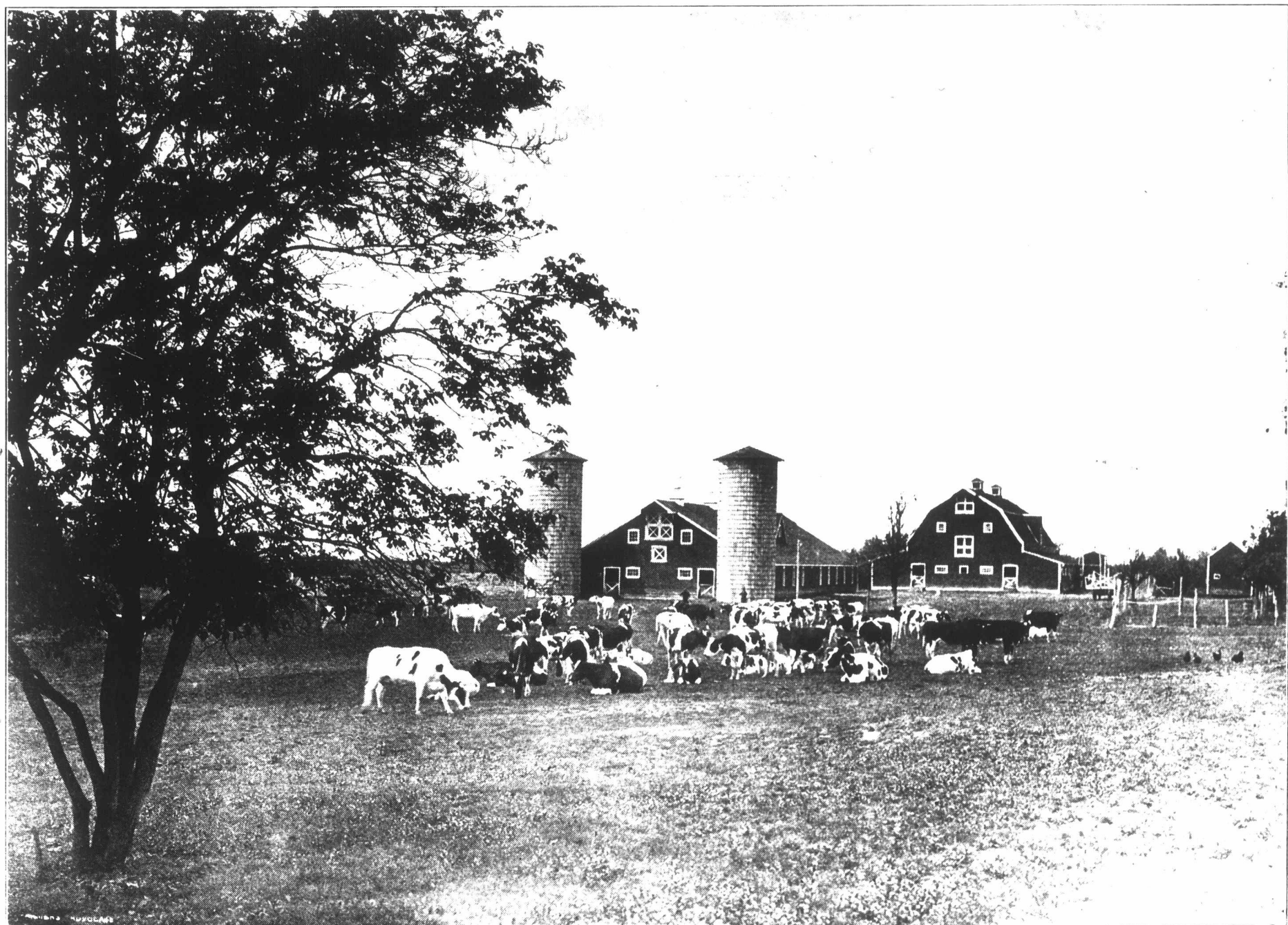
may be fairly accurately reckoned by any farmer. It is necessary only to consider the average number of days' work performed by each horse, the cost of feed and care for a year, the cost of manual labor, and the acreage plowed per day.

The mules were used largely for the same work as the horses, and proved very satisfactory. They were particularly suitable for heavy slugging work, such as tanking water to the steam engines or hauling coal. Not being of such a nervous disposition as a horse the mule does not worry about the work he has to do, but starts to rest the moment he stops and is content to stand as long as a driver will allow him. In this way he stands dudgey better than a horse. Mules work better in very warm weather than do horses, and not infrequently get fat on work that would kill a team of horses of the same scale. They are excellent walkers so that they are equally good on the roads as at field work, and, moreover, will usually suffer less from careless teamsters than horses. A good horseman, however, usually much prefers his horse team, as there is little companionship in the mule.

The work done by oxen was confined mainly to plowing stony land. This class of work is always expensive, but it was probably done more cheaply with oxen than in any other way. The initial expense both for power and equipment is reasonable, the upkeep is low, and the oxen after being used three seasons were sold for nearly as much for beef as they cost. But since one man could not handle more than five or six oxen at the most, and few as many as that, and as their pace is slow the plowing cost is high where the labor has to be engaged at the current rate.

The advantage of the tractor lies not in the cheapness of the power, but in its ability to do heavy work and do it rapidly. There is not the same tendency to plow shallow with the tractor as there is with horses. The chief advantage we found for the tractor was that the plowing could be done in the proper season. If we had used horses to plow the 10,000 to 12,000 acres turned over each year we would have had three times as many as we required for nine months of the year. The engines were employed at the work to which they were best adapted plowing, while the horses and mules did most of the other work.

There is also the important consideration of labor, in which the large tractor effects some saving. Now-a-days labor is not only high-priced but frequently it cannot be secured at any price. The large tractor



A Western Canada Farmstead.

Note the good business well treated, the two silos and the big Hayrack in front.

1866
engines
for each
some idea
med:
568 tons
6,110
18
186 lbs.
58 cts.
\$ 6.25
3,550.00
14.20
5,374.00
12.20
39.05
2.17
continuously
only are
plowing
only the
70 gallons
3,480
12.5
3 gallons
1.05
35
9.20
87.00
3.30
29.70
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requires less man labor per acre in plowing than do horses, but the small tractor that pulls only two or three plows has little or no advantage in this respect. It would appear that a tractor should pull at least four plows to warrant its purchase on the basis of saving labor.

The quality of work done by a tractor depends upon the operator and the adjustment of the plows. Properly handled, a tractor will do just as good work

as can be done with horses, and, as already intimated, there is not the same tendency with the tractor to plow shallow when the weather is hot or the ground hard as there is when horses are used.

For work other than plowing the horses usually have the advantage, as there is too much loss of power where the tractor has soft footing.

It is extremely difficult to get hired help to operate a tractor satisfactorily. Capable engineers are not

lacking, but when they are to be employed it is important that the owner understand the proper care of the outfit in order that it be not abused. It is seldom wise for a farmer who has not a taste for machinery to invest in a tractor even though they are now being improved and simplified. The mistake should not be made of assuming that any one can operate a tractor efficiently. It requires a properly trained operator.

The Correct Age to Breed the Heifer.

By Prof. E. S. Archibald.

This is a subject on which the majority of farmers are, as a rule, somewhat in doubt, but one which bears very great importance on the size, production, type and utility of the dairy or beef herds. Never more than now have our markets demanded large, capacious breeding stock of good type, quality and high production, yet many farmers persist in using methods of breeding and rearing least conducive to such achievements. Again, the high prices offered for milk, veal and beef in face of very high prices of feeds tempt farmers to make the errors of poor rearing of young stock and breeding at a too early age, with resulting deterioration of the size and production of the herds.

No hard and fast rules can be made in this regard, for practices must vary with the breed, size of foundation animals, character of feeds and pastures available, weather conditions, markets and many similar influencing factors. It is the purpose of this brief, resume of the subject to deal with its most outstanding phases as applied to dairy cattle, though the same principles will with a few slight variations apply equally well to the beef herd.

As breeders of dairy cattle we must admit that, within reasonable limits of each breed, the larger cow, able to handle more feed, particularly the cheap farm-grown roughages, is the most profitable animal. The most of us must work with herds of grade cows, and as our aim is to develop such herds to show as nearly as possible the same type and profits as the pure breed, the bull of which we are using, hence we face this problem to the same degree as the breeder of pure-bred stock.

Influence of Rearing.

It is extremely doubtful if the small, half-starved, permanently-runted yearlings, all too commonly found, can ever become profitable cows at whatever age when first bred. Surely Canadian farmers have sufficient ability to realize the correctness of and practise the following principles:

1. Rear only good, thrifty, typey calves.
2. Raise calves from only good cows which can show a good profit.
3. Raise calves only from a good pure-bred sire.
4. Rear these calves well to develop into more valuable and profitable animals than their dams.

Any deviation from these four principles means proportional financial loss. Without proper feeding while the heifer is young she cannot hope to reach maximum size, value or production when mature. Good rearing is then the foundation of profitable and successful breeding. Many excellent articles on the feeding of calves and yearlings appearing from time to time in this journal should be an excellent guide to the feeder.

Influence of Age at First Calving on the Size of Mature Cow.

Much carefully compiled data on this subject from breeding records of the Dominion Experimental Farms have been collected and many experiments are still in progress. Two points well demonstrated in the past are:

1. Heifers well reared by good feeding reach mature weight and production much sooner than when less generously fed while young.
2. Good rearing will result in a cow weighing from 300 lbs. to 500 lbs. more than fair or poor rearing, this increase in weight representing greater frame and muscle; in other words, a stronger, more durable, greater capacity machine for milk production.

The relationship of rearing to age of first service is as follows:

1. If the feeder finds it most profitable to force the calves to good size at an early age with good feeding, then the heifer may be bred at from 17 to 20 months of age, to calve at 23 to 29 months of age.
2. Under such conditions heifers must not be overloaded with fat at any time else difficulty will be met with getting them to hold to the bull.

3. Where weather and feed conditions warrant slower growing and maturing, heifers should not be bred till 24 to 27 months of age, to calve at 33 to 36 months of age. Even then they must have been sufficiently well nourished to gain good size before breeding. Where conditions exist, such as in Scotland, and the heifers grow well on excellent pastures all summer and with light stable feeding run out to the fields the most of the winter, such animals may be brought most cheaply to good size at first calving by this method. However, where severe winters necessitate closer confinement, more rapid growth by better winter feeding will almost invariably pay and the heifer may reach maturity in size and production most quickly.

The well-grown heifer, bred to calve first between the ages of 26 and 30 months will, if properly bred, produce well from the start and will reach mature weight and production at from 5 to 6 years of age.

The slower-grown heifer bred to calve first between the ages of 30 to 36 months may, if properly handled,

reach the same mature weight and production as the above but will do so at a later age.

The poorly-grown heifers bred to calve first at under 30 months of age will probably continue to increase in weight and production till 7 years of age, but will never reach desired size or be as profitable producers as though better handled. Unfortunately the majority of dairy cows and heifers in Canada come in this class and it is little wonder that the average production per cow per year is only a little over 3,000 lbs. milk or that such a very high percentage of our cows give annually produce worth less than the feed consumed.

There may be rare instances when heifers or bulls bred from exceptionally large and coarse parents may show this characteristic intensified. Breeding such heifers to calve at 24 or even 22 months of age may add refinement and induce greater milk production. However, instances are so extremely rare that it is safe to make the rule that no heifers should calve for the first time under 26 months, and the majority not under 28 months of age.

The foregoing range in ages makes allowance for different breeds. It is well known that naturally such breeds as the Jersey reach maturity in weight and production earlier than other breeds, that the Holstein represents the intermediate and the Ayrshire the later maturing breeds. There is little doubt that all dairy breeds and grades of the same in Canada have a very high percentage of males and females lacking in both size and constitution and the above principles apply equally to all.

Age at First Calving vs. Production.

Generally speaking, within reasonable limits the inherited tendency to a production of milk is a greater



May Echo Sylvia 11385, World's Champion Milk Producer.

Milk records: 1 day, 152.1 lbs.; 7 days, 1005.8 lbs.; 30 days, 4196.9 lbs.; 60 days, 8220.1 lbs.; 90 days, 11855.1 lbs.; 100 days, 12899.8 lbs. Butter records: 7 days, 41.00 lbs.; 30 days, 169.72 lbs.; 60 days, 323.32 lbs.; 90 days, 463.67 lbs.; 100 days, 505.34 lbs.

factor than the size of the cow. However, with the same breeding and general type the larger cows will, as a rule, produce most milk and are undoubtedly capable of manufacturing larger amounts of rough forage into milk most easily and with a resulting increased profit. Hence the heifers calving when sufficiently mature (approximately 30 months) have a decided advantage over immature females at that stage and throughout the rest of their lives.

Age of First Calving vs. Dairy Type.

Heifers calving young, i. e., 24 months or under, are undoubtedly taught to produce at an early age and will carry this refinement through life. However, the strong tendency in this practice is to greatly reduce the size, constitution and general ruggedness, thus lessening the capacity for consumption and production, and with a tendency toward fewer years of most efficient production.

Well-grown, heavily-fed heifers calving at the age of 26 to 30 months, or well grown, slow developed

heifers calving at the age of 30 to 33 months will not acquire the same degree of dairy refinement until a year later than the foregoing class, but even so will produce more heavily than the smaller, less rugged animal. When refinement does come then we have the cow of size, dairy type and quality, which is our greatest and most profitable producer.

A word of caution in this regard may not be amiss. Occasionally a breeder carries late calving to the extreme and by so doing induces a coarseness and wealth of flesh which in many heifers will not milk off and this habit of laying on flesh at the expense of milk production be too well established to overcome. Again, non-pregnant late two-year and young three-year heifers even on rough feeds lay on flesh very quickly, are difficult to settle with calf and sometimes slip at the pin bones and become steery and sterile or partly sterile. This probably only happens with heifers having the least maternal instincts with resulting tendencies to light production, but it is a risk worth guarding against.

Age at First Calving vs. Size of Calf.

This is a phase of the subject on which little data have been collected. The writer is convinced that the smaller and younger the heifer is at first calving, the smaller will be the first calf, other things such as sire of calf, feeding of heifer during pregnancy, etc., being equal. Well-reared, good-sized heifers will produce good-sized, thrifty, valuable calves. Is this not the explanation of the strong prejudice against a heifer's first calf, which is usually all too small and weak? Good rearing, breeding at the right age and proper feeding during first pregnancy would quickly overcome this difficulty.

Summary.

1. The age at which heifers should first calve is important, but is dependent on other factors of equal importance.

II. Sufficient size must be obtained before first pregnancy else the cow will never acquire desired size, capacity and strength.

III. The heifer calving for the first time, if small or very young may show extra refinement, but never the constitution or capacity for work as though better developed at that time.

IV. Calving heifers at 28 to 32 months of age is a good average, but should be varied with discretion.

V. The proper rearing of heifers to the first service, the feeding of the pregnant heifer, and the feeding and management of the heifer in milk are all practices of equal importance, each bearing on this important subject and all going to make the most profitable rearing of the best dairy cow.

Ottawa Milk Prices.

Ottawa district milk producers are asking an advance to twenty-two cents per gallon for their product to take effect from September 1, which would mean an advance to the consumer from eight to nine cents per quart. The reason given is the increased cost of producing milk, due to the scarcity and price of labor and the cost of dairy cattle feeds. Though the hay crop was large many find it more profitable to sell than to feed it. The local grain crop was very far below a fair average, and the corn crop was late and at best uncertain. Bran, gluten, oil cake and other necessary feeds had gone up about twenty per cent. and cows another twenty per cent. In all this increased cost of production would average

about twenty-five per cent. Furthermore, the milk supply had fallen off, and the price was in a large measure governed by the prices of butter and cheese which were soaring because of the foreign demand.

The officer of the forage department at the Central Experimental Farm stated at the producers' meeting that milk at current prices was being produced at a loss.

Does It Pay to Raise a Chicken?

Breeding, Feeding, Housing, Costs and Returns Discussed by One Who Knows.

We have often wondered whether or not it paid the average farmer to raise a chicken. We had our own opinion, but decided to leave the matter to the judgment of Canada's best authority on the subject, Prof. W. R. Graham, of the Ontario Agricultural College. Prof. Graham says it pays, so that settles the question. However, there are certain little things necessary in order that the balance appear on the right side of the ledger, even with such a sure thing as chickens on the farm, and we desire to give our readers, as concisely as possible, some of Prof. Graham's ideas as to these.

Breeds and Breeding.

First of all the breeding must be right. For the average farmer there are three breeds, each with a number of varieties and all especially well suited to farm conditions. These are generally spoken of as general-purpose breeds viz., Rhode Island Reds, Wyandottes and Plymouth Rocks. You can have them single or rose-combed, white or parti-colored as you choose. These are the breeds favored by Prof. Graham for the farmer.

If you decide to make a specialty of meat and lay little stress upon eggs you might try Cornish Games and their crosses or Dorkings and their crosses, but the three first named are about as good as any for the farmer to produce meat from.

For eggs we still stick to the Reds, the 'Dottes and the Rocks, but Leghorns must be mentioned here, for, while they are not as good winter layers as the general-purpose breeds, they require twenty-five per cent. less to feed, hatch ten per cent. more than the heavier breeds mentioned from the same number of eggs set, and the mortality is less than that of chicks from the other breeds named.

So far we have been speaking of pure-breeds. There is a small idea tucked away back in the heads of some of those who always yell "psheew!" at sight of a chicken that a barnyard mongrel hen is more profitable than any strain of pure-breeds. Try to fatten one and see. Try to sell the motley-colored little eggs from a flock of them and be convinced that it doesn't pay. Prof. Graham says, from experience, that the average barnyard fowl is so mongrelized that he will not feed and that eggs from such mongrels are small and far from uniform in size, shape or color. The pure-bred hen of a good strain is likely to lay more eggs, and a flock of them certainly will turn out a more uniform output of eggs or meat, and upon uniformity and quality depend reputation. We must have pure-breeds if even good crosses are desired. We must have them anyway. The country would be better off without the mongrels. Bear in mind, though, that there is a difference between a cross-bred or high-grade chicken and a mongrel just as there is a difference between an Aberdeen-Angus-Shorthorn cross-bred steer, or a high-grade Hereford steer and a northern non-descript black-and-white-spotted-yellow-red-and-fawn browse-picker.

How Many?

Well we have discussed breeds for different purposes. Now, how many hens should be kept on a fifty-acre farm? Suppose we put it at from 100 to 200. The fifty-acre farmer may have more time than the hundred-acre man to look after chicks, so suppose we put the accent on the 200, and, for the hundred-acre farmer, leave the same latitude only accent the 100 if anything. For farms of 100 to 200 acres, 100 to 200 hens would be all right, but 100 would likely be enough. This leaves it that no farm should carry fewer than 100 laying hens.

How to House.

The breed and number of hens have been decided. They must be housed. Prof. Graham favors a house 20 feet by 20 feet for each 100 hens, but he would make some changes from his former design. The house is single boarded with cracks battened. Make it 5½ feet high front and back. Give the roof one-third pitch. Put shutters over half the front and have the other half glass with the windows hinged or otherwise arranged that they may be easily swung open. Too often hen

houses are damp. Give plenty of ventilation. Be sure to put in a straw loft as it will aid in overcoming dampness. This house is more easily built than one with an unequal pitch of roof, which requires a carpenter to cut the rafters, and no special care is necessary in handling it more than to open the windows when it gets too warm or requires more ventilation. The amount of light supplied in an ordinary house should be one-third of the front and a west window is also good as it throws afternoon sunlight directly into the house. The bigger the flock the less space required per hen. For a flock of 100 hens allow 4 square feet of floor space. For a flock of 25 allow 6 square feet, and provide 7 to 9 inches of roosting space.

What should it cost per hen for housing? Not more than \$1.25. This is Prof. Graham's concise answer and it gives a practical idea of the cost of your hen house.

On the farm it is doubtful whether dropping boards can be used to advantage. In view of the extra amount



Did I Pay?

of work entailed it is hardly likely that they would be considered a success. Where they are used it is necessary to clean the pen (or the boards) twice a week, whereas, in an ordinary house so equipped, a good plan is to clean out as often as the box stalls are cleaned or once in two weeks, in dry weather, or where the house is well ventilated and plenty of straw or other dry litter supplied, once a month. We might put it this way: Clean it when it gets dirty.

A farmer should have a few portable colony houses 6 feet by 8 feet for chick raising. Chicks may be moved to these when four to six weeks of age, or when they leave the hen. A good place to drag the houses is to the corn field or place them in an orchard. Chicks do better with shade.

The Average Hen.

Does the average hen pay? She will eat from 5 to 7 pounds of grain per month, and meat and vegetable

food consumed will equal about 25 per cent. of this amount, so that she costs about \$1.50 per year to feed. When she lays 100 eggs per year, her owner gets pay for his labor and the feed she has consumed. All over that number is clear profit and the hen on the farm should lay at least 10 dozen of eggs each year.

What of the Chicken?

To raise a chicken for its meat value alone may or may not be profitable. It requires 15 to 20 pounds of grain, or its equivalent, to grow a five-pound chicken of good breeding and the labor connected with the enterprise is worth about 15 cents per chicken so it costs approximately 6 cents per pound of chicken for feed and care. It is generally profitable to sell as broilers up to the third week in July (the earlier the better), and when the chickens are from 10 to 12 weeks old. This means that, for broilers, early chickens are necessary, and if breeding Leghorns the chickens not necessary for breeding purposes should always be sold as broilers, even if only worth five cents per pound for there will be less loss with them than if fed on for roasters. Roasters sell best when weighing from 4½ lbs. up and a chicken grows just about a pound per month, so roasters may be turned off at 4½ to 5 months old. Reds, 'Dottes, Rocks, (the General-purpose breeds) and all of the meat breeds are valuable for roasters. The right breed of cockerels hatched at the proper time and judiciously fed will pay for feed and care if sold at 8 cents or more per pound as roasters, or 12½ to 15 cents per pound as broilers, weights already given to apply.

As a rule the farmer does no caponizing nor does he know very much about it. Prof. Graham believes that in many cases it would pay the farmer to caponize all cockerels hatched after June 1. Farmers might make more money out of these late-hatched chicks as capons than in any other way.

The Profitable Pullet.

We have discussed the cockerel, his meat value and feeding cost. Pullets are more profitable. The average pullet costs, up to the age she begins laying, which is about 200 days, 50 cents. Where special attention is paid to breeding, the light breeds and the bred-to-lay heavier breeds will commence laying at about the same age. Hens which weigh, when mature, more than 6 pounds are, of course, slower to develop and so do not lay quite so early. The range for commencing laying varies in between 185 and 250 days. A well-bred pullet, with reasonably good care, will, by the time she is a year old, lay a sufficient number of eggs to pay for cost of rearing and feed during the laying period of her first year and leave a net profit of 50 cents for her owner. The barnyard mongrel will not do it. The pullet must be of a bred-to-lay strain and should be early-hatched, March April or May with the accent on the earlier months. If the pullet lays 5 or 6 dozen eggs before she is a year old she will pay well and if she starts laying at six months old she will lay half her eggs before she is a year old.

The Dominion Government, in some statistical reports, places the average egg production per hen in Canada at 87, but nobody knows how they arrive at this figure. On commercial farms the average is about 120 eggs per hen and the farm flock has better conditions of range etc., than has the commercial flock and is not so large. The number of eggs produced per hen on our farms is too small and could be profitably increased even though, eventually, a slightly lower price per dozen might result.

Perhaps the biggest drawback on the farms is the keeping of old hens. Too often the hens are kept, until they die of old age. As the age of a hen increases the number of eggs produced when eggs are high in price (winter) decreases. This always happens. Where little difficulty is experienced in raising, Prof. Graham favors keeping pullets only one year and no hen, unless for special breeding purposes, after she is two years old. Farm chicks are hatched too late. From April 20 to June 1 should be the limit of time and the closer to the first-named date the better. Overcrowding, due to failure to cull out old and surplus stocks is partly responsible for low production. Old hens are sometimes kept beyond their period of profitable productivity because of difficulty in rearing chicks. Good breeding, early hatching and careful culling out of inferior and old stock would work wonders.

What to Feed.

It is not only important that chicks be hatched early, they should be fed for rapid growth. Here is a good farm variety: sour milk, wheat, crushed oats, crushed barley in preference to whole barley, some shorts, and green feed. Be particular to sow some oats, rape or sorghum or all three in a plot for the chickens.

For fattening, try this handy farm feed: Ground wheat and sour milk, or 2½ of low grade flour and ¼ each of ground oats and ground barley or buckwheat.

For laying hens try: Rolled oats, wheat and sour milk with plenty of green feed, mangels and cabbage, raw or cooked, for fall and winter.

The average decrease in production each year is probably 2 dozen eggs per hen, but the salient feature is that the old hen does not lay when eggs are high in price. She lays in the spring and early summer when all hens are producing. The difference in price of eggs for the winter months and that for the summer season was, this year, about 12 cents per dozen, and it must be remembered that eggs have been comparatively high this summer. The average farmer does not produce the number of winter eggs he should. Pullets at the O. A. C. were laying as many eggs last November as they were this July. Winter egg production would still be profitable if the number produced was greatly



Free Range Makes Better Chickens.

increased. Figuring labor, feed, housing and everything, it costs from 15 to 20 cents per dozen to produce eggs. Summer eggs are profitable at 25 to 30 cents per dozen. A strain of hens can be developed to lay both summer and winter provided the pullet end of the business is pushed.

Small Chicks.

Many have difficulty in raising chicks, but Prof. Graham does not believe that it would pay the average farmer to buy day-old chicks. The man who sells figures on making a profit. The purchaser does not know what kind of an egg the chicken came out of. The mongrelized chickens of China and Egypt may have been due to central hatching stations in vogue there many decades ago. Co-operative hatcheries, where the farmer could take his own eggs to be hatched would be all right. Such a hatchery might be operated in a school section.

The farmer could scarcely make the selling of day-old chicks pay. There is some difference of opinion with regard to incubators and their value to the farmer. The average farmer can make an incubator pay. If he has a 150- to 200-egg machine he should set it two or three times at least. The earlier set the smaller the hatch, but if it requires eight eggs to get a pullet in February she will still be more profitable than a pullet hatched from one of two eggs in May. It will likely be necessary to set about 450 eggs in order to raise from 150 to 200 chickens if hens are used. The average hatch, under hens, is about 50 per cent of eggs set and the average mortality from all causes is about one-third of birds hatched.

The Outlook.

The outlook for the chicken and egg business was never better. The price of meats is high and this always influences the trend of poultry and egg prices upward. Reports of extra good farmers show a profit per hen of from \$2 to \$4 per year for eggs and chickens. These are extra good. Surely the average man should make from \$1 to \$2 per hen counting chickens and hens sold clear, but he must pay more attention to breeding must hatch his chicks earlier in the season, must look carefully to his feeding and housing, must keep only pullets and young hens, must break up broody hens promptly, and must cease to look upon the hen as a necessary nuisance. He must place her where she

belongs as a valuable adjunct to the farm. It pays to raise the right kind of cockerel or capon. It pays to raise the early pullet. Eggs pay and they pay for looking after well. If all eggs were bought on a quality basis the price per dozen would probably be 6 cents higher in the hot, summer months than it now is. At least, recent market quotations placed a 6-cent premium on quality eggs. It costs a great deal more to candle and grade eggs which have been neglected in hot weather, and the cost comes out of the producer, as it should. With better care for the hens we must emphasize better care for the eggs.

These facts and figures, obtained through an interview with Canada's leading poultry authority should prove valuable to the farmer. They prove that it pays to raise the right kind of chicken. They tell you what kind to raise, when to hatch and how to feed, house and care for the hens and their products. They give an idea of what to expect from good care. Does it pay to raise a chicken? You will decide this for yourselves affirmatively by following Prof. Graham's advice, negatively by maintaining a mongrelized flock of old hens in a dirty, dark, damp house, where half of them are broody or sick all the time, and by hatching chicks from these hens in late June and July letting the whole flock take its chance and shift for itself. Which will you do?

Keep Only Producers.

With the price of feed advancing it becomes more necessary than ever to keep only productive birds in the flock. A few good pullets or yearling hens properly housed and carefully fed oftentimes give greater net return than a flock twice the size that does not receive sufficient attention. If the poultryman has accommodation for 200 laying stock he should endeavor to fill the pens with birds that qualify to a certain standard. This will necessitate hatching many more chicks than will be required. There is bound to be a certain percentage of pullets that give no indication of being profitable producers. These should be placed in the fattening crate. They may make good roasters if they don't qualify as layers. Plenty of constitution is required and they should show some life. To the average person, choosing a good bird is a more difficult task than the selection of other farm animals. The poultryman

who picks pullets with a good head, alert eyes, with face and wattles of fine texture has taken the first step towards establishing the type that generally are the best layers. Birds with dull appearance, long narrow head or crooked breast bone should be put in the fattening crate rather than in the laying pen. As the winter advances further culling may be necessary in order to keep the flock up to the standard.

The flock of yearling hens should also be culled in the fall when not entirely disposed of. The birds which are last to moult are considered by many to be the heaviest yearly producers. With the yellow-leg breeds it is not always those with the brightest legs that should be selected as layers. It is claimed that the coloring pigment in the legs is reduced by heavy laying. In the white faced birds the wattles lose their pure white color. Too often it is the birds with the brightest colored legs or the whitest wattles that are selected, when in reality they may be the very ones that have been taking care of themselves. It appears reasonable that the heaviest laying birds cannot look as fresh as the medium producer. The busiest birds are frequently the layers. A rule followed by some poultrymen is to select the birds that are last to go to roost at night and first to leave it in the morning.

Show qualities and heavy laying are difficult to combine in the one bird. The poultryman who makes a practice of following the shows selects and breeds a somewhat different style of bird from the one bred for utility purposes. It is as necessary to have a definite breeding and mating policy with poultry as it is with the larger classes of live stock. The non-producers in the flock keep down the average egg yield. The fewer of the unprofitable birds kept the greater the net returns from poultry raising. Trap nests are the most reliable method of distinguishing between the profitable and unprofitable hen. On the farm this system cannot conveniently be followed; other methods must be resorted to. The flock can be greatly improved through the male bird. The utility flock should be headed by a male bird of laying stock. The Experiment Stations are commencing to keep records of the fowl and issue pedigrees for the birds. Results have proven that breeding counts for a great deal in improving the laying qualities. However, the more intensely the birds are bred for egg production the less likely are they to show fine feathers. It is for eggs and not feathers that most farm flocks are kept.

The Fruit Grower and the Law.

All available information points to the fact that the Ontario apple crop will not be of the best quality. Fungus has got in its work to a very considerable extent rendering much of the fruit unmerchantable as first-grade stuff and inflicting upon growers and packers the necessity of keeping out of the No. 1 barrel many large and well-colored apples marked here and there with spots of scab. A No. 1 apple is the same one season as another and the law which has defined the different grades and set a standard for growers and buyers alike has the same significance this year that it always had and it must be interpreted the same way so long as it remains on the Statute Books. Many consumers have a desire for a certain variety of apples and when making the purchase they expect a certain quality and this standard must be observed in spite of any conditions that wind or weather may impose. While we appreciate the difficulties experienced by the modern orchardist in a season such as this, or last year, the law in its general principles is correct and should be allowed to continue in force. Many growers last year adopted one form or another of an open package regarding which the Inspection and Sale Act is concerned to only a slight degree. However, first of all the grower should attempt to cater to the recognized and established trade which knows the fancy, No. 1 and No. 2 grades of apples; failing in this some other method consistent with market conditions, and the quality of the fruit might be instituted as a temporary measure of relief.

It is seasonable at this time to make oneself familiar with the law, which is operative over all Canada, in order to be prepared to meet its requirements. The part of most general application are those clauses dealing with the marking of fruit packages, and they read as follows:

320. Every person who, by himself or through the agency of another person, packs fruit in a closed package, intended for sale, shall cause the package to be marked in a plain and indelible manner in letters not less than half an inch in length, before it is taken from the premises where it is packed,—

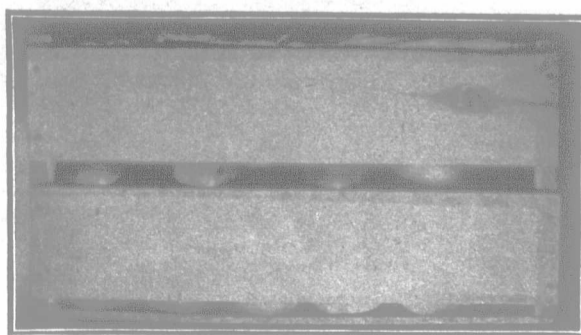
(a) With the initials of his christian names, and his full surname and address, or, in the case of a firm or corporation, with the firm or corporate name and address; (b) with the name of the variety or varieties; and, (c) with a designation of the grade of fruit, which shall include one of the following four marks, viz., Fancy, No. 1, No. 2, No. 3.

2. Such marks may be accompanied by any other designation of grade or brand, if that designation or brand is not inconsistent with, or marked more conspicuously than the one of the said four marks which is used on the said package.

321. No person shall sell, or offer, expose or have in his possession for sale, any fruit packed, (a) in a closed package and intended for sale unless such package is marked as required by the provisions of this Part; (b) in a closed package, upon which package is marked any designation which represents such fruit as of—(1)

Fancy quality, unless such fruit consists of well grown specimens of one variety, sound, of uniform and of at least normal size and of good color for the variety, of normal shape, free from worm holes, bruises, scab and other defects, and properly packed; (II) No. 1 quality, unless such fruit includes no culls and consists of well grown specimens of one variety, sound, of not less than medium size and of good color for the variety, of normal shape and not less than ninety per cent. free from scab, worm holes, bruises and other defects, and properly packed; (III) No. 2 quality, unless such fruit includes no culls and consists of specimens of not less than nearly medium size for the variety, and not less than eighty per cent. free from worm holes and such other defects as cause material waste, and properly packed.

The Act makes no restrictions as to the quality of fruit which is marked "No. 3." In such a package the faced end must represent the contents, or at least it must be no better. In uncovered barrels or boxes, the Act requires only that the top of each package shall be no better than the fruit throughout the package.



The Economy Crate.

Last season several extensive apple growers used the open package, or what is known in British Columbia as the "economy crate." The accompanying illustration shows one of these packages photographed in an orchard last fall. It is generally conceded to be an open package. At the Ontario Fruit Growers' Convention last January its use was discontinued by several and as vigorously upheld by others. In general practice, last season, a good quality of tree-run stuff was boxed in a container such as this and marked with some special brand. Unless a pad was used under the lid, and one was in some cases, the customer could see the contents from four sides. Owing to the fact that a No. 3 may be anything so long as properly represented by the face, it is not a popular grade on the market and the open package was adopted as a relief measure when the growers were suffering from exceptional circumstances.

Under conditions that are at all near normal we prefer

the box or barrel packed and branded with the standard grades. We have quoted excerpts from the Act as a guide to those who have any doubts as to its wording, but a grower who wishes to establish a name for himself and his product should turn out a better pack than called for by the Sale and Inspection Act. It sets too low a standard, rather than too high a one. Apples which simply pass inspection and come within the limits of this Law do not compare favorably with the pack sent east by British Columbia or the Northwestern States. A grower should have his competitor in mind rather than the Act if he wishes to do justice to himself and his business.

No Change in the Apple Outlook.

The "June drop" thinned many orchards and the apple scab has fastened its tentacles so firmly into the fruit that the crop as a whole must be small and of poor quality. Ontario's harvest may be even less than in 1915, while the Nova Scotia output was recently estimated at 600,000 barrels, but they are now finding more apples on the trees than were visible a few weeks ago. There is not a great deal of spot where the orchards were well sprayed in the Annapolis Valley and the crop is now showing considerable promise. Gravensteins, a fall apple for which the Valley is famous, are better than for some years past. Reports of various complexions come from the Ontario apple-growing districts. About Cobourg it is said that the yield will be 15 per cent. less than last year and the quality 25 per cent. poorer. In the Newcastle district the quantity will be only 40 per cent., it is said, of what it was last year, and about 75 per cent. of the fruit is marked with fungus. Conditions have been more favorable in the Georgian Bay section for they expect from 60 to 70 per cent. of a full crop but scab is quite prevalent. Farther east in the province around Morrisburg recent rains caused a further development of scab, while in the Burlington area, west of Toronto, no rains fell for eight weeks, making it very hard on the growing fruit. The peculiar season has dealt the apple growers a severe blow, but where merchantable stuff can be gathered and prepared for market in the ordinary condition and form it should realize a good price.

In the Old Country conditions are such as to warrant fair prices if facilities permit of exportation overseas. At present the outlook in this regard is bright. The Dominion Fruit Commissioner reports thus:

"Regarding fruit transportation from Montreal to Great Britain, it is expected that steamship space will be available. The facilities promise to be at least as good as last year. Markets in the Old Country are expected to be very good. The freight rate from Montreal to Glasgow will be practically \$2.00 per barrel."

FARM BULLETIN.

Insurgent Cows.

BY PETER MCARTHUR.

These are the days when the cattle become discontented with their pasture and begin to go on a rampage. Fenceviewer I and her brood are running true to form and living up to their best traditions, but I have lived with them too long to be taken entirely unawares. As soon as the pasture withered with the long drought they began to take an undue interest in the cornfield. Although it is a comparative failure it still looks green and succulent compared with everything else on the farm, and the cattle have been stretching their necks over the fence and bawling. The first to get through and enjoy a feed were Fenceviewer's twins. Although they are small they are thrifty and they seem to inherit much of their mother's resourcefulness. Already they are taking a lively interest in the fences. Although I felt quite safe on that point, it happened that during the haying a board was broken in a gate. The twins found it and worked their way through and had their first feed of stolen corn. After they had been driven out and the gate had been mended I felt secure again, but it was a false security. A few days later I happened to notice a commotion among the cows and saw at once that Fenceviewer II was beyond the fence and making straight for the corn. The Government drain was dry and she had managed to push through where the ice had loosened the wires that were used for a home-made flood-gate. But would she go out where she got in? Not if she knew it. She seemed to have an idea that if she fooled us about that hole she could get through some other time. She was evidently working alone when she found it for even her piratical mother had not noticed it, and had failed to follow, though she bawled with surprise to see her daughter so near the cornfield. After three or four attempts to make her go out through the ditch we finally had to give up and drive her out through the gate. Then we fixed the hole and now we are waiting for the next outbreak.

The cattle had not attracted our attention all summer except at milking time, but a few days ago the alarm was raised that Mars—the yearling steer—was in a well, and the whole family had to be assembled to get him out. The well is not really a well, but a drinking place that has been fixed so that the cattle can help themselves. There is a low place in the woods where there is a quicksand bottom about four feet from the surface and for many years it has furnished an unfailing supply of

water. Many years ago a shallow well was scooped out from which the cattle can drink at all times simply by having a plank left off the top so that they can drink as from a trough. As there is a pond nearby which supplies them during the rest of the season they do not use the well except when other supplies fail. This year the other supplies failed completely and the drinking well was fixed for them with scantlings nailed across the opening a couple of feet apart. It was looked upon as quite safe, but apparently when a yearling steer ventures to go for a drink before his betters he is likely to be taught a lesson. Mars must have been down on his knees drinking when one of the big cows came along and poked him right through. When found he was not worrying a bit. He was standing in about two feet of cold spring water contentedly chewing his cud. He didn't seem to care whether he was rescued or not. As the day was unusually hot I could understand his feelings exactly. But for the good of the water supply he had to be disturbed. We found that all we needed to do was to enlarge the opening, give his tail a twist and let him do the rest. Then we cleaned out another well of the same kind so that the water came clear and cold from the quicksand and closed the first one so that nothing could get in. I know that a quicksand bottom is not considered a good thing on a farm, but there is only this spot of it, and in a dry season it seems like a dispensation of providence.

On the way home I had an experience that I had not enjoyed since returning to the farm. While we were busy cleaning out the well clouds began to gather, and even though a thunderstorm did not develop, rain began to fall. It was a sun shower of the kind that used to make children sing:

"Rain, rain sunshine!
Sure to rain to-morrow!"

We had no time to make a dash for the house so we took shelter under some spreading beech trees at the edge of the woods. There used to be a tradition that lightning never strikes a beech tree, but that was not our reason for choosing them. They had the thickest branches and most plentiful leaves and offered a better umbrella. At the beginning of the shower tree-toads began to call, and many kinds of birds sounded notes that were unfamiliar. Everything seemed too happy to keep still. The cattle in the pasture stopped eating as if to stand and enjoy the cooling, shower bath. The sunlight filtered through the falling rain and altogether the scene was one that offered Nature at her best. But before long the rain began to drip through our roof and we had to do a lot of stepping about before we found a comfortably dry spot under the thick trunk

of a leaning maple. As there was no lightning there was no objection to leaving the beech trees. Presently the shower passed and we walked home with everything greatly refreshed. But when I looked at the thermometer and found that it stood at ninety-six in the shade I almost wilted. If I had known it was so hot I wouldn't have dreamed of undertaking so strenuous a job as cleaning out a well.

Hay Fever.

EDITOR "THE FARMER'S ADVOCATE":

During the weeks that the pollen of certain anemophilous weeds is filling the air, the victims of hay fever, who can afford it, retreat to localities where these weeds are scarce or altogether absent, to await the close of their flowering season or the early frosts which kill their pollen. The best-known offender among these plants is the ubiquitous rag-weed.

The supposition that hay-fever sufferers are proportionately more numerous among city dwellers than among ruralists has cast doubt on the hypothesis of pollen causation. But a drive around any of our cities will probably convince any competent observer, who also knows the country, that the urban dumps, vacant lots, lanes, and by-places are producing a more luxuriant crop of the weeds in question than can be found in any equal area in the country. The last report of the U. S. Hay Fever Association shows that where the municipal authorities have vigorously grappled with the problem of the extermination of these weeds the severity of the hay-fever scourge has been very greatly ameliorated. This report should bring good news to hay-fever sufferers, and suggest to them the duty of organizing in their respective towns and cities to educate the officials and bring pressure to bear on them to clean up their municipal weed-yards.

But after all there are no statistics to prove that the percentage of hay-fever victims among the farming community is a negligible one, or even that it is lower than in the urban communities. It is true that not many farmers are to be found at the "hay-fever resorts"; their absence is easily explained. But there can hardly be a more likely place for a susceptible person to contract the hay-fever habit than at a farm house where the garden and stable yards are permitted to develop a luxuriant growth of rag-weed, fire-weed, golden-rod, flea bean, etc. Such farm-house surroundings are not so rare as they ought to be. If at this time of year your sneezing neighbor labors and sleeps in an atmosphere charged with some of these pollens, you may safely assure him or her that the future keeping of the house surroundings free of weeds will greatly alleviate although hardly entirely prevent a recurrence of this distressing disease. J. D.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, August 28, numbered 140 cars, comprising 2,654 cattle, 228 calves, 691 hogs, 1,691 sheep. All kinds of cattle were steady, but the quality was very poor. Lambs, sheep and calves were steady to strong; no change in prices. Hogs, about 25c. lower.

The total receipts of live stock at the City and Union Stock Yards for the past week were as follows:

	City	Union	Total
Cars	73	637	710
Cattle	832	5,607	6,439
Calves	162	762	924
Hogs	1,401	10,566	11,967
Sheep	1,490	3,909	5,399
Horses	52	4,196	4,248

The total receipts of live stock at the two markets for the corresponding week 1915 were as follows:

	City	Union	Total
Cars	25	536	561
Cattle	192	5,438	5,630
Calves	29	578	607
Hogs	388	5,884	6,272
Sheep	1,443	5,662	7,105
Horses		3,394	3,394

The combined receipts of live stock at the two markets for the past week show an increase of 149 cars, 809 cattle, 317 calves, 5,695 hogs, 854 horses, and a decrease of 1,706 sheep and lambs.

The live stock market opened on Monday with about 3,300 cattle on sale. The quality was generally fair to good for butchers. A few loads of choice cattle sold at \$9.75. These cattle were well finished and choice in quality. There was a steady demand all week for this class of cattle, but very few were offered. For some reason not known on the Toronto market the best Ontario cattle are shipped to other markets. Good butcher steers and heifers weighing from 950 to 1,050 lbs. each ranged at from 7½c. to 8c. lb. The bull trade was steady. Milkers and springers met

a ready sale at from \$65 to \$95 for choice cows. Stockers and feeders are steady and the better class are in demand. Canners and cutters were steady and sold at from \$3.50 to \$4.75. Choice lambs were up and down all week, but closed steady at 11c. to 11½c. lb. Unfinished lambs are not in demand and are hard to sell. Sheep—Light, handy, butcher sheep were strong and found a ready sale at from 7c. to 9c. lb. Heavy, fat sheep were slow. Choice veal calves were steady to strong at 11c. to 12c. lb. Hogs were steady to firm most of the week, but weakened toward the close, the final prices being \$12 to \$12.25. Fed and watered, \$12.25 to \$12.50 weighed off cars.

Butcher Cattle.—Choice heavy steers, \$8.25 to \$9; good heavy steers, \$7.85 to \$8.25.

Butcher cattle.—Choice, \$7.80 to \$8; good, \$7.70 to \$7.80; medium, \$7.25 to \$7.50; common, \$6.50 to \$6.75.

Cows.—Choice, \$6.50 to \$7; good, \$6.40 to \$6.60; medium, \$5.75 to \$6; common, \$5 to \$5.60.

Canners and cutters.—\$3.50 to \$4.75. Bulls.—Best heavy, \$7 to \$7.75; good, \$6 to \$6.75.

Stockers and feeders.—\$5 to \$6.50. Milkers and springers.—\$55 to \$100. Spring lambs.—Choice, 11c. to 11½c. lb.; culls, 8c. to 10c. lb.

Light, handy sheep, 7½c. to 9c. lb.; heavy, fat sheep, 4c. to 5½c. lb. Veal calves, 6c. to 12c. lb.

Hogs.—Fed and watered, \$12.00 to \$12.25; weighed off cars, \$12.25 to \$12.50.

Breadstuffs.

Wheat.—Ontario, No. 1 commercial, \$1.22 to \$1.24; No. 2 commercial, \$1.18 to \$1.20; No. 3 commercial, \$1.14 to \$1.16; No. 2 new crop, \$1.28 to \$1.30. Manitoba (track, bay ports)—No. 1 northern, \$1.66; No. 2 northern, \$1.64; No. 3 northern, \$1.61.

Oats.—Ontario, No. 3 white, 52c. to 53c. Manitoba oats (track, bay ports)—No. 1 C. W., 57½c.; No. 3 C. W., 56½c.; extra No. 1 feed, 56½c.; No. 1 feed, 56c.

Barley.—According to freights out-

side, malting barley, nominal; feed barley, nominal.

Peas.—According to freights outside, No. 2, nominal.

Buckwheat.—Nominal.

Rye.—No. 2, new \$1.02 to \$1.05. No. 1 commercial, nominal.

Corn.—American (track, Toronto), No. 3 yellow, 97c.

Flour.—Manitoba first patents, in jute bags, \$8.40; second patents, in jute bags, \$7.90; strong bakers', in jute bags, \$7.70. Ontario, winter, according to sample, \$5.70 to \$5.80, track, Toronto; new, \$5.60 to \$5.70, bulk, seaboard.

Hay and Millfeed.

Hay.—New No. 1, per ton, \$10 to \$12; No. 2, per ton, \$9 to \$9.50.

Straw.—Car lots, per ton, \$6 to \$7, track, Toronto.

Bran.—Per ton \$25 to \$26.

Shorts.—Per ton, \$27 to \$28.

Middlings.—Per ton, \$28 to \$29.

Good Feed Flour.—Per bag, \$2 to \$2.25.

Beans.—Beans are very scarce; prime whites selling at \$5, and hand-picked at \$5.50.

Country Produce.

Butter.—Butter again advanced on the wholesales during the past week. Creamery, fresh-made lb. squares, 35c. to 36c.; creamery, solids, 33c. to 34c. per lb.; separator dairy, 30c. to 33c. per lb. dairy, 26c. to 28c. per lb.

Eggs.—New-laid eggs also firmed on the wholesales during the past week; the case lots are now selling at 34c. per doz. and 36c. to 37c. in cartons.

Cheese.—Old, 24c. to 25c. per lb.; new, 20c. to 21c. per lb.

Poultry.—Was not shipped in so heavily during the past week. Live weight—Spring chickens, 20c. per lb.; spring ducks, 12c. per lb.; turkeys, young, 20c. Fowl, 4 lbs. and over, 15c. per lb.; fowl, under 4 lbs., 14c. per lb.; squabs, per dozen, \$3.50 to \$4 (dressed).

Hides and Skins.

Wool continued to come in freely with very little demand. Lamb skins

and pelts, 55c. to 70c.; sheep skins, city \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; city hides, flat, 20c.; country hides, cured, 18c.; country hides, part cured, 17c.; country hides, green, 16c.; calf skins, per lb., 30c.; kip skins, per lb., 24c.; horse hair, per lb., 43c.; horse hides, No. 1, \$5 to \$6; horse hides, No. 2, \$4.50 to \$5.50; tallow, No. 1, 7c. to 8c.; wool, washed, 42c. to 46c.; wool, rejections, 35c. to 38c.; wool, unwashed, 32c. to 35c.

Wholesale Fruits and Vegetables.

Tomatoes were the feature on the wholesale market during the past week, opening firm at 75c. to \$1 per 11 qts.—then coming in more freely, and in such bad condition as they were nearly all cooked with the intense heat that there was a sharp decline, going as low as 25c. to 50c. per 11 qts., then firming towards the end of the week, when smaller quantities were shipped and selling at 40c. to 75c. per 11 qts.

Potatoes advanced and closed quite firm at \$3.40 to \$3.50 per 2-bushel bag; \$2.35 per 90-lb. bag; and \$4.25 per 2½ bushels.

Corn came in freely and varied greatly in quality and price, selling at 10c. to 20c. per dozen.

Egg plants increased in quantity, and were generally of choice quality, declining towards the end of the week to 75c. to \$1 per 11 qt. basket.

Lawton berries gradually decreased in quality, closing slightly higher at 10c. to 15c. per box, according to quality.

Peaches improved in quality and were shipped in greater quantities, selling at 25c. to 60c. per 6 qt. basket, and 50c. to \$1 per 11 qts.

Plums came in more freely and were of good quality; the 6 qts. selling at 20c. to 35c. and the 11's at 65c. to 75c., with a few extra choice bringing as high as \$1 per 11 qts.

Apples have generally been of such poor quality they were difficult to dispose of, selling at 15c. to 40c. per 11 qts., with some choice ones bringing 60c. Blueberries were shipped in heavily

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 Capital Paid Up - - - 11,785,000
 Reserve Funds - - - 13,236,000
 Total Assets - - - 214,000,000

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and sold all the way from 60c. to \$1.25 per 11 qts., according to quality.

Muskmelons varied greatly in quality and price, the 11 qts. (green flesh) selling at 35c. to 75c.; salmon flesh at 60c. and 75c.; the 16 qts. green flesh at 85c. to \$1, and salmon flesh at \$1.25; the 27's green flesh at \$1 to \$1.25 and salmon at \$1.25 to \$1.50.

Oranges advanced, they now sell at \$5 to \$6 per case.

Pears—Some Bartletts were offered last week, as well as more inferior brand, the 6 qt. baskets selling at 25c. to 35c., and the 11's at 50c. to 75c.

Most of the peppers shipped in were small sized, the sweet ones selling at 75c. to 80c. per 11 qts., and the hot ones at 60c. to 70c. per 11 qts., while red ones brought 60c. to 85c. per 11 qts.

Carrots and beets were more plentiful, choice ones bringing 40c. to 50c. per 11 qts., while poor quality went as low as 25c.

Spanish onions came in again, selling at \$5 per large case; home-grown, dried onions selling at 40c. to 50c. per 11 qts., and the Californias at \$3.50 to \$3.75 per 100 lbs.

Pickling onions were offered, but were rather a slow sale at \$1.25 to \$1.75 per 11 qts.

Cabbage continued to be scarce—some Montreal's bringing \$1 per dozen.

Montreal.

Supplies of ordinary and common cattle on the local market have been liberal of late. Choice are as scarce as ever and prices are holding firm on the latter at 8½c. to 8¾c. per lb., and down to 8c. for good. There were very few offerings at the higher prices, however, the bulk ranging from 7¼c. to 7½c. per lb., this being fair to good steers. Canning cattle were in good demand and prices ranged from 4c. to 4½c. for cows and 4¼c. to 5c. for bulls. Warm weather exerted the usual influence on the demand for fresh meat. Butchers' cows sold from 5c. to 6½c. and bulls at ¼c. above these figures. Lambs were in good demand and Ontario stock sold at 10c. to 10½c. per lb., while Quebec sold at 9c. to 9½c. Sheep sold at 6¼c. to 7c. per lb. There was a very fair turnover of calves and the price of good to choice, grass-fed stock was 8c. to 9c. per lb., the common selling at 5c. to 7c. Demand for hogs continued and trade was fairly active, selects selling at 12¼c. to 12½c. per lb., and lower grades at 11c. to 12c. per lb., weighed off cars.

Horses.—The market for horses has been unusually dull of late, this being between seasons for the bulk of the demand. Prices held steady as follows: Heavy draft horses, weighing 1,500 to 1,700 lbs., \$200 to \$250 each; light draft, weighing 1,400 lbs. to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each; culls, \$50 to \$75 each. Fine saddle and carriage horses, \$200 to \$250 each.

Dressed Hogs.—Demand for dressed hogs has been rather quiet of late and, as a consequence, prices showed a disposition to decline. Last week, sales of abattoir, fresh-killed stock were reported at 17c. to 17½c. per lb.

Potatoes.—No particular change developed in this market. Offerings were slightly larger and the tendency of prices was lower, quotations being \$1.60 to \$1.75 per bag of 90 lbs. American

potatoes were still quoted around \$3.70 to \$3.75 per barrel. The crop in this province seems to be about an average.

Honey and Maple Syrup.—The market for honey showed increased firmness and white comb was held at 16c. per lb., extracted being 12c. per lb. Brown clover comb was 12c. to 13c. and extracted 10c. to 11c. Buckwheat honey was 9c. to 10c. Syrup was steady at 85c. to 90c. for 8-lb. tins; \$1 to \$1.10 for 10-lb. tins and \$1.25 to \$1.50 for 13-lb. tins. Pure maple syrup was 11c. per lb.

Eggs.—No change took place in the market for eggs. Exports to English ports are going on. New laid eggs were 35c. to 36c. per doz., No. 1 selected 33c. to 34c.; No. 1 candled 30c. to 31c. and No. 2 candled 26c. to 27c.

Butter.—The market for butter continues to strengthen and there is every prospect of high prices this winter. Finest creamery was quoted at 34c. to 35c. per lb., fine being about ½c. under these prices and undergrades 33c. to 33½c. Dairy butter ranged from 26c. to 28c., according to quality.

Cheese.—This market also continues to advance. At the option here, No. 1 white sold at 19 1/2-16c.; No. 2 white at 19½c., No. 3 white at 18¾c. and No. 2 colored at 19¼c. Westerns were quoted here at 19c. to 19½c. for colored and white at 18¾c. to 19c. Eastern colored were 18¾c. to 18¼c. and Eastern whites 18¾c. to 18¼c.

Grain.—No. 1 Canadian Western oats showed a distinct advance, being quoted at 60c. to 60½c. per bushel; No. 2, 59½c. to 60c.; No. 3, and extra No. 1 feed, 58½c. to 59c.; No. 1 feed, 58c. to 58½c.; No. 2 feed 57½c. to 58c., ex-store.

Flour.—The price of flour once more advanced, Manitoba's being 30c. higher and Ontario's 50c. per barrel higher. Quotations for Manitoba first patents were \$8.50; seconds, \$8; strong bakers' \$7.80 per barrel, in bags; Ontario patents \$7.50; 90 per cent. \$6.90 to \$7.20 per barrel, in wood, the latter being \$3.25 to \$3.40 per bag.

Mill Feed.—Prices of mill feed were up about \$1 per ton. Bran is \$25; shorts \$27; middlings \$29; pure grain mouille \$33 to \$34 and mixed \$31 to \$32 per ton, including bags.

Baled Hay.—Owing to increased offerings of new hay, old crop was easier at \$18 to \$18.50 for No. 1; \$16.50 to \$17 for No. 2 and \$15 to \$16 for No. 3.

Hides.—The market was unchanged, at 21c., 22c. and 23c. per lb. for Nos. 3, 2 and 1 beef hides; 31c. and 33c. for No's 2 and 1 calf skins, per lb.; lamb skins were \$1.20 each and horse hides \$1.50 for No. 3, \$2.50 for No. 2 and \$3.50 for extra No. 1. Tallow was 8c. per lb. for rendered and 2½c. per lb. for rough.

Buffalo.

Cattle.—Receipts were liberal again last week and prices were lowered in consequence. All of the leading markets showed liberal runs and trade was lower all round. Last Monday there were around sixty-five loads of Canadians among the offerings, quite a few loads being shipping steers. These shipping steers out of Canada recently, with some few exceptions, have lacked badly the complete finish, desired by eastern killers, offerings running in the main to a medium, fairish kind, soft in flesh and killing around 53 to 54 lbs. to the hundred, instead of 57 and 58 as is to be expected. The lack of good killing is by reason of the short feed. Two loads of choice Canadians sold the past week for \$9.85, going to Boston, but the general run of Canadian shipping steers on Monday ranged from \$9.00 to \$9.25, some inferior kinds ranging from \$8.25 to \$8.65. It would pay the Canadian shipper and feeder to see to it that the choice kinds are sent here at the present time, though, of course, all grades are wanted and prices here compare most favorably with other markets, as comparative sales show, but buyers are decidedly preferring the best killing kinds at this time. They are scarce and bringing good money. Prices on shipping steers the past week were a big quarter lower than the preceding week, and butchering cattle generally showed equally strong decline. A load of prime, handy weight steers and heifers—averaging around 1,050 lbs. sold at \$10.05 per cwt. Best handy steers generally ranged from \$8.75 to \$9, yearlings running from \$8.20 to \$9.25. Best heavy fat cows made up to \$7.75, with fancy Canadian heifers

from \$8.00 to \$8.75, the latter going in with steers at that price. Stockers and feeders sold strong, best here bringing \$7, but more would have been paid for better quality ones. Bulls brought steady prices and a strong demand was in evidence for milchers and springers. Receipts for the week totaled 5,100 head, as against 6,300 for the preceding week and 4,575 for the corresponding week last year. Quotations:

Shipping Steers.—Choice to prime natives, \$9.50 to \$10.50; fair to good, \$8.75 to \$9.25; plain, \$8.25 to \$8.60; very coarse and common, \$7.60 to \$8.00; best Canadian, \$8.50 to \$9.35; fair to good; \$8.00 to \$8.50; common and plain, \$7.50 to \$8.00.

Butchering Steers.—Choice heavy, \$8.50 to \$9.00; fair to good, \$8.00 to \$8.50; best handy, \$8.50 to \$9.00; fair to good, \$7.25 to \$8.25; light and common, \$6.75 to \$7.25; yearlings, prime, \$9.25 to \$10.05; fair to good; \$8.00 to \$8.75.

Cows and Heifers.—Best handy butcher heifers, \$7.50 to \$7.75; common to good, \$6.50 to \$7.25; best heavy fat cows, \$7.00 to \$7.50; good butchering cows, \$6.00 to \$6.50; medium to fair, \$5.25 to 5.75; cutters, \$4.50 to \$4.75; canners, \$3.25 to \$4.25.

Bulls.—Best heavy, \$6.75 to \$7.00; good butchering, \$6.25 to \$6.50.

Stockers and Feeders.—Best feeders, \$7.00 to \$7.25; common to good, \$6.25 to \$6.75; best stockers, \$6.75 to \$7.00; common to good, \$5.50 to \$6.25.

Milchers and Springers.—Good to best, in small lots, \$80.00 to \$110.00; in car loads, \$70.00 to \$75.00.

Hogs.—The highest hog market in over fifty years prevailed in the States last week, continued light receipts being the cause for the sharp advance. At Buffalo last week started with best grades selling generally at \$11.25, few made \$11.30, and one deck reached \$11.35. Tuesday best weight hogs sold up to \$11.40 and \$11.50, and Wednesday, which was the high day, two decks made \$11.60, with bulk selling at \$11.50 and \$11.55. Pigs and lights showed little change all week, ranging from \$10.00 to \$10.25; roughs sold as high as \$10.25, with not many above \$10.00, others ranging on down to \$9.75, and stags brought from \$8.00 to \$8.75. Last week the run totalled around 16,200 head, as compared with 19,805 head for the week previous and 26,600 head for the same week a year ago.

Sheep and Lambs.—On the opening day of last week top lambs sold mostly at \$11.25, with culls \$9.50 down, and the next three days the market ruled slow, with prices fifty to seventy-five cents lower. Friday there was a little reaction, best lambs selling at \$10.75 and \$10.85; few \$11.00, and culls \$9.00 down. Sheep were scarce, and they sold steady all week. Top for wethers was \$8.15; some handy ewes brought \$7.50, and the weighty ones moved at \$7.00 and \$7.25. Receipts last week were 7,800 head, as compared with 7,072 head for the week before and 7,600 head for the same week a year ago.

Calves.—Monday, Tuesday and Wednesday of last week top veals sold at \$13. Thursday, best lots sold at \$13.25 and \$13.50, and Friday the tippy lots brought from \$13.00 to \$13.50. Cull grades went from \$11.50 down, and the range on weighty fat calves was from \$8.00 to \$10.50. Friday's supply included around 250 head of Canadians, and they sold fully fifty to seventy-five cents under the same day of the previous week. Top Canadian veals could not be placed this week above \$12.75; the cull veals ranged from \$11.50 down; heavy fat ones from this section were hard to land above \$8.50, and some common, grassy Canadians sold as low as \$6.25. Receipts last week figured around 1,975 head, as compared with 1,073 head for the week previous and 1,700 head for the corresponding week a year ago.

Cheese Markets.

St. Hyacinthe, Que., 20c.; Belleville, 20c.; Vanleek Hill, white, 20c., colored, 20c 1-16c.; London bid, 19½c., no sales; Montreal, finest westerns, 19½c. to 20c.; finest easterns, 19¼c. to 19½c.; New York State, whole milk fresh flat specials, 17¾c. to 18c.; average fancy, 17¼c. to 17½c.

The prize list for the Ontario Provincial Winter Fair to be held at Guelph, December 1 to 8, 1916, is now ready for distribution and may be obtained upon request to R. W. Wade, Parliament Buildings, Toronto.

Chicago.

Cattle—Beeves, \$6.50 to \$10.85; stockers and feeders, \$4.75 to \$7.65; cows and heifers, \$3.20 to \$8.90; calves, \$8.50 to \$11.75.

Hogs.—Light, \$10.50 to \$11.15; mixed, \$10.15 to \$11.10; heavy, \$11 to \$11.10; rough, \$10 to \$10.25; bulk of sales, \$10.40 to \$11.

Sheep.—Lambs, native, \$6.50 to \$10.60.

Gossip.

Entries for the Central Canada Exhibition close on Monday next, Sept. 4th. The Management state distinctly that no entries will be received after that date, which has been made as late as reasonably possible agreeably with the preparation of the usual catalogue. J. K. Paisley, the Manager, to whom entries and all requests for information should be addressed, states that the prospects favor an especially excellent exhibition. As far as the special features are concerned the program is exceptionally attractive. Instead of a moving picture, such as was given last year, being presented in front of the grand stand, there will be a variety of features, military, naval and highly entertaining. There will be horse races every afternoon from Tuesday till Saturday, and for Monday, the opening day, leading attention is being paid to an Open Air Horse Parade on a scale similar to that held at Toronto on Dominion Day and in Boston, Mass., on Decoration Day. Every Britisher knows that these parades are made very imposing affairs in the leading cities of England and Scotland. A big show of draft horses, dairy and beef cattle, sheep, swine and poultry is expected.

The Western Fair.

The Grounds and Buildings' Committee of the Western Fair Association met quite recently at the Exhibition Grounds. There was a good attendance of the members. The work being done throughout the grounds was inspected and considered very satisfactory, in view of the fact that the workmen have been so badly handicapped from various causes. The buildings have nearly all been painted and several new foundations have been put in. The buildings are practically ready for anything the exhibitors may wish to do in the way of preparatory work. The Committee was particularly well pleased with the splendid condition of the cattle barns and the sheep and swine pens, all of which have been fumigated and disinfected and put in the best possible condition. The horse barns are being done the same way as quickly as possible and will be ready for the opening of the Exhibition. The Secretary reported that everything indicated a most successful Exhibition and if favored with good weather it would certainly be the best ever. All information regarding the Exhibition given at the general offices, London, Ont.

Coming Events.

Western Fair, London, Sept. 8 to 16.
 Central Canada Exhibition, Ottawa, Sept. 9 to 16.
 Eastern Exhibition, Sherbrooke, Que., Sept. 2 to 9.
 Halifax Exhibition, Halifax, N. S., Sept. 13 to 21.
 Charlottetown Exhibition, Charlottetown, P. E. I., Sept. 26 to 29.

A good story of ex-President Roosevelt's school days is recalled by an American contemporary, which says he was once requested to recite a poem beginning:

At midnight in his guarded tent
 The Turk lay dreaming of the hour
 When Greece, her knee in suppliance bent,
 Should tremble at his power.

He only got as far as the third line when he began to hesitate. Twice he repeated "Greece, her knee," and then stopped dead. The old professor beamed on him over his glasses, and then dryly remarked:

"Greece her knee once more, Theodore. Perhaps she'll go easier then."

to \$10.85;
5 to \$7.65;
8.90; calves,
to \$11.15;
heavy, \$11
\$10.25; bulk
50 to \$10.60.

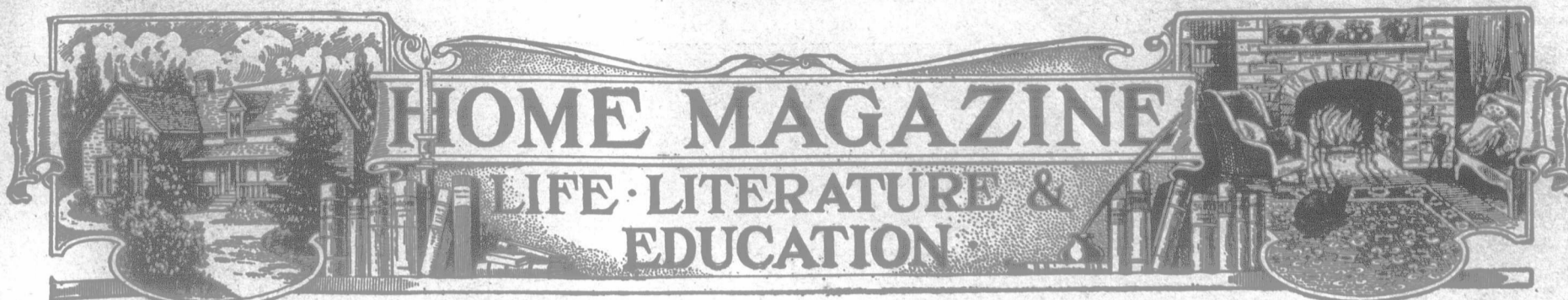
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The Verge of Fall.

There was to-day a something in the air
In the late afternoon—a touch—a
hint—
A very ghost of color everywhere
In the declining sun—a faintest tint
Of old rich wine, so quaint, so softly
bland.

I thought I heard a leaf fall, like a sigh;
Or, was it a light breeze that faintly
fanned
The trees, beneath the harebell-tinted
sky
Standing a-dream? It seemed not to
belong
To summer; yet, somehow, it vaguely
seemed

That summer had been dozing all day
long
And momentarily of mellow autumn
dreamed,
Quite suddenly my spirit seemed to know
A hint of imminent, shadowy autumn-
tide;
And, breathlessly, I thought: how Youth
doth go

So cunningly away and Nature hide
Her passing while she fooms it furtively,
A shadow-thing, a dream! How very
strange
Is our soul-blindness to the cruelty
Inscrutable of sempiternal Change?
Mayhap the last Great Change shakes
not the soul
With seismic dread, but is a pleasant
blurr,
And we may slip from Nature's sweet
control,
Like Youth, with downy step of
gossamer;
Even as Summer vades this wine-hued
day,
Which, dimly as an ancient missal,
shows
A rubric of incipient decay
Where yesterday did flaunt the regal
rose.
Belleville. JOSEPH NEVIN DOYLE.

Among the Books

Travels in Alaska.

(Continued.)

["Travels in Alaska," by John Muir,
Houghton, Mifflin Co., Boston and New
York. Illustrated. \$2.50.]

Many people go through this world
practically blind. They see in skies only
signs of fair weather or rain. To them
rocks are just rocks. Plants throng their
way, but they do not know one from
another. They are like Peter Bell, of
whom Wordsworth has said:

"A primrose by the river's brim,
A yellow primrose was to him,
And it was nothing more."

—Even more blind than Peter Bell, since
oftimes they do not even see the prim-
rose.

As those who read the first part of
this review in last week's issue will re-
member, John Muir was one of the seeing.
No tiniest plant growing on ledge of
a mountain escaped his notice, no fleeting
color of the sky. Absorbing their world,
he was at once on common footing with
the Indians. Dogs loved him, and wild
animals and birds were not afraid of
him. But it was the great moving ice-
fields of the high altitudes that most of
all claimed his attention.

If you keep on northward on a steamer
from Victoria, you will eventually come
to long, deep fiords, from which glistening
ice-fields run back towards snow-capped
mountains. From the seaward edges of
these ice-fields—glaciers—over precipitous
cliffs, striking down deep into the water,
great icebergs fall continually, with a

roar as of cannon, reverberating from
rocky wall to rocky wall, then float
about in masses varying from the size of
ordinary boulders to great ice hills over
200 feet in length and 100 feet high.

To the uninitiated the cause of this
ceaseless avalanche of bergs might be
as mystifying as to the Cassiar crew
who questioned Mr. Muir, and his
answers are enlightening:

"Is that a glacier? And is at all solid
ice?"

"Yes."

"How deep is it?"

"Perhaps five hundred or a thousand
feet."

"You say it flows. How can hard ice
flow?"

"It flows like water, though invisibly
slow."

"And where does it come from?"

"From snow that is heaped up every
winter on the mountains."

"And how, then, is the snow changed
into ice?"

"It is welded by the pressure of its
own weight."

"Are those white masses we see in the
hollows glaciers also?"

"Yes."

"Are those bluish draggled masses
hanging down from beneath the snow-
fields what you call the snouts of the
glaciers?"

"Yes."

"What made the hollows they're in?"

"The glaciers themselves, just as
travelling animals make their own tracks."

"How long have they been there?"

displays in the northern sky and listening
to the rippling of water in the ice runnels
and the howling of wolves in the distance.

Here are a few of his descriptions:

"The whole front of the glacier is
gashed and sculptured into a maze of
shallow caves and crevasses, and a
bewildering variety of novel architectural
forms, clusters of glittering lance-tipped
spires, gables and obelisks, bold out-
standing bastions and plain mural cliffs,
adorned along the top with fretted
cornice and battlement, while every
gorge and crevasse, groove and hollow,
was filled with light, shimmering and
throbbing in pale-blue tones of ineffable
tenderness and beauty. The day was
warm, and back on the broad melting
bosom of the glacier beyond the crevassed
front, many streams were rejoicing,
gurgling, riging, singing, in frictionless
channels worn down through the white
disintegrated ice of the surface into the
quick and living blue, in which they
flowed with a grace of motion and flashing
of light to be found only on the crystal
hillocks and ravines of a glacier."

Of the "Dirt Glacier" he says:

"I greatly enjoyed my walk up this
majestic ice-river, charmed by the pale-
blue, ineffably fine light in the crevasses,
moulines, and wells, and the innumerable
azure pools in basins of azure ice, and
the network of surface streams, large and
small, gliding, swilling, with wonderful
grace of motion in their frictionless
channels, calling forth devout admiration
at almost every step and filling the mind
with a sense of Nature's endless beauty

and as far as the eye can reach, tributary
glaciers at short intervals silently de-
scending from their high, white fountains
to swell the grand central ice-river."

As may be conjectured, Mr. Muir's
glacier trips were seldom free of danger.
He tells of many adventures, perhaps
none more interesting than his trip with
"Little Stickeen."

"I set off early the morning of August
30 before anyone else in camp had
stirred, not waiting for breakfast, but
only eating a piece of bread. I had in-
tended getting a cup of coffee, but a
wild storm was blowing and calling, and
I could not wait. Running out against
the rain-laden gale and turning to catch
my breath, I saw that the minister's
little dog had left his bed in the tent
and was coming boring through the
storm, evidently determined to follow
me. I told him to go back, that such a
day as this had nothing for him.

"Go back," I shouted, "and get your
breakfast!" But he simply stood, and
when I began to urge my way again,
looking around, I saw he was still following
me. So I at last told him to come on,
and gave him a piece of the bread I had
in my pocket.

"Instead of falling, the rain, mixed
with misty shreds of clouds, was flying
in level sheets, and the wind was roaring
as if I had never heard wind roar before.
Over the icy levels and over the woods,
on the mountains, over the jagged rocks
and spires and chasms of the glacier it
boomed and moaned and roared, filling
the fiord in even, gray, structureless
gloom, inspiring and awful.

"Pushing up through the ragged edge
of the woods on the left margin of the
glacier, the storm seemed to increase in
violence, so that it was difficult to draw
breath in facing it; therefore I took
shelter back of a tree to enjoy it and
wait, hoping that it would at last some-
what abate. Here the glacier, descending
over an abrupt rock, falls forward in
grand cascades, while a stream swollen
by the rain was now a torrent—wind,
rain, ice-torrent, and water-torrent in one
grand symphony.

"At length the storm seemed to abate
somewhat, and I took off my heavy
rubber boots, with which I had waded
the glacial streams on the flat, and laid
them with my overcoat on a log, where
I might find them on my way back,
knowing that I would be drenched
anyhow, and firmly tied my mountain
shoes, tightened my belt, shouldered my
ice-axe, and thus free and ready for
rough work, pushed on, regardless as
possible of mere rain. Making my way
up a steep granite slope, its projecting
polished bosses encumbered here and
there by boulders and the ground and
bruised ruins of the ragged edge of the
forest that had been uprooted by the
glacier during its recent advance, I
traced the side of the glacier for two or
three miles, finding everywhere evidence
of its having encroached on the woods,
which here run back along its edge for
fifteen or twenty miles. Under the
projecting edge of this vast ice-river I
could see down beneath it to a depth of
fifty feet or so in some places, where
logs and branches were being crushed to
a pulp, some of it almost fine enough for
paper, though most of it stringy and
coarse.

"After thus tracing the margin of the
glacier for three or four miles, I chopped
steps and climbed to the top, and as far
as the eye could reach, the nearly level
glacier stretched indefinitely away in the
gray, cloudy sky, a prairie of ice. The
wind was now almost moderate, though
rain continued to fall, which I did not
mind, but a tendency to mist in the
drooping, draggled clouds made me
hesitate about attempting to cross to the
opposite shore. Although the distance
was only six or seven miles, no traces at
this time could be seen of the mountains
on the other side, and in case the sky



British Submarine in Pursuit of a Suspected Blockade Runner.
International Film Service.

"Numberless centuries," etc., "I an-
swered as best I could, keeping up a
running commentary on the subject in
general, while busily engaged in sketching
and noting my observations, preaching
glacial gospel in a rambling way, while
the Cassiar, slowly wheezing and creeping
along the shore, shifted our position, so
that the icy canyons were opened to
view and closed again in regular succes-
sion, like the leaves of a book."

Over these great ice-fields Mr. Muir
chose to rove, studying them, sketching,
jumping across endless crevasses, spending
whole nights on the ice, wrapped up in
a sleeping-bag, watching the eerie auroral

and power. Looking ahead from the
middle of the glacier, you see the broad,
white flood, though apparently rigid as
iron, sweeping in graceful curves between
its high mountain-like walls, small
glaciers hanging in the hollows on either
side, and snow in every form above them,
and the great down-plunging granite
buttresses and headlands of the walls
marvelous in bold, massive sculpture;
forests in side canyons to within fifty
feet of the glacier; avalanche pathways
overgrown with alder and willow; in-
numerable cascades keeping up a solemn
harmony of water sounds blending with
those of the glacier moulines and rills;



Bringing in the Trench Mortar Ammunition.

Scene on the British western front. International Film Service.

should grow darker, as it seemed inclined to do, I feared that when I got out of sight of land, and perhaps into a maze of crevasses, I might find difficulty in winning a way back.

"Lingering a while, and sauntering about in sight of the shore, I found this eastern side of the glacier remarkably free from large crevasses. Nearly all I met were so narrow I could step across them almost anywhere, while the few wide ones were easily avoided by going up or down along their sides to where they narrowed. The dismal cloud ceiling showed rifts here and there, and, thus encouraged, I struck out for the west shore, cautiously taking compass bearings at short intervals to enable me to find my way back should the weather darken again with mist or rain or snow.

All went well. I came to a deeply furrowed section about two miles in width, where I had to zigzag in long, tedious tacks and make narrow doublings, tracing the edges of wide longitudinal furrows and chasms until I could find a bridge connecting their sides, oftentimes making the direct distance ten times over. The walking was good of its kind, however, and by dint of patient doubling and axework on dangerous places, I gained the opposite shore in about three hours, the width of the glacier at this point being about seven miles. Occasionally, while making my way, the clouds lifted a little, revealing a few bald, rough mountains sunk to the throat in the broad, icy sea which encompassed them on all sides, sweeping on forever and forever as we count time, wearing them away, giving them the shape they are destined to take when in the fulness of time they shall be parts of new landscapes.

"Ere I lost sight of the east-side mountains, those on the west came in sight, so that holding my course was easy, and, though making haste, I halted for a moment to gaze down into the beautiful pure blue crevasses and to drink at the lovely blue wells, the most beautiful of all Nature's water-basins, or at the rills and streams outspread over the ice-land prairie, never ceasing to admire their lovely color and music as they glided and swirled in their blue crystal channels and potholes, and the rumbling of the moulins, or mills, where streams poured into blue-walled pits of unknown depth, some of them as regularly circular as if bored with augers."

Mr. Muir proceeds here to tell about following an arm of the glacier along to a point at which it discharged into a lake, retracing his steps to the main glacier as hurriedly as might be, as it was necessary to reach camp, fifteen miles away, before dark. The narrative goes on:

"All was so silent and so concentrated,

owing to the low dragging mist, the beauty close about me was all the more keenly felt, though tinged with a dim sense of danger, as if coming events were casting shadows. I was soon out of sight of land, and the evening dusk that on cloudy days precedes the real night gloom came stealing on and only ice was in sight, and the only sounds, save the low rumbling of the mills and the rattle of falling stones at long intervals, were the low, terribly earnest moaning of the wind or distant waterfalls coming through the thickening gloom. After two hours of hard work I came to a maze of crevasses of appalling depth and width which could not be passed apparently either up or down. I traced them with firm nerve, developed by the danger, making wide jumps, poising continuously on dizzy edges after cutting footholds, taking wide crevasses at a grand leap at once frightful and inspiring. Many a mile was

thus traveled, mostly up and down the glacier, making but little real headway, running much of the time, as the danger of having to pass the night on the ice became more and more imminent. This I could do, though with the weather and my rain-soaked condition it would be trying at best.

In treading the mazes of this crevassed section, I had frequently to cross bridges that were only knife-edges for twenty or thirty feet, cutting off the sharp tops and leaving them flat, so that little Stickeen could follow me. There I had to straddle, cutting off the top as I progressed and hitching gradually ahead like a boy riding a rail fence. All this time the little dog followed me bravely, never hesitating on the brink of any crevasse that I had jumped, but now that it was becoming dark and the crevasses became more troublesome, he followed close at my heels instead of

scampering far and wide where the ice was at all smooth, as he had in the forenoon. No land was now in sight. The mist fell lower and darker and snow began to fly. I could not see far enough up and down the glacier to judge how best to work out of the bewildering labyrinth, and how hard I tried while there was yet hope of reaching camp that night! a hope which was fast growing dim like the sky. After dark, on such ground, to keep from freezing, I could only jump up and down until morning on a piece of flat ice between the crevasses, dance to the boding music of the winds and waters, and as I was already tired and hungry, I would be in bad condition for such ice-work. Many times I was put to my mettle, but with a firm-braced nerve, all the more unflinching as the dangers thickened, I worked out of that terrible ice-web, and with blood fairly up Stickeen and I ran over common danger without fatigue.

Our hardest trial was in getting across the very last of the sliver bridges. After examining the first of the two widest crevasses, I followed its edge half a mile or so up and down and discovered that its narrowest spot was about eight feet wide, which was the limit of what I was able to jump. Moreover, the side I was on—that is, the west side—was about a foot higher than the other, and I feared that in case I should be stopped by a still wider impassable crevasse ahead that I would hardly be able to take back that jump from its lower side. The ice beyond, however, as far as I could see it, looked temptingly smooth. Therefore, after carefully making a socket for my foot on the rounded brink, I jumped, but found that I had nothing to spare, and more than ever dreaded having to retrace my way. Little Stickeen jumped this, however, without apparently taking a second look at it, and we ran ahead joyfully over smooth, level ice, hoping we were now leaving all danger behind us. But hardly had we gone a hundred or two yards when to our dismay we found ourselves on the very widest of all the longitudinal crevasses we had yet encountered. It was about forty feet wide. I ran up the side of it northward, hoping that I could get around its head, but my worst fears were realized when at a distance of about a mile or less it ran into the crevasse that I had jumped. I then ran down the edge and found that its lower end also united with the crevasse, showing dismally that we were on an island two or three hundred yards wide and about two miles long, and the only way of escape was by turning back and jumping again that crevasse which I dreaded, or venturing ahead across the



An August Afternoon.

Photo by Boyd.

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Ontario Boy Scouts.

Washing the dinner dishes at Camp Jellicoe, one of the four Boy Scout Camps at Clarkson's, where some 400 Scouts picked berries for the farmers. Photo by Boyd.

giant crevasse by the very worst of the sliver bridges I had ever seen. It was so badly weathered and melted down that it formed a knife-edge, and extended across from side to side in a low, drooping curve like that made by a loose rope attached at each end at the same height. But the worst difficulty was that the ends of the down-curving sliver were attached to the sides at a depth of about eight or ten feet below the surface of the glacier. Getting down to the end of the bridge, and then after crossing it, getting up on the other side, seemed hardly possible. However, I decided to dare the dangers of the fearful sliver rather than to attempt to retrace my steps. Accordingly I dug a low groove in the rounded edge for my knees to rest in, and, leaning over, began to cut a narrow foothold on the steep, smooth side. When I was doing this, Stickeen came up behind me, pushed his head over my shoulder, looked into the crevasses and along the narrow knife-edge; then turned and looked in my face, muttering and whining as if trying to say: "Surely you are not going down there?" I said: "Yes, Stickeen, this is the only way." He then began to cry and ran wildly along the rim of the crevasse, searching for a better way; then, returning baffled, of course, he came behind me and lay down and cried louder and louder.

"After getting down one step I cautiously stooped and cut another and another in succession, until I reached the point where the sliver was attached to the wall. There, cautiously balancing, I chipped down the upcurved end of the bridge until I had formed a small level platform about a foot wide; then, bending forward, got astride of the end of the sliver, steadied myself with my knees, then cut off the top of the sliver, hitching myself forward, leaving it about four inches wide for Stickeen. Arrived at the farther end of the sliver, I chipped another little platform, cautiously rose to my feet, and with infinite pains cut narrow notch steps and finger-holes in the wall, and finally got safely across.

All this dreadful time poor little Stickeen was crying as if his heart was broken, and when I called to him in as reassuring a voice as I could muster, he only cried the louder, as if trying to say that he never, never could get down there—the only time that the brave little fellow appeared to know what danger was. After going away, as if I was leaving him, he still cried and howled without venturing to try to follow me. Returning to the edge of the crevasse, I told him that I must go; that he could

come if he only tried, and finally in despair, he hushed his cries, slid his little feet slowly down into my footsteps out on the big sliver, walked slowly and cautiously along the sliver, as if holding his breath, while the snow was falling and the wind was moaning and threatening to blow him off. When he arrived at the foot of the slope below me, I was kneeling on the brink ready to assist him in case he should be unable to reach the top. He looked up along the row of notched steps I had made, as if fixing them in his mind, then with a nervous spring he whizzed up and passed me out on to the level ice, and ran cried and barked and rolled about fairly hysterical in the sudden revulsion from the depth of despair to triumphant joy. I tried to

catch him and pet him and tell him how good and brave he was, but he would not be caught. He ran round and round, swirling like autumn leaves in an eddy, lay down and rolled head over heels. I told him we had still far to go and that we must now stop all nonsense and get off the ice before dark. I knew by the ice-lines that every step was now taking me nearer the shore and soon it came in sight. The headland four or five miles back from the front, covered with spruce trees, loomed faintly but surely through the mist and light fall of snow not more than two miles away. The ice now proved good all the way across, and we reached the lateral moraine just at dusk, then with trembling limbs, now that the danger was over, we stag-

gered and stumbled down the bouldery edge of the glacier. Warily we stumbled down through the woods, over logs and brush and roots, devil's-clubs pricking us at every faint blundering tumble. At last we got out on the smooth, mud slope with only a mile of slow but sure dragging of weary limbs to camp. The Indians had been firing guns to guide me and had a fine supper and fire ready, though fearing they would be compelled to seek us in the morning, a care not often applied to me. Stickeen and I were too tired to eat much, and, strange to say, too tired to sleep. Both of us, springing up in the night again and again, fancied we were still on that dreadful ice bridge in the shadow of death.

Nevertheless, we arose next morning in newness of life. Never before had rocks and ice and trees seemed so beautiful and wonderful, even the cold, biting rain-storm that was blowing seemed full of loving-kindness, wonderful compensation for all that we had endured, and we sailed down the bay through the gray, driving rain, rejoicing.

Smiles.

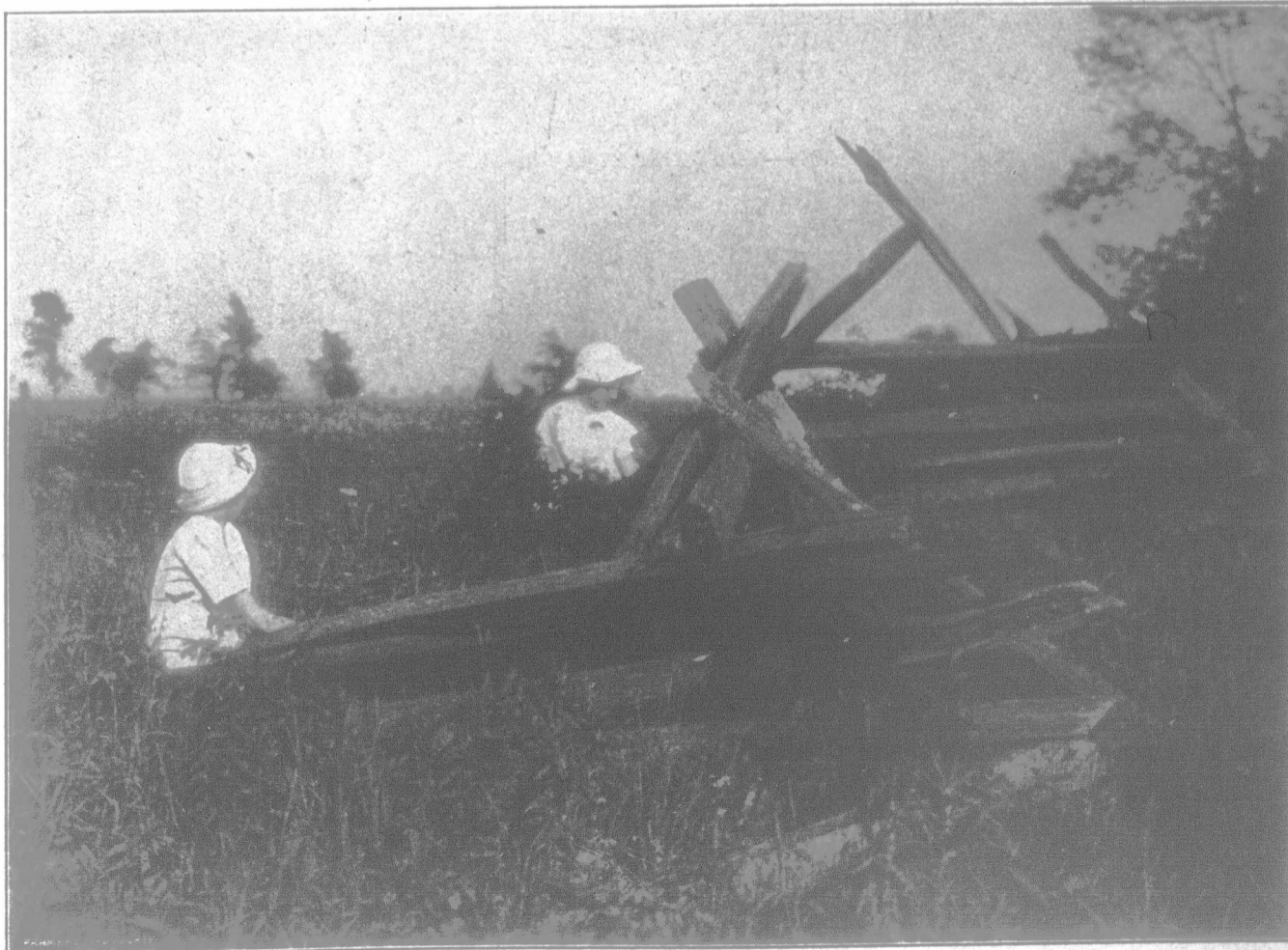
Incredibly Bad.—Sufferer—"Gosh, this insomnia's gettin' worse. Can't even sleep when it's time to get up."—Judge.

Jerry—"I have traced my ancestry back to an Irish king."

Pat—"Sure, that's aisy. What chance has a dead man to defend himself?"—Liverpool Mercury.

On the cradle roll of a British Methodist chapel is the name of "Raymond George Kitchener Jellicoe," and another boasts of "Dardanella Jane" and "Dorothy Shrapnel." Poor babies! What have they done to deserve such a fate?

For several weeks a wounded soldier had had no solid food—nothing but milk. At length the doctor told him that the next day he could have a light meal, and the soldier, greatly rejoicing, conjured up visions of underdone beefsteak, potatoes, cheese, etc. What he was given for his first meal, however, was about a tablespoonful of tapioca. He swallowed it, growling and grumbling. "That's all the dinner you can have," the nurse said, "and the doctor orders that everything else must be in the same proportion." The patient pushed away the plate. "Well, I'll do some reading now," he said. "Bring me a postage stamp!"



Picking Berries Along the Fence.

Photo by Boyd.

Fashions Dept.

How to Order Patterns.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price fifteen cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, thirty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

When ordering, please use this form:—
Send the following pattern to:

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Fall Fashions.

Wars may come and wars may go, yet Dame Fashion, it appears, sits on her throne forever. Perhaps the reason for her sway is given unconsciously by Maud C. Braby, when she says, in To-Day:

"Have you noticed how certain articles of clothing or jewellery give the wearer a distinct sensation? A silk petticoat has an effect of soothing luxury all its own. White stockings and shoes, especially at the beginning of the summer, are wonderfully rejuvenating. A becoming hat worn at a daring angle can make one feel capable of giving points to Circe. In my jade-green necklace I firmly believe in the invincibility of my star, whilst a red flower in the exactly right spot gives me infinite confidence in my destiny. Clothes can make one feel subtle, mysterious, irresistible and altogether no better than one should be. Clothes—not the same ones!—can also make their wearer feel virtuous, self-sacrificing and an example to all. Similarly they can make her old, unloved, desolated, done for, a wreck, a thing of scorn. They can cause us to marvel why all men don't go mad for love of us, and can also excite a wonder why people don't flee in horror from such as we! The power, the surprising psychological effect of clothes, is a subject well worth studying, of which we know far too little."

Coming down to the fashions for this fall, a scanning of the new fashion books shows two distinct types in dresses (1) the stylish, convenient and very modern "coat dress," (2) a still further leaning toward the quaint styles of the early Victorian age,—very full skirts, comparatively attenuated waists, much trimming everywhere, hats small or very large and drooping. A new development in sleeves is a tendency to flare at the wrists.

Long coats are very full in the skirt indeed, and sometimes the sleeves are full also, while nearly all have large collars that may be drawn up close about the throat in stormy weather.

The favorite materials for suits promise to be tweed, French serge, broadcloth and gabardine, with poplin, faille or lined taffeta for the early fall suit that is also so useful in spring.

In dress materials the usual light-weight fabrics are in evidence, with blouses and under-blouses of Georgette crepe or fine voile still to the fore—a foolish enough fashion for cold weather. The ever-useful separate skirt may be made of fine tweed or of Tartan plaid in dark colors, plaids promising to supplant the stripes which have been so much in vogue during the summer.

Favorite colors for the fall are midnight blue, gray, and beige. With all fall suits, at least until cold weather sets in, black pumps and silk hose the color of the suit or dress will be worn.



8786—Girl's Dress, 6 to 12 years.



8623—Loose Coat, 34 to 42 bust.



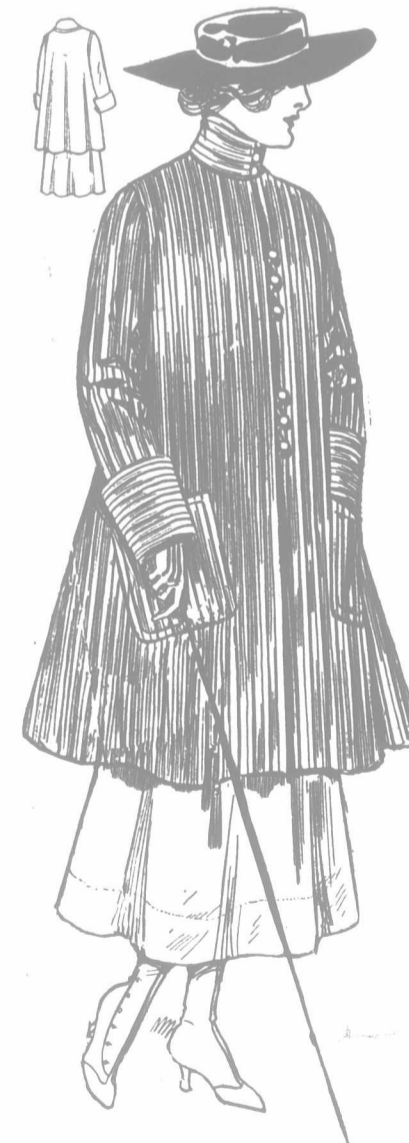
8693—Gown with Pleated Skirt, 34 to 42 Bust.



8644—Eton Jacket, 34 to 42 bust.



8556—Semi-circular Skirt, 24 to 32 Waist.



8781—Coat, 34 to 42 bust.



8935

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SEE THIS CAR at the TORONTO EXHIBITION

Hope's Quiet Hour.

Prisoners of War.

If ye turn again unto the LORD, your brethren and your children shall find compassion before them that lead them captive, so that they shall come again into this land: for the LORD your God is gracious and merciful, and will not turn away His face from you, if ye return unto Him.—II. Chron. 30: 9.

We hear much of "reprisals" in these days. Men seem filled with a feverish fear that the only way to overcome evil is to become more cruel than our foes. It is the "frightfulness" plan, which we

hate when carried out so terribly by Germany, yet seem to think it is the right course for ourselves. We cry out in horror when bombs or torpedoes kill our women and children, and then declare that we should descend to the same murderous crimes and should drop bombs on the little children of our enemies. Two wrongs never yet made a right, and wickedness has never yet helped any one.

Long ago, when Israel had suffered much from the cruelties of the Syrians, there came a chance for reprisals. A great host of Syrians (soldiers, not civilians) were at the mercy of the Israelites, in the midst of their capital city. The King of Israel said excitedly to the Prophet Elisha: "My father,—shall I smite them? Shall I smite them?"

"Thou shalt not smite them," was the horrified reply of God's servant. "Would-

est thou smite those whom thou hast taken captive with thy sword and with thy bow? Set bread and water before them, that they may eat and drink." So he prepared great provision for them.

That was long ago, before our Lord had given His great command: "Love your enemies; bless them that curse you; do good to them that hate you, and pray for them which despitefully use you and persecute you."

We, as Christians, are forbidden to adopt the policy of "frightfulness," and as reasonable people we shall—I earnestly hope—avoid a policy which would only bring disaster and lasting shame upon our nation. It was reasoned that the policy of frightfulness in Belgium would terrify the world into submission, and that the sinking of the Lusitania would stop ocean travelling. Instead, every outrage on our common humanity has

instantly roused multitudes to fight for the downtrodden and oppressed. Cruelty is not only a crime; it is a blunder. A civilized nation is careful to execute the most hardened criminal as painlessly as possible. Savages may torture before executing, but we are not savages. For the public safety it may be necessary to put down wickedness with a strong hand, but to torture one who is helpless in our hands! God grant that we may never be guilty of such a low and disgraceful crime!

Yesterday I read that there were in the world now about five million prisoners of war—and thousands more are added to that tremendous total almost every day. Shall we ill-treat those who are helplessly at our mercy, in order to frighten our enemies into treating our friends decently? People are not so easily frightened. One act of needless cruelty



Skirt, 34 to 42



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INVITATION

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When you examine the construction of the Steel Truss Barn you will understand why it is lightning-proof and fire-proof, and arranged so that you can handle your crop more economically.

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A Steel Truss Barn is no more expensive than a wooden frame barn with metal roof and sides, and has many more conveniences. From experience in building, our experts, who will be in attendance, can give you information about the planning of your barn which will be very valuable to you.

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COLLEGE RE-OPENS SEPTEMBER 12th, 1916

FOR CALENDAR WRITE REV. F. L. FAREWELL, B. A. PRINCIPAL

When writing advertisers will you kindly mention The Farmer's Advocate.

here will probably bear fruit in many acts of needless cruelty there. So we shall injure our friends by every transgression of the laws of nations, the laws of humanity and the laws of God.

God is the KING over all the kings of the earth. He has said: "Is My Hand shortened at all, that it cannot redeem? or have I no power to deliver? . . . the redeemed of the LORD shall return . . . the LORD hath made bare His holy arm in the eyes of all the nations."

We shall gain nothing but trouble and shame if we fight against God—the God of love and righteousness. Read our text carefully—those of you who have dear friends and relatives in the hands of the enemy. You want to secure for them the kindness of their captors, then put your case in God's hands and obey His orders. He can help you and care for them.

Our Leader—who prayed for those who were torturing Him—has reminded us that anyone can do good to those who treat them kindly, "for sinners also love those that love them." If we claim the great name of "Christian," we must prove our right to that title by obeying the command, "Love your enemies; do good to them that hate you . . . and pray for them which despitefully use you." That is so hard to do! Yes, the soldiers of the cross are not called to an easy campaign.

"But I can't possibly do it!" you may say. Dare we look up in the face of our Father—the Father also of those other men, who are now our foes—and say: "I have honestly tried to do this hard thing and have failed?" If so, we can try again—and again—until we "achieve the impossible," as many have done before us.

Our old friend "Mollie"—who writes to me though she is very silent to you—has sent me a book called "In the Hands of the Enemy." It was written by a British Army chaplain who was a prisoner of war for about a year.

When he reached the German border—about a month after the war started—he was in a train with a number of other captives. A German soldier held up a knife, and declared that this was the deadly instrument which the British surgeons used to gouge out the eyes of wounded German captives. He pointed to the British surgeons who were prisoners of war, as much as to say, "And these are some of the culprits."

Was it any wonder that the furious German crowd wanted to tear those kindly British medical officers limb from limb? They believed the horrible accusation, you see, and the prisoners had no way of proving that it was a lie.

I know that some—perhaps many—of the horrible stories we hear have been proved to be true, but many of them are probably as baseless as that described above. One step towards loving our enemy is to treat him with justice, and not to be perfectly certain he is black all the way through.

One of the prisoners of war was taken to a German hospital for treatment. The chaplain asked permission to visit him, and it was readily granted. He found that his escort to the hospital consisted of Herr Kost (the friendly censor and interpreter) and a soldier. "Are you going to run away?" asked Herr Kost. The chaplain smiled his denial, and so the soldier was left behind. The wounded Britisher in the hospital "had nothing but words of gratitude about the doctors and nurses," and the chaplain says: "My journey of half an hour to the hospital, my reception there, and my return to the prison, were unmarred by any unpleasant incident whatever."

After all the tales of unjust and cruel treatment of prisoners, which have flown like lightning from mouth to mouth, let us be thankful to remember that many prisoners of war have been treated with kindness and courtesy. Shall we imitate the deeds of brutality?—which are common enough, God knows—or shall we rejoice when the law of kindness makes even the lot of a prisoner bearable?

Here is another story from these notes of an army chaplain:

"In the railway carriage was an under-officer (German) returning to the Western front after a fortnight's leave. Beside him was his young wife, not more than twenty years of age, whose eyes were red at the thought of parting with her loved one, and who fondled his hand most of the journey. As he could speak English, we chatted in a friendly manner, and, by way of expressing sympathy, I

showed them the photo of my own wife and children."

Those who are "in the hands of the enemy" are shown to us as enduring hardships uncomplainingly, and cheerfully doing their best to relieve the situation. We see them playing games—football, leap-frog, tennis, etc.—or knitting socks and scarves, and patching or darning their clothes. A celebrated surgeon gave lectures to the other imprisoned medical officers, artists and caricaturists made fun of their troubles and cheered the despondent with their pictures. Picture-puzzles were a boon to some, and books were read and passed along. "Italian, Russian, French, Spanish, German and Hindustani Grammars and Conversational Manuals were always in evidence. . . . Shorthand in Pitman's and Sir Edward Clarke's methods each had its respective advocates and diligent students. . . . On the whole, the wonderful thing was that, although as a rule one day was exactly the same as another, the time did not hang upon our hands; it flew by at a rate with which those who considered themselves busy found it hard to keep pace."

Rooms were fitted up with reverent care for Divine Service, and hearts were lifted to God in prayers and hymns. Many, who cared little about religion before, discovered that their favorite hymn was the one, "For Absent Friends." Those who were in the hands of the enemy forgot their own trials and privations, as they reached out in spirit and clasped hands with those at home. They, like ourselves, are pleading still:

"Holy Father, in Thy mercy,
Hear our earnest prayer;
Keep our loved ones, now far absent,
Neath Thy care.

When in sorrow, when in danger,
When in loneliness,
In Thy love look down and comfort
Their distress."

DORA FARNCOMB.

Gifts from Readers.

I have again received two donations of five dollars each, from ADVOCATE readers, to be passed on to those in need. One of these kindly givers is a soldier's wife. While her husband is "somewhere in France" she—with the help of two small boys—has cut and harvested 35 or 40 acres of hay." She evidently approves of St. Paul's counsel to the people in Ephesus: "Working with his hands the thing which is good, that he may have to give to him that needeth."

The ten dollars went into the ADVOCATE purse, and part of it has already provided eggs and other nourishing food for several sick people.

Thanks to you both! HOPE.

The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.]

We were looking out of the window at a big maple tree.

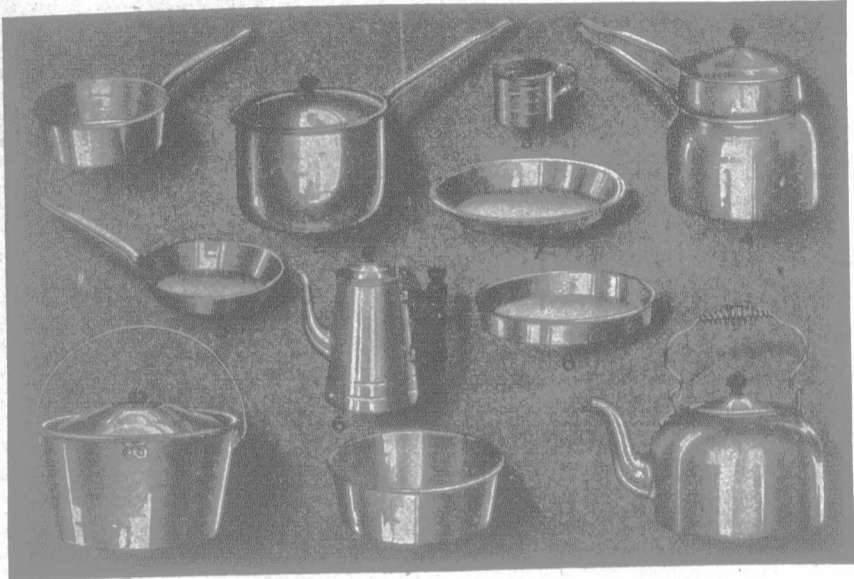
"What a myriad of leaves it requires," said my friend, "to afford breathing to a tree! How many thousands upon thousands, and all practically alike!"

Yes, millions upon millions in a maple woods, and all practically alike,—a slight difference, perhaps, in size or in contour, that is all. It is as though in the maple a type has come to perfection. One cannot conceive of the maple growing into anything different, nor has one ever heard the theory advanced by any scientist that it ever shall do so, notwithstanding the fact that scientific research has shown that plants, during the long procession of the ages, have evolved wonderfully. The coal strata, for instance, show that at one time the forests of the earth were composed of tree-ferns,—huge things, it is true, just as the great mammoths that made way through them with thundering tread were huge—yet so much more simple of construction than the highly organized, much more evolved tree-growths of to-day.

But when the thought turns to

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human beings—ah! there no scientist hesitates. Caves and burrowings in the earth have shown rude stone implements and curious skeletons that prove the existence of one-time cave-men, veritable Calibans of the early ages; records for the past one hundred years, even, show a vast going-forward, so far as the masses are concerned, in mental ability and in ideals; there is no standing still in the human race, and it must ever go forward with ever accelerating speed. Mind, it appears, cannot obtain a "type." True, there is need enough today for improvement, taking humanity in the lump,—but the marching-on is in progress, and one day humanity is bound to be a bigger, finer, more reasonable, more just, more sympathetic, more wonderful thing than it is to-day. I like to think of that;—don't you?

The other day I came upon a quotation from Ruskin—"There is in the world infinitely more joy than pain to be shared, if you will take your share when it is offered." Of course, just now, one thinks of the war—the horrible, wicked war, and yet, even taking wars into consideration, in the cycle of the centuries, one must acknowledge that Ruskin was right, as he so almost invariably was, in his philosophies. War causes an awful agony, and yet, considering all the joys in the Universe, to all the people, even it sinks into comparative insignificance.

The trouble is that we are so likely to go stewing along, keeping our eyes down and forgetting to recognize our real joys or to claim the share of them that we might.

Think of our causes for joy in the country: Pure, fragrant, life-giving fresh air.—What if we were compelled to breathe noxious vapors? Sunshine, opalescent sunrises and sunsets all flaming with color.—What if we had nothing but a cold, hard uninteresting light by day, and a starless and moonless night? Green grass, trees and shrubs, and flowers starring the earth with sweetness and variety.—It is possible that we might exist without these, as many unfortunates in large cities are compelled to do.

Then loved ones, friends, books, mental brightness, even the day's work, if carried out as it should be, all the "lights that never shone on sea or land," aspiration, hope, clean and wholesome successes,—just try to make out a complete list of your joys and see if you can remember them all.

It is quite true, too, that we might have more joys than we have, if we would just reach out and "take our share when it is offered," or when it stands ready for the claiming. We may let our passion for making money so take possession of us that we have no time for anything else,—but whose fault is that? We may let our "work" become so inelastic that we are practically enslaved to it,—but, again, whose fault is that? And so it goes.

Really, don't you think we need to "use our heads" more in many things? It is so easy to get into a rut,—but we must not get into ruts, they're fatal. It is so easy to take things for granted,—but we must not take things for granted, just because other people say this or that, or do this or that in a certain way. We must reach our own conclusions and mould our lives to suit our circumstances. Otherwise we are not living our own lives at all, but someone else's, we are like "dumb driven cattle," and there is little likelihood of our securing much satisfaction for ourselves—"let alone" becoming "heroes in the strife." In the old fable of "the old man and his ass, the old man who tried to please everybody pleased nobody and lost his ass into the bargain. As Will Levington Comfort says, it is a great thing to learn to stand alone.

Even in very little things this plodding along in the stupid, dead level way shows itself. The other day my "faultless friend," of whom I have told you before, and I were sitting on a veranda talking with a woman whose work seems to have taken possession of her, body and soul. She owns a big house—too big by half. She is a "speckless" housekeeper,—but she never stops rubbing and scrubbing. She always looks tired. She wears an unhappy expression. Her face seldom lights up with a new idea because she

has no time to read things that stimulate new ideas, or to mingle with people who might keep them moving. Yet she is a very fine, unselfish, big-hearted woman, too.

She had been ironing, that day. "I hate it so," she said, "and there seems to be always so many big things, like sheets."

"Why don't you just fold the sheets, sub-dry?" ventured my Faultless Friend.

The working lady looked horrified. "I haven't ironed a sheet in years," went on my "F. F."—except for the spare room. Somehow I like the smell of the sun on them, and after the first using they are smooth enough."

"But one has to iron them to put them away," insisted the working lady, and there was a volume of reproach in her tone. There was no doing anything with her. She had become a slave to work, to doing things in a conventional way—and didn't know it.

On the way home my "F. F." said, "If I were in her place, with her money, I'd have an electric sweeper, an electric stove, and iron, and toaster and washer and everything else to make work easy. So much time would be left for other things."

Speaking of the differences in people, have you ever noticed how some seem to rebel at the necessity for economy, while others even take a real pleasure in doing economical things? You have seen a woman's face light up with interest and satisfaction as she showed you a pretty gown skilfully contrived from two old ones, or a hat refurbished up until good as new, or children's clothes made from dyed and pressed materials that had looked almost fit for the rag-bag, or a set of splendid bath-towels cut from an old white bedspread, or now you can think of a host of other things.

It was of this contented, busy, make-the-best-of-it housewife that Burns was surely thinking when he wrote about the thrifty, happy household in which the mother sat using her inventiveness to "gar auld claes luik amais as weel's the new."—When we use inventiveness, in anything at all, we are usually interested and happy—have you ever noticed that? We are like children who enjoy the contrivances they make for themselves so very much better than any toys that can be bought.

After all, whether we are contented or not depends, for the most part, just on how we look at things, does it not?—And, above all, upon whether we are independent enough to live our own lives in the way we see best.

—JUNIA.

From an Old Friend.

Dear Junia and Ingle-Nookers all.—I have not visited the Nook for some time. When I last called it was with "Trix," "Wrinkles" and "Help on abut," and now as I come again it is in answer to our "Lankshire Lass's invitation, in her last letter to the Nook. It was very kind of her indeed to remember me, I believe she is just bubbling over with kindness and watches for opportunities to help in every way. I would like to tell you about a very enjoyable day I spent this summer, and if my letter is too long how would it do to blame Lankshire lass or else cut it short?

Our Sunday School association planned a picnic at Mount Elgin Institute, a distance of twelve miles from our home. Mount Elgin is an Indian Institution situated in a beautiful spot on the river Thames south of the Muncy Reserve.

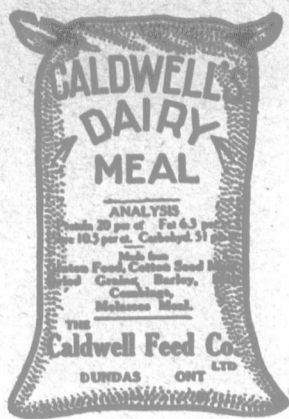
A neighbor took some friends and ourselves in an auto; the day and roads were ideal which added to the enjoyment of the trip. We arrived at the Institution at high noon. As we were invited to use the table in the large sewing room for our dinner we sent off the men folk for the baskets. The "Institution" provided tea, and how we ate! My lad often says to me, "Mother, how is it you can eat pie or anything like that when away and it seems to digest all right?" It must be one of the mysteries of life.

One could not help but notice the effort put forth by the Indian girls to make us welcome. They are proud of their splendid home, their teachers and others there, and they may well be. The grounds are kept very nice with splendid flower beds. Flags were in

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abundance as a decoration which gave it all a patriotic touch.

During the afternoon we enjoyed splendid addresses by Sunday School workers from London. What we owe to others for inspiring us to do our best! Though Sunday School workers may feel the great responsibility of the work, it is gatherings such as these that make one feel she could go on and still on and not be weary in the well-doing.

About five o'clock a gong sounded and the Indian boys and girls hurried from all directions to prepare for chores. We visited the stables, saw the long rows of Holstein cows, sixty in all I believe, with their names on the back of their stalls—Sunday, Daisy, Betsy, etc. Such a list! Each cow's milk was weighed and a record kept. Everything so clean and well ordered. I heard a lady remark, "Oh well, farmers cannot keep things so nice; they are so short of help." Anyway, seeing the ideal makes one feel like trying to aim as near it as possible. The power house supplies electric light for all the buildings.

After having "suppered" on the grass, (leaving only the baskets,) tasting of the delicious ice-cream at the Red Cross booth, (not any of Daisy's or Betsy's) we started for home.

My little girl, who had scrubbed her face that morning most unmercifully that she might not resemble the little girls who attend the school at the Institute, said to me when we got home—"Why mama, those little girls are real nice, I played ball with one, and they look nice too." We older ones thought of what the Gospel has done and is doing to uplift and brighten all classes of people.

I am so glad that Lankshire Lass prodded you up to visit us again, Ruby. Hope some of the others will respond, too.

Bran Muffins.

E. G., Halton Co., Ont., wishes a recipe for making bran muffins. I had an excellent recipe, and, some time ago published it, but cannot find it anywhere just now. Shall be much obliged if someone will send this, or another which is known to be good.

—JUNIA.

Things to Eat.

Chicken Salad.—One cup cabbage shredded fine, 1 cup chicken-breast cut in cubes, $\frac{1}{4}$ cup garden cress leaves, $\frac{1}{4}$ cup green beans cooked, dressing to mix. Serve on lettuce decorated with chopped whites of eggs, the yolks sifted or grated, and finely chopped parsley.

Tomato Sandwiches.—Butter the bread and sprinkle with shredded cress leaves. Lay on thin slices of tomato, spread with dressing, and put the sandwiches together.

Stewed Cabbage.—Cut a fine, firm, small cabbage in quarters and cut out the "core." Let stand in water for an hour, then drain, and shred rather coarse. Cover with boiling water and let cook, partly covered, from $\frac{1}{2}$ to $\frac{3}{4}$ hour. Drain and return to the fire with a cup of cream, and stir until boiling. Season to taste with salt and pepper or paprika and dot with bits of butter. Let simmer 2 or 3 minutes, and serve.

Popovers.—One and one-quarter cups flour, $1\frac{1}{4}$ cups milk, 2 eggs, $\frac{1}{2}$ teaspoon salt. Do not use either soda or baking powder. Sift the flour and salt, and beat smooth with the milk. Add the beaten eggs. Beat with the egg-beater for one minute then pour at once into hot buttered pans (deep patty-pans or aluminum cups) and bake about 30 minutes in a hot oven.

Creamed Onions with Poached Eggs.—Cook onions and cut in slices with a very sharp knife. Add an equal bulk of cream sauce. Have ready some thick squares of bread with a hollow in each. Butter the whole surface and brown in the oven. Fill with the hot onions and set a carefully poached egg on each.—A very nice supper dish.

Vegetable Salad.—Put together in layers small boiled carrots, beets, peas, and cauliflower. Let chill and pour over a good salad dressing (preferably oil) to which a little onion juice has been added. Serve on lettuce.

Chocolate Cream Cake.—Cream $\frac{1}{4}$ cup butter. Beat in $\frac{1}{2}$ cup sugar. Beat 2 eggs and beat in with them $\frac{1}{2}$ cup sugar and mix the two mixtures.

Sift together $1\frac{1}{4}$ cups flour and 3 level easpoons baking powder. Add these to the first mixture alternately with $\frac{3}{8}$ cup sweet milk. Bake in two round layer-cake pans, and put the layers together with custard filling. Cover the top with chocolate frosting.

Custard Filling.—Scald 1 cup milk in a double boiler. Stir $\frac{1}{2}$ cup flour with $\frac{1}{2}$ cup milk to a smooth paste, then stir and cook in the hot milk until the mixture thickens. Cover and let cook 15 minutes. Beat 1 egg; beat in $\frac{1}{2}$ cup sugar and $\frac{1}{4}$ teaspoon salt, and stir into the hot mixture. Continue to stir until the egg is set. Let cool. Add $\frac{1}{2}$ teaspoon vanilla extract. When putting in the cake, split each layer, then put all together with custard.

Chocolate Frosting.—Melt 1 ounce chocolate; add 3 or 4 tablespoons boiling water, $\frac{1}{2}$ teaspoon vanilla extract and confectioners' sugar as needed.

Whole Wheat Muffins.—One cup white flour, 1 cup whole wheat flour, 2 tablespoons sugar, $\frac{1}{2}$ teaspoon salt, $3\frac{1}{2}$ teaspoons baking powder, 1 egg, $1\frac{1}{4}$ cups milk, 3 tablespoons melted butter. Put all the dry ingredients in a bowl, add the well-beaten egg, milk and melted butter. Beat well and bake in hot buttered muffin tins about 25 minutes.

Canned Rhubarb.—In September much of the rhubarb will be found fit to can. Cut it in bits and pack in sterilized jars. Fill to overflowing with cold water. Let stand 10 minutes then fill again with water, plunging the jars into a dish of water and screwing on the tops under water.

Mint Jelly.—Nice to serve with lamb. Add mint to apples when making apple jelly and finish as usual adding vinegar to flavor. This will "keep." Another kind that must be used within a day or two is made as follows: Soak 1 tablespoon granulated gelatine in a little cold water. Boil 1 cup sugar and 1 cup vinegar 5 or 6 minutes. Add the softened gelatine and $\frac{1}{4}$ teaspoon each of salt and paprika and stir until the gelatine is dissolved, then add $\frac{1}{4}$ cup mint leaves chopped fine and enough green vegetable coloring to tint as desired. Set the dish into ice and water and stir occasionally until it begins to thicken. Turn into small moulds and set in a cold place to become firm. Serve about a platter of meat, garnished with tips of mint.

Spiced Plums.—Nine lbs. blue plums, 2 pints vinegar, 6 lbs. sugar, 1 ounce of cinnamon. Boil sugar, vinegar and spice together, and pour over the plums. Next morning drain off and re-boil, adding again to the plums. Repeat this 5 times, and the 5th time let the fruit cook 20 minutes. Cherries may be done the same way.

Green Tomato Pickle.—Eight lbs. green tomatoes, 1 pint vinegar, 4 lbs. brown sugar, 1 teaspoon each of mace, cinnamon and cloves. Cut the tomatoes in slices and add the sugar. Let boil down gently for 3 hours, then add the vinegar and spice, and cook the whole 15 minutes. Let cool before sealing.

Peach Marmalade.—Pare and stone the peaches and cut the pulp in bits. Add a few of the kernels from the stones and cook until soft. Add an equal weight of sugar and stir occasionally while cooking about 15 minutes. Marmalade is often made of imperfect shapes of halved fruit left over when canning or preserving.

Muskmelon Sweet Pickle.—Select hard melons just ripe enough to be of good flavor. Cut in slices and remove rind and seed. To each quart of cold water add $\frac{1}{4}$ cup salt. Pour this over the prepared melon to cover well and let stand over night. Drain and set to cook in boiling water. Cook only a few pieces at a time and remove each the instant it is tender. For 7 lbs. melon make a syrup of 4 lbs. sugar, 3 cups vinegar, $\frac{1}{2}$ cup cloves and a full cup of cinnamon bark in small pieces. Pour the syrup over the melon and let stand over night, then drain off the syrup and pack the melon in jars. Reduce the syrup by boiling and fill the jars.

The Scrap Bag.
To Wash a Down Quilt.
Put the quilt in a tub of soft, hot water to soak over night, having first dissolved some good soap in the water. Souse up and down, and if much soiled soak

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...put the layers...
...filling. Cover...
...roasting.

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... smooth paste...
... hot milk until...
... Cover and let...
... 1 egg; beat...
... teaspoon salt...
... are. Continue...
... set. Let cool...
... extract. When...
... split each layer...
... h custard.

... Melt 1 ounce...
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... ag. Quilt.

... soft, hot water...
... first dissolved...
... er. Souse up...
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again two or three times. Rinse well in several clear waters. Hang in the sunshine, without wringing, and let dry. It is a good idea to have the covers of all comforters removable, so that they will not have to be hung in the sunshine to dry, a process which may fade them.

To Dry-clean a Suit.

To dry-clean a white serge suit, rub well with dry cornmeal mixed with borax. Shake and brush well, repeating two or three times if necessary. This method is quite effective if the suit is not too much soiled.

To Clean Window Shades.

Cheap window-shades are ruined if washed with water, hence the only thing to do is to rub them with a clean cloth dipped frequently into a mixture of fine salt and powdered starch. The better shades, made of cotton filled with a white lead mixture and then painted with oil paints, may be cleaned with lukewarm water and soap, applied a little at a time, rinsed off and rubbed dry as one goes.

Spots on Table.

To remove spots from a polished table, cover the spots with sweet oil, let remain 10 or 12 hours, then wipe off and rub with a cloth dampened with methylated spirits.

Beating Egg Whites.

If an egg white refuses to froth add 2 drops pure glycerine, and it will quickly beat up stiff and light. The glycerine has a drying effect causing the excess of moisture to evaporate.

Salting Vegetables.

Vegetables should be salted just after the water in which they are being cooked begins to boil.

A Space Saver.

If you have no closet in your room get a board 9 or more inches wide and from 3 to 5 or 6 feet long. Put it up in a convenient place on two brackets and fasten in the middle of the under side, at each end, 2 large hooks. Run a brass or wooden curtain pole from hook to hook, and on this pole suspend clothes by hangers, which may be bought for a trifle, both for coats and skirts. A great deal may be hung up in this way. Put curtains about to keep out the dust.

Cleaning Lamp Chimneys.

Use a good hot suds, then rinse in clear, hot water and dry with an old soft cloth. The chimneys will be very bright and may be done quickly by this method.

Red Ants in Pantry.

Keep a bottle of turpentine, and once a week wipe the window sill and around the edges of the shelves with a mixture of 1 cup turpentine to 3 of water.

Paraffining Eggs.

Eggs keep very well if brushed over with a thin coating of paraffin and packed, each rolled in a bit of newspaper, small end down. Keep in a cool place.

The Windrow

Mlle. Teheng, a Chinese girl, aged 24, has qualified in Paris as a lawyer.

Among the plants introduced into North America during 1915 were: A Melocoton from South America, an edible fruit of the melon variety, so fragrant that it is used for perfuming clothing; a Honey-carob from Spain; a Manchurian Wild Pear which will grow in spite of intense cold; a Red Currant from the Altai Mountains; a large-fruited variety of Chinese Haw of great hardiness, and a Yellow Potato from the Andes. Experiments are being made with these to prove whether any of them will be of use on this continent.

Prof. Edward S. Morse, speaking in the New England States not long ago, ob-

serves "Our Dumb Animals," told a story of being in a little Japanese village when some great bird, I think an eagle, was seen circling about with its broad wings and finally settling upon the top of a little tree, where it quietly rested upon the swinging branch. It was an unusual sight, and naturally created unusual excitement. What did the young people of the village do? They all rushed for their paper and pencils and gathered near the tree to make sketches of their fine visitor. Professor Morse observed, after telling the story, that he greatly feared that if the incident had occurred in a New England village, the boys and men, instead of running for their drawing books would have run to get their guns to kill the bird. There are many lessons such as this which may be learned from the Oriental peoples.

The largest tree in the United States is said to be the "Mother of the Forest," a giant redwood in the Calaveras big-tree grove in California. It is supposed to contain 140,619 board feet of lumber. There are, however, many claimants for the honor of being the "largest tree" and the "oldest tree," and these claims, according to foresters, cannot always be verified.

Commodore Hansen, a submarine officer, states that when moving under the sea, there is a death-like stillness in the submarine, as the electric machinery is noiseless. As the air heats, it gets poor and mixed with the odor of oil from the machinery. An overpowering sleepiness often attacks the men, who require the utmost will power to keep awake. In time, however, new inventions will probably remove these inconveniences.

The Irish prefix "O," which so many Irish people have dropped from their names, is really a prefix of nobility that is the oldest in Europe. There is not a family in Ireland rightly possessing a surname in O that has not borne that surname since at least the 12th century. The "O" really means "descendant," and the belief prevails in parts of Ireland that only five families rightly bear the O—the O'Neils, high monarchs of Ireland and Kings of Ulster; the O'Donnells, Princes of Tyrconnell; the O'Connors, Kings of Connaught; the O'Briens, Kings of Thomond, and the O'Flahertys, Princes of Iar Connaught. "I would rather be The O'Neil of Ulster than King of Spain," declared the immortal Shane O'Neill to the British Elizabeth, when requested to change his Irish title for an English dukedom, and as such, claiming Ireland's throne, he died.

The London "Spectator" quotes the following, taken from the notebook of a private, "A Student in Arms." It is interesting to follow the sequence of the young man's thought. Evidently, the trenches do not stifle thinking: "June 20, '14.—Do not think to 'get to the bottom of things': most likely they have not got one.

Agnosticism is a fact: it is the starting point of the man who has realized that to study Infinity requires Eternity.

Only he who has failed to perceive the immensity of the universe and the insignificance of man will dare to say 'I know': ignorance is always dogmatic.

Where knowledge is exact it is merely descriptive: it tells the how, but not the why, of a process.

Agnosticism is no excuse for idleness: because we cannot know all, it does not follow that we should remain wholly ignorant.

"August 5, '14.—Knowledge is not a right end in itself: the aim of the philosopher must not be to know, but to be somewhat.

The philosopher who is a bad citizen has studied in vain.

The law said: 'Thou shalt not kill'; the Gospel says: 'Thou shalt not hate.' It is possible to kill without hatred.

The Gospel says: 'Love your enemies.' That means: 'Try to make them your friends.' It may be necessary to kick one's enemy in order to make friendship possible. A nation may be in the same predicament, and be forced to fight in order to make friendship possible.

"August 10, '14.—Rank in itself is one of the false gods which it is the business of religion and philosophy to dethrone.

Outward rank deserves outward respect: genuine respect is only accorded to real usefulness.

Rank is only valued by the wise when it offers opportunity for greater usefulness.

To know one's limitations is a mark of wisdom: to rest content with them merits contempt.

There is no dishonor in a humble lot—unless one is shirking the responsibilities of one more exalted.

The wise man will take the lowest room; but only the shirker will refuse to go up higher.

To fear a change in one's manner of life is to be the slave of habit: freedom is a chief object both of religion and philosophy.

Here are two contemptible fellows: a philosopher without courage and a Christian without faith.

"September 1, '14.—The interest of life lies largely in its contrasts: if a man finds life dull it is probably because he has lacked the courage to widen his environment.

To have a wide experience is to inherit the earth: with a narrow horizon a man cannot be a sound thinker.

Experience is the raw material of the philosopher: the wider his experience, whether personal or borrowed, the more sure the basis of his philosophy.

"October 15, '14.—Man is the creature of heredity and circumstances: he is only the master of his fate in so far as he can select his environment.

Sordid surroundings make man a brute: friendship makes him human: religion begins to make him divine.

Religion means being aware of God as a factor in one's environment: perfect religion is perceiving the true relative importance of God and the rest.

Some men are brutes: most are human: very few begin to be divine.

"December 5, '14.—Almost all men are slaves: they are mastered by foolish ambitions, vile appetites, jealousies, prejudices, the conventions and opinions of other men. These things obsess them, so that they cannot see anything in its right perspective.

For most men the world is centred in self, which is misery: to have one's world centred in God is the peace that passeth understanding.

This is liberty: to know that God alone matters.

"February 2, '15.—Optimism is the condition of successful effort: belief in God is the only rational basis of optimism.

To offer a sound basis for optimism, religion must take account of facts: the hardest fact is the existence of unmerited suffering.

Religion is feeling and aspiration: theology is the statement of its theoretical implications.

Religion is tested by experience: theology by logic and history.

Christianity survives because the Cross symbolizes the problem of pain, and because its metaphysical implications have never been finally settled.

Christianity is a way, and not an explanation of life: it implies Power, and not dogma.

"May 25, '15.—In the hour of danger a man is proven: the boaster hides, the egotist trembles, only he whose care is for honor and for others forgets to be afraid.

It is blessed to give; blessed is he of whom it is said that he so loved-giving that he was glad to give his life.

Death is a great teacher: from him men learn what are the things they really value.

Men live for eating and drinking, position and wealth; they die for honor and for friendship.

True religion is betting one's life that there is a God.

In the hour of danger all good men are believers: they choose the spiritual, and reject the material.

The death of a hero convinces all of eternal life: they are unable to call it a tragedy.

"June 1, '15.—I have seen with the eyes of God. I have seen the naked souls of men, stripped of circumstances. Rank and reputation, wealth and poverty, knowledge and ignorance, manners and uncouthness, these I saw not. I saw the naked souls of men. I saw who were slaves and who were free: who were beasts and who were men: who were contemptible and who honorable. I have seen with the eyes of God. I have seen the vanity of the temporal and the glory of the eternal. I have despised comfort and honored pain. I have understood the victory of the Cross. O Death, where is thy sting? 'Nunc dimittis, Domine.'"



IT is hard to break the chains of habit. It took one man six months to stop saying "Gee Whiz." It is astonishing how habit will keep a person asking for "the same as usual" tea long after she has intended to try Red Rose Tea. Why let habit prevent you enjoying this richly flavored Indian-Ceylon blend? Order a sealed package to-day.




R.M.S.P. FORTNIGHTLY SAILINGS BY Twin-Screw Mail Steamers FROM ST. JOHN (N.S.) AND HALIFAX (N.S.) TO THE WEST INDIES. Excellent Accommodation for 1st, 2nd and 3rd Class Passengers. SPECIAL FACILITIES FOR TOURISTS. NEXT SAILING FROM HALIFAX: R.M.S.P. "Chaudiere" Sept. 8, 1916. APPLY TO The Royal Mail Steam Packet Co., 57-59, Granville St., HALIFAX (N.S.) OR TO THE LOCAL TICKET AGENCIES.

The Deacon SHIRT. Lightens Work and Heightens Pleasure. It costs no more to get a really good Working or Outing Shirt—one that fits right, feels good, and wears splendidly. All you have to do is ask for, and see that you get, a "Deacon" Shirt. Sold at all good stores. DEACON SHIRT COMPANY BELLEVILLE CANADA

FOR SALE—TWO CHOICE WHITE Shorthorn Heifers. One a yearling the other a year in November. Sired by Royal Marigold =80019=, 1st-prize bull calf at Toronto, 1910, he by a son of Mildred's Royal dam Marigold 47 =79918=, by Sailor Champion =27235=. The dam of the yearling is the grandam of the calf, and she is the cow Nonpareil 62nd =57725=, she was sired by Trout Creek Banff =40076=, he by the great Lord Banff. These heifers are in grand shape, being fitted for winter fairs. Price very reasonable. ALEX. YOUNG Mt. Hope, Ont.

The Perfect Piano for the Home. NEW SCALE WILLIAMS. The choice of the World's Great Artists. THE WILLIAMS PIANO CO. Oshawa, Ontario.

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ONLY \$18 FOR 50 YEARS OF RESTFUL SLEEP

That's only 36c. a year; who can't afford that? No other mattress compares with the OSTERMOOR for rest, comfort, healthfulness and true economy. When you pay less, you get infinitely less—every time. Moreover, the first cost is the only cost of

THE FAMOUS OSTERMOOR MATTRESS

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The PARKHILL MANUFACTURING CO.
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Winnipeg MONTREAL Vancouver
ALASKA on an article means High Grade Every Particle.

OSTERMOOR «O» OSTERMOOR

Current Events.

According to the monthly trade summary, issued by the Minister of Customs, Canada's trade shows a phenomenal rise of 141 per cent. in July. Exports of manufactured products trebled and exports of farm products were five times the amount for the same month last year.

A Canadian press despatch states that the German Government has issued a decree providing for the introduction of meat cards for the whole Empire on October 2. The maximum amount of meat provided for under the new card system is slightly more than half a pound weekly.

The railway strike in United States is no nearer a settlement than it was a week ago. The workmen hold out for an eight-hour day or Government control of the railways.

It is reported that Germany is building super-zeppelins. The principle features of these air-craft are: a capacity of 2,000,000 cubic feet, a length of 780 feet, a beam of 80 feet, a maximum speed of 80 miles an hour and a radius of action of 3,000 miles. The engines have a total of 15,000 horse power.

Since the war began the entente Allies have accounted for 35 enemy zeppelins.

The Deutschland is reported safe in its home port with a cargo of war necessities, but the Bremen, a sister under-sea craft, was captured in a net in the straits of Dover.

The past week has been a week of gains for the Allies. Progress has been made on all fronts.

Owing to the hostile acts of Germany towards Italy becoming more frequent of late the Italian Cabinet declared war on her old ally August 28.

Roumania has also declared war against the Teutons, and conditions are pointing towards Greece doing likewise.

The Eskimo murderers of Fathers Leroux and Rouvier, two missionaries to the far north who were murdered over two years ago, are in the hands of the Royal North West Mounted Police. The arm of the law reaches to the remotest parts of the country and seldom do wrong-doers escape.

The Beaver Circle

My Friend.

BY BLAINE C. BIGLER.

My dog and I are the best of friends,
We always go together;
Over the hill where the woodland ends,
Scrambling through bush and heather;
Down by the mill where the river bends,
Through any kind of weather.

Down through the woods through the
purple haze;
Down where the leaves are falling;
Through all the gold of the autumn days
Filled with the west wind's calling;
Skipping along by the streamlet's maze,
Where the waterfall comes brawling.

Crossing the fields in the twilight's glow,
Where soft the wind comes creeping;
Where e'er I lead he's sure to go,
From morn till the stars come peeping;
So that is the reason I love him so—
He's faithful, awake or sleeping.

Little Bits of Fun.

Edgar, aged five, was driving from the station on his first visit to Maine. His mother, noticing a troubled look on his face as he looked about, said: "What's the matter, dear? Don't you like the beautiful country?"

"Yes, mother, but on my map Maine is red!"—Harper's.

The six-year-old daughter of a well-known evangelistic preacher was playing on the sidewalk one day, when a shabbily dressed and down-cast man approached her father's house.

Halting at the foot of the steps, he looked at her, and in a weary voice,—the voice of an unsuccessful book agent,—he asked if her father might be found in his study.

"He isn't home," said the little girl, drawing close to him and gazing up into the tired face, "but he'll be home pretty soon. You go into the house, you poor perishing soul, and mother'll look after you till he comes."

Little Charlotte accompanied her mother to the home of an acquaintance. When the dessert course was reached the little girl was brought down and given a place next to her mother at the table. The hostess was a woman much given to talking, and quite forgot to give little Charlotte anything to eat. After some time had elapsed Charlotte could bear it no longer. With the sobs rising in her throat, she held up her plate as high as she could and said: "Does anybody want a clean plate?"—Argonaut.

A Competition.

The following competition is for Senior and Junior Beavers.—Write a composition on "How I spent My Holidays."—To be received at this office not later than September 15th. Address, "The Beaver Circle," Farmer's Advocate and Home Magazine, London, Ont.

Senior Beavers' Letter Box.

[For all Beavers from Senior Third to Continuation Classes, inclusive.]

Dear Puck and Beavers.—This is my first letter to your lovely Circle. I have been a silent reader for a long time and enjoy reading the letters very much, also the competitions. A while ago I wrote a couple of original compositions that I made up myself and so I thought I would send them to you for you to judge them. I am taking music lessons and have just heard from my school examinations saying I have passed the entrance into the Collegiate. I like reading books and have read the following: Pollyanna, Pollyanna Grown Up, Anne of Green Gables, the Girls of Dickens, and many other ones which are just as good. My favorite author is Eleanor H. Porter. Well I think I will close hoping to see my letter in print.

From a Loving Beaver.
HELEN C. TALCOTT, Age 12 years.
P. S.—I wish some one of my age 12 years would write to me. My address is Bloomfield, Ontario, R. M. D. No. 2.

GRAND TRUNK RAILWAY SYSTEM

LABOR DAY

SINGLE FARE
Good going and returning Sept. 4, 1916

FARE AND ONE-THIRD
Good going Sept. 2nd, 3rd, and 4th.
Good to return Sept. 5th, 1916

Return tickets will be issued from all stations in Canada east of Port Arthur and to Detroit and Port Huron, Mich., Buffalo, Black Rock, Niagara Falls and Suspension Bridge, N.Y. Tickets and full particulars on application to Agents.

CANADIAN NATIONAL EXHIBITION
Return tickets at reduced fares to Toronto from all stations in Canada. Obtain particulars of special train service and low-rate excursions from Grand Trunk Agents.

**September - October
November - December**

These are the months in which bricks should be hauled for use next spring. Otherwise you will have to haul through the bad roads of early spring.

Interprovincial Pressed Brick

is a smooth, hard-surfaced, facing brick, and is the kink to haul for first-class work. Made of extra heavy shale, which ensures durability. Interprovincial Brick offers many pleasing shades in natural colors.

Write to-day for set of samples. We pay all charges.

**INTERPROVINCIAL BRICK CO.
OF CANADA, LIMITED**
Goodyear Bldg., Toronto, Ont.

Knoll Washing Machine

The old tried and trusty friend that performs the operation of the human hands.

No wear or tear on the clothes.

The ease and speed with which these machines operate recommend them.

Write for catalogue and price.



Manufactured by

The SCHULTZ BROS. CO., Ltd., Brantford, Ont.

trick. It was now spoiled from the rain, and I had to go without a new hat till the next summer and wear my old one.

One night as I went to feed the chickens I missed one of them. I went to find Buster and found him just swallowing the last mouthful of the little chicken. As I was going to my bedroom that night I observed a lot of feathers on the floor and on entering my room noticed it was filled with feathers. Here was Buster having the best time you ever saw.

As Buster Brown grew older his bad habits left him and now he is the best dog I know around here. He helps my father to bring the cows and I take many long walks with him.

[I wish all the Beavers would write as interestingly as you, Helen. Perhaps your letter and composition will inspire some of them to try harder. Of course we want all the letters and stories to be true unless they are distinctly given as fiction or fairy-tales. Your other composition will be published later.]

Something About Boy Scouts.

By Lieut.-Gen. Sir Robert Baden-Powell, in Youth's Companion:

People often ask me what Boy Scouts are doing when they go about, singly or in pairs, evidently very much in earnest and in a great hurry. It is difficult to say, since scouts have so many occupations; but I can suggest one thing that may account for their activity; every scout is on his honor to do one good turn to somebody every day. Possibly these hurrying lads are for the moment knight errants on the quest for women or children in distress.

Only this morning, as I passed down the road, a smart little scout patrol leader came out of a house, patrol flag in hand, pushing his bicycle. Making the sign of the brotherhood, I questioned him. With suppressed excitement he told me that he was going on an important duty, of which he gave me only an outline. I afterward got confirmation of it.

He and his comrade had found several boys torturing some frogs. He had gone off at once to the police-station and asked if he might take his patrol and "go for" those boys without being arrested for assault and breaking the peace. The police superintendent gravely gave permission. The patrol leader had then sent his corporal to collect the scouts from their homes, while he himself, reflecting that he had as yet only five boys out of the seven allowed in his patrol, had gone off to enlist two recruits.

That the idea of doing a good turn to some one every day should have appealed so strongly to the boys shows the inclination to good that is in every boy's soul.

I cite a few instances taken at random from the record of slum scouts. I preface them by saying that whenever I have asked boys, whether in London or Aberdeen, Dublin or Toronto, to tell me the good turns they have done there has always been a certain shyness about their answers.

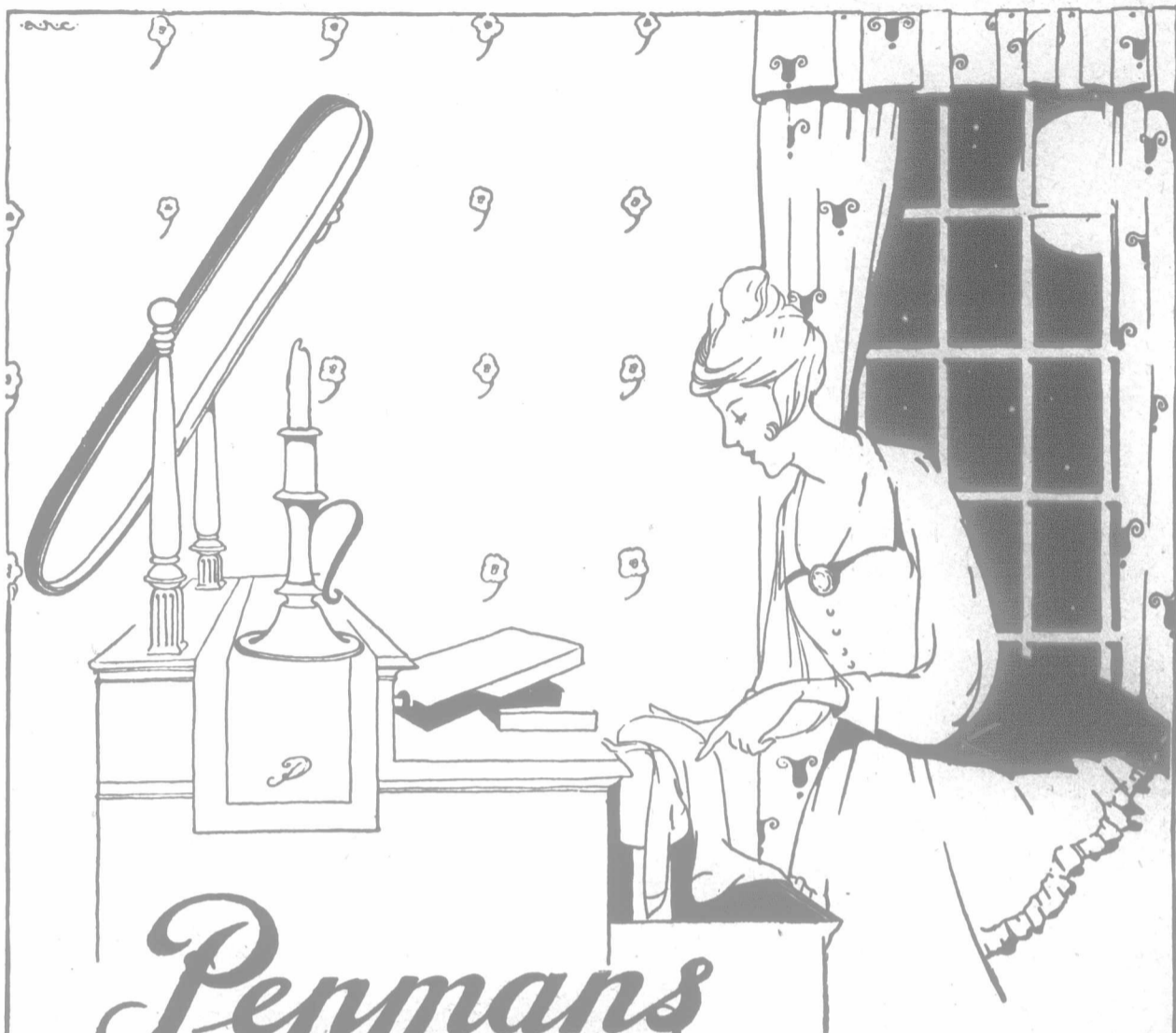
"Well, sir, I've not been able to find any one in distress to-day, not as yet. I've done nothing. Well—I did take a banana skin off the pavement, for I thought some one might slip upon it, but you can't count that as a good turn, can you, sir?"

In my own mind I did—because the intention was there.

"I saw three kids coming from the park. They were pretty tired. The two oldest, a boy and a girl, were taking turns carrying the youngest; so I asked where they lived, and I carried the kid home on my shoulder."

Lord Charles Beresford, on meeting one of his scouts,—for he commands a fine troop of them,—asked what was his good turn the previous day. The boy replied, "I could not get any chance of doing one all day, so when I got home, I just dressed myself up in my full uniform as a scout, and marched past my little brother. I thought it would please him."

A story was told to me of two Boy Scouts coming out of church with their mother, and much impressed by the parable which they had just heard of the wise and the foolish virgins. One of them said, "Mother, if those virgins had been brought up as Boy Scouts,



Penmans

HOSIERY gets real wear on the farm, climbing in and out of buggies — and so on. Penmans appreciate this, and make hosiery that will W-E-A-R. At the same time there is a smartness of finish about them, a snug fit and a velvety feel that you'll like. Of course, you probably wear Penmans all the time; but this little message is passed along in case you do not—an unfortunate state you should remedy next time you buy hosiery. After you've tried Penmans you'll be very glad you read this. Don't forget—Penmans.



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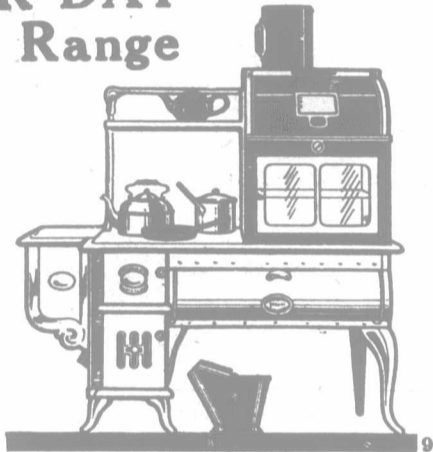


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Baking with a Handy-height Oven is so much easier. The Clearview Door shows you how everything is baking. You can finish a big baking without feeling the fatigue that comes from a day of constant stooping.

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Limited, Preston

The Western Fair

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A Liberal Increase This Year

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Entries Close September 7th

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LT.-COL. W. M. GARTSHORE
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JAMES BEGG & SON

R.R. 1, St. Thomas, Ont.

the wise ones would have given half their oil to the foolish ones, and there would not have been all that fuss." The boy had at any rate grasped the lesson of the scouts' training; namely, to apply his common sense in helpfulness to others in however small a way.

Some Stories of the Scouts.

In Guildford, Surrey, an appeal was made to the town council for a grant to aid a crippled boy to go to school. The case attracted attention. A clergyman gave a Bath chair, whereupon the local Boy Scouts volunteered to pull it daily to the school.

In a slum in London the school children, on their way to school, were continually being robbed of their dinners by a band of young "Hooligans." The Boy Scouts have formed an escort for the children, and every day convoy them safely through the dangerous quarter.

Many stories are told of good work done by Boy Scouts on the occasion of King Edward's funeral. There were hundreds of Boy Scout ambulance parties at work in the crowd. When they had a case to deal with, some of the patrol "formed fence" to keep back the crowd, others rigged a shelter over the patient to keep off the sun, and one boy fanned the patient while the senior attended to his needs.

One patrol was particularly active. The patrol leader crawled about between the legs of the crowd to where a person was fainting; then sounding his whistle, he assembled his scouts in the same way, and set to work.

Instances of scouts going to the assistance of policemen struggling with violent prisoners have been numerous, and some of them very gallant. Stopping runaway horses has become a common feat of the scouts. They are taught to run alongside the horse, to catch hold of the shaft with the near hand and the reins with the other. But in one case a gallant little scout had to deal with a pair of horses harnessed to a van, with which they were galloping down the street. He ran to the back of the van, clambered in, and got to the driver's seat. When he got there, he found that the reins were broken and dangling about the horses' heads. So he climbed down to the violently rocking pole between the horses, and scrambled along it till he reached their heads; he then seized their bridles, and sitting on the pole, with his feet braced against the pole-chains, he pulled and jerked their heads together until he succeeded in stopping them.

Scout L. Rudd, 2d Leigh Troop, saw a little girl playing on the railway track at Shoebury. He climbed the railway fence, crossed the line in front of a train, and just reached the child in time to pull her out of the way. He himself received a blow on the head that left him in a dazed condition for some time. Had it not been for his pluck, the child would have been killed. Rudd received the bronze medal—the highest award—for gallantry.

The list of rescues from drowning is very long. I cite merely a few examples:

Scout Driver of the training-ship Mercury received the bronze medal for gallantry. A gale was blowing, a strong tide was running, and the ship was driving through the darkness of an early morning in December, 1910, when one of the crew fell overboard. Driver, clad though he was in heavy oilskins, dived to the rescue. The boat that put out from the ship failed to find him, although it picked up another scout who had done just the same thing. Driver got to the drowning boy and held him up, but both were carried far away by the tide. Weighed down by his clothes and by the heavy load of his senseless comrade, he began to drown, but was caught in the nick of time by a boat which had put out from the shore.

Patrol Leader Richard Anderson, fourteen years old, of the 1st Long Eaton Troop, was walking with another boy along the canal bank near Long Eaton when he saw a small boy fall into the deep, swirling water at the lock, a dangerous place. Diving in, Anderson swam to the boy, and succeeded in bringing him safely to the bank. For this act he was awarded the bronze medal for gallantry.

In New Zealand, a small boy in a

canoe got into danger. A gale was blowing and a big sea was running. He was being carried seaward, when Scout Alan Fisher, Christchurch Troop, saw him from the shore. Quickly he got three other boys together; they launched a boat and pushed out to the rescue.

They reached the canoe, got the boy into their own boat and brought him ashore, but only after a heroic fight with sea and storm that lasted for more than two hours. Brave as they all were, the honor goes to the scout who led them, for he was a cripple; he faced the dangers of the sea with the knowledge that if the boat was swamped the others might swim, but for him there was no chance of rescue. He was another to whom the medal was given.

Scout Douglas Smith, aged fourteen, of the 4th Ealing Troop, was undressing to bathe in the Grand Junction Canal, near Brentford, when a small boy, who was already bathing, got beyond his depth, and was being carried away by the current. Scout Smith, although a poor swimmer, said to his companion, "I'll try to get him," and dashing into the water, did his best to save the lad, but was himself carried down by the stream. Both boys were drowned. But Scout Smith's attempt will stand as a noble example to his brother scouts of heroism and self-sacrifice. The bronze cross for gallantry, which would have been given to him had he lived, was awarded to him though dead, and is now in the possession of his father.

These few examples are picked at random from a record of over three hundred cases of life-saving, and of some millions of "good turns" done during the past three years.

The healthy boy is full of enthusiasm, and if no object is supplied for it to work on, he gets into mischief. Give the boy an outlet for his enthusiasm, switch his energy into the right cable, and you get results.

What chance has a boy in an ordinary modern city of becoming hardy or self-reliant? He does not have to use his eyes or his ears, his legs or his wits. Yet we wonder why so many of the rising generation are growing up flabby and colorless. This is a matter of national importance, for the character of the nation is the sum of the characters of the individuals who form the nation. The Boy Scout training endeavors to supply a school for the development of character and resourcefulness.

The Scout Method.

In mentioning a few of the results, I do not wish to give the impression that it is only toward saving life and helping others that our training is directed.

We try to develop character in other ways. Our method is briefly as follows:

(a) By promotion based on tests in "backwoodsmanhood," we encourage resourcefulness, pluck, self-denial, physical health, thrift, energy and responsibility.

(b) By badges of efficiency we encourage the boys to take up handicrafts for their ultimate livelihood and for the more immediate cure of loafing and unhandiness.

(c) By urging the scouts to undertake public duties, such as fire-brigade, ambulance, coast-guarding and missionaries' work, we accustom the boys to service for others and for the state, from a sense of duty rather than from the expectation of any reward.

In a word, our whole object and aim is to make the boys into good citizens of their country.

The application of the training requires good scout-masters—officers in charge of troops who are men of considerable character themselves and who have imagination and boyishness. They have to think of the boy and what he is looking for in the training as first in importance; they should introduce what they want him to learn as secondary. The number of boys who can be trained depends on the number of men who will come forward and train them. The boys are all ready and waiting to be officered.

There are thousands of young men who could do this work, but who are indifferent, simply because they have never thought on the subject. It has never occurred to them that in devoting their spare time to golf or tennis they are thinking of themselves in the first

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of young men t, but who are use they have subject. It has hat in devoting or tennis they ves in the first

place and of others in the second—if they think of them at all. Many a good scout-master has come to us on having this fact pointed out to him. Indeed, the better sportsman he is the better scout-master he proves to be when he takes up the duties, for the work is of a not dis-similar character.

There are plenty of young men who would like to do something for their country if the chance came their way, but who see no chance; very often they are looking too far afield. If they looked nearer in, close under their noses, they would at any rate see this chance—the opportunity of getting together a band of their younger brothers, all eager for the fun, of taking them in hand and showing them something of the sportsman's and woodsman's life, the handiness and comradeship of the camp, the fair play and discipline of the games.

The work is not difficult or exacting or expensive. It is largely a matter of getting a few good lads trained in the duties as given in the handbook, "Scouting for Boys," and then putting the responsibility for the discipline and efficiency of patrols under their respective commands on their shoulders.

But perhaps the greatest difficulty with which we have to contend is the absence of information among the general public as to its aims and methods.

It is an institution that has grown up of itself without any previous warning or explanation. Consequently, there is much ignorance concerning it. For instance, we are often told that this movement is a form of military-cadet service made attractive by another name and by a sporting uniform. If the objectors would look into our methods, they would see that we particularly avoid military training. Our aim is far higher than to make soldiers; it is to make citizens.

From the Religious Side.

We avoid military drill because it tends to make boys part of a machine, whereas our aim is to develop the individuality and responsibility of each lad. Military discipline is fear of punishment, put on with the uniform and dropped the moment parade is over; the Boy Scouts' discipline is a sense of duty that he is expected, on his honor, to follow at all times, day or night, in uniform or out. It becomes his "character."

Another objection at first urged against the movement was its want of a definite form of religious training.

Scouting has been taken up by Methodists, Congregationalists, Episcopalians, Presbyterians, Quakers, Roman Catholics, members of the Greek Church and Jews. So there is no kind of sectarianism about it. We insist only that the scout shall carry out in daily practice the religion that he professes.

One step to this end is the performance of a good turn to somebody every day, the duty to one's neighbor that is at the base of every religion.

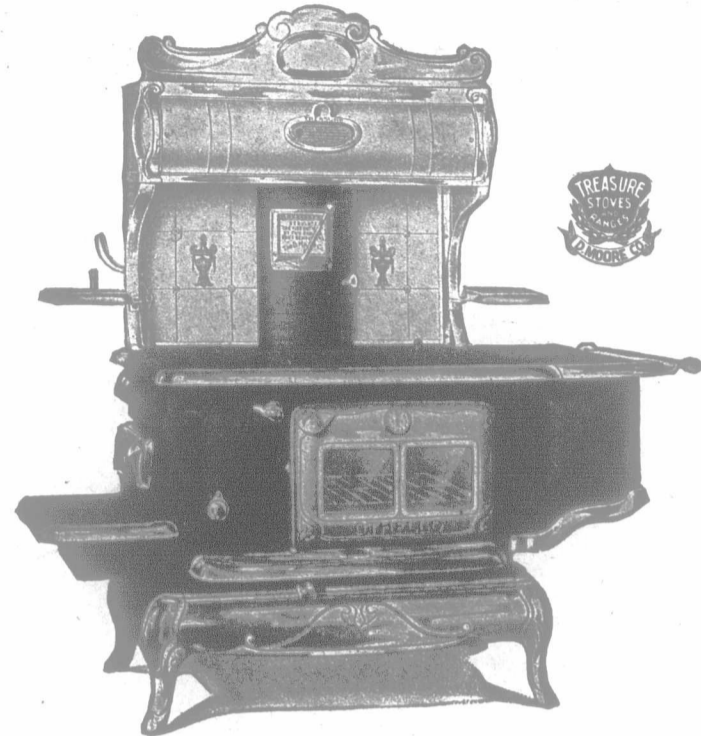
A difficulty which sometimes arises and which when foreseen can very easily be avoided is this: when a local committee is formed to administer the movement in a district, it is often made up of a number of enthusiastic young scout-masters. When they assemble in council, each of them has his own eager scheme to put forward, with the result that opinions clash, and the committee is disrupted with factions, and exercises no controlling influence.

The best way to avoid this trouble is to form the committee largely of men of local standing and business capacity who are outside the executive ranks of the movement, and let them appoint an executive subcommittee made up of some of themselves and two or three scout-masters.

The practical comradeship and esprit de corps of Boy Scouts cannot but help in the consolidation of sentiment in the nation if widely enough spread among the generation now growing up, nor need it be limited by mere geographical boundaries; it has taken its root in almost every civilized country in the world. If it can be fostered and developed, it may eventually be helpful in the achievement of universal comradeship and sympathy—the peace of the world.

[Since the beginning of the war the Scouts have been very active. We shall try to have something about this work before long.—Ed.]

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He is a great big heavy fellow, and his business is to make life easier and cheerier for the whole family. No light weight could do the work and keep on doing it like

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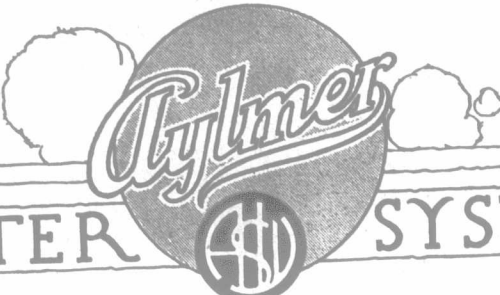
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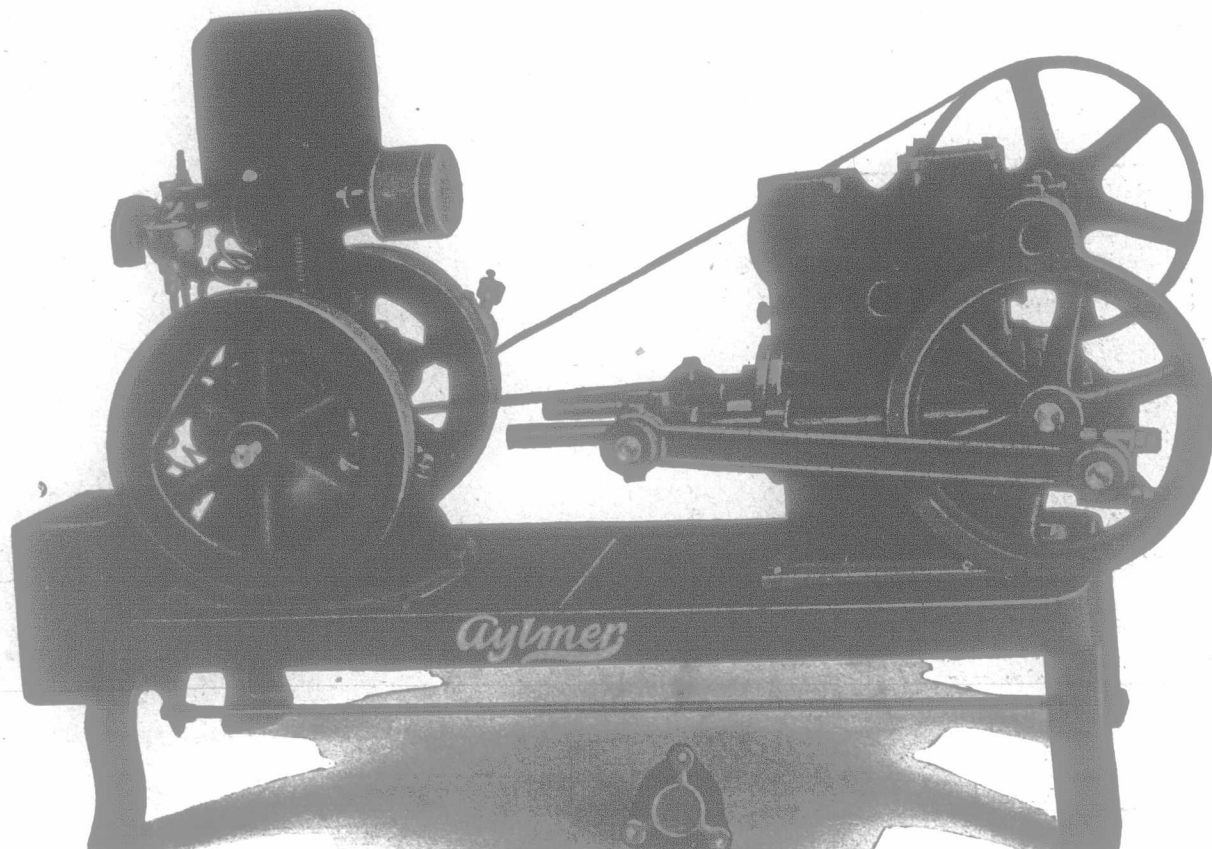
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III.

11

I used to take my letters to the far end of the Cul-de-sac, where the blocked gorge eternally booms. My thoughts silenced the wild music of rocks and water. Three miles back, the smoke of the dredge tried steadily, and often vainly, to show its wisp above the brown curvilinear mass of Moloch, and the Vatican stood out like a great toe from the mighty nameless mountain to the seaward.

This was the solitude I desired. One of Mary Romany's letters had been dated from Tampa. She did not deign to fix the place of her writing more than once. Matters of the place and the day, moreover, did not compel space in these living documents which her father handed me with delightful regularity; but I thought of her as in Tampa, and needed no date-lines for the boundless joy her writing brought. There was an invariable smudging of envelopes in the Libertad office, as if they used the ink-pad instead of the stamp. The old Master often laughed about it.

From almost every letter there was a line so intensely vital, that it was like a winged bird in my mind. Though her hall-mark of individuality was upon these lines, they were less personal, pure truth fragments. She gave no thought to the art of her writing. . . . Covent was like a deep dream to her, she said, and she moved about now, all the stations of her life marked with Covent places and whispers and scenes. Living a dream—that's what made the real artist, she believed. I remembered that entrancing look in Mary Romany's eyes (that made a child and worshipper of me) when she looked away to sea against the wind. . . . And sometimes I found a little gray fear, not in the words, but a shadow over the page as she wrote. And once she dreamed about a caravan—journeying on and on through dawns and dusks and moonlights and burning days. In this dream she did not know if she would end among the palms and fountains or out in the dry wastes. . . . I saw the eminence she desired to reach with her lover—an eminence that only prophets reach, and they alone, girded with the fiery strength of loneliness. I had but a man's hard limbs, yet I remembered she had wings.

From the crinkly sheets, I realized her temperament again, its instant unfolding, its vitality and concentration, its passion lifting out of the senses. I saw the thrilling woman that others might see, the strong frail hand that knew so much, the lips that trembled, the eyes that filled with tears, and the heart that knew its lover and fared forth to meet him—and was waiting until he came. How I willed and desired to bring back the world's song to that brave breast.

She had the strangest way of not mentioning things, but the spirit of things. She reproduced actually none of our land-marks, but salient pictures of them, all the more startling in effect. She used words not to tell the facts of her yearning and remembering, but to quicken my mind with the very currents which carried them. . . . And so I sat in solitude in the midst of the great mountains; often it was twilight before I started back. The time passed magically, remembering Mary Romany and the fulness of life she had brought to me. It was a love that had known many waters; the Yellow River for action; the Island for early romantic blooms, and these mountains for meditation.

So often I remembered that Covent sunset and the low graves on the bluffs, and what we had said. I found some verses of Charles Henry Luders called *The Four Winds*, when my cases were brought down from Libertad. I put the clipping in a letter, and knew that she would remember that day. It was

enough for any man to do, that poem.

I wish I could suggest the beloved mystery of Mary Romany as it met and mingled with all that was untried and blindly animate in my own heart.

I remembered the pebbles on the shore of the Sound—and the few bright ones we saw, and what these few were likened to in her mind; of the Shining Waiting One who did not have the "sweet intense anxiety" of the others.

. . . I thought of her taking long breaths for me, in the weeks that I had breathed from the throat, recalled the middle-room, the piano-house, the perfect first night, the proprietor with "a touch of the big city upon him."

. . . I remembered the last night of storm and the yellow rose, all her sentences, and the voices she had heard in the wind saying, "We have helped you."

She had not cared what others thought; she had met full frankly the eyes of the Inn-keeper and the women of the house. She was strong in loving. . . .

Her red lips and the riddle of creation in her eyes that morning in Covent, as I crossed the room; and how we went back together from the country of the red earth, and she was not afraid; the kiss of morning, moonlight, east windows and the sounding North. She had made over anew each day for me. The first glance of her in the morning, some profile-inspiration, some new charm in what she said or wore, arranged the day and adjusted me to a pitch in the creative scheme, different always from yesterday and never exactly to be duplicated again.

A woman must have this effect upon a man if the two have been designed for each other, since to be happy and alive one must break new ground each day. There may be matters of more importance to a man than being a good lover, but they do not occur to me now; and I know of no better way to spend my life than in being a worthier lover each morning to Mary Romany.

The world is arranged on the basis that all matters of real value are relegated to the after-hours of life—a man's so-called work coming first. On the contrary, a man loving while at work—seems to be conducting himself according to godly arrangement. His is apt to be symphonic service. Always I had been lifted with Mary Romany near. Many times in the midst of a long day together, I had caught myself thinking that we had been companions for years, and had not grown tired for a single moment. Just a glimpse, this, of thoughts from the letters, that I took to the far end of the Cul-de-sac, and read and read again; and I do not wonder that I forgot the hours, nor that the old Master laughed when I came home with the night to Headquarters, all electric from happiness.

There was a great lonely condor that used to cross the valley, a thousand feet above my seat in the rocks. Once or twice in an afternoon I would watch the vast moveless spread of wings, the head turned stiffly, as if it were wired so, one death-familiar eye turned down.

"You must have sat still as a corpse," Romany said, when it occurred to me finally to tell him of the great bird's sailings.

I took several commissions of a secret nature to Libertad during the period of quiescence. The trail continued open, "smilingly open," as Romany said: "almost tempts one to start shipping bullion." He never seemed deeply troubled over this ultimate difficulty, but I confess it was wedged in my mind.

On one of these journeys to Libertad (it was at the end of my fourth month in the valley,) I found unoccupied the same room that had been mine the first night in the town. My mission was satisfactorily completed. Two Americans had called at the hotel at sundown, and asked permission to ride back to the placer with my party in the morning. The old Master was not accepting any labor at this period; and though he took great pains to have the opposite believed, he would have found a way to refuse capital as well.

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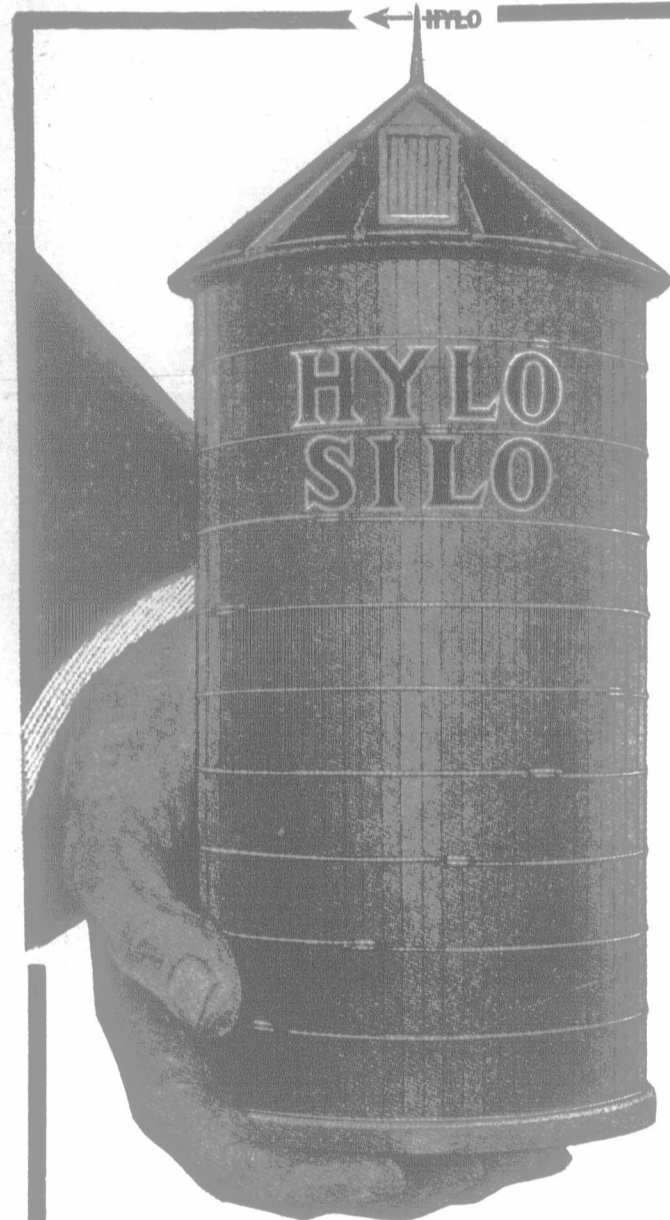
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meeting prospective investors. Of course I welcomed the thought, but was glad to be rid of them for the evening.

And so I sat on the balcony again where I had first wined Tropicana, and first heard the voice of Lillian Yarkin. It made me think of the Yarbins to be there—what a real liking I had for them. She was an out-and-outer, game and clever and big-hearted. I thought I knew at this time what she meant by "coming from a big family," but she was making mighty good in her own establishment. . . . The night was sumptuous even for equatorial splendors. Out of the seething constellations, wondrous individuals hung low as if in jeopardy. I thought of the night as a great black feminine hat, and these, white jewels among the plumes. I fell asleep over the third or fourth of a series of the old Master's cheroots. As I slept, I dreamed.

The exact matters of light and darkness and movement never cleared, but the dream was exquisite and about Mary Romany. A sense of her nearness lulled me. The strange peace of it; a call to the high place of the world's elect; a swift realization of the crudities of life, and the realities of love and inner growth—out of all these came the thrilling sense that Mary Romany was near; that the tip of her third finger pressed against my lips—the cushioned tip of her frail third finger.

It seemed as if I were awake, but surely something swept from me—something that caught the starlight in the swiftest glint. And there was a fragrance in the air that I used to sense when she was very close—the yellow rose, windy pine forests, the tonic freshness of the Sound.

Perhaps I was not fully awake until I saw the wooden partition shutting off the next balcony. This was the realization that broke upon the startling loveliness of the dream. . . . There was no sound from the next room. I remember wondering if a slender arm might not have reached around the balcony partition and touched my face.

There was pain in discovering the illusion, but those lingering properties of fragrance, and the reality of the waver of pale reflection before the stars, remained in my mind with inexpressible beauty. There was a renewed truth to her tenderness, a consummate foretaste of the gladness when the Year should end, and a great outpouring of thankfulness from my heart to the woman and the world. . . . I could not sleep again that night, neither on the balcony nor within—and I never tried harder to sleep, tried breathlessly—in the hope that the dream might come again.

12

The next morning the two Americans appeared, and the little party started down the trail. Teck and Morgan wearied me before two miles were done. Sheer concentrate worldliness. I was out of training for such. They seemed restless to impress upon me their station in life, as do only those who are not certain of it. . . . A few remarks startled me. As "retired merchants" they became unstable in my mind. A laugh, a look, a word—affected me with their uncommon sophistication, the hardness of hard men's feelings, a larger comprehension of the ruck of affairs than merchants usually have. . . . At the Pass—it struck me like a sudden illness that these men had come for Yarkin.

Huntoon was at the Pass, and in command, Viringhy having gone to the valley. My friend appeared a bit rakish. I assisted Teck and Morgan to dismount (they had looked the part of retired merchants in the saddle,) and left them watching the lift of the draw, to follow Huntoon into the small post behind the rocks. There was sour wine on his table. He faced me, shutting one eye and propping up the other with his forefinger.

"I hardly think you will do for what I want, Huntoon."

"Oh, to be shed of them harsh words," he exclaimed, handing me a glass of wine. "This is a seminary drink," he added. "I couldn't get a start on *vino tinto* unless it was in a gun-powder solution. I was just trying to jockey myself into believing I could. What's on?"

And now Huntoon attended to my trouble. He told me to join the pair outside and come back in two minutes. He'd have a messenger on the way,

Of course but was glad evening. balcony again ed Tropicania, Lillian Yarbin. Yarbins to be I had for them. er, game and I thought I she meant by ily," but she nd in her own ight was orial splendors. constellations, ing low as if of the night ine hat, and ng the plumes. hird or fourth ster's cheroots.

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will do for what m harsh words," e a glass of wine. nk," he added. rt on vino into powder solution. key myself into 's on?" attended to my o join the pair in two minutes. r on the way,

meanwhile, to warn Romany to get the Yarbins out of sight.

I returned to Teck and Morgan and leisurely explained that the second in command would be pleased to receive us in a moment. The Americans expected a comic opera officer, and Huntoon did not disappoint them. He had on Viringhy's hot gold-braided coat, over a soft shirt; and the devil was gently fanning his mind. He played circus for Teck and Morgan, until I caught a nod from him and knew it was safe to resume the journey.

Romany welcomed the men. . . It was mid-afternoon when he gave me the key to the Vatican, knowing I had something to say to the Yarbins hidden there. Maconcachie had the guests in tow showing them the placer. . . For the first time alone, I entered the heart of Tropicania's defense. I found Yarbin pacing up and down in the gloom. The woman sat upon the well-curbing, in the midst of the stacked rifles, and waited for me to speak.

"You'll have to forgive me, if I had a wrong impulse," said I. "But if I did—all you've got to do is to go back into Canaan—" and then I explained the exact process which had brought them there.

"You had a lucky hunch, Ryerson," he said. "That's the hell of it."

"They seem more interested in faces, than in the valley activities or scenery," I said, "but even if they are man-hunters and tell the Chief what they want and why, I'm sure Romany will take the stand I do—that you belong to us here, and that all before that is none of our business."

The woman stood off watching us. I remembered queerly her saying months before, that Yarbin and I looked well together. So many clean laughing little things, she had done for us all, since that packet of letters. She came closer, and dropped her arm over Yarbin's shoulder. In Libertad, they had seemed recently to have met from far ways of misunderstanding. Each had lived hard—and had plunged. Something big had come to them since then, hiding and working together.

"Granting that they want me—and somehow I've got a shot that it's so," Yarbin said, "what are we going to do—go or stay?"

I saw a possible way, but I didn't care to speak of it. If Teck and Morgan came to the valley for Yarbin, they wouldn't leave contentedly without a look-in at the Vatican. The chances were that they had Orion fixed to watch the Pass. We might manage to get Yarbin across in the night, but never the woman.

I think Lillian Yarbin saw my idea now. Her face grew whiter. The man was saying:

"The money came hard, Ryerson. We've paid the price. It's not so rotten as it looks—quite. Romany would have to pay me off in gold. Driven around the mountains, around the world—I couldn't pack a lot of gold. . . I know he's square—"

"Was any of this currency he has been using—marked?"

"I think not—but it was big stuff," he said. "I wouldn't mind, if we could stay here and fight it out. I'd be willing to lose—if I had a hand in at the finish—"

"You'd better wait to see what the Chief says," I told him, troubled by the dull hopelessness in the eyes of the woman. "It's a fight to the death with him for every man who has cast his labor or his earnings into this big pool. We can hold off an army, but at the last, we've got to get out of South America with the bullion—and that's what looks like the hard trick to me. . . Yet somehow we've all learned to trust the old Master. When it looks blackest, he turns a new trick and the air is clear again. We've all seen him do it—one big one before you came—" I pointed to the stacked rifles. "He had that planned forty days before it was pulled off—and we had all given up our last hope."

"That's all right," Yarbin said quickly "I heard all about Romany and that he was square long before I came here, but he can't keep that pair out of here indefinitely. . . You'll have to stay, Lillian—yes, that's it. You stay here, and I'll do the vanishing act for the time. . . Ryerson can help me get across the Pass—"

"I thought you'd get to that," she said. "I had already turned it down.

If Romany thinks we'd better light out—we'll go as we came, together."

"Melton isn't well," she whispered to me. "He's all nerve and a lion in a scrap, but this waiting, hiding—this slow stuff—it's got him. He'd break, but for me. . . You run along and find out how Romany stands on the matter—and hurry back."

I nodded. It was more than ever great and deep to me—the light that a woman brings to man's mismanagement, when she loves him.

On the second night after their arrival Teck and Morgan delicately confided to Romany that they were out after Movrill, alias Yarbin. Our chief had passed one of his worst days since the wound. I had never noticed his hand so wasted, as that night under the candles. The whiteness of his mouth and nostrils struck me with fear. I took no part in the talk at Headquarters that night. Teck, the sharper of these foundry-products, took the lead:

"This fellow Movrill is here—and he's called Yarbin," said he. "More than that, he's got a woman with him. You're hiding them, Romany. So far as I can see, your position here isn't one that entitles you to get America—hell, I mean North America—the States—after you—"

I turned to the old Master. He was lying on his cot, his hand covering his eyes. His courage had never ceased to thrill me, and the manner of his conquests over our adversaries. All that Teck said (with the thicker Morgan smiling sourly behind him) struck me as hard world's truth. I was anxious for Romany's answer, and darkly apprehensive for the pair in the Vatican.

"It is thus that my loves have died," came slowly from Romany's ashen lips.

"Huh?" broke from Teck; and from Morgan, Huh?"

Romany uncovered his face and smiled. "What were you saying, Mr. Teck?"

"Tom, pass Mr. Morgan a cheroot."

Teck wasn't penetrable enough to see that he was being laughed at. He thought the sick man's brain rambled, and endeavored to call it back now and hold it, by re-stating his case with more force and impudence. He seemed familiarly acquainted with brains that rambled.

"I've always noticed," Romany said quietly, "that between two convictions on a certain subject, the result is better if I use my own."

"I don't get you quite," said Teck. "Now, I'm an old man," Romany resumed apologetically. (I felt that something was to happen when this intonation began.) "I may be out of touch with worldly things; in fact, an old man loses his grip on matters of this world—"

"Quite so," said Teck.

"And yet old men are apt to be stubborn—"

"Sure."

"You say—so far as you can see, my position doesn't entitle me to get North America down on me by protecting this—what is the gentleman's name?"

"Movrill—Yarbin here," Teck answered impatiently. . . They sat on the edge of their chairs. Morgan's hands gripped his knees. Teck twirled his hat nervously.

"You've used a great deal of judgment as well as penetration," said Romany.

"That's our business. What were you going to say before?"

"Only that I like my conviction better than yours."

"Which means—?"

"That if North America wishes to come and get this man you say is here, but whom you can't find, I'll be glad to entertain North America—"

Teck whitened and Morgan turned evil.

"I could use North America," Romany added softly.

Morgan now spoke. "We came here to get this man. We took it that you were straight, in spite of what we heard on the way. We've got you—what's the use of writing and talking big?"

"It's just a way I have," Romany said.

"Our man is in the big church—that's the truth of it," Morgan said, in a sudden lifting voice.

"Oh, by the way—you haven't seen our arsenal?" Romany asked quietly as before. "We call that old ruin 'the Vatican.'"

I think I was more startled than either of the two visitors. They glanced at

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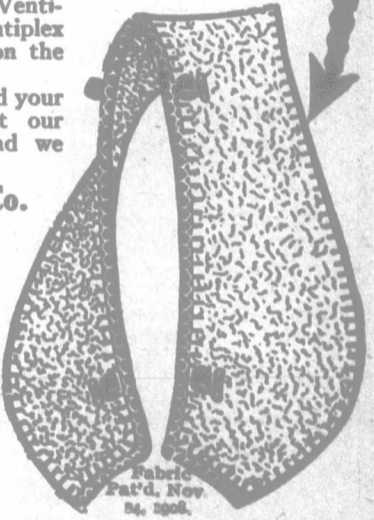
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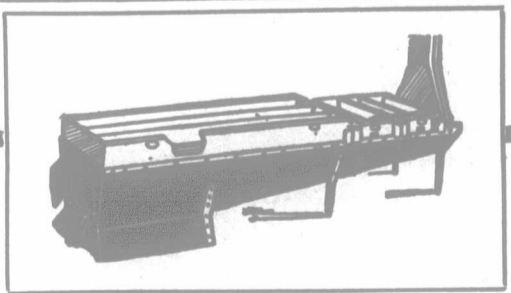
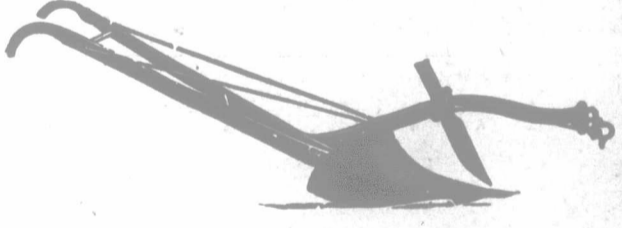
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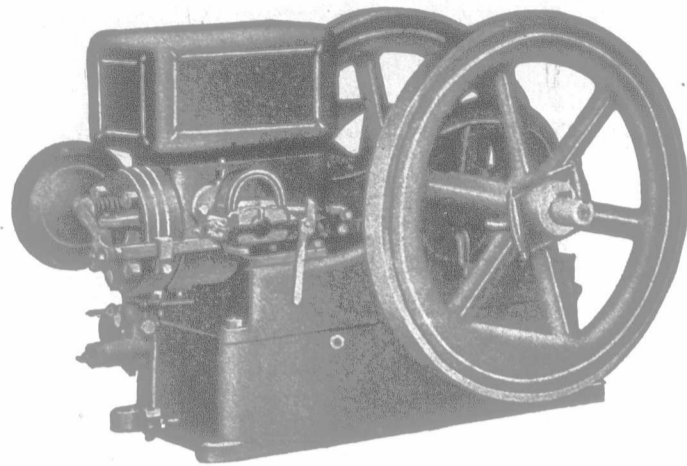
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If visiting the big fairs, call at our exhibit in the Industrial Building, Toronto; Machinery Hall, Ottawa and London, and we will show you the most improved utensils for making the highest quality Maple products. Competent demonstrators in charge.

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Kerosene
Oil Engine



Here is an engine far in advance of anything else ever offered.

**Uses either
gasolene or
kerosene**

It is specially designed for operating on the cheaper fuel—kerosene oil.

**You will
appreciate
its
simplicity**

Each Page Engine is tested before shipped—and reaches you ready for instant service. Just fill the oil tank with kerosene, the water tank with water—and put a quart of gasolene in the special "starter" tank. A perfect magneto supplies the spark (no batteries needed). Then puff, puff, chug, chug—your new Page Engine is at work. A few minutes only it needs gasolene, just until the cylinder gets hot. Then you shut off the gasolene valve and open the needle valve of the main supply tank.

**Greatest
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Least Fuel**

Because the "throttling governor" is the most practical and responsive ever used on an engine, an accurately - proportioned mixture of oil and air is

assured; also uniform cylinder temperature—which means the greatest power for the least fuel. Truly a wonderful engine—wonderful in design and strongly built. And doubly wonderful at the prices we are selling it for.

**3 Sizes that
burn oil**

1½ h.p. (Burning gasolene only).....	\$ 42.50
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3 h.p. (Burning kerosene or gasolene).....	85.00
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Order from your dealer or direct from the Page branch nearest you. We pay freight to any point in Old Ontario.

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Factory at Walkerville

Is This Your Kitchen?



He was going to "clean" out the soot next week, but his wife had an extra big fire today. That is the story, of fire after fire.

Here is the result, ending in ruination, perhaps, in the home that is not insured. The only safe way is to take out a policy in the London Mutual Fire Insurance Co.—the widest and most liberal policy in force to-day for farmers.

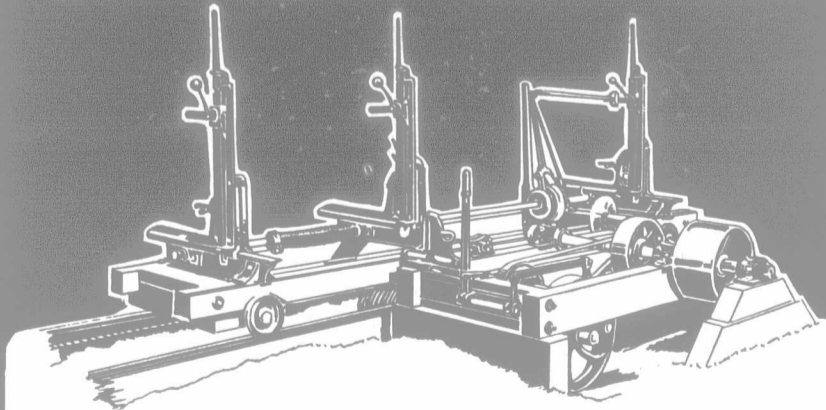
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IF the trees on your farm are first quality timber, why cut them on a mill that will lower their market value?

The Waterous Portable Outfit will cut your trees into lumber that is as fine as that turned out by any custom mill. Hundreds of users, who didn't know any more about timber sawing than you do, are proving that every season. The secret is that the Waterous Portable Mill is built just a little better than is necessary to do portable work—it has special fittings, found

only on higher priced mills, that help you cut your logs as they should be. What is more, the Waterous Portable is dead easy to set up, simple to operate, and is built so strong that it will keep on cutting first-class lumber year after year without trouble.

The profit in your trees, and in your neighbors' is worth your investment in this reasonably priced, high-grade mill. Quality counts every time—and especially in lumber making, with prices as high as they are now.

Send us a card to-day for our Portable Sawmill Catalogue

The Waterous Engine Works Co., Ltd., Brantford, Canada

each other. They had been everywhere else.

"No, we haven't seen the arsenal," Teck replied, eyeing me. "We've been steered away from there."

"I suppose my boys are a bit chary about the gun-room. There's a lot of blasting powder there. You'll always find soldiers that way, and I haven't been on my feet lately—any more than necessary. Sometime you'll have to see the arsenal—to-morrow or next day."

Teck arose, walked to the edge of Romany's cot, and said in a low tone: "I'll tell you what we'll do—we'll shut up, and get out of here, if you'll let us see that arsenal to-night—now."

Romany appeared perturbed. "Nonsense, the place isn't adequately lit. You couldn't do it justice after dark. I'm sure the men wouldn't like it."

Teck turned to his companion with a scornful smile. Black clouds had settled upon my understanding.

"You're dam' particular about your men all of a sudden," said Morgan.

"I suppose I am," the old man replied wearily.

"I tell you, Romany, you're making a big mistake—" Teck broke in.

"I've always been told that—"

"We're out here for Yarbin, remember that. We'll get him if we have to hang on to the finish, or get Ecuador and Peru to help us."

"And North America—"

Romany's coolness blunted Morgan's tendency to bluster, as he added: "We'll get the pair if they're turned loose. Sure—we could go through the church—in a day or two. But we'd catch 'em with the goods to-night—"

The old Master turned to me.

"Tom—if these gentlemen must see the Vatican to-night, go with them—but do be careful with the lanterns. There's a lot of powder there. . . . I'm sorry I can't go with you—" he added in apology.

To be continued.

Wife (delivering a tirade)—At last my eyes are opened.

Hub (calmly)—I wouldn't mind that my dear, if your mouth wasn't also.

Knicker—What do you think of the eight-hour railroad day?

Bocker—Fine; no passenger should be compelled to ride any longer than that.

Ragged Rogers—Dey say dat some Broadway swell never wears a suit more dan once.

Frayed Philip—Well, neider do we—only it's a longer once.

A golf player who had been badly beaten by his opponent explained to him that he had been suffering all day from neuritis. "It's a curious thing," replied his opponent, "but I've never beaten a man in perfect health in my life."

The following amusing incident was witnessed the other day at a railway terminus. A Salvation Army lassie was selling the War Cry at the windows of the trains. In one of the compartments were a number of youths on a vacation, and one of them, thinking to have some fun at the expense of the sister, asked her if she would offer up a word of prayer for him.

Rising to the occasion, the sister put her hand on his head and, to the amusement of those within hearing distance, replied:

"O Lord, make this young man's heart as soft as his head."

The beggar stood against the wall with his eyes closed and a large card bearing the words "Deaf and Dumb" tied around his neck. A passer-by gave him twopence, and the beggar said: "Thank you, sir."

"Hullo," said the man of means, "how is it you call yourself deaf and dumb and yet you can speak?"

The beggar opened his eyes and looked at the words on his card.

"I beg your pardon, sir, most un-business like of me. The fact is, I made a mistake in the day."

Then he turned the card over, showing the words:—

"Blind from birth."

Then he closed his eyes, folded his arms, and resumed business.

Gossip.

Maple Leaf Shorthorns and Shropshires.

Shorthorn cattle and Shropshire sheep are the specialties bred at Maple Leaf farm near Solina Station, C. N. R. by John Baker, one of the younger breeders in the county of Durham. Mr. Baker has been associated with the breeding of Shorthorns and Shropshires all his life and knows them from the ground up. His herd of Shorthorns comprises such popular families as the Minas, Missies, Jenny Linds and Louisas and at their head is a Lavender-bred son of the great sire, Superb Sultan. Mr. Baker is always able to show purchasers something interesting in females and young bulls and this year is no exception. The flock of Shropshires is among the good flocks of Ontario. All the breeding ewes are bred from imported stock on both sides and this year's lambs are by the extra good ram, Imp. Knox 16. In ewe and ram lambs Mr. Baker is offering some choice things. Write him your wants to Hampton, R. R. No. 1.

Cloverdale Berkshires, Shropshires and Shorthorns.

Berkshires, Shropshires and Shorthorns, are the lines of breeding specialized on the Cloverdale farm of C. J. Lang, near Burketon station on the main line of the C. P. R. east of Toronto. Mr. Lang does a big business in Berkshires, shipping from one end of the country to the other and invariably with satisfaction to his hosts of customers. A sow that has proven a gold mine for Mr. Lang is Imp. Suddon Vixon 3190. She is a regular breeder of big even litters, as are also several daughters of hers, imported in dam. Just now there are 25 of her granddaughters got by imported sires that are bred, and about the same number getting near to breeding age. These are principally daughters of the great sire, Imp. Elmhurst Augusta, 32141, a hog of great length and depth and quality with it all. Mr. Lang is in a position to fill orders of either sex and any desired age. The Shropshires are all of Campbell breeding, daughters of such noted rams as Imp. Butters Choice, Imp. Belvoir Sirdar, and Dangerous, and this year's lambs are by Imp. Knox 16. They are a choice lot of Shropshires and in prime condition. The lambs of course are for sale. The Shorthorns are principally Fashions and Annabellas. Several two-year-old heifers for sale are in calf to King Rober. 105038. These are a well-balanced lot carrying a wealth of flesh. Write Mr. Lang your wants.

Burnfoot Shorthorns.

Few breeders have risen to fame as quickly as has S. A. Moore of Caledonia, Ont., owner of the noted Burnfoot herd of dual-purpose Shorthorns. Although but a few years engaged in the breeding of Shorthorns the sensational records for milk production made by the cow, Dairymaid 86,086 which in one year gave 13,535 lbs. and the two-year-old heifer, Jean Lassie, in the year gave 8,939 lbs. milk and 371 lbs. of butter-fat, have made a name for Mr. Moore second to none in the Dominion as a breeder of heavy milking Shorthorns. But these do not represent all the sensational producers found in this herd. Another mature cow, Burnfoot Lady has an official record of 10,689 lbs. milk and 415 of butter-fat. Bonnie Jean in 218 days gave 8,149 lbs. Her grandam was a 60-lb. cow and she is the dam of the great two-year-old mentioned above, Jean Lassie, all going to prove that the big production of this family is not a mere chance but an inherited character. It may be of interest to some to know that this family are descendants of Jenny Lind, imp., as is also Burnfoot Lady, while the cow Dairymaid goes back to Lavinia Imp. 299. Beauty Joy, traces to Lily 302 Imp. At her first calving she gave, in one year, 7,000 lbs. In service on the herd is a son of Dairymaid, Burnfoot Chieftain, whose sire's dam traces to Beauty 30 Imp., thus he combines from both sides the strongest producing blood of the breed in this country and with it is an exceptional degree of type and quality. Probably the most interesting of any of the young bulls coming on for sale later is a 6-months-old son of Dairymaid sired by a son of Bonnie Jean, this surely is intensive breeding.



New Prices August 1st, 1916

The following prices for Ford cars will be effective on and after August 1st, 1916:

Chassis . . .	\$450 ⁰⁰
Runabout . . .	475 ⁰⁰
Touring Car . . .	495 ⁰⁰
Coupelet . . .	695 ⁰⁰
Town Car . . .	780 ⁰⁰
Sedan . . .	890 ⁰⁰

f. o. b. Ford, Ontario

These prices are positively guaranteed against any reduction before August 1st, 1917, but there is no guarantee against an advance in price at any time.

Ford Motor Company of Canada Limited
Ford, Ontario

Simonds Crescent Ground Cross-Cut Saws

This saw will cut 10 per cent. more timber, same time and labor being used, than any other brand of Cross-Cut Saw made. This guarantee has stood for thirty years.

There are two reasons for the superiority of the Simonds Saw—grinding and steel.

A saw that does not bind in the kerf cuts easy; a saw that binds is a bother. Crescent grinding insures saws ground so that the teeth are all of even thickness throughout the length of the saw, and the blade tapered for clearance to the greatest degree consistent with a strength of blade which enables the operator to push as well as pull the saw. Crescent grinding is an exclusive process, used only on Simonds Cross-Cut Saws.

Simonds Steel will take a temper to hold a cutting edge and stay

Simonds Canada Saw Company, Limited, Montreal, Que. Vancouver, B.C. St. John, N.B.
 Always buy a saw with a sharp cutting edge—not a soft saw—because the former lasts longer and keeps its edge better

sharp for a longer time than any saw not made of Simonds Steel.

There are two reasons why you should buy Simonds Crescent Ground Cross-Cut Saws—Quality and Price.

Superior quality makes your cutting as easy as cutting can be.

The price is moderate for the saw value given. It is about the same as you would pay for an inferior saw; therefore, why not get the best for your money—a saw with the manufacturer's name, "Simonds," on it. It is your guarantee and your protection. The saw illustrated, Simonds Crescent Ground Saw, No. 22, is the most satisfactory saw for all usual sawing purposes. Insist on your hardware dealers supplying you with Simonds Saws. Write to the factory for further particulars.

Exhibition Visitors

WHEN you attend the Canadian National Exhibition at Toronto, Aug. 26 to Sept. 9, you may need someone to give you reliable information as to the location of different features of interest, and also directions for finding any desired place in the city. Our staff of attendants at our Exhibit in the Farm Machinery Section are thoroughly familiar with all buildings and exhibits, and know the city streets well enough to direct you anywhere. Please tear off the coupon at the bottom of this advertisement and present it at our Exhibit, and it will entitle you to any information you desire.

See the Machinery in Actual Operation

We have laid out our Exhibit so as to display all our latest labor-saving, farm machinery in actual operation. Practical Water Systems, Pumping Plants and Power Outfits will be installed under actual working conditions, in such a way that every working part can be readily examined. We are glad to answer questions, and are glad to show every detail of our machinery. Our Exhibit includes:

- THE CHAPMAN ENGINE
- TORONTO AUTOMATIC STANCHIONS
- TORONTO ENSILAGE CUTTERS
- TORONTO ECONOMY SILO
- WATER SYSTEMS

Also the TORONTO WINDMILL, and full lines of SAWS, GRINDERS, TANKS, PUMPS, etc.

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The bearer of this coupon is entitled to the courteous attention of the person to whom it is presented at our Exhibit, and any information that is required by bearer shall be given and all possible assistance rendered.

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THE NICHOLSON LUMBER COMPANY, LIMITED
 BURLINGTON, ONTARIO

Please send me your FREE BOOK on SILO CONSTRUCTION

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

Look Us Up at the Canadian National Exhibition

Gossip.

Shorthorns and Shropshires at Dundrennan.

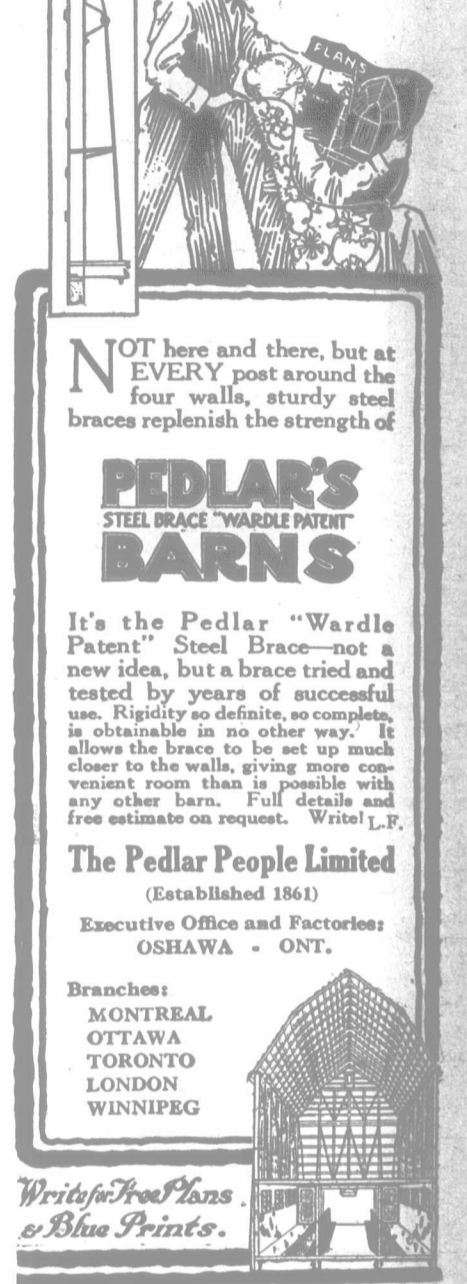
Another visit to the Dundrennan farm of Peter Christie & Son of Manchester, Ont., found their Shorthorns and Shropshires looking their best on the luxuriant pasturage. As has been mentioned in these columns before this is one of the noted dual-purpose herds of Ontario. Big heavy cows and carrying big, nicely balanced udders they look every bit the part of dual-purpose cows and their ability to produce from 8 to 12,000 lbs. of milk in the year proves their looks are in no-wise deceptive. One two-year-old heifer, tracing to Imp: Beauty, in 6 months has given 4,000 lbs., and her dam is a 12,000-lb. cow. Others on blood lines trace to Imp. Wildame, and among the pure Scotch bred are Wedding Gifts and Miss Ramsdens. The majority of the younger ones are daughters of the Jilt-bred bull Ben Scott, a son of Imp. Ben Lomand. These are now being bred to the Cruickshank Emma-bred bull, Sittyton Hero, a grandson of the renowned Whitehall Sultan. Another bull being used to some extent is the Lavinia-bred son of Nonpareil Ramsden. This bull is white in color, a low down thickly-fleshed bull of extra promise, 20 months old. He is for sale and his breeding particularly fits him to head a dual-purpose herd. In younger bulls bred in the herd that are for sale, none are over 3 months of age, but in females there are a number of heifers that will surely do a lot of good for the breeders fortunate enough to get them. Seldom if ever, have the flock of Shropshires done so well as this year and the big crop of lambs are coming along extra well. These will be for sale and sheep to-day are one of the breeders' biggest assets.

Shorthorns at Irvinedale.

An exceptionally choice lot of new blood has lately been added to the noted old Irvinedale herd of Scotch Shorthorns owned by John Watt & Son of Elora, Ont., notably the nicely fleshed Lady of the Boyne-bred cow, Lady of the Boyne 13th by Trout Creek Stamp. This is one of the big, thick cows that are in such keen demand to-day. Another is the "Fancy" bred cow, Scotland's Fancy, by the renowned, Whitehall Sultan Imp. Dam, Proud Fancy Imp. by Pride of Morning. She too is a big, thick cow of great scale. Another is the Cruickshank Butterfly cow, Barmpton Lady, by Sittyton Selection. This splendid cow is in calf to the great bull Imp. Gainford Marquis. Roan Bud 2nd, a Brawith Bud-bred cow, is by Imp. Scottish Hero, dam by Imp. Royal Prince. She has a beautiful heifer calf by Gainford Marquis. Clara 61st by Royal Lancastar is another of the good ones lately purchased. These with the regular herd of Marr Roan Ladys, Merry Maids and Duchesses, make the Irvinedale herd of to-day exceptionally strong, both in choice breeding and high class individuality. The thick, mellow prize winning stock bull, Gainford Select, 90772, a Kilblean Beauty-bred son of the famous champion, Gainford Marquis Imp. is showing a vast improvement in thick, even fleshing over his condition of last year. He is one of the good bulls of Ontario and is proving a remarkable sire as the young things on hand prove. Some choice sons of his are a white yearling, Merry Maid, which is a good one; two others are reds, both Duchess-bred, 11 months old, and a pair of good ones, their dams being by Imp. Pride of Scotland. Another young bull is a roan yearling, Lady Dorothy by Oak Bluff Champion a son of the Chicago champion, Roan Sultan. These are a choice lot of young bulls and they are for sale, in fact nothing in the herd is reserved.

The farmer was escorting the newly arrived boarder, a young city lady, from the train to the farm house, when all at once she spied a small herd of calves in a field nearby. "Oh," she cried, "look at the little cowlets!" Grinning, the farmer replied: "No, miss; them's bullets!"

Rigidity Reborn at Every Post



NOT here and there, but at EVERY post around the four walls, sturdy steel braces replenish the strength of

PEDLAR'S STEEL BRACE "WARDLE PATENT" BARN'S

It's the Pedlar "Wardle Patent" Steel Brace—not a new idea, but a brace tried and tested by years of successful use. Rigidity so definite, so complete, is obtainable in no other way. It allows the brace to be set up much closer to the walls, giving more convenient room than is possible with any other barn. Full details and free estimate on request. Write L.F.

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TWO CENTS is all it will cost to write us a postal and we will mail free, postpaid, catalogue and colored art folder showing complete line of bicycles, tires and supplies and particulars of most marvellous offer ever made on a bicycle. You will be astonished at our low prices and remarkable terms. **MAKE MONEY** taking orders for Bicycles, Tires and Sundries. **DO NOT BUY** until you know what we can do for you. Write to-day. **HYSLOP BROTHERS, LIMITED** DEPT. 2 TORONTO, ONT.

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Smooth, Hard, Clean-Cut. Write for booklet.

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Please mention "The Advocate."

Gossip.

The North Middlesex Fair is to be held at Ailsa Craig, Sept. 26 and 27, instead of Oct. 2 and 3 as announced.

Good Crops on Drained Land.

D. F. Armstrong, a Leeds Co., Ont., subscriber, in renewing his subscription to "The Farmer's Advocate" says that hay was a bumper crop in his district. He has over 50 tons to spare and he also says that mixed barley oats and goose wheat are giving him a good yield. Continuing he writes: "I have been doing considerable tile draining and open ditching for the past five years and this year I had excellent crops where water used to lie two feet deep in such a season as this. I want to sound a word of warning to any farmers who may be contemplating tile draining this fall. Be sure not to put in too small tile. Better 4-inch than 3-inch, and make sure to get the water off quickly. This is my experience. Another thing very important is to have a good outlet."

The Canadian Army Horses in France.

EDITOR "THE FARMER'S ADVOCATE":

The Royal Society for the Prevention of Cruelty to Animals, founded in 1824, is the mother Society of all animal protection societies in the world. It has consistently advocated the claims of the dumb creation both in times of peace and in times of war.

The horses of the Canadian Army now in France are benefiting to a very considerable extent by the activities of the Royal Society for the Prevention of Cruelty to Animals Fund for sick and wounded horses, and we are at the present time building a Veterinary Hospital in Northern France to accommodate 750 sick and wounded horses of the Canadian regiments now so nobly doing their duty for the mother country. This hospital is costing approximately \$45,000 to build, and in addition we are sending out horse ambulances and other things necessary to mitigate, as far as possible, the sufferings of these animals.

The R. S. P. C. A. Fund, which was started at the request of the War Office in November, 1914, is the only one authorized and approved by the Army Council to do this work.

On the 6th April, 1915, in answer to a question in the House of Commons, Mr. Tennant, then Under-Secretary for War, made the following statement:

"I am aware that funds are being collected in this country by more than one society, but I do not know by how many. It is desirable that it should be known that the only society authorized by the War Office to collect funds and co-ordinate offers of assistance for the horses of the British Army is the Royal Society for the Prevention of Cruelty to Animals, to which all contributions, gifts, and offers of assistance should be addressed. I may add that this Society is working in close connection with the Army Veterinary Department. I agree with my hon. friend that the collection of funds by more than one society involves waste of effort. The remedy is, I think, for the public to appreciate fully the fact that the authorized society for this purpose is the one I have mentioned."

As we have, as well as this work in hand for the Canadian horses, a large development of work for horses of other regiments of the British Army, we are desirous of obtaining all the support we can get, and therefore I appeal to your readers to support us in any way they can by sending all contributions to our Fund. I should be only too pleased on receipt of a letter from any of your readers to send them our latest report and reading matter on the subject of the Fund to show the vast amount of work we have already accomplished.

Cheques, postal orders, or any money sent should be addressed to the Treasurer of the Society, C. A. Phillimore, Esq., The Royal Society for the Prevention of Cruelty to Animals, 105, Jermyn Street, London, S. W., England.

Yours faithfully,

PORTLAND, Chairman of the Fund.

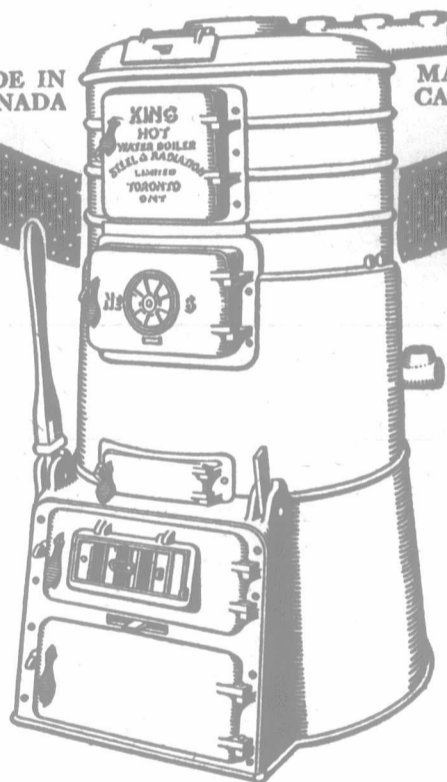
MONTAGUE FOWLER, Hon. Secretary.

KING Hot Water Boiler

It's economical. The King Hot Water Boiler, with King Radiators really and truly SAVES YOU MONEY. Here's why. The "water wall" surrounding the fire-pot and fire-travel, carries only about half the quantity of water in ordinary boilers, and you know that half the quantity heats twice as quick. This means your fire needs to burn a shorter time to give the water the desired heat and the shorter time your fire is at "full" the less coal you use and that SAVES MONEY. The water heats so much quicker in a King Boiler that it circulates faster and heats the housesooner. That's just what everybody wants in a boiler and that's what the King Boiler gives you. ASK YOUR ARCHITECT, YOUR HEATING ENGINEER or YOUR STEAMFITTER for prices on an installation of a "King" Hot Water Heating System in your house--or write direct to us.

The KING has the following Advantages

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Admiral Hay Press Co., Box F Kansas City, Mo.

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THE HENDERSON FARMERS' LIME & PHOSPHATE CO., Woodstock, Ont.

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MARTINDITCHER

AND ROAD GRADER

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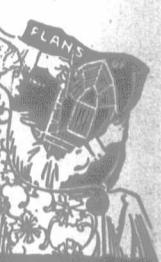
Do your draining when you need it. Send to-day for full particulars of this machine. 1854

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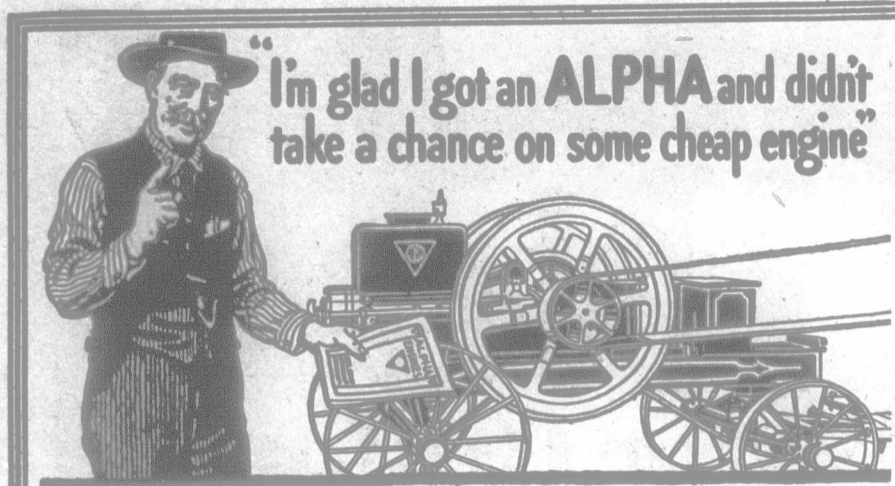
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Advocate."



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There is nothing mysterious about the superiority of the Alpha. The better design of this engine, the quality of material and workmanship that go into it, are easily seen. Ask for a copy of our catalogue. It illustrates and describes every feature of the Alpha and every feature of this engine has in it some sound reason why the Alpha will give better service and last longer. Read the catalogue carefully and you will see where the extra value comes in.

Alpha Engines are made in eleven sizes—2 to 28 H.P.—each furnished in stationary, semi-portable, or portable style, with hopper or tank cooled cylinder.

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THE
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OF CANADA



Trade Topic.

The Canadian Pacific Railway Company have issued from their Department of Natural Resources, Calgary, Alberta, a neat little folder profusely illustrated, and containing special articles dealing with the value of irrigation to the various crops grown in the "Irrigation Block" of the great West. If interested, write for the booklet to the C. P. R. Dept. of Natural Resources, Calgary, Alberta.

Gossip.

Orchard Grove Herefords.

This year again, in common with that of a number of past years, has but more fully demonstrated the superiority of the great Orchard Grove herd of Herefords owned by L. O. Clifford of Oshawa, Ont., over all competitors in the entire Western Canada show circuit, and the same sweeping success has for many years been theirs at the big Ontario shows, clearly placing the Orchard Grove herd at the head of the list for high-class breed characteristics and quality of the same. Besides the many sweeping victories won by the herd there has not been many honors of any consequence won by representatives of other herds in which the winning candidate was not either bred in or purchased from the Orchard Grove herd. Mr. Clifford is one of Ontario's younger breeders and his almost unparalleled success can be attributed to two reasons, first, he has been brought up with Hereford cattle and knows the breed from A to Z, and secondly, he handles and breeds only the best, and when he sees an animal that suits him he pays the price and it takes some thousands to stop him. He probably never made a better buy than his purchase of the present stock bull, the invincible champion, Lord Fairfax, a son of the breed's greatest American sire, Perfection Fairfax.

Twenty Years After

LOCK ahead twenty years; it seems a long period, but it swiftly passes when one is engaged with pressing duties.

An endowment policy in The Mutual Life of Canada, payable twenty years hence, seems at first thought a slow method of saving money.

But, should the assured die at any time during the twenty years, immediately the whole amount of the policy is available for his family.

On the other hand, should he live to the end of the twenty years, he himself receives the amount of the policy with accumulated profits.

The Mutual is paying from \$140.00 to \$150.00 at the end of the 20-year endowment term for every \$100.00 invested: you will be satisfied while the policy lasts and also when it matures "twenty years after" if it is a policy in The Mutual Life of Canada.

Is there a Mutual Policy in your Home?

The Mutual Life
Assurance Company of Canada
Waterloo, Ontario

Lord Fairfax is a grand bull and things look as though he will be a sire almost or quite as great as his own great sire. Among the young bulls is a half brother of his and another is out of the Chicago first prize, Miss Brae 34th, and sired by the \$3,000 bull, Alvin. Among the heifers is one out of the \$2,000 cow, Perfection Lass and another out of the unbeaten Canadian champion, Amy of Ingleside.

Questions and Answers. Miscellaneous.

After Harvest Crops.

What could I sow on light, sandy land, after plowing down oat stubble, that would produce the most and nourish the land if plowed down about the first of November? SUBSCRIBER.

Ans.—To actually feed the land one would have to sow a legume such as vetch or clover, but the period of growth would be so short that the outcome might be disappointing. Furthermore the season is much cooler at that time of year and growth is not very rapid. The only thing one can expect to accomplish is to prevent the leaching away of the nitrates and add humus to the soil when the crop is turned down. The growing crop will also smother out weeds. Fall rye will answer this purpose about as well as anything that can be sown at this season of the year. In many parts of Ontario rye is sown, and either plowed in the fall or left till the following spring for potatoes or corn. Buckwheat will also grow fairly well but it does not function quite so well as rye as a green manure. From 7 to 8 pecks of rye are sown when the intention is to plow it under. From 3 to 4 pecks of buckwheat for the same purpose are sufficient.

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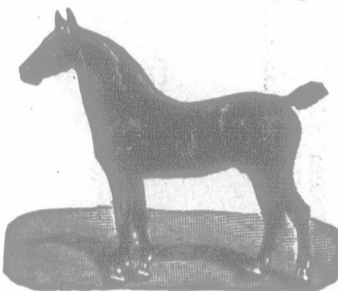
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We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

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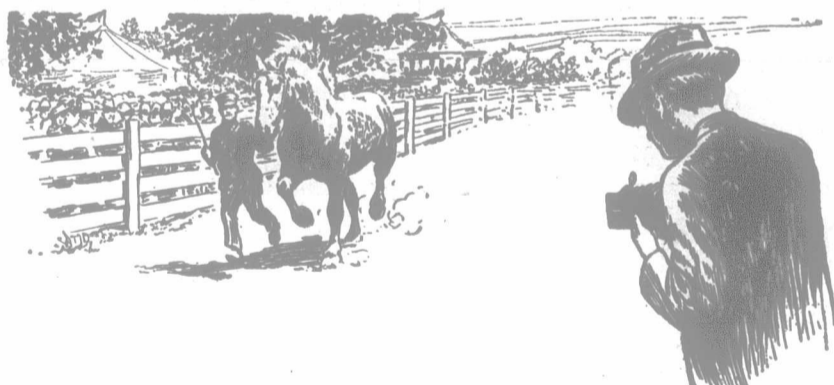
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Some Dog.

BY R. E. ADAMS.

Smith had got a new dog. It was a fine-looking, big Scotch Collie. I happened over the other evening on some errand or other and saw the youngsters playing with the dog. "Some dog you've got, eh, Smith?" I said. "Y' bet," he replied. "He's a pure-bred Scotch Collie and he's a dandy; got his papers you know, registered, just like the Government bull we got. I got him from Winnipeg, and the fellow that give him to the fellow that give him to me paid \$50 for him." "Whew," I said, "he must be a dandy, good cattle dog. Does he heel 'em?" "Nope," he said, "he don't know nothing about cattle, he goes to their head. Y' see he's a city dog, used to bite up the butcher and grocer when they come around the house." "Uh, huh," I said, "good watch dog, eh?" "No," he said, "he ain't no particular watch dog, not for strangers, anyway. The other day, though, cause I had my Sunday clothes on he wouldn't low me to come in the house." "Looks like a runner," I said. "Bet he'd be a good hunter, eh?" "No," he said, "he ain't no good for huntin', chases gophers but he can't catch 'em none. Tried to sic him on a bally rabbit the other day, but he don't seem to savvy 'sic 'em' at all, rabbit picked up right under his nose but he didn't seem to see him." "Sho," I said, "mebbe he'd go after ducks?" "Nope," he said, "won't go near water, besides he's gun shy. If the boy brings out his air rifle he hikes under the porch. 'Fraid of thunder, too, storm come up last night an' he bolted right through the screen door and crawled under our bed."

Smith looked kind of glum, then his face brightened, "He's a good cat dog, though, don't allow the cats to come near the house at all, hardly see a cat any more. 'Course now the yard an' garden's gettin' full of gophers an' the mice bother considerable in the house, but he does a good job on the cats, puts it all over them if he catches 'em once." "Good fighter, eh?" I said. "Naw, he can't fight none, not with dogs, anyway. Black's pup put it all over him, chewed his hind leg up an' scratched his eye some. I thought he'd eat him up before I could get 'em separated." "So," I said, "good eater, is he?" "Eater, wall no he ain't much of an eater; that there Frank dog now can eat circles around him both for quality and quantity. Has to have his grub just right you know. Can't eat bread and potatoes or porridge and milk or bacon rinds or any of them things. Has to have his potatoes French fried, an' he likes Saratoga chips once in a while or milk toast and such like." I sat and studied a while. "What, then, now," I asked, "do you reckon that dog can do right good?" "We-l-l," he drawled, "he's a good barker an'—his face brightened again, "I'll tell you, he ain't sneaky or mean, an' I notice he don't take no unfair advantage when he might do." "Uh, huh," I said, "and speaking of dogs like that have you bought any plow shares lately?" "Why, yes," he said, "bought some just the other day. Prices have dropped, haven't they? Last year now I bought some Villier shares and paid \$3.75 each for them, an' then you know us fellows got together and sent to Winnipeg for them phony shares what came cheaper, an' I hadn't priced no regular Villier shares till this spring again. The other day, though, I wanted to buy a couple an' he handed me out the regular Villiers. 'Don't want 'em,' I said, 'they're too high, them cheap share does me all right,' but he 'lowed he didn't have none of the phony shares in stock, but the regular Villiers was only \$2.75 this year, or about the same price as the others. Strange, ain't it?" he continued, "before the war now and so on the Superco had to have \$3.75 for their shares, but now when iron an' everything is high they can sell 'em for a dollar less." He paused a minute and sucked his pipe. "You hain't no idea now," he says, "that it might be just possible that them fellows has been skinnin' us on the rest of their stuff, have you, eh? They wouldn't do anything like that, would they, them being humans you know, an't not like a dog." I didn't answer

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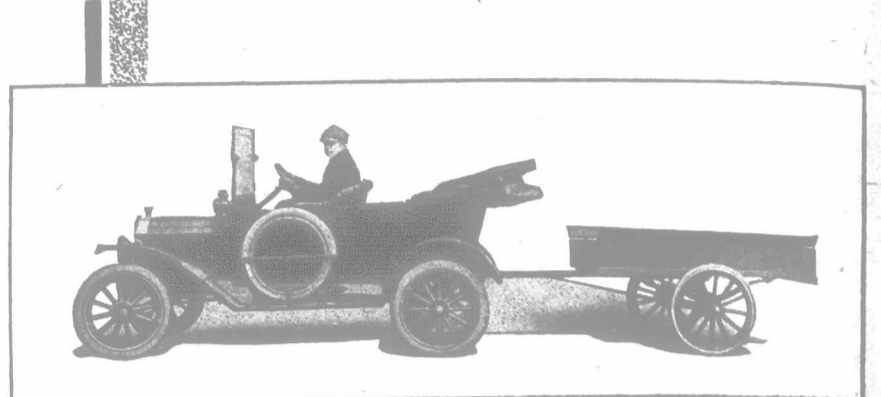
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him for a while, I was trying to think who it was that said, "The more I see of some people the better I like my dog."

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The saying "The resources of Canada are inexhaustible" is true of no food products more than of honey. An abundance of honey-yielding flowers, with a high average of favorable weather for the production and ingathering of the honey makes Canada a good country for the bee-keeper. Moreover, the bulk of Canadian honey is of unsurpassed quality, and honey has become, as it deserves to be, a staple article of food in many places, selling readily at satisfactory prices when properly distributed. So states the Dominion Apiarist, F. W. L. Sladen, in Bulletin No. 26, second series, just issued by the Department of Agriculture, Ottawa, that can be had free on application to the Publication Branch of the Department. Mr. Sladen, after dealing with the advantages of bee-keeping, and extending instructions and advice to beginners, proceeds to deal with the different elements involved in bee-keeping and honey production. In a plain, concise way he tells of the location the apiary should be given, the most desirable races, the development and handling of the bees, the diseases and enemies to which they are subject, and the attention they need at different seasons of the year. He also gives a list, with descriptive illustrations, of the principal honey-producing plants with their approximate yielding periods. In fact, it would seem that pretty well everything worth knowing about the cultivation and management of the honey bee is detailed in this handy, sixty-page official bulletin or pamphlet published for gratuitous circulation.

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We are offering this fall the choicest lot of young herd headers we ever bred, several are of serviceable age, high in quality, rich in breeding. Also a number of heifers.
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The sales manager of one of the biggest Canadian flour milling concerns attributes the unusually high price for flour to the keenest demand for wheat the country has ever known, high freight rates and crop shortage in the United States, while the Canadian crop is not up to what was expected and the Russian surplus is not available. There is a tremendous consumption, and the authority quoted while conceding that while the delivery of the new crop might mean a fall in prices it would not be great and prices now were nothing to what they would be before the 1917 crop was harvested, presuming a continuance of the war.

New Potatoes Sprouting.

A sample of this season's early potatoes sprouting in the hills while the tops were yet green was the other day shown "The Farmer's Advocate." The skin was firm, and though variable in size, the potatoes, as proved by the cooking test, were fairly well matured. There had been a rapid, early growth following the wet weather at planting time, and then followed six weeks of drought which hurried the tubers on to maturity. Then came a couple of heavy rains, and this coupled with intense heat appeared to be the explanation of the tendency on the part of the potatoes to start growing again.

"This is about the worst dinner I ever sat down to," he said, as he surveyed the table; "but I suppose I ought to make certain allowances."
"Yes, John," replied his wife. "If you would make certain allowances you would have no occasion to find fault with your food."

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Miss Keen—"Well, why didn't you stop?"



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Louden Machinery Company
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Maple Leaf Shorthorns, Shropshires and Berkshires. Some choice young bulls; also a few heifers and cows due to calve soon. Some extra good rams, 10 choice shearing ewes, also ewe lambs by Nock 16 (Imp.). A number of extra good Berkshire sows. John Baker, R. R. No. 1, Hampton, Ont.

Northlynd R.O.P. Shorthorns and Jerseys Present offering: One Shorthorn bull old enough for service, whose dam, his dam's full sister and his grandam in six yearly tests made an average of over 8,500 lbs. milk, testing over 4% in an average of 329 days. G. A. Jackson, Downsview, Ont.

SHORTHORNS
Bulls, females, reds, roans, size, quality. Breeding milkers over 40 years. Cows milking 50 lbs. a day. Big, fleshy cows that will nurse calves right. Prices easy, write Thos. Graham, R.R. 3, Port Perry, Ont.

Mention this Paper

Questions and Answers. Miscellaneous.

Ineffective Sale.

A had a piece of land for sale. B wanted to buy it from A. B offered A his price for it if A would dig a well on it. A dug a well and got a good spring of water. B was to take the land in the fall. B wants to back out of taking it.

1. Can A compel B to take the land?
2. If not, can A claim any damages from B? There was no writing.

Ontario. SUBSCRIBER.
Ans.—1. No.
2. No. The difficulty in A's way is the absence of a written agreement signed by B.

Ownership of Implements.

I bought the farm from my father in the year of 1913. On the 29th of January I made sale and rented my farm to C 1915, and I took my father's farm on shares. We moved on my father's premises 1915. About September C came and said to me that I had to go on the farm again, for he could not work the farm as he was bothered with heart failure. I moved back on to my farm on November 1, 1915. The same year I rented the farm on March 2, 1915, and my father borrowed the slings and car ropes from me while I was on shares with him. These car ropes and slings were left on the farm when I bought the place from him. Nothing was agreed that this outfit belonged to him. Nothing was mentioned on the day the agreement was drawn out, and the car slings and rope were on the track when arrangement was made. When I moved back to our own farm this summer, 1916, I went up for my car slings and ropes, and my father claims he never sold the car slings and ropes to me.

1. Have I a right to the outfit of car, ropes and slings? My father claims that they belong to him.
2. What can I do?
3. Do I deserve what was bought with the farm when nothing was mentioned on day agreement was made?

Ontario. J. W.
Ans.—1, 2 and 3. Dealing with the case strictly as stated, we would say that the car, slings and ropes belong to you, and that, if necessary, you could take replevin proceedings to recover them. Such—or any—legal proceedings ought, of course, to be avoided in a case like this if at all possible; and you ought—before instructing a solicitor for same—to make every reasonable effort to arrange an amicable settlement of the matter with your father direct.

A Stayer.

In the course of a careful enquiry lately made in a dairy district, the fact was disclosed that "The Farmer's Advocate and Home Magazine" was not only away in the lead in number of readers, but was in several respects the popular farm paper. Upon getting down more closely to particulars it was found that while others of the class had dropped off in number of readers from one-third to probably one-half, "The Farmer's Advocate" held its place steady in the agricultural trenches notwithstanding the daily interest in war news. Its readers were "stayers" year in and year out. "Once a reader always a reader" appeared to be their motto, as in the words of the matrimonial service when the truly wedded say: "Until death do us part." A tour up and down the concession lines and a comparison of localities showed that as a class its readers were in the lead as progressive and successful men in whatever branch of agriculture they specialized. To a go-ahead man it is quality of service, reliability and independence that count, attributes and a position gained by a long, half century of experience.

A gentleman in New Orleans advertised for a man to do chores around the house, and the advertisement was answered by a colored man.

"Are you married?" asked the prospective employer.
"Yes, suh; I's married," replied the applicant, "but mah wife is out of a job. Dat's why I's got to shif' foh mahself."

What Per Cent Do They Earn?

WHAT per cent. on their cash value does your dairy herd earn for you every year?

Perhaps you have never looked at your dairy income just in that way. But to be fair to yourself you should. A man in business in the city must reckon his earnings on the capital he has invested and on its cost of operation. If he finds part of his equipment inefficient and fails to turn him out goods at sufficiently low cost he doesn't hesitate very long in discarding it for a better one or in improving it.

Apply the same reasoning to your dairy herd. If you have a herd that turns you out 300 lbs. of 3% milk, for your factory, it is plainly evident that you would get one-third more in cash if they gave you 4% milk. In other words, the "quality" herd would earn you 33% more cash for the same amount of work.

WHERE DOES YOUR HERD STAND?

This whole question of quality in milk is the biggest and most vital one facing dairy farmers to-day. Whether we in the dairy business like it or not, factories, cities, towns, etc., will shortly pay for all milk on its food value basis—by test. Those of us who take advantage of it—will reap the harvest.



Jean Armour, a Canadian-bred Ayrshire Record, 20,174 lbs. milk, 774.73 lbs. fat.

In improving the quality of your herd you'll find Ayrshires sustain their great reputation for high testers—thrifty and productive. See that your first pure-bred is an Ayrshire. We shall be pleased to send you the names of your nearest Ayrshire Breeders.

Canadian Ayrshire Breeders Association

W. F. STEPHEN, Secretary, Huntingdon, Que.

Bulls to Head the Best Shorthorn Herds

His Majesty = 106890 =, Royal Favorite = 106891 =, Campaigner = 106892 =, Royal Triumph = 106893 =, Commander's Heir = 106131 =, Ambassador = 16894 =, etc. The best lot we ever bred, our bulls have made good—bulls bred identically to these. Keep these bulls in Canada. See them in the leading exhibitions. In themselves they are desirable, big, sappy, and characteristic of the breed. Their breeding is faultless. They are attractive reds and roans, and will keep on improving. We have Princess Royals, Wimples, Resebuds, Scouts, Kibblean Beauties, Mysies, Cecillas, Victorias and Orange Blossoms.

"Pualinch Plains" at Arkell, C.P.R. Station, 3 miles from Guelph.

The New Home of the Auld Herd
The Land of the Big Beeves

A. F. & G. Auld, R. No. 2, Guelph, Ont.

FIELD MARSHALL = 100215 = the calf of 1915, sold June 7, 1916, for \$3,775.

IMPORTED SHORTHORNS

Our recent importation of thirty head has arrived at our farms. We have imported cows with calves at foot, imported heifers that are in calf, imported yearling bulls and bull calves, also home-bred females and bulls. We are pleased to have visitors and will meet trains at Burlington Jct. at any time if notified.

J. A. & H. M. PETTIT, FREEMAN, ONTARIO

Spring Valley Shorthorns

Herd headed by the two great breeding bulls, Newton Ringleader (Imp.) 73788, and Nonpareil Ramsden 83422. Can supply a few of either sex. Kyle Bros., Drumbo, Ont. Phone and telegraph, via Ayr.

Canada's Grand Champion Shorthorns of 1914-1915

are headed by the great "Gainford Marquis" Imp. Write your wants. J. A. WATT, ELORA, ONT., G.T.R. & C.P.R.

Shorthorns

Pure Scotch and Scotch topped—Booth. Also five (5) young bulls from ten to twenty months old, of the low down, thick kind, good colors—reds and roans. Prices reasonable. G. E. MORDEN & SON, Oakville, Ont.

Meadow Lawn Shorthorns

We are offering a choice lot of bulls at very reasonable prices. An exceptionally good one sired by Clan Alpine 2nd, No. 88387, G. D. Donside Alexandra (Imp.) No. 59513, and any one wanting a right good herd header would do well to secure this bull, as he is a smooth, well proportioned fellow that attracts attention at first sight. F. W. EWING, G. T. R. and C. P. R. R. R. No. 1, Elora, Ontario

SHORTHORNS **SHROPSHIRES** **CLYDESDALES**
Have still on hand one bull fit for service by Newton WM. D. DYER, Sort = 93019 =. Some good young things coming along. A few young cows and heifers. Come and see them. R.R. No. 3, OSHAWA, ONTARIO 2 1/2 miles from Brooklin, G.T.R. 4 miles from Myrtle, C.P.R. 4 miles from Brooklin, C.N.

It takes five minutes to read it

Its influence may last a lifetime and be worth thousands of dollars to you.

—And we will send it to you free.

Will you write for a copy?

What is it?

Oh, yes. It's a booklet about Profits from Savings. It's vitally interesting to most every one, especially in these war times. Send for a copy now

Address Dept. : 9



STANDARD RELIANCE MORTGAGE CORPORATION

Head Office, 82-88 King St. E. Toronto

Branches: Ayr, Brockville, Chatham, Elmira, New Hamburg

Doctor Tells How to Strengthen Eyesight 50 per cent. In One Week's Time in Many Instances

A Free Prescription You Can Have Filled and Use at Home

Philadelphia, Pa. Do you wear glasses? Are you a victim of eye strain or other eye weaknesses? If so, you will be glad to know that according to Dr. Lewis there is real hope for you. Many whose eyes were failing say they have had their eyes restored through the principle of this wonderful free prescription. One man says, after trying it: "I was almost blind; could not see to read at all. Now I can read everything without any glasses, and my eyes do not water any more. At night they would pain dreadfully; now they feel fine all the time. It was like a miracle to me." A lady who used it says: "The atmosphere seemed hazy with or without glasses, but after using this prescription for fifteen days everything seems clear. I can even read fine print without glasses." It is believed that thousands who wear glasses can now discard them in a reasonable time and multitudes more will be able to strengthen their eyes so as to be spared the trouble and expense of ever getting glasses. Eye troubles of many descriptions may be wonderfully benefited by

following the simple rules. Here is the prescription: Go to any active drug store and get a bottle of Bon-Opto tablets. Drop one Bon-Opto tablet in a fourth of a glass of water and allow to dissolve. With this liquid bathe the eyes two to four times daily. You should notice your eyes clear up perceptibly right from the start and inflammation will quickly disappear. If your eyes are bothering you, even a little, take steps to save them now before it is too late. Many hopelessly blind might have been saved if they had cared for their eyes in time.

Note—Another prominent physician to whom the above article was submitted, said: "Bon-Opto is a very remarkable remedy. Its constituent ingredients are well known to eminent eye specialists and widely prescribed by them. The manufacturers guarantee it to strengthen eye sight 50 per cent. in one week's time in many instances or refund the money. It can be obtained from any good druggist and is one of the very few preparations I feel should be kept on hand for regular use in almost every family."

The Valmas Drug Co., Store No. 9, Toronto, will send a complete Home Treatment outfit—tablets, eye cup, mixing bottle, and all for \$1.00 by Mail, postpaid.

Escana Farm Shorthorns

FOR SALE; Two imported bulls, proven valuable sires; 12 bulls, 10 to 20 months old all by imp. sires and from high-class dams; also for sale, 20 heifers and young cows, several with calves at foot, all of very choicest breeding, and especially suitable for foundation purposes.

Mail orders a specialty. Satisfaction guaranteed.

MITCHELL BROS.

Burlington, P.O., Ont.

Jos. McCrudden, Manager. Farm ½ mile from Burlington Jct.

OAKLAND—52 SHORTHORNS

For Sale, 52 Shorthorns for sale, 40 females and 12 bulls of the dual-purpose strains. 1 choice red bull, near two years old; also one stock bull Scotch Grey = 72692—one of the best aged roan bulls in Ontario. Used in herd for 7 years.

JOHN ELDER & SONS,

HENSALL, ONT.

Pleasant Valley Shorthorns

Special Offering, Sittytton Favorite, one of the best individuals and stock bulls we know of. Also young bulls and females bred to (imp.) Loyal Scot and Sittytton Favorite. Write your wants. We can suit you in merit, breeding and price.

GEO. AMOS & SONS,

Moffat, Ont.

Moffat, 11 miles east of Guelph, C.P.R.

Robert Miller Still Pays the Freight

—And he is offering in Shorthorns some of the best young bulls and heifers that can be produced. Young bulls fit for service, some younger still; heifers ready to breed and younger, and some in calf. They are of the best Scotch families and some of them from great milking families. They are in good condition and made right, just what you want to make a proper foundation for a good herd, and suitable to improve any herd in the land. They will be priced so that you can afford to buy, if you will tell me what you want. Our business has been established 79 years, and still it grows. There is a reason.

ROBERT MILLER, Stouffville, Ont.

Females -SHORTHORNS-Females

I can supply females of the most popular Scotch families, Crimson Flowers, Minas, Lady Fannys, Nonpareils, Butterflies, Amines, Athas, Miss Ramsdens, Marr Emmas, Marr Missies and Clarets. A few bulls.

A. J. HOWDEN,

COLUMBUS, ONT.

Myrtle, C.P.R. and G.T.R.; Oshawa, C.N.R.

Spruce Glen Shorthorns

When in want of Shorthorns visit our herd. We have 70 head to select from. Minas, Fames, Miss Ramsdens, Florences, Emilys, etc. Many of them one and two-year-old heifers. Also several young bulls of breeding age—level, thick, mellow fellows and bred just right.

James McPherson & Sons, Dundalk, Ont.

Questions and Answers. Miscellaneous.

Auto Queries.

1. Would you kindly explain the advantages of six and eight cylinder motors over fours?
2. Do they use more gasoline or oil if of the same horse-power?
3. What is the duty on new and second-hand cars from United States?

A. J.

Ans.—1. The advantage of a six or eight-cylinder motor over a four comes from the fact that the larger number of cylinders give a steadier power to the crank shaft, and thus provide a finer flexibility and easier elasticity of motion. When a six or eight-cylinder engine is working there is no point of the crank shaft at which power is not being applied. With an eight or six-cylinder lower speeds can be maintained and stiffer hills climbed on high gear.

2. No.

3. Thirty-five per cent. plus 7½ per cent. war tax on both new and second-hand cars.

Heifer Dries up Suddenly.

I have a two-year-old heifer that freshened last September and until a few days ago milked extra well. She dropped to four pounds in the morning and at night did not give a pound. Her udder was hard and somewhat inflamed. We rubbed it with goose grease. There does not seem to be any stoppage in the teats. She eats as well as usual.

1. What would you advise to give her?
2. Would you advise keeping her for another year if she goes dry completely? She will not freshen for about four months.

R. M.

Ans.—1. Such a decrease in the milk yield would probably be due to some constitutional disorder or to something eaten while on pasture. If the animal shows any symptoms of being out of condition, purge mildly and follow with a tonic such as a tablespoonful of equal parts of sulphate of iron, gentian, ginger and nuxvomica, three times daily. Bathe the udder frequently and continue to milk her. Continue to feed well on laxative feeds, and the normal flow may come back.

2. If the trouble proves to be only a temporary illness the heifer should develop into a good cow if she shows any indications of so doing, but if she goes dry permanently it might be well to replace her with a more reliable individual.

Storing Eggs—Canning Green Corn.

1. Does it injure fresh eggs to keep them in a refrigerator before packing for winter use.
2. Give a recipe for preserving green corn for winter.

T. J. S.

Ans.—1. Eggs should not be injured by the temperature of an ordinary refrigerator. The only danger would be that the odor of some foods might be absorbed, but at a low temperature it would not develop into anything serious.

2. A correspondent has found the following method of preserving corn very successful: "Husk the corn when it is nicely in the milk and cut half the kernel into one basin, scraping the pulp into another, being careful not to get off any of the cob. When you have enough to make a gallon in all, cook the first part until the corn is nearly done, then add the pulp and finish cooking. Just before filling the jars, stir in one tablespoonful of tartaric acid. The jars should have been previously rinsed in very hot water and dried perfectly. Crowd the corn down into the jars so there will not be an air bubble left and seal immediately. When cool enough to handle, wrap each jar in paper and set away in a cool, dark, dry place. Watch closely for a few days and tighten all lids that may seem loose. About one quart of water will be needed when cooking to keep the corn from burning. Before using put a pinch of soda into the corn and skim off the foam."

"I hope the motto of this railroad is safety first."

"It is," replied the man who thinks only of pecuniary precaution. "I notice it never lets anybody travel a mile without paying in advance."

TRADE MARK
Wilkinson Climax B
REGISTERED

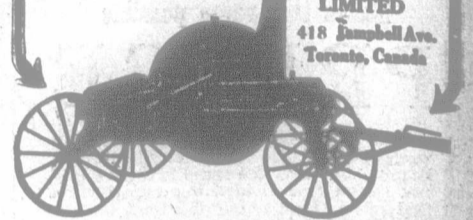
Ensilage and Straw Cutter

Our "B" machine, built especially for the farmer. A combination machine—it will cut and deliver green corn into the highest silo or dry straw or hay into the mow. 12-inch throat, rolls raise 6 inches and set close to knives—solid, compact cutting surface. Can change cut without stopping. Can be reversed instantly. Direct pneumatic delivery. Knife wheel carries fans. No lodging, everything cut, wheel always in balance. Steel fan case.

Made in two styles—mounted or unmounted. We also make larger type machine for custom work. Ask your dealer about this well-known machine and write us for new catalog showing all styles.

THE BATEMAN-WILKINSON CO., LIMITED

418 Jambell Ave.
Toronto, Canada



Glenfoyle Shorthorns

Large selections in females all ages, bred from the best dual-purpose families. One extra choice fifteen-months bull, some younger ones coming on. Priced well worth the money.

Stewart M. Graham, Lindsay, Ont.

Burnfoot Stock Farm—Breeders of dual-purpose Shorthorns with a splendid conformation for beef. Visiting welcome.

S. A. MOSE, Prop. Caledonia, Ont.

Shorthorns—"Pall Fillers"—Our Shorthorns are bred and developed for big milk production. If you want a stock bull bred that way, we have several; also Clyde, station rising 3, won 2nd at Guelph the other day in a big class. P. Christie & Son, Manchester, Ont.

FLETCHER'S SHORTHORNS

3 choice bulls of serviceable age; also females, all of good Scotch breeding, for sale. Write before buying.

Geo. D. Fletcher, R. R. 1, Erin, Ont.

L.-D. Phone, Erin Sta. C.P.R.

3 Holstein Bulls

ready for service. 1 black dam 16.3 lbs. butter 7 days, 63 lbs. milk 1 day. At 2 years her dam 1,007 lbs. butter, and 25,000 lbs. milk in 1 year; 3 bull calves 4 to 6 mos.

R. M. Holtby, Port Perry, Ont.

Walnut Grove Holsteins

Herd headed by May Echo Champion, full brother of May Echo Sylvia, who made 36 lbs. butter in seven days. Females for sale from one year old upwards. Prices right for quick sale.

C.R. JAMES, Langstaff P. O., Ontario
Phone Thornhill

Bulls, Bulls

—We have several young Holstein bulls for sale, just ready for service. Sired by the great bull, King Segis Pontiac Duplicate, and our junior herd bull, Pontiac Hengerveld Pieterje, and from high-testing dams. Prices low for the quality. Write and get them. Manchester, G.T.R., and Myrtle, C.P.R. stations. Bell Phone.

R. W. Walker & Sons, R.R. 4, Port Perry, Ont.

"I Certainly Would Hate to Be a Cow and Belong to a Man Who Has Not Enough Brains to Run a HINMAN"

—[Ashley S. Johnson, Prop. Dixie Holstein Herd

A Wonderful Appreciation of "HINMAN" Simplicity

Mr. Johnson hesitated a long time before buying, because his cows were high-class Advanced Registry Holsteins. He writes April 27, 1916:

Kimberlin Heights, Tenn.

"The cows liked it from the start. During the first milking I think only one cow raised a foot, and likely she is ashamed of that act now!

"I have used it eight months now. It is worth twice as much as it cost me. It has been run by students with frequent changes, with absolutely no trouble.

"I certainly would hate to be a cow and belong to a man who has not enough brains to run a HINMAN.

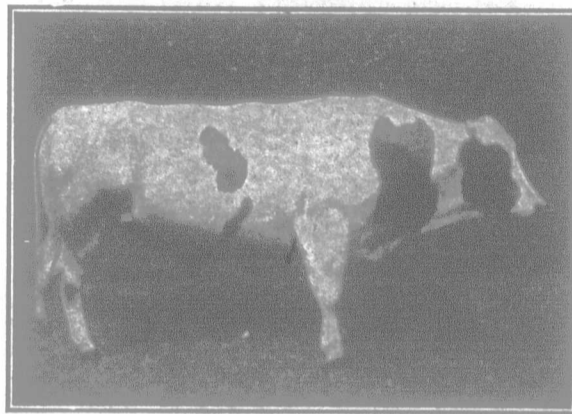
"In repairs it has cost us probably 15c. a month.

"It is always ready, always on time, always brings the milk, lots of it! We have a cow here with an official record of over 25 lbs. butter in seven days. We use it on her every day. We have one with an official record of close to 75 gallons of milk in seven days. We use it on her.

"I paid for my machines, and I write this not for the makers simply, but for my fellow dairymen.

"If you cannot run a HINMAN, you do not need a Milker, you need a guardian!"

(Signed) ASHLEY S. JOHNSON.



King Segis Pontiac Alcartra 2nd, the \$20,000 Bull, "Dixie Holstein Herd"

THE BEST MACHINE FOR VALUABLE COWS

See "THE HINMAN," THE VALVE CHAMBER MILKER, in The Steel Truss Model Barn, Just West of the Judging Ring, at TORONTO EXHIBITION

H. F. BAILEY & SON, Galt, Ontario, Sole Manufacturers for Canada Under "HINMAN PATENTS"

Gossip.

Mardella Dairy Shorthorns.

It was the privilege of a representative of "The Farmer's Advocate," a short time ago to visit the beautiful and well-arranged Mardella Stock Farm of Thomas Graham, of Port Perry, Ont. This splendid farm is situated on Scugog Island, one of the richest agricultural tracts of land in Ontario. Comprising about 10,000 acres it is entirely surrounded by Scugog lake, the famous Lunge fishing and duck shooting resort. This farm of 250 acres is well arranged for the purpose for which it is specialized, namely—stock raising, and the speciality along those lines is dairy Shorthorns. This line of breeding has been carried on for over 40 years, and during all that time special attention has been given to improve the milk production of the herd, hand milking being the order all along. Special mention of a few of those in milk may be of interest to some of the readers. Roan Duchess, traces to Imp. Henrietta, her sire was Proud Duke, 70,664, a son of Imp. Chrystal Duchess. As a two-year-old she gave 38 lbs. a day and this year as a three-year-old is giving 45 lbs. She has a bull calf by the intensely-bred bull, Mortimer, bred by F. W. Cockshutt of Brantford from his imported English officially-backed Shorthorns. Meadow Duchess, is a Meadow Flower, sired by Proud Duke. She is now giving 40 lbs. a day after milking 7 months. When fresh she gave 55 lbs. a day. Her heifer calf is by Imp. Scottish Minstrel. This is one of the great cows of the herd. Nora Hero, is a granddaughter of Imp. Tulip and sired by Imp. Mountain Hero. She is a 40-lb. cow and has a bull calf by Roan Baron. Mardella Queen traces to Imp. Louisa. She is a 50-lb cow and a very persistent milker. Princess D., another Henrietta by the Nonpareil bull, Duke of Richmond, is a 55-lb cow. She has a bull calf by Roan Baron. Helena, traces to Imp. Newham Lily 389. His sire, Mardella Tom, is the son of a 60 lb. cow and her grand sire, Scottish Oxford, is also a 60-lb.-bred bull. These mentioned are indicative of the producing ability of the herd as a whole. For sale

King Segis Pontiac Paul 15940

WE have for sale a few sons of the above bull, ready for service, and whose dams are large, heavy-producing cows. Here is an opportunity to get the blood of KING SEGIS and KING OF THE PONTIACS at reasonable prices. Correspondence solicited.

Also Berkshire and Yorkshire Swine

Larkin Farms

Queenston, Ontario

HOLSTEIN CATTLE

The only herd in America that has two sires in service whose dams average 119 lbs. milk a day and over 35 lbs. butter a week. Cows that will give 100 lbs. milk a day are what we are trying to breed. At present we have more of them than any other herd in Canada. We can supply foundation stock of this breeding. Visitors always welcome. Long-distance Phone.

D. C. FLATT & SON, R. R. 2, HAMILTON, ONT.

PIONEER FARM HOLSTEIN HERD

Of long-distance record makers, the kind that milk heavy and test around 4 per cent. the whole year. Of the six highest butter-fat-record two-year-olds in Canadian R.O.P., one half were bred at Pioneer Farm. Young bulls for sale from dams of the same breeding as these and sired by Canary Hartog, whose 3 nearest dams average 30 lbs. butter in 7 days and 108 lbs. milk in one day.

WALBURN RIVERS, R. R. No. 5, INGERSOLL, ONT. Phone 343L, Ingersoll Independent

For Sale---Sons of King Segis Walker

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application. A. A. FAREWELL, OSHAWA, ONTARIO

Hospital for Insane, Hamilton, Ontario—Holstein bulls only for sale, four fit for service, one being a son of Lakeview Dutchland Lestrangle, and the others from one of the best grandsons of Pontiac Korndyke, and large producing, high testing R. of P. cows. APPLY TO SUPERINTENDENT

Evergreen Stock Farm Registered Holsteins—The kind that tests 4% and wins in the show ring. Could spare a few yearling heifers, or if you want a choice young bull eight months old, we have one that is strictly a gilt edge individual, almost as much white as black. The records of his dam, sire's dam, and grand-sire's dam average over 30 lbs. butter in 7 days and nearly 100 lbs. of milk per day. For quick sale we have priced him within your reach—\$150

A. E. HULET BELL PHONE NORWICH, ONTARIO

FAIRVIEW HOLSTEINS

Anything in herd for sale, which consists of 22 cows, 6 two-year-old heifers bred to freshen next fall and early winter, nine yearling heifers not bred and nine heifer calves. All bred in the purple and priced right. FRED ABBOTT, R. R. 1, Mossley, Ont.

DUMFRIES FARM HOLSTEINS

Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall, and 60 heifers, nine yearling heifers not bred and nine heifer calves. All bred in the purple and priced right. S. G. & Erle Kitchen, St. George, Ont.

Clover Bar Holsteins

A splendid 14-mos.-old son of Minnie Paladin Wayne, who has just completed a record of 26.87 lbs. butter, 545 lbs. milk in 7 days. Her 2-year-old record was 22.33 lbs. For type and color he is second to none. Also her 3-weeks-old bull calf and a few others from good R.O.M. dams. PETER SMITH, R. R. No. 3, STRATFORD, ONT.

are several young bulls. Mr. Graham will also price any of the cows and heifers and his prices are well within the value of the animals.

New Importation of Shorthorns.

For the several past years the importation of Shorthorns has been curtailed, but late last fall Messrs. J. A. & H. M. Pettit of Freeman, Ont., had some 30 odd head brought out, and within the last few days have landed at their stables one of the choicest importations that has reached this country in many years, consisting of 9 cows, which range in age from 3 to 5 years, all with calves at foot, and again in calf; 10 heifers rising 2 and 3 years of age, all bred before being shipped, also 2 yearling bulls, making a total of 30 head. On tribal lines the cows are: one a Princess Royal, two are Campbell Bessies, one a Broadhooks, one a Lavender, one a Nonpareil, one a Lady Dorothy, one a Marigold and one a Cruickshank Rosewood. All these have calves at foot, 5 of them heifers and 4 bulls. Of the heifers two are Lady Ythans, one a Cruickshank Clipper, one a Brawith Bud, one a Sunflower, one a Tidy, one an Eliza, one a Cruickshank Bessie and one a Jealousy. All these are bred and likely in calf. Pettit Bros. are headquarters this year for imported bulls, among those on hand that are of serviceable age is a roan Cruickshank Lovely by Newton Chrystal, one is a red Clara by Golden Link, another is a red Missie by Missie King. This fellow carries in his pedigree such famous sires as Scottish Archer, William of Orange, Shere Ali, Cherub 4th, etc. One is a red Miss Ramsden by Red Victor, one is a roan Flora by Royal Crowns Last, one is a red, Roan Lady by Bertram, another is a roan Lady B. by Millhills Major. Besides these there are several home-bred bulls. Parties wanting new blood for their herds will consult their own interests by visiting Pettit's herds while the selection is large.

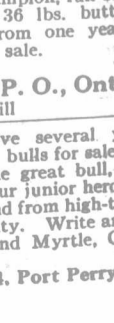
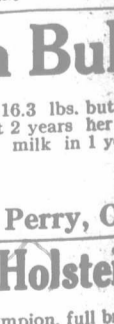
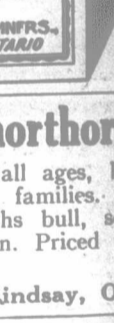
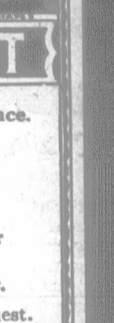
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pecially for on machine green corn straw or hay throat, rolls knives—solid, ange cut with- stantly. Direct el carries fans. el always in

ounted. We custom work. own machine ing all styles.

SON CO., LIMITED 8 Campbell Ave. Toronto, Canada



Cost and Service

The two factors considered before a purchase is made.

Steel Truss Barns

measure up to every requirement. They are as sturdy as a skyscraper. They have no cross-beams to hinder unloading or mowing away. They are fire and lightning-proof. They have metal clad, roller doors, lift roof-lights, sliding side windows and "Acorn" ventilators. The cost will compare favorably with a wood frame barn.

Send for a copy of new book, "The Steel Truss Barn."

The Metal Shingle & Siding Co., Limited
Preston, Ont. Montreal, Que.

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Sept. 9th to 16th, 1916

\$25,000—Live Stock Prizes—\$25,000

Entries positively close Monday, Sept. 4, 1916.
Greatest exposition of the Agricultural Products of Canada yet made.

Horse Races, Dog Show, Poultry Show

Magnificent Grand Stand Performance and Ring Attractions—Afternoon and evening.

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Ottawa Demands Milk up to Standard

Other Cities Will Fall in Line.

You can easily meet this demand if you have Ayrshire blood in your herd. Now is the time to buy a pure-bred Ayrshire sire or a foundation female. We'll gladly send you information.

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Can. Ayrshire Breeders' Assoc.

Steel Rails

for Reinforcing Bridges and Barn Driveways

CUT ANY LENGTH

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58 Front Street West, Toronto

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WOOL
HIDES, SKINS, HORSEHAIR,
WRITE FOR OUR PRICES BEFORE SELLING
FREE SPORTSMEN'S CATALOG
OF GUNS, TRAPS, NETS,
FISHING TACKLE, &c
JOHN HALLAM, LIMITED
No. 3 HALLAM BUILDING - TORONTO

Glencairn Ayrshires Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton Ont., Copetown, Sta., C.T.R.

Gossip.

F. W. Ewing's Shorthorns.

F. W. Ewing of Elora, Ont., is one of those breeders who never allows the price to interfere when selecting a herd header, if the breeding and standard of excellence is up to his ideal. For some years he used the exceptionally well-fleshed and richly-bred bull, Proud Monarch, a bull that has to his credit many prize winners. Now on his daughters Mr. Ewing is using the Jilt-bred bull, Escana Ringleader, a son of the great sire, Imp. Right Sort and out of Imp. Red Rosemary. This bull was first at Toronto as a senior calf. He cost a long price but results are amply repaying the outlay for he is nicking remarkably well with Mr. Ewing's high-class herd of Scotch females. This herd has produced many extra choice animals, but the young things never looked so promising as this year, both in young bulls and heifers. Of the former a particularly good one is a roan, 7-months-old Wimple; another is a 10-months-old white bull, a Claret; another roan, 6-months-old, is a Stamford, and another, same age, is a Martha. Another Martha-bred one is a red 11-months-old. Then there is a white yearling, English Lady bred. He is got by Clan Alpine. This is certainly one of the extra good kind carrying a wealth of flesh evenly put on. Another big, thick, white yearling is a Claret and sired by Proud Monarch. The coming season will find Mr. Ewing's herd stronger than ever before in young herd headers; there are also a few females that can be spared.

Glencairn Ayrshires.

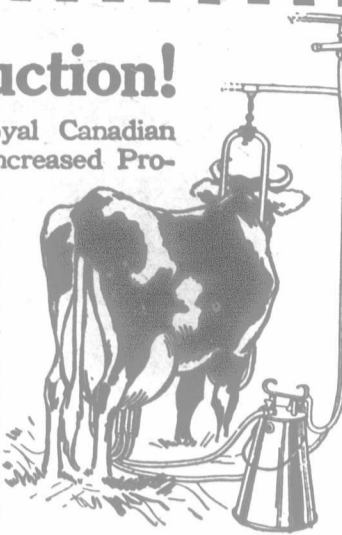
Established 40 years ago by the late James McCormick the Glencairn herd of record-making Ayrshires in the hands of their present owner, Thos. J. McCormick, have reached a high standard both as individuals and producers. Juno of Rockton 2nd, has been 8 months in the official R. O. P. test and has given 8,700 lbs. Juno of Rockton 3rd has completed her test with 11,028 lbs. Mill-creek Daisy 2nd, as a 3-year-old has been 7 months in the test and has given 6,900 lbs. Springhill White Ada, qualified as a 3-year-old with 10,000 lbs. Nell of Rockton qualified in the mature class with 8,600 lbs., etc. These mentioned are a representative average of the herd for production. Seldom is there seen in a herd so much excellence of form and such size and strong constitution. The senior sire in service is the strictly high-class bull and proven sire, Springhill Taxmaster, a son of Imp. Derwerd Lely and Imp. Castle Mains Minnie 2nd. He is a bull of superior merit, exceptionally quiet to handle and a sire of big producing and high testing daughters. He is for sale and is a bull fit to head any herd. Junior in service is Springhill Admiral a son of the renowned champion, Hobsland Masterpiece, and out of the great cow Snowflake. In young bulls for sale are sons of the old bull out of the class of dams mentioned above. Also for sale are heifers, bred, and younger ones, as well as mature cows. Mr. McCormick is also showing something choice in Yorkshires.

A. J. Howden's Shorthorns.

A. J. Howden of Columbus, Ont., is the owner of one of the best herds of Scotch Shorthorns in the country, and the last year has been a record breaker for sales. The good kind is being eagerly sought after by buyers from across the lines, and Mr. Howden certainly has had his share of the business. There are few breeders who pay more attention to their herds' breeding than he. An enumeration of the various tribes represented will show this to be one of the gilt-edged herds on those lines; Missies Clarets, Duchess of Glosters, Nonpareils, Marchioness, Crimson Flowers, Butterflies, and Bridesmaids. There is no better breeding than this and it is equally as good on the sire's side. Mr. Howden is never stuck for something to price, in fact, he will price any in the herd, and there are some nice heifers among the 40 that make up the numerical strength of the herd just now. Ready for service are a quartet of young bulls—a Missie, a Claret, a Crimson Flower and a Duchess of Gloster. Yorkshires too are quite extensively bred on this noted farm and for sale are a number of young sows.

Increased Production!

The Government call to every loyal Canadian engaged in Agriculture is for "Increased Production"—an important factor in the present titanic struggle. With the call to arms never was labor so scarce. Labor-saving devices have saved the day in many cases. Take Dairying: The Sharples Milker does the work of milking in one-third the time at less cost. Any man that owns 15 cows or more should get one. The fact that one man can milk 30 cows an hour is worth thinking over. But the one thing that places the



SHARPLES MILKER

head and shoulders above any other is the patented "Upward Squeeze," which eliminates any possibility of inflamed teats and soothes the cow during milking. The Sharples Milker is a vital factor in the production of Clean Milk. The milk flows from teats to sealed silver buckets through rubber tubes. No stable dust, no stable air, no hands can touch it. Clean milk means more dairy dollars. Increased milk production follows its use in almost every case. Over 300,000 cows milked twice daily by the Sharples is abundant proof of satisfactory service. Our free booklet, "Dairying for Dollars Without Drudgery," contains valuable dairy hints.

"Does Its Bit" In Cream Saving

—no matter how fast or how slow you turn the crank—gets all the cream at any speed. You know it is not humanly possible to operate a separator at the same speed every time. Then get a



SHARPLES SUCTION-FEED CREAM SEPARATOR

It insures your dairy profits and increases production. Perfectly even cream every time, too—that means top prices. Easy to clean—no discs. Easy to turn—low speed. And freedom to turn at any convenient speed. Low supply tank means easy filling. Write for free book, "Velvet" for Dairymen. Address Department 78.

We make a splendid line of Double-Ignition Gasoline Engines, 2 1/2 to 9 horse power. Fully guaranteed.

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Ontario Veterinary College

110 University Avenue, Toronto, Canada

Under the control of the Department of Agriculture of Ontario. Affiliated with the University of Toronto.

College Reopens Monday, October 2nd, 1916

CALENDAR SENT ON APPLICATION

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

Stonehouse Ayrshires Hector Gordon, Howick, Que.

Are a combination of show-yard and utility types seldom seen in any one herd. A few choice young males and females for sale. Write or phone your wants to Stonehouse before purchasing elsewhere.

GLADDEN HILL AYRSHIRES

Herd headed by Fairview Milkman. Some choice bull calves for sale, from dams with good records, and a few females.

LAURIE BROS.

Agincourt, Ontario



Glenhurst Ayrshires For 50 years I have been breeding the great Flos tribe of Ayrshires, dozens of them have been 60-lb. cows; I have lots of them get 60 lbs. a day on twice a day milking. Young bulls, 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me.

James Benning, Williamstown, Ont.

THE WOODVIEW FARM

JERSEYS

LONDON, ONTARIO

John Pringle, Proprietor

Canada's Most Beautiful Jersey Herd—Half the herd imported from the Island of Jersey. Several cows in the Record of Merit, and others now under official test. Some very choice stock for sale. When writing, state distinctly what you desire, or, better still, come and see them. Farm just outside city limits. We work our showcows and show our work cows.

YOUNG Brampton Jerseys BULLS

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records save one. Females all ages, also for sale. B. H. BULL & SON, Brampton, Ont.

CANADA'S OLDEST JERSEY HERD

Has for sale several exceptionally choice young bulls of serviceable age, bred on both sides with official and high producing blood. Also yearling heifers and heifer calves.

D. DUNCAN & SON, Todmorden, R.M.D. Duncan Sta., C.N.O.

THE ORIGINAL SUMMER HILL FARM

The Home of the Famous

OXFORDS

I have eighty head of very fine yearling ewes for sale, also a number of yearling rams for show purposes or flock headers, fifty head of ram lambs and fifty head of ewe lambs, all bred in the purple. All recorded and first-class individuals. No grades registered as pure-breds, and no grades handled except by order.

Peter Arkell & Co., Prop.

Mildmay, G. T. R. Stn.,

Box 454

Teeswater, C. P. R. Stn.

VISITORS WELCOME

Questions and Answers. Miscellaneous.

Borrowing Money for Drainage Work.

1. What will cure pigs of worms?
2. In the "Tile and Stone Drainage Act." Sec. 2 reads, the minimum sum is \$2,000 that the township may borrow. If an application to council for a \$300 loan is received will not the municipality have to pay interest on the full \$2,000? Some parties claim that the balance of \$1,700 would lie to our credit and we (the municipality) would only pay interest on whatever amount was drawn out in sums of even \$100. Any enlightenment on subject would be acceptable as a few parties would like to borrow about \$700 or \$800 and our council doesn't feel like paying interest on \$2,000 to obtain \$700. G. T. H.

Ans.—1. A mixture of charcoal, wood ashes and salt seems to be an effective remedy. Turpentine is commonly recommended. A dose is one teaspoonful for every 100 pounds of live hog. It can be given in the feed and the hogs should be fasted at least 12 hours before treatment. A dose each day for three days generally proves effective. Another remedy recommended is 5 grains of calomel and 8 grains of santolin for every 100 pounds live weight of hogs. This remedy can be given in the feed. It is advisable to give a physic after treatment for worms.

2. According to the wording of the Act, the natural interpretation would be that the council would have to pay interest on the money not used by the ratepayers for drainage work. However, in the past it has worked out that in reality the council goes sponsor for the individual borrowing the money. There is always more or less expense connected with the passing of a by-law, consequently the minimum is set fairly high so as to cover the amount required by several parties. The by-law must be passed and a copy forwarded to the treasurer of the province. Debentures are issued and made payable to the treasurer or his order. The money is forwarded as the debentures are sold and the man

H. ARKELL W. J. ARKELL F. S. ARKELL

Summer Hill Stock Farm

Largest and oldest importers and breeders of

OXFORDS

in Canada. Look up our show record, it will give you an idea of the kind of Oxfords we have for sale.

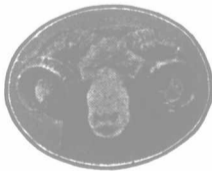
PETER ARKELL & SONS, Proprietors, Teeswater, Ont.
Customers, beware of imitations of this advertisement.

Oxford and Hampshire Down Sheep

Farnham Farm The oldest established flock in America

Having quit the show ring we hold nothing back. Our present offering is a number of superior yearling and two-shear rams for flock headers, a carload of yearling range rams, a hundred first-class yearling ewes; also a fine lot of ram and ewe lambs of 1916.

ALL REGISTERED HENRY ARKELL & SON, ROUTE 2, GUELPH, ONTARIO



Foster Farm Dorsets

This year we have a strong lot of Dorset Horn Lambs and are offering 6 Dorset Ram Lambs of the best breeding. We also have 2 Shearling Rams. The Dorsets are growing rapidly in favor. Write at once for prices.

OAKVILLE, ONTARIO

BLAIRGOWRIE SHROPSHIRE AND SHORTHORNS

PRESENT OFFERING:
100 Imported Shearling Ewes 75 Canadian-bred Shearling Rams JOHN MILLER, Ashburn, Ont.
25 Imported Shearling Rams 20 Cows and Heifers in Calf Myrtle Sta., C.P.R. & G.T.R.
75 Canadian-bred Shearling Ewes 5 Bulls of serviceable age

Maple Shade Shropshires

A number of splendid ram lambs, fit for service this fall. Sired by one of the best imported rams that we ever owned, and from imported dams. Prices and description on application.
W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont. Brooklin, G.T.R., C.N.R., Myrtle, C.P.R.

Tower Farm Oxfords

Champion Oxford flock of Canada. Choice Oxfords of all ages for sale. Prices reasonable.
E. Barbour & Sons R.R. 2, Hillsburg, Ont. Linden We are offering a number of Shearling Rams, Ram Lambs, Shearling Ewes and Ewe Lambs of first-class quality, foundation of flock imported by R.J. Hind. Joseph Mountain, R.R. No. 5, St. Mary's, Ont.


borrowing the money pays the interest and principal in 20 annual instalments of \$7.66 per \$100 borrowed. In case he fails the township is held responsible. The money is forwarded only as debentures are issued. If this is the case the council will be relieved from paying interest on the balance between the sum borrowed and the amount of the by-law. When debentures are issued to the extent of the by-law the Provincial Treasurer will demand that another by-law be passed before any more debentures are issued. It appears that the council's duty is to pass the by-law and pay any expense connected therewith and to be responsible to the province only for the money used.

Balmedie Aberdeen Angus.

The noted Balmedie herd of Aberdeen-Angus cattle, the property of T. B. Broadfoot of Fergus, Ont., was found up to the usual high standard when visited by a representative of this paper a few days ago. Many of the herd are daughters of that great sire, Proud Elmer, whose get last year at Toronto in Mr. Broadfoot's hands won first on the get of one sire, first on the breeders herd, first on junior herd, junior champion bull and grand champion on female. This is a showing seldom equalled by any sire of any breed. Just now on hand are a number of grandsons of Proud Elmer, also granddaughters, all of a quality never excelled in this noted herd. In Oxford Down sheep there is a limited number of lambs of both sexes, big growthy ones.

Forster Farm—Aberdeen Angus and Dorsets.

It will be interesting to the many friends and patrons of A. S. Forster of Oakville, Ont., to know that his large herd of Aberdeen-Angus cattle and flock of Horned Dorset sheep, which for many years have supplied breeding stock to many breeders in this country, are this year stronger than ever, and the young bulls and ram lambs coming on are up to the standard of former years. Write Mr. Forster your wants.



THRESHERMEN, READ THIS!
The Improved Veteran Endless Canvas Drive Belts will give you better service than any other. You want the best. Order now. Sold only by
WINDSOR SUPPLY CO., Windsor, Ont.
Headquarters for Suction Hose and all other Thresher Supplies. Write for catalogue. "Engineers' Bargains."

For Sale, Several
YOUNG SOWS
Pedigree Tamworths
Herolds Farms, Beamsville, Ont.

Avonhurst Yorkshires
Now ready to ship.
Young pigs both sexes, from two litters of eighteen each.
These are first quality pigs of the correct bacon type.
B. ARMSTRONG & SON,
Codrington, Ontario

Pine Grove Yorkshires. Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.
Joseph Featherston & Son, Streetsville, Ont.

Alderley Edge Yorkshires
Young pigs both sexes for sale.
J. R. KENNEDY, Knowlton, Que.

TAMWORTHS
Particularly nice young sows and boars, three months old.
ANGUS BEATTIE, R. 1, Wilton Grove, Ont.

TAMWORTHS
Young sows bred for September farrow, and some nice young boars. Write:
JOHN W. TODD, R.R. No. 1, Corinth, Ont.

Swine for Sale—An offering choice stock in Poland-China and Chester White swine of either sex; most any age. First-prize Poland-China herd London and Toronto, 1915. Prices easy.
GEO. G. GOULD R.R. 4, Essex, Ont.

Meadow Brook Yorkshires—Sows bred, others ready to breed; 20 sows, 3 to 4 months old, and a few choice young boars. All bred from prizewinning stock. Also one Shorthorn bull, 18 months old.
G. W. MINERS, R.R. 3, Exeter, Ont.

Townline Tamworths We can supply Young Tamworths of both sexes and any desired age of superior quality. Also Leicester ram and ewe lambs, Pekin ducks, Langshan cockerels and pullets. Write us your wants. **T. Readman & Son, Streetsville, Ont. R.M.D.**

Duroc Jerseys For 13 years our breeding stock has been choice selections from the champion herds of the U.S. We have both sexes, all ages, over 100 to select from. Bred from champions. **L. A. Pardo & Sons, R. R. 1, Charing Cross, Ont.**

CLEARVIEW CHESTER WHITES
For many years my herd has won the highest honors at Toronto, London, Ottawa and Guelph. For sale are both sexes of any desired age, bred from winners and champions.
D. DeCoursey, R. R. No. 5, Mitchell, Ont.

Duroc Jersey Swine A few choice sows bred, both sexes, all ages, bred from imported stock. Heading herd: Farough's King—2012—Brookwater, B.A.B.'s King 5042 from U.S. Importer and breeder: **Charles Farough, Maidstone R.R. No. 1, Ont.**

Lakeview Yorkshires—If you want a stock boar of the greatest strain of the breed (Cinderella), bred from prizewinners for generations back, write me. Young pigs of all ages.
JOHN DUCK, Port Credit, Ontario

Morrison Tamworths and Shorthorns—Bred from the prize-winning herds of England. Tamworths, both sexes. 12 young boars fit for service, 12 young sows to farrow in August. Choice Shorthorns of the deep-milking strain.
CHAS. CURRIE, Morrison, Ont.

ELMFIELD YORKSHIRES
Choice ones—ranging from 2½ to 5 months. Will be ready for fall service. Prices right.
G. B. Muma, R.R. 3, Ayr, Ont. Paris, G.T.R. Ayr, C. P. R., Telephone 55 R. 2, Ayr Rural.

Gossip.

Duroc Jerseys.

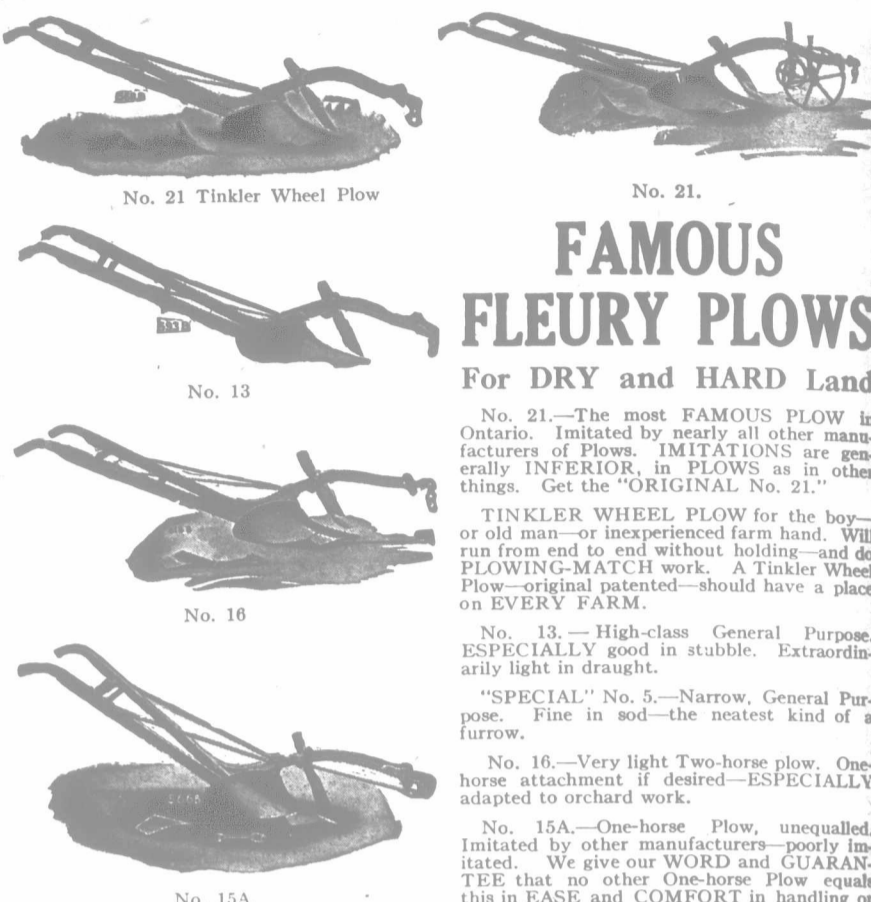
Four miles from Charing Cross station M. C. R. in the county of Kent, Ont., is the farm of L. A. Pardo & Sons, breeders of the best in Duroc Jersey swine. For 13 years Mr. Pardo has used as breeding stock nothing but choice selections from the champion herds of the United States. At the present time the stock boars and brood sows are all from the noted high-class herds of Menagh Bros., Gardiner, Ill., and Prof. Mumford's at Ann Arbor, Mich. Many of these carry the blood of such famous stock boars as Cherry King, Cherry King Jr., Orion Cherry King and O and I. The chief sire in service is the 740-lb. unbeaten champion, Canada Boy, 1639, bred by Menagh Bros. He is a hog of remarkable scale and smoothness and a great sire. His assistant in service is, Brookwater Kings Fancy 4th, bred by Prof. Mumford. He is the typical ideal of the breed, smooth and remarkably well balanced. In the herd just now are over a hundred head, both sexes and any desired age. Pairs not akin of high class show quality are there, or if desired car lots can be selected.

Mitchell Bros' Shorthorns.

Quality and breeding were the foundation principles upon which the great Scotch Shorthorn herd of Mitchell Bros. of Burlington, Ont., was established, and they are the guiding principles in the selection of herd headers or in additions to the herd, the result being that, throughout this country, and on the other side of the line as well, the Burlington herd is recognized as one of the best in Canada. Many sensational things, in later years, have appeared in the larger show rings from this herd the get of that great sire, Imp. Right Sort. Many of his sons are now doing duty as herd headers in some of the best herds in the country, and all are proving the wonderful prepotency of their great sire. Truly, Right Sort, is one of the few great bulls, and this year's calves are better than ever, which is additional proof of his remarkable ability to stamp high class excellence in his get. Breeders attending the exhibition at Toronto should look up J. F. Mitchell's exhibit which will comprise junior and senior calves and junior and senior yearlings, several of them brothers and sisters to first prize winners of former years and equally as good and in some cases a little better. Mr. Mitchell is expecting an importation to arrive soon at the farm. They are now at quarantine and it is expected that the now high-class character of the herd will be considerably enhanced by the addition of this new importation when released.

Scotch Shorthorns at the Gier Farm.

It was a lucky star that guided Geo. Gier & Son of Grand Valley, Ont., to purchase the Broadhooks bull, Escana Champion, the Toronto first prize winning son of the renowned sire of prize winners, Imp. Right Sort. Escana Champion is a great bull himself, and it looks as though he is going to be one of the most sensational sires the breed has known in this country for some time. Look up Mr. Gier's exhibit at Toronto and note the fleshing and quality of the young sons and daughters of this bull, notably the red 10-months-old Bellona-bred bull whose big, thick dam was by the great Mildred's Royal, and a roan, same age, and bred exactly the same. Another roan of the same age, is an Emmeline; his dam was also by Mildred's Royal. Still another, about 10 months old, has for his dam a daughter of Mildred's Royal, that traces back to Imp. Princess. Here are certainly a quartet of young bulls that will please anyone wanting a well-bred and well balanced stock bull. Then there are some younger bulls that will make equally as good ones as those mentioned. The same high quality in this bull's get is shown in his heifers, one particularly choice show heifer is a roan senior calf, an Emmeline. She looks like a hard proposition to beat at Toronto. Mr. Gier has also a number of good heifers one and two years of age, daughters of Mildred's Royal, that he will part with. For breeding purposes he has lately purchased a splendid big Wimple-bred cow due to calve shortly to Gainford Marquis Imp. She is out of the same dam as the western champion of this year, Burnbrae Sultan.



FAMOUS FLEURY PLOWS
For DRY and HARD Land

No. 21.—The most FAMOUS PLOW in Ontario. Imitated by nearly all other manufacturers of PLOWS. IMITATIONS are generally INFERIOR, in PLOWS as in other things. Get the "ORIGINAL No. 21."

TINKLER WHEEL PLOW for the boy—or old man—or inexperienced farm hand. Will run from end to end without holding—and do PLOWING-MATCH work. A Tinkler Wheel Plow—original patented—should have a place on EVERY FARM.

No. 13.—High-class General Purpose. ESPECIALLY good in stubble. Extraordinarily light in draught.

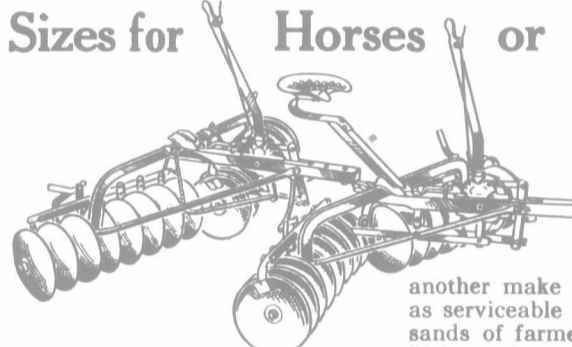
"SPECIAL" No. 5.—Narrow, General Purpose. Fine in sod—the neatest kind of a furrow.

No. 16.—Very light Two-horse plow. One-horse attachment if desired—ESPECIALLY adapted to orchard work.

No. 15A.—One-horse Plow, unequalled, imitated by other manufacturers—poorly imitated. We give our WORD and GUARANTEE that no other One-horse Plow equals this in EASE and COMFORT in handling or in WORK in garden, orchard or field.

J. FLEURY'S SONS AURORA, ONT.
Medals and Diplomas, World's Fairs, Chicago and Paris

Sizes for Horses or Tractors



Use the Bissell Double Disk Harrows. They have great capacity for cultivating, and have made a record for working the soil better than other Disks—in fact, you won't be able to find another make of Disk Harrow nearly as serviceable as the Bissell. Thousands of farmers have tested Bissell Disks and proved them to have the "knack" for doing the best work. They are simple in design, durable and Built for Business. Write Dept. W for Booklet. Man'f'd exclusively by—
T. E. BISSELL COMPANY, Ltd., Elora, Ontario

Do not fail to see our exhibits at Toronto, London and Ottawa
Yorkshires and Berkshires

I have for immediate sale several Yorkshire hogs and sows 7 months and over. Also 1 Berkshire hog 2½ years old, a prize-winner. He is the improved type, very long. All hogs guaranteed to satisfy. All bargains if sold at once.
W. G. BAILEY, Prop.

Oak Park Stock Farm, R.R. No. 4, Paris, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES
From our recent importation of sows, together with the stock boar, Sudden Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.
H. M. VANDERLIP, Breeder and Importer, R. R. 1, Brantford, Ontario
Langford Station and Brantford and Hamilton Radial

CHERRY LANE BERKSHIRES AND TAMWORTHS
In 1915 we made a clean sweep at all the western shows in Berkshires and Tamworths; we have for sale both breeds of any desired age, winners in the West. First and third prize Berkshire boars at Guelph, first and champion Tamworth boar at Guelph.
S. DOLSON & SON, NORVAL, STATION, ONT.

YORKSHIRES Our offering never better. Champion hog winner of 12 firsts, 5 championships, two years showing, still at the head. Boars and sows, all ages, same breeding as winners of export bacon in keen competition at Toronto in 1915.
WM. MANNING & SONS, Woodville, Ontario

Oak Lodge Yorkshires We are in a position to supply boars and sows of different ages. We have an established type of Yorkshires that has been produced through many years of careful breeding and selection.
J. E. BRETHOUR & NEPHEWS, Burford, Brant County, Ont.

Duroc Jersey Swine, Jersey Cattle—In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.
MAC. CAMPBELL & SONS, Northwood, Ontario

CLOVERDALE LARGE ENGLISH BERKSHIRES
Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable.
C. J. Lang, Burketon, Ont. R. R. 3
Newcastle Herd of Tamworths and Shorthorns—Stock boar and 2 aged sows for sale; fit for any show ring; also boars ready for service, and a number of sows bred for Aug. and Sept. farrow; others ready to breed, both sexes ready to wean; all descendants of imported and championship stock. A few choice bull calves, from 2 weeks up to a year old, from great dual-purpose cows; several extra good cows, with or without their calves; also heifers in calf to Broadlands my present stock bull. Show stock a specialty. Prices reasonable. Long-distance 'phone.
A. A. COLWILL, R.M.D. No. 1, Newcastle, Ont.

Ontario Crops.

The following statistics of the principal field crops of Ontario for 1916 shows the acreage, as compiled from individual returns made by farmers to the Ontario Bureau of Industries, and the yields as estimated by a large and experienced staff of correspondents, who give probable yields according to conditions on August 10, 1916.

Fall wheat—704,867 acres will produce 15,684,923 bushels, or 22.2 per acre, as against 811,185 acres, 24,737,011 bushels and 30.5 in 1915; 685,692 acres yielded 14,333,548 bushels and 20.9 in 1914. The annual average for 34 years, 1882-1915, was 21.3.

Spring wheat—144,305 acres, 259,257 bushels or 17.7 per acre, as against 162,142 acres, 3,439,949 bushels or 21.2 per acre in 1915; 118,607 acres, 2,169,425 bushels or 18.3 per acre in 1914. Average 16.1.

Barley — 527,886 acres, 13,748,585 bushels or 26.0 per acre, as against 522,318 acres, 19,893,129 bushels and 36.0 in 1915; 579,473 acres, 18,096,754 bushels or 31.2 per acre. Average, 28.1.

Oats — 2,689,762 acres, 77,974,156 bushels or 29.0 per acre, as against 2,871,755 acres, 120,217,952 bushels or 41.9 in 1915; 2,776,883 acres, 103,564,322 bushels or 37.3 in 1914. Average, 35.9.

Rye — 148,738 acres, 2,594,253 bushels or 17.4 per acre, as against 173,736 acres, 3,210,512 bushels and 18.5 in 1915; 138,913 acres, 2,315,532 bushels or 16.7 in 1914. Average, 16.5.

Peas — 95,542 acres, 1,444,406 bushels or 15.1 per acre, as against 126,943 acres, 2,043,049 bushels and 16.1 in 1915; 177,856 acres, 2,609,585 bushels or 14.7 per acre in 1914. Average 19.1.

Beans—53,999 acres, 740,719 bushels or 13.7 per acre, as against 62,865 acres, 882,819 bushels or 14.0 per acre; 51,149 acres, 835,895 bushels or 16.3 in 1914. Average, 17.0.

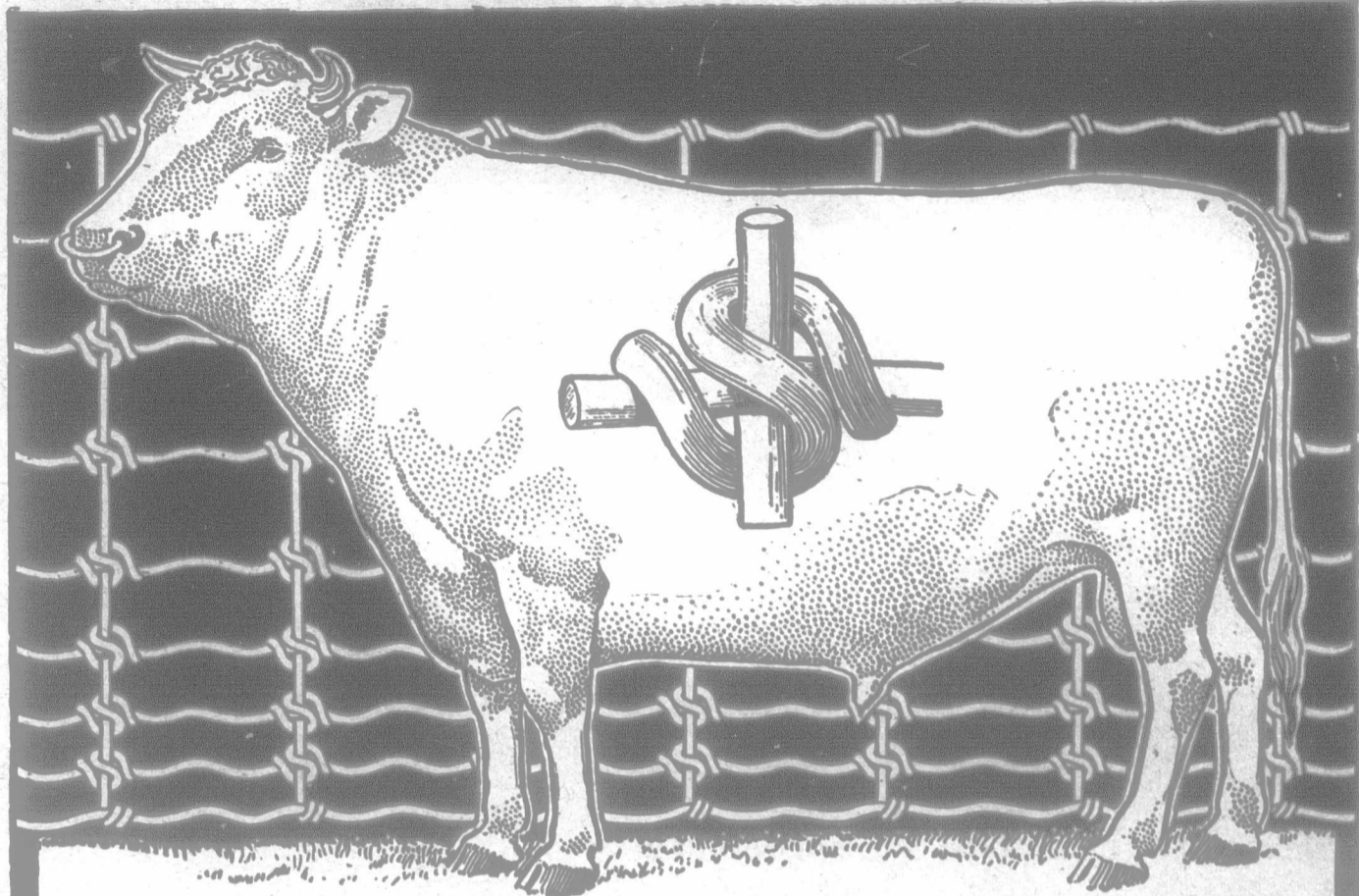
Hay and clover (not including alfalfa) — 3,294,419 acres, 6,739,259 tons or 2.05 per acre, as against 3,066,468 acres, 3,825,026 tons and 1.25 in 1915. Average, 1.43.

The acreages in other crops for which no estimates as to yield have been made at this date are as follows: buckwheat, 229,205, against 193,497 in 1915; corn for husking, 258,332 and 309,773; corn for silo, 439,411 and 443,736; potatoes, 139,523 and 173,934; mangel wurzels, 42,793 and 50,799; sugar beets, 22,482 and 22,890; carrots, 2,391 and 2,439; turnips, 91,670 and 97,451; mixed grains, 485,986 and 475,738; alfalfa, 177,565 and 165,284.

There are 3,409,581 acres of cleared land devoted to pasture; 331,736 in summer-fallow; 280,653 in orchard; 22,817 in small fruits; 9,807 in vineyard; 57,107 in farm gardens; 38,566 in rape; 5,880 in flax; 7,997 in tobacco, (Essex 5,826, Kent 1,444).

All classes of orchard trees made a fine show of bloom, but frequent and heavy rains then washed off much of the pollen, and the setting of fruit was more or less a disappointment. Apples will be comparatively light in yield, more especially the winter varieties. There has been much "dropping" during the summer, and considerable scab has been complained of. Pears have done relatively better, but will be only about half a crop. Statements regarding the yields of peaches range from poor to good; the crop will probably be about a medium. Cherries were almost a failure. The sour varieties did much better than the sweeter sorts. Grapes will be a good crop where properly looked after. Strawberries started out with promise of a great yield, but fell off with the drouth. Raspberries were more or less a failure, much of the fruit drying on the canes owing to the intense heat and drouth of July, but currants did better.

Pastures were of the best until the drouth began to tell about the latter part of July. Later on most of the fields, especially in Western Ontario, were browned by the continued drouth, and in some quarters cattle on the grass had to be helped out by hay or other extra feed. Notwithstanding this drawback, and the extremely warm temperature prevailing during the summer, live stock generally are in good condition—somewhat thin, but hearty. It is thought that there will be plenty of



Is Anything On Your Farm Stronger Than A Bull ?

YES! If your fences are "IDEAL" Woven Wire, made of large gauge No. 9 HARD STEEL wire, heavily galvanized and with the verticals and horizontals clamped together with the Ideal Lock—that CANNOT SLIP. Bull-strong; hog-tight; horse high—a REAL fence.

NO! If you have wire fences of the ordinary kind—fairly good for a few years, but with no reserve strength to stand hard usage—because poorer wire makes them, and stretching them taut takes the utmost of their little strength to start with.

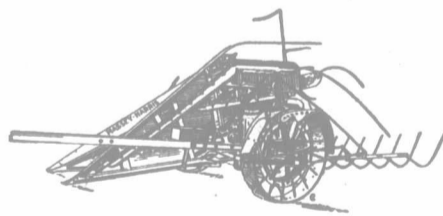
All Large Gauge Number 9 Hard Steel Galvanized Wire

From top to bottom Ideal Fence is all the same—large gauge No. 9 hard steel wire, heavily galvanized and therefore rust-proof. Note lock and its uniform smooth curve—no sharp turns to weaken the strength of the lock and yet a most positive grip—in FIVE different places. This is the fence that has ample springiness, immense strength, and the ONE LOCK THAT'S GOOD. Drop us a card and get our catalog telling all about the many styles and merits of IDEAL FENCE. Sample lock comes with it. Write us today.

McGREGOR BANWELL FENCE COMPANY, LIMITED, WALKERVILLE, ONTARIO

From the Field to the Silo

Quickly, Economically, Satisfactorily.



MASSEY-HARRIS CORN BINDER

A Strong, Durable, Reliable Machine; Light Direct Draft; Inclined Elevation; Perfect Balance; Works Well on the level or on a hillside.

Furnished with or without Sheaf Carrier.

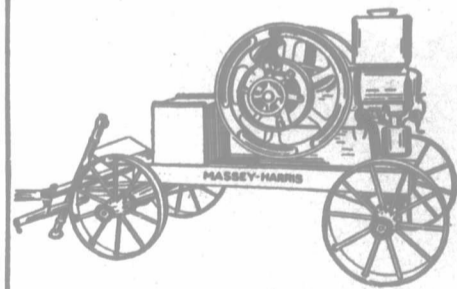
Toronto, Montreal, Moncton, Winnipeg, Regina, Saskatoon, Swift Current.

BLIZZARD ENSILAGE CUTTER

Has great capacity, and is adjustable to cut from 1/4 to 1 1/2 inch long.

The Spring-controlled Feed Rolls give a positive feed.

Blower has ample power to elevate the Ensilage.



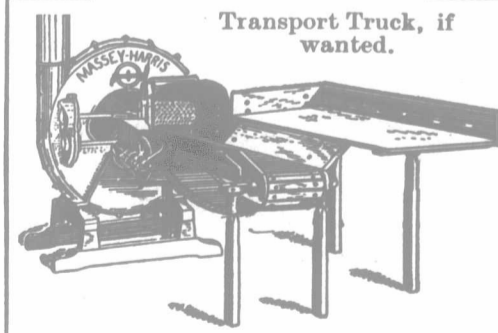
MASSEY-HARRIS GASOLINE ENGINES

A Reliable source of Power for driving the Ensilage Cutter or other Farm Machinery.

Stationary, Portable or Semi-Portable.

Free Catalogue, tells all about it.

Yorkton, Calgary, Edmonton, E. G. Prior & Co., Ltd. Vancouver, Victoria, Kamloops.



Transport Truck, if wanted.

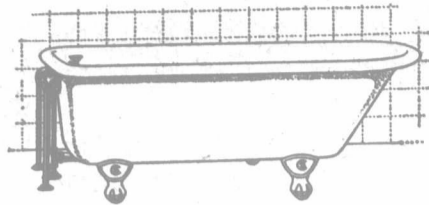
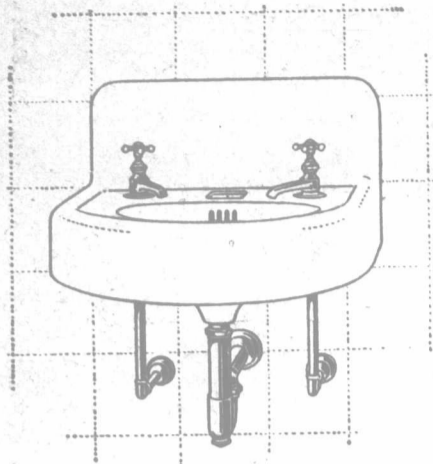
Massey-Harris Co., Ltd.

— Agencies Everywhere —

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When Your Harvest is Over

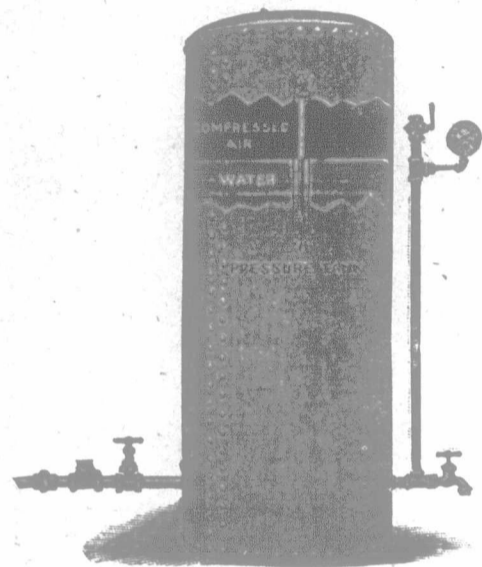
and before Jack Frost comes you should consider the



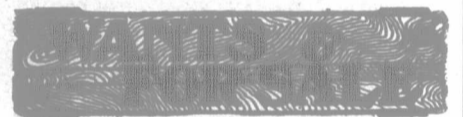
L. E. S. Water Works System

and have the comforts of a modern bath room in your home.

Write for a circular and prices.



LONDON ENGINE SUPPLIES COMPANY, LIMITED
83-85 DUNDAS STREET, LONDON, ONT.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

WANTED—EXPERIENCED MILKER AND farm hand; also man for bottling milk. Thirty-five dollars and board per month. Write Erindale Farms, Limited, Erindale, Ont. (12 miles from Toronto).

PATENTS AND LEGAL FETHERSTONHAUGH & CO., PATENTS Solicitors—The Old Established Firm. Head Office Royal Bank Building, Toronto, and 5 Elgin St., Ottawa, and other principal cities.



Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisements inserted for less than 50 cents.

LIMITED NUMBER OF TRIGS OF THE famous table-egg ducks (fawn and white Indian Runners). Hardy, island raised. \$5.00 a trio, order quick from this ad. W. A. Staebler, Gananoque, Ont.

SEEDS FIFTY YEARS SERVICE

1866 1916

Timothy

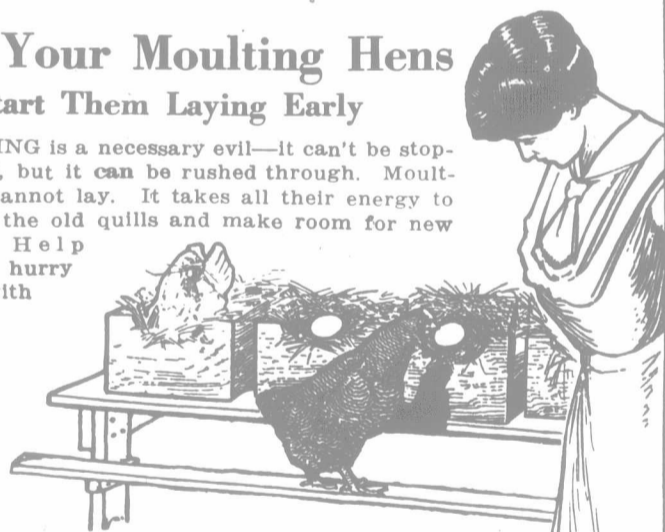
Freight paid on two or more bus. Gov't Standard, No.2, No.1 for purity, \$4.85 bus.

Write for quotations on any other seeds you may require. We are in the market for Alsike & Red Clover. Send samples.

GEO. KEITH & SONS SEEDS 124 KING ST. E. TORONTO

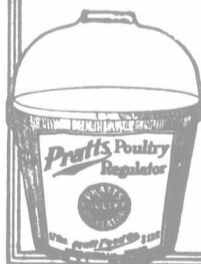
Help Your Moulting Hens Start Them Laying Early

MOULTING is a necessary evil—it can't be stopped, but it can be rushed through. Moulting hens cannot lay. It takes all their energy to get rid of the old quills and make room for new feathers. Help them to hurry through with



Pratts Poultry Regulator

—the tried and proven poultry tonic and conditioner. Tones up the entire system. Gives strength and vigor to expel the old feathers and starts your hens laying early. At your Dealer's—12-lb. pails, \$1.25; 25-lb. pails, \$2.50; 100-lb. bags, \$9.00; also in pkgs. at 25c, 50c and \$1.00.



Money Back if Not Satisfied.

Write TO-DAY for Pratts New Book, "Poultry Wrinkles." It's FREE.

PRATT FOOD CO. OF CANADA, Ltd.

68- J Claremont St., TORONTO. P-7

CENTRAL NURSERIES

Have a Fine Assortment of Fruit and Shade Trees, Vines, Plants, Ornamentals, Etc. For Planting Direct.

For Satisfaction plant HULL TREES. Our prices are right and so are the trees. Send for new priced catalogue, also your want list for special prices on Apple Trees. Excellent quality, and at a very reasonable price. Trees grown in Canada. Man wanted by the year. No Agents. A. G. HULL & SON, ST. CATHARINES, ONT.



Harab-Davies Fertilizers

Yield Big Results

Write for Booklet.

THE ONTARIO FERTILIZERS, LTD. West Toronto

Men's Clothing For Sale

Get your new suit from Catesby's, London, England, for half what you pay local tailor. Best materials, style, fit guaranteed or money back. Write for free catalogue, self-measurement form and patterns. Address: CATESBYS LIMITED, Canadian Office 119 West Wellington Street, Toronto Mention "Farmer's Advocate"

fodder for fall and winter supplies notwithstanding the expected shortage of grain, straw, roots and corn ensilage, farmers counting upon splendid crop of hay to carry them through. Much, however, will depend upon the weather, of the next month or two. Dairy produce has been generous in supply, and the demand for cheese, butter, cream and other lines was never stronger. There has been some shrinkage in production since the drouth, but the high prices now offering are tempting dairymen to keep up the milk supply as far as possible.

Charles Farough, Maidstone, Ont., is offering a few choice Duroc Jersey sows as well as younger stock of both sexes, bred from imported stock. See the advertisement elsewhere in this issue.

"Mrs. Blinks has sold her parrot."
"What for?"
"Well, it insisted on talking, and she was afraid it might encourage her husband."

Doctor—You will have to give up all mental work for a few weeks.

Patient—But, doctor, in that event my income would cease. I earn my living by writing poems for the magazines.

Doctor—Oh, you can keep right on at that.

A big excavating machine that walks instead of moving forward on wheels is being used by the United States Government on one of the great irrigation projects of the southwest. It moves over soft ground with comparatively little difficulty.

How He Felt.—The conditions in the trenches were dreary in the extreme after the drenching and long-continued rainfall, but the irrepressible spirits of the "Pals" were not yet entirely quenched when the order came to leave the trenches.

"Hurry up out of this, my gallant soldiers," was the cheery call of the sergeant to his waist-deep and rain-soaked men.

"Soldiers!" came the derisive answer from one of them. "I'm not a soldier; I'm a blooming bulrush!"—Tit-Bits.

An Ancient Offence.

A veteran recently re-enlisted in the army. After a week at his new quarters he was brought up before the officer commanding for not cleaning his rifle one day. Said the officer commanding: "Hem, you're an old soldier re-enlisted, I see. I suppose it has been many years since you were reprimanded? What was your last offence? Can you remember what it was?"

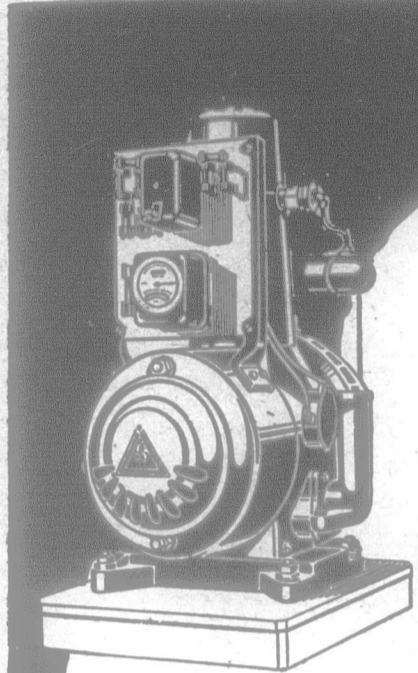
The old soldier, with irony on account of the repeated assertions of his age, replied: "For not cleanin' me bow and arrow, sir!"

The following account from The Independent gives an interesting glimpse of some of the trenches in Europe:

"The Austrian line through which the Russians have broken was strongly entrenched, although weakly manned, for troops had been withdrawn for service in the Serbian and Italian campaigns. The foremost line of entrenchments consisted usually of a deep ditch, boarded over and protected in places by iron roofs. In front of this were some twenty lines of barbed wire entanglements. The shelters or dugouts in which the men lived were fifteen feet underground and were, in some cases, handsomely fitted up with upholstered furniture, musical instruments and pictures. Deep and crooked communication trenches led to the listening pits in front, and to the second and third lines of trenches behind. The second line was put a mile and a half behind the first, and in the rear of this the Austrian soldiers had put in flower and vegetable gardens where the Russians found potatoes, radishes, lettuce and onions growing. The guns were placed in casements of reinforced concrete. Light field railroads connected the entrenchments with the supply bases behind, and the advance of the Russians was so swift that much of the rolling stock fell into their hands.

DELCO-LIGHT

Even Electricity On the Farm Now— AT SMALL COST



Electricity that seemed so wonderful to the farmer, yet so unattainable, can now be had on every farm. More wonderful still, its cost is low—averaging less than five cents a day. Most wonderful of all, this great achievement is completely efficient, absolutely reliable in every single detail. The name alone must prove to you how perfect and yet how simple Delco-Light is. Now through Delco-Light, you can make farm life brighter, pleasanter, easier. No more bother with old-fashioned, dim, kerosene lamps—but a brilliant, clear, convenient light or power—just at the turning of a switch.



The Greatest City Advantage

Electricity is not a luxury any more than water; it is a necessity. It is to have such conveniences as Delco-Light gives that many farmers—especially the younger ones—desert the country for the city. Delco-Light will make your home brighter, more cheerful, more enjoyable. In the odd moments left at the end of each day's toil you can read—by the light that all can enjoy.



Clear Convenient, Light, Everywhere on the Farm

Delco-Light has made the old oil lantern around the barn as out-of-date as the ox-drawn wagon. All the light you want in any part of the barn can be had by simply turning a switch. Down at the end of your lane, up in the hay-loft, in the tool-shed—anywhere and everywhere you can have a perfect, brilliant light without fuss or trouble. Chores will not occupy half the time you now spend. Animals can be tended to in a good light—and there's no danger whatever with Delco-Light.

end of your lane, up in the hay-loft, in the tool-shed—anywhere and everywhere you can have a perfect, brilliant light without fuss or trouble. Chores will not occupy half the time you now spend. Animals can be tended to in a good light—and there's no danger whatever with Delco-Light.

So Simple that a Child Can Operate It

The Delco-Light is a complete isolated electric plant—combining gasoline engine, a dynamo, specially designed batteries, and a switchboard. Weight is 325 pounds, capable of delivering 750 watts. Low voltage—32 volts—eliminates all danger. Gasoline engine is air-cooled, so no danger of freezing, starts itself on pressing of a lever. Automatically cuts off switch when batteries are fully charged. Run once or twice a week it will supply all current needed—a child will operate it without trouble. Nothing to get out of order. Batteries, specially built for Delco-Light of sealed glass jar type, come fully charged.

A CANADIAN SUCCESS
"Electricity for EVERY Home in Canada." That is the Delco-Light ambition—to bring all the convenience, all the brilliance of electricity to every home in Canada that now is without this great advantage. Great as is the ideal its successful attainment is assured—the Delco-Light plant is thoroughly reliable and efficient. Efficient, too, is the wonderful organization selling Delco-Light, full of enthusiasm about Delco-Light and its possibilities.

Clean, Safe, Cheap

None of the grease and grime with Delco-Light that was so annoying with kerosene lamps. A turn of the switch and the electric bulb floods your room with brilliance—no smoke, no smell, but a clear, clean light. No need to be careful and gingerly—all danger of explosion. Best of all, Delco-Light is wonderfully cheap, average cost per day is less than 5 cents.



POWER

Delco-Light is low-voltage system for safety. But it delivers power that will run small machines about your farm with complete efficiency. Think of the saving of labor with Delco-Light installed in your home. Cream separator, churn, washing machine all run by electric power. Saves your wife hours of hard toil. Will pump all the water you need—drive a vacuum cleaner—drive a food chopper—make your life on the farm easier, pleasanter, more enjoyable.

PRICE COMPLETE \$375.

Delco-Light was developed by the same company making the world-famous Delco starting, lighting and ignition for automobiles.

THE DOMESTIC ENGINEERING COMPANY
DAYTON, OHIO.

C. H. ROOKE

Delco-Light Distributor for Ontario and Quebec
168 Bay Street, TORONTO
Agents Wanted Everywhere. Write at once for Open Territory.

OIL CAKE MEAL THE FEED THAT MAKES MORE CREAM

The LIVINGSTON BRAND OIL CAKE is made from Pure No. 1 North Western Canada Flax Seed by the Old Patent Process, which cooks the food, insuring its keeping for any length of time, and making it easier to digest.

KEEPS STOCK IN GOOD CONDITION — INCREASES AMOUNT OF BUTTER

Fine Ground, Coarse Ground, and Pea Size Grindings

IMPROVE YOUR CALVES BY FEEDING THEM LINSEED MEAL OR THE WHOLE FLAX SEED

If your dealer cannot supply you, write direct to us.

The Dominion Linseed Oil Company, Limited
MANUFACTURERS FLAX SEED PRODUCTS
Baden, Ontario Montreal, Quebec

Who Said Turn the Crank ?

When you are at
**Canadian National
Exhibition**
Toronto, Ont.
Aug. 26th to Sept. 11th, 1916

TURN The Crank of a "KING"

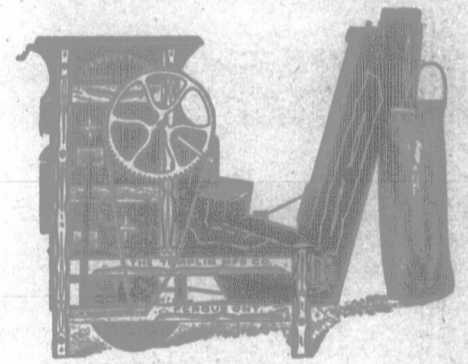
Ask about our
selling plan.

Center Aisle under Grand Stand

**King Separator
Works of Canada**
Bridgeburg Ontario

Will also exhibit at
London and Ottawa Fairs

PERFECTION MILL

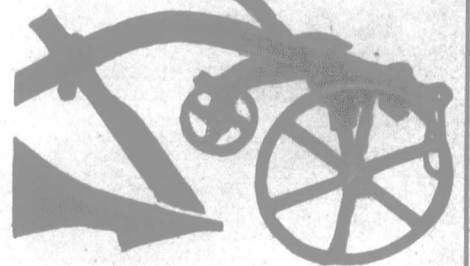


"The best seed and grain cleaner and grader made in Canada to-day." That's what thousands of our best Canadian farmers say who are using the Perfection Mill.

Write for circular A to
The Templin Mfg. Co., Fergus, Ont.

THE DICK

Lever Plow Wheel Attachment



will fit all makes of single walking plows. Any boy that can drive a team is capable, with this Attachment, of doing as good work as the best plowman. Write for full particulars and illustrated catalogue.

DICK AGRICULTURAL WORKS
Bolton, Ontario

15⁹⁵ AMERICAN
Upward CREAM
SEPARATOR
Sent on trial. Fully guaranteed. Easy running, easily cleaned. Skims warm or cold milk. Bowl a sanitary marvel. Shipments direct from Winnipeg, Toronto and St. John. Whether large or small dairy, write for handsome catalogue. Address:
**American Separator Co., Box 5,200
Bainbridge, N.Y.**

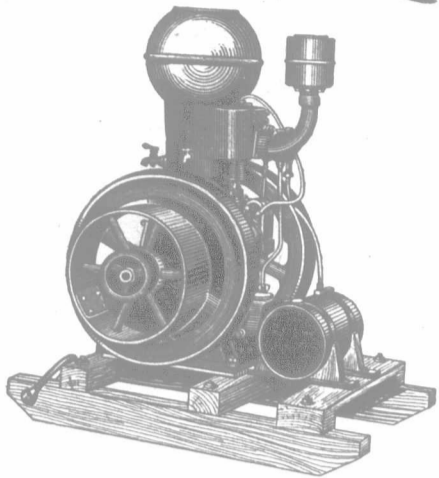
"LISTER"

FARMERS!

Don't miss our Exhibits at the Fall Fairs

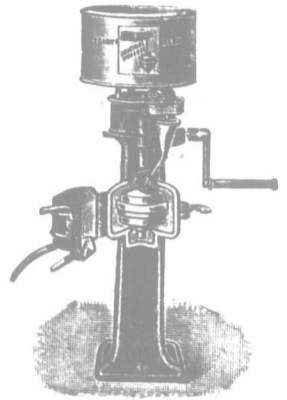
TORONTO.....	In Large Tent
LONDON.....	In Machinery Building
OTTAWA.....	In Machinery Building
QUEBEC.....	Machinery Exhibits
SHERBROOKE.....	Machinery Exhibits

WELCOME!



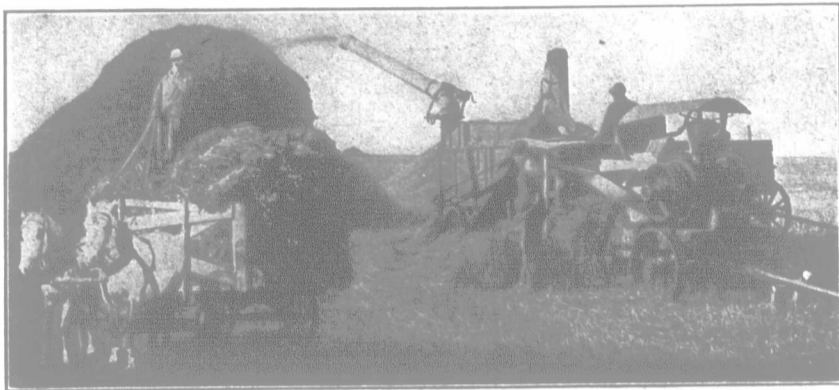
THE LISTER ENGINE

LISTER MILKERS
 LISTER SILOS
 LISTER ENSILAGE CUTTERS
 LISTER IDEAL THRESHERS
 LISTER GASOLINE AND GAS ENGINES
 MELOTTE CREAM SEPARATORS



"MELOTTE" CREAM SEPARATOR

LISTER ELECTRIC LIGHT PLANTS
 LISTER GRAIN GRINDERS
 LISTER SAW FRAMES
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 LISTER PUMPING SETS
 PULLEYS, SHAFTING BELTING, etc.

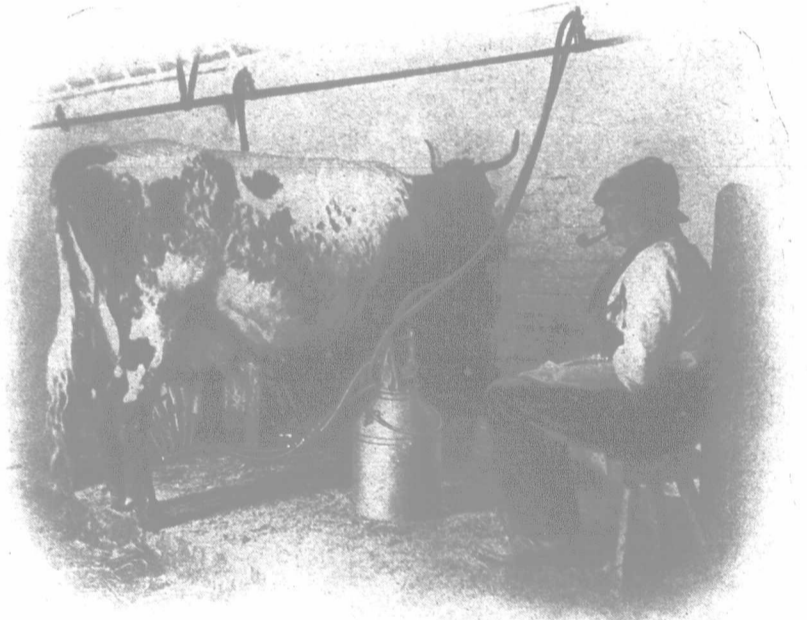
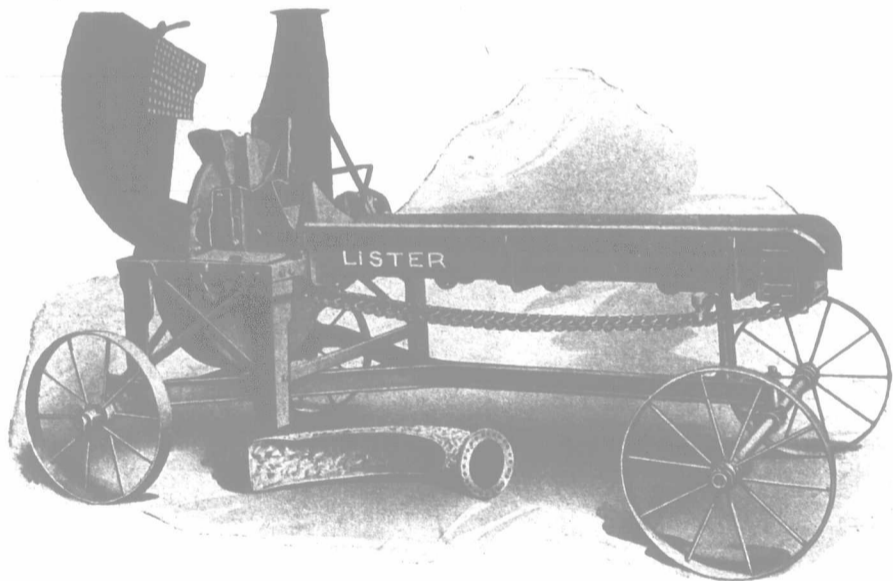


A Farmer who does his own threshing in Western Canada with a Lister Ideal Thresher, operated by a Lister Gasoline Engine

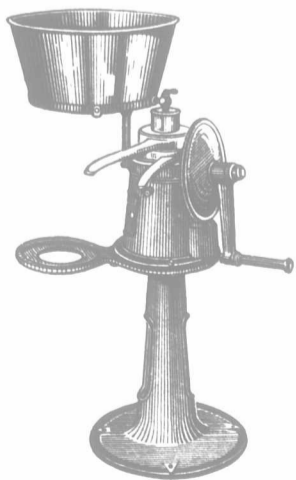
THE LISTER MILKER IN THE OLD COUNTRY

NOTE.—If you can't come to the Fair, write for catalogues to Dept. G

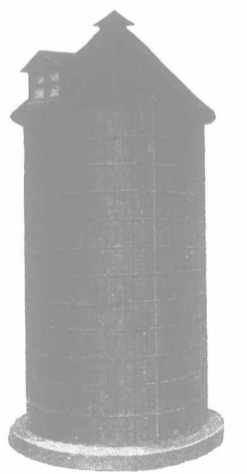
THE LISTER ENSILAGE CUTTER



R. A. LISTER & CO., Limited, TORONTO. Also at Winnipeg Quebec St. John, N.B.



Premier



The PREMIER CREAM SEPARATOR is All-British, which signifies high-grade materials and workmanship, and consequent high efficiency—simplicity and long life.

The PREMIER PERFECT SILO offers big value. Staves of Norway Pine specially treated and bound with patent steel cables.

SEE US AT THE FALL FAIRS, OR WRITE FOR CATALOGUE

PREMIER CREAM SEPARATOR CO., 659-661 King St. West, TORONTO, and Branches