

JANUARY 16, 1919

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LIV.

LONDON, ONTARIO, JANUARY 23, 1919.

No. 1374

This advertisement is intended to
keep the old familiar name

PURITY FLOUR

(Government Standard)

fresh in your mind.

"More Bread and Better Bread and Better Pastry"

CANADA FOOD BOARD LICENSE NOS.: FLOUR, 15, 16, 17, 18; CEREAL, 2-009.

Also remember Purity Oats.

WESTERN CANADA FLOUR MILLS COMPANY, LIMITED
TORONTO ONTARIO

GILSON SILO FILLER

Get your silage in at the proper time. Get the greatest food value from your corn. You can do it with your own cutter. There are three sizes of the Wonderful Gilson Cutter—one specially adapted to your needs. Made to run with light power—4 to 12 h.p. gas engine. The Gilson pours a steady stream of uniformly cut ensilage into a high silo at the rate of 3 to 50 tons per hour, according to size.

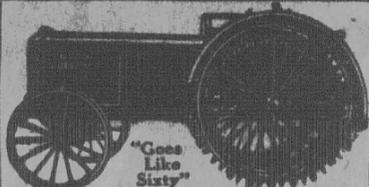
The Lightest Running Blower Cutter Made

Built for many years of service. Steel and iron construction, all but the feed table. All five main bearings are a part of the one-piece, semi-steel frame. This secures perfect alignment of cutting mechanism at all times. Direct drive by heavy gears. No chains. Patented safety reverse prevents accidents. Every Gilson Cutter has six fans in place of the usual four. This is why the GILSON elevates in a more constant stream. It throws as well as blows.

Write For Free Gilson Book. Gives illustrations and details. GILSON MFG. CO. LTD., 709 York St., Guelph, Ont.



GILSON STANDARDIZED TRACTOR



Great power, strong, durable, compact construction, light and handy. Wonderful draw bar pull, unsurpassed for belt work. Standardized throughout. A serviceable one-man tractor that will make money for you 10-20, 12-25 and 15-30 h.p. Made in Canada. Write to-day for catalogue. GILSON MFG. CO. LTD., 679 York St., Guelph, Ont.

HYLO SILO

Sweet Fresh Ensilage down to the last forkful

THE HYLO SILO is perfectly air-tight. No frozen or spoiled ensilage around the walls. Convenient and perfect fitting doors, adjustable without hammer or wrench. Made of Guaranteed Long Leaf Yellow Pine. Built to last a life-time. Stands rigid when empty.

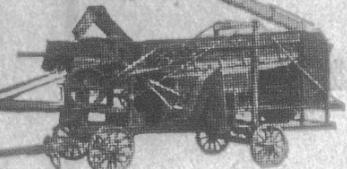
Write for prices and catalogue. AGENTS WANTED.

Gilson Mfg. Co. Ltd. 69 York St. Guelph (A)

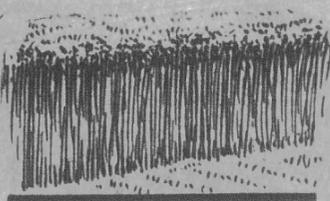


The Wonderful—Light-Running Gilson Thresher

"Goes like Sixty"



Saves Time—Money—Labor. Be independent of the gang. Keep your farm free of weeds. Do your threshing when you please, with a 6 to 12 h.p. Engine and the Wonderful Light-Running Gilson Thresher. Furnished with or without Blower. Send for full particulars. GILSON MANUFACTURING COMPANY LTD., 489 York St., Guelph, Ont.



Well Fed

Plants get the greatest part of their feed, and their growth, from the soil. If you give the crop you sow the exact Plant-Food it requires to grow and ripen, you can count on a strong stand and a rich harvest.



Nothing can be more exact in its results than the use of the right quantity and the right brand of

Gunns Shur-Gain Fertilizer

GUNNS LIMITED, West Toronto.

I am interested in GUNNS Shur-Gain Fertilizer.



Starved

If years of cropping have used up the Plant-Food in the soil, you must supply commercial Fertilizers to replace it.

Do you understand how to do this profitably?

"Bumper Crops" is just the book to show what Plant-Foods to use for each crop and how to use them, to get the best returns.

FREE if you use this coupon.



Try This one man Stump Puller 30 Days FREE!



Prove all my claims on your own farm! Find out how one man alone with a Kirstin handles bluestumps, Pulls big, little, green, rotten, low-cut, tap-rooted stumps, hedges, trees or brush. Does it QUICK, EASY, CHEAP! If satisfied after 30 days' trial, keep puller. If not satisfied, return at my expense.

SEND NO MONEY

My Big New Book FREE Post Paid

Tells why a few stumps cost you more EACH YEAR than the price of a Kirstin. Why stumps cost Canadian farmers an appalling toll. Shows how thousands of Kirstin users pull heavy stumps in spite of labor shortage with one-man outfit.

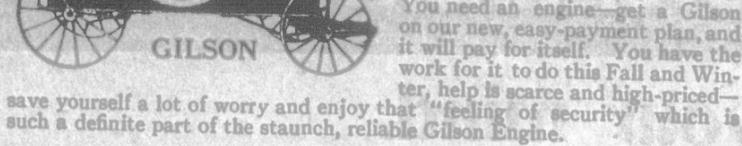
Also why the Kirstin way is the cheapest, quickest, easiest way to clear land for BIG CROPS.

Book is filled with information every farmer should read. Write for FREE BOOK now—today!

Weights less—costs less! Yet has greater speed, power, strength and lasts longer! Made of finest steel. 3 year guarantee against breakage. Clears acre from one anchor. Pulls stubborn stumps in few minutes at low cost. Single, double, triple power. Several speeds. Low speed to loosen stump—high to yank it out quick. Patented quick "take up" for slack cable. Easily moved around field. No other stump puller like it! All explained in big FREE BOOK. Write for book today! Also for Special Agents' Proposition. Shipment from nearest distributing point saves time and freight.

A. J. KIRSTIN CANADIAN COMPANY
516 DENNIS STREET, SAULT STE. MARIE, ONT.

"Goes Like Sixty" This Engine Will Cost You Nothing



You need an engine—get a Gilson on our new, easy-payment plan, and it will pay for itself. You have the work for it to do this Fall and Winter, help is scarce and high-priced—save yourself a lot of worry and enjoy that "feeling of security" which is such a definite part of the staunch, reliable Gilson Engine.

Gilson Engines have long enjoyed an indisputable reputation for dependability, power, simplicity and economy. This year finds us with an even more attractive proposition for the discriminating buyer. Prices of everything you have been buying have been soaring, but, by careful management, we are able to furnish Gilson Engines at remarkably low prices. Write to-day for catalogue, price, and easy-payment plan, stating what size you are interested in.

GILSON MFG. CO., Limited, 259 York St., Guelph, Ontario

NONE-SUCH SEED CORN

Golden Glow—Wm. No. 7—White Cap. I furnish a good new cotton bag and pay charges to your nearest station, also guarantee that if not satisfied in ten days return corn at my expense and money will be refunded. Write for prices and particulars to R. A. Jackson, R.R. No. 1, Cottam, Ont.

SEED CORN

We have all the different varieties at the lowest prices. Special prices to club orders and car lots. Satisfaction guaranteed.

W. O. FENNER, Woodslee, Ontario



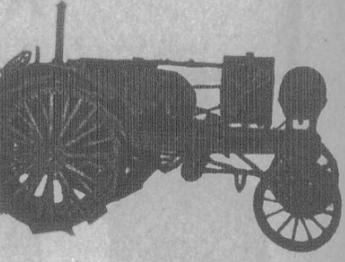
For Maple Syrup and Sugar

Every maker of Maple goods in Eastern Canada should be interested in this remarkable contest. Our last competition before the war showed us how to arrange the prize money so that more competitors will be sure of being in the winning class. This spring will offer an unprecedented opportunity in the development of the Maple industry, and this contest will help to classify and arrange the various grades and qualities of Syrups and Sugars produced in Canada. Why not equip your grove and enter this contest? For full particulars, write to

The Grimm Manufacturing Co. Limited
40 Wellington St., Montreal, Que.



The Waterloo Boy



The Three-Plow Tractor for Ontario. The Tractor that makes good. The Tractor that has stood the test. The Tractor that is guaranteed under all conditions.

Write for free catalogue, prices and any information wanted.

THE ROBERT BELL ENGINE & THRESHER CO., LIMITED
Selling Agents for Ontario. Seaforth, Ont.

A Real Oil Engine NOT AN EXPERIMENT

Uses no Gasoline, not even to start with. Starts easily in the coldest weather on the fuel it runs on. Coal Oil or Fuel Oil, and only uses half the amount required by other so-called Oil Engines. The saving in fuel will pay for this engine in a few months. The

Hoag Oil Engine

has no electric devices whatever, the burning of the oil is obtained by mechanical means alone, and the usual time and trouble, forever fixing electrical ignition, is entirely done away with, making this engine the Farmers' Friend. Get circulars and price of size you are interested in.

Henry P. Hoag & Co. BRANTFORD ONTARIO

London Concrete Mixer No. 6

Equipped with "Novo" Dust Proof Gasoline Engine. Capacity 8 cu. ft. per batch or 60 cu. yds. per day. Mixes any kind of concrete or mortar. Especially suitable for any kind of work requiring a portable machine. Saves the price for itself the first thirty days it is in use. Send for catalogue No. 1-B.

London Concrete Machinery Co., Ltd. Dept. B., London, Ont.

World's Largest Manufacturers of Concrete Machinery.

Patent Solicitors—Fetherstonhaugh & Hised firm. Patents everywhere. Head Office: Royal Bank Buildings, Toronto. Ottawa Office: 5 Elgin St. Offices throughout Canada. Booklet Free.

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ENGINE &
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Seaforth, Ont.

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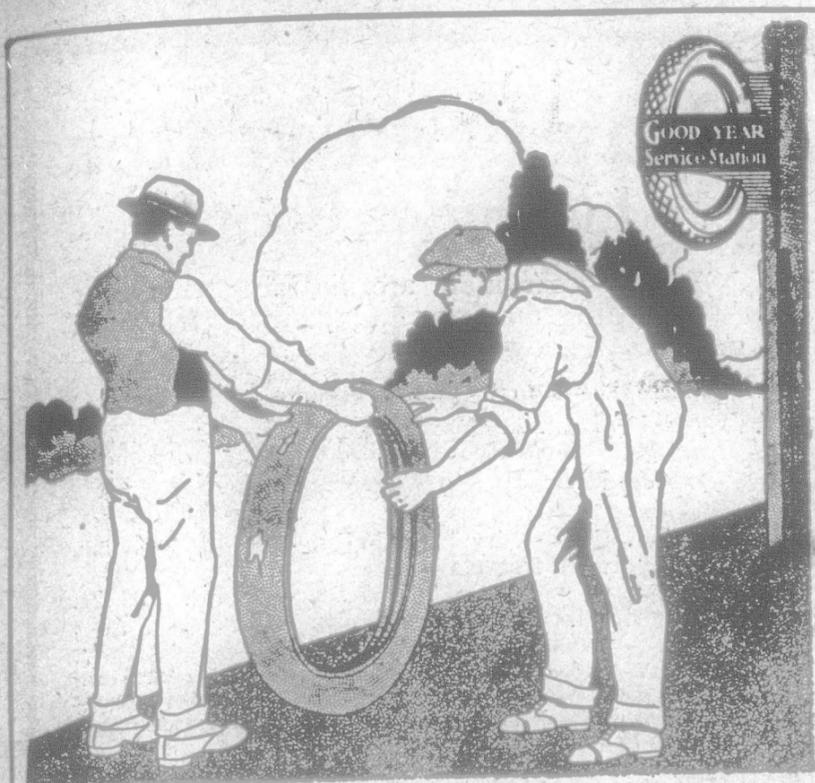
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& Co.
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Capacity 8 cu. ft.
per batch or 80 cu.
yds. per day.
Mixes any kind of
concrete or mortar.
Especially suit-
able for any kind
of work requiring
a portable ma-
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price for itself the
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Ont.
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erstonhaugh &
The old estab-
lishment. Head Office:
Toronto. Ottawa
throughout Canada.



When to Figure the Cost of Tires

YOU can't tell what your tires cost *until they are worn out.*

Certainly, what you paid for them is not the real cost.

No man with sound business sense would figure his tire cost at so much per tire. That would not tell him what it was costing to run his car.

The cost of tires must be figured at so much a mile.

A tire at \$25 might cost more than a \$30 tire—that is, more per mile of actual service.

It was when men started to buy tires on their cost-per-mile reputation that the Goodyear business forged ahead. To-day Goodyear is the world's most popular tire—a world-wide sale built on the low cost-per-mile of millions of tires.

Buy Goodyear Tires and keep down the operating cost of your car. The Goodyear Service Dealer will be glad to help you.

The Goodyear Tire & Rubber Co.
of Canada, Limited



TOO LATE

Now is the time when you need a silo most. If you had installed a silo last season, right now your cows would be giving 25% more milk at a good deal lower feeding cost.

But it's too late now to worry about that. The best thing to do is to make sure now that you will not be without a silo next winter.

IT'S NOT TOO EARLY TO PLAN FOR YOUR NEW SILO

Send for our silo book. Tells all about silos, silage and silage feeding

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butterworkers. Catalogues of any of our lines mailed upon request.

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

What Tractor Owners Want

WISE tractor buyers insist upon three features: Their tractors must operate on the cheapest fuel a farmer can buy. They must be so simple that the farmer or his help can operate them. They must do enough good work in the field, and at the belt, to more than pay for themselves. International kerosene tractors meet all three of these demands.

One reason for the very satisfactory records these tractors make is the service our local dealers and branch houses give—a service that enables farmers to keep their tractors going whenever there is work to do. It includes all necessary instructions in the care and handling of the machines.

Keep this service feature in mind when you come to buy a tractor. It applies equally to all International tractors. Send for catalogues now and make your decision soon, so that you may have your tractor for the heavy work of the coming season. Address the nearest branch house listed below.

International Harvester Company of Canada, Limited

BRANCH HOUSES

WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatoon, Sask., Winnipeg, Man., Yorkton, Sask.

EAST—Hamilton, Ont., London, Ont., Montreal, Que., Ottawa, Ont., Quebec, Que., St. John, N. B.

"Empire" Barn Plans

FREE Barns - Implement Sheds - Store Houses etc.

FREE No Obligation Our Service is free

We Will Help Build Your Barn

—help in a real and practical way— help you to build a modern Barn, a roomy Barn, and an economical, fire-proof Barn. And our help is free. We cannot tell you all about it here. Drop us a card asking for our

Barn Plan Service Folder

and you will get it—free—by next mail. It explains our system—shows how we can save you time, money and worry in building a new Barn, also

Implement or Drive-Sheds, Stables, etc.

Send for our Folder today. It is crammed full of interest to any farmer who has buildings to put up—it is absolutely free,—it explains fully the most complete service ever offered free to Canadian Farmers. Ask for extra copies for your friends if you wish them.

The Metallic Roofing Co. Limited
TORONTO and WINNIPEG

Manufacturers of the famous Eastlake Shingles, Empire Corrugated Iron, Ventilators, Roof-Lights, Hog Troughs, Stock Tanks, etc., etc.

Interest Paid on the date

No bother, no waiting for your interest. No tales of woe from the mortgagor who can't pay. No foreclosure proceedings and loss of time; and no lawyers' fees to eat up your earnings. Just call for your interest; it is cheerfully paid every six months.

5 1/2% Mortgage Corporation Debentures

are issued in sums of \$100 and upwards for a period of time to suit the purchaser. Nothing so simple or so safe. Thousands of people have invested their savings in these debentures without the loss of a dollar invested.

\$100 invested at 5 1/2% doubles itself in less than 13 years.

\$100 saved at 3% takes 23 1/2 years to do the same thing.

Write for Booklet entitled "Profits from Savings."



STANDARD RELIANCE MORTGAGE CORPORATION

HEAD OFFICE—TORONTO

Branch Offices:
AYR BROCKVILLE CHATHAM
ELMIRA NEW HAMBURG WOODSTOCK

New COAL OIL LIGHT FREE

BEATS ELECTRIC or GASOLINE

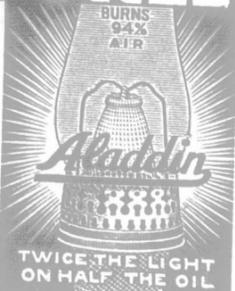
Here's your opportunity to get the wonderful new Aladdin Coal Oil Mantle light FREE. Write quick for particulars. This great free offer will be withdrawn as soon as some distributor starts work in your neighborhood. You only need show the Aladdin to a few friends and neighbors; they will want one. We give you yours free for this help. Takes very little time, and no investment. Costs nothing to try it.

Burns 70 Hours on One Gallon

common coal oil, no odor, smoke or noise, simple, no pumping up, no pressure, won't explode. Tests by Government and thirty-five leading universities show the Aladdin gives three times as much light as best round wick flame lamps. Won Gold Medal at Panama Exposition. Over three million people already enjoying this powerful, white, steady light, nearest to sunlight. Guaranteed. And think of it—you can get it without paying out a cent. All charges prepaid. Ask for our 10-day Free Trial Offer and learn how to get one free.

AGENTS WANTED

MANTLE LAMP COMPANY, 231 Aladdin Building, MONTREAL



Why Feed Water Instead of Corn?

MANY dairymen are noticing the poor feeding quality of silage made from tall green corn grown last summer.

Here are actual Quality Figures for Corn at three stages:

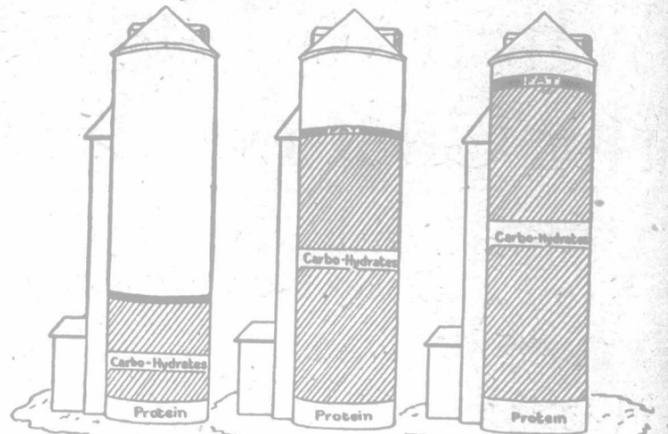
Corn Plant	Protein	Starch and Carbohydrates	Fat
(1) When Silks are dry	436 lbs.	2942 lbs.	49 lbs.
(2) Ears formed, Kernels glazing	566 lbs.	7884 lbs.	202 lbs.
(3) Corn ripe for Ensilage	659 lbs.	9268 lbs.	215 lbs.

Purdue Agricultural Experimental Station—Bulletin 175

New York (Genève) Station reports that the corn crop increases in weight about 10,000 lbs. per acre between tasselling and maturity.

Experience shows that you can hasten corn ripening from 10 days to 2 weeks by proper Fertilizing.

These silos with their contents show the relative feeding value of green, partly mature and mature corn ensilage figured on the basis of an equal number of corn plants in each silo.



Corn just past silking stage when frost came

Kernels of Corn glazed when frost came

Ears well formed, corn sufficiently ripe for good silage when frost came

You can increase the protein in the silage from 30% to 50% and the Carbohydrates and starch from 168% to 215% by forcing the corn to maturity.

Balance the manure on the corn next summer with 200 to 300 lbs. Acid Phosphate per acre. If you haven't manure for the corn field use 200 to 300 lbs. of complete fertilizer per acre.

Fertilizers pay in Better Silage Corn. Write for free literature.

Soil and Crop Improvement Bureau
of the Canadian Fertilizer Association

1111 Temple Building - - - Toronto

WHAT THEN?

Should the PROP of your home be broken, the head of the home suddenly removed, WHAT THEN?

There are thousands of homes, happy and prosperous, where all goes smoothly, and will continue so if the home-builder lives to carry out his plans.

"IF!" There is the question! Should the unexpected happen, WHAT THEN?

Happily, there is a sure solution. However narrow one's circumstances, however difficult it may be to "get ahead" of the daily expenses, Life Insurance offers a safe and easy way of laying aside for the future.

The Great-West Life Policies provide Insurance on terms in every way attractive. Let us explain the best Policy for your needs.

THE GREAT-WEST LIFE ASSURANCE COMPANY
Dept. "Z."

BUY WAR SAVING STAMPS

Head Office: WINNIPEG

NORTHERN ONTARIO

Millions of acres of virgin soil, obtainable at 50c. an acre in some districts—in others free—are calling for cultivation.

Thousands of farmers have responded to the call of this fertile country, and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

For full particulars as to terms, regulations and settlers' rates, write to:

H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.
G. H. FERGUSON, Minister of Lands, Forests and Mines.

When writing advertisers please mention Advocate.

The Farmer's Advocate and Home Magazine

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AND
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LIV.

LONDON, ONTARIO, JANUARY 23, 1919.

1374

EDITORIAL.

Don't neglect the ice harvest whenever the crop is ready. The season is passing.

Exercise, well-ventilated quarters and plenty of dry bedding go a long way towards preventing crippled pigs.

A literary or debating society in your community would prove of great help to you and to your friends. Why not get busy and organize one this winter?

This month and next will see many meetings of associations. Why not arrange to attend one or more of them and link up with those you are most interested in.

If the strawberries were not mulched for winter there is still time. Alternate freezing and thawing is very injurious, and a liberal mulch applied now may save the beds.

It has been stated that only one per cent. of all the sires in use in Canada are pure-bred. This, if true, points to a speedy method of improving live stock in Canada.

The next session of Parliament promises to be an important one. If the tariff question is introduced and debated there will be some interesting press dispatches put on the wires at Ottawa.

In spite of the fact that we have had no prolonged period of severe weather, the winter is almost half gone. Don't be deceived by the clemency of the weather man, but begin to prepare for spring.

The Western Ontario Dairymen's Convention, the Experimental Union and the Ottawa Winter Fair are reported in this issue. These cover a wide range of subjects, and in them there should be something for everybody.

Other cities should object to the free advertising Montreal is getting out of these press dispatches regarding the carloads of whiskey discovered en route to various points. If Montreal has so much to spare there will soon be a boom there that will read like the stories of "Forty-nine."

Statistics show an average yield of spring wheat in Ontario of 23.3 bushels in 1918, an increase of 3.2 bushels over 1917, 8 bushels over 1916, and 7 bushels over the average yield for 1882-1918. The total production was 8,186,191 bushels, Renfrew County leading with 843,698 bushels.

Canada will, no doubt, pass through many trying circumstances before conditions become normal. The embargo placed recently on Canadian shipping is a visitation of misfortune much to be regretted, but if we keep our hand to the plow and look to the future with confidence the outcome should not be disappointing.

There were 2,872,722 cattle of all kinds in Ontario in June, 1918. Of these, 1,102,039 were milch cows and 60,563 were bulls, or one bull of serviceable age to every 18 milch cows. If the scrub bull were eliminated considerable feed and labor would be saved, to say nothing of the improvement that would take place in the average quality of our herds.

Do Something for the Horse!

A large measure of the inactivity in the Canadian horse market is due to the neglect of our agricultural colleges and experiment stations to conduct investigations with the equine kind and to modernize their teaching so as to instruct farmers how to make one horse, or two, take the place of the laborer no longer available. Furthermore, there is the breeding and rearing of horses, and in this regard our institutions have been willing to accept the word of the ancients as conclusive. There was a time when the cost of production did not seem to matter much so long as Smith's three-year-old was speedier, weightier, or could start a heavier load than Brown's. However, what is wanted now is some up-to-date information on how to rear horses as successfully and yet as cheaply as possible; how to hitch three or five, or perhaps six, seven, or eight together, and have them work smoothly and comfortably at all farm work without a side-draft. Such investigational work is in progress in the United States, but we should be able to see these things tried out under Canadian conditions. At a recent horse meeting in the neighboring Republic, the secretary of the leading breed of draft horses there, publicly charged the agricultural colleges and experiment stations with negligence in regard to horses, and the same accusation strikes home with almost equal force in Canada.

Thousands and thousands of dollars are being expended on perfecting the tractor and making it suitable for farm work. The horse is not given a chance to demonstrate its usefulness, and is gradually being relegated to the background. It has long been the custom for officials representing founts of information and learning to advise farmers to breed their mares annually, yet at one of our leading Ontario institutions not one colt was raised in years. This is a sample of what is being done to save the horse and prevent the almost entire extinction of the farmer's favorite animal. It is time our agricultural institutions got busy and recognized the horse as a farm animal, rather than as a mere machine.

No Place for Bolshevism in Canada.

There has been cheering for Bolshevism right here in some of our Canadian cities, where Jack is supposed to be as good as his master and a fairly liberal amount of independence is a blessing with which all classes are endowed. We have suffered no reign of tyranny nor have Canadians been forced to surrender that which they really need to sustain life and health in order that some aristocrat might grow rich at the expense of others. There have been inequalities in opportunity and inadequate returns for labor expended. Reforms are needed but they can be effected with the ballot if the voters of Canada will use their suffrage as it was intended they should. It is easy enough to cheer for the Bolsheviks of Russia, but there are few in Canada who would elect to live under their rule of murder, pillage and blood-red anarchy. What the Bolshevik theory is we know not, for what good there may be in it is overshadowed by the cruelties and excesses of Bolshevik practice. Bolshevism, as we know it, cannot be excused on the ground that Russia is undergoing a revolution. Lenine has provoked anarchy, made beasts of the people, and now his agents are appearing in other countries with no good object in view. Bolshevism is stealing into all nations for the express purpose of undermining constituted authority and sowing the seeds of disruption and upheaval. In Germany it may be met by a more disciplined mind and forced to modify itself so as to, at least, resemble extreme radicalism. English labor expressed itself recently at the polls as opposed to anything akin to Bolshevism, and in the United States the advance guard have only just arrived. A troublesome foreign element there may espouse the cause as they are likely to espouse anything through which

they may give vent to that anarchical spirit common to their kind. Anyone who cheers for Bolshevism in Canada is a dangerous citizen, or else he knows nothing about that which he applauds. It is a sorry day for any country when it exchanges ballots for bullets and maintains a Government in power through the wholesale murder of a helpless minority, and this is what Bolshevism is doing. We want none of it.

In the latter part of this issue may be found a description of Bolshevism, written by a revolutionist himself who became associated with the Lenine and Trotsky movement in order to introduce a mollifying influence and save the Russian people before they went too far. Gorky, the author, tells us what Bolshevism is, and any man or class of men who want to introduce it should be deported.

Fruit Men Combat Express Increase

In another column will be found a brief report of the hearing granted the fruit growers of Ontario by the Board of Railway Commissioners in the matter of the proposed increase in express rates. The evidence brought out at the hearing serves clearly to show the sentiment of the fruit growers in this matter. Anyone acquainted with the nature of fruit marketing in the tender fruit districts of the province must realize the serious setback to the industry which would follow if the commodity rates, which provide moderate transportation charges for the quick shipment of perishable fruits and vegetables, were abolished. Notwithstanding the losses claimed by express companies during the last two years, there is every reason for believing that such wholesale increases as are proposed, would, in the long run, be disastrous to the country at large. Before such a step is taken, plenty of time is required for investigation into the alleged losses of the companies, and an effort should be made to find out if the fruit business has been financially unprofitable for the companies. The volume of this business is tremendous, and is really the only basis so far discovered of profitable tender fruit marketing.

Equally interested in this matter are the dairymen, whose protest was registered at Ottawa a few days earlier. The express shipment of milk and cream is inseparably bound up with present methods of dairy manufacture and just as it is impossible that producers shall be satisfied with a lower price than they have been receiving, so is it highly undesirable that consumers be forced to pay greatly enhanced prices in order to satisfy the combined interests of the express companies through the abolition of commodity tariffs. Figures presented in "The Farmer's Advocate" of January 9, testify to the enormous increases asked for.

Our Future Immigration Policy.

Canada is entering upon a new era. This Dominion is in a position to grow agriculturally, industrially, and in all branches that go to build up a young nation. Our resources are vast and our citizens are energetic and intelligent. We have everything to guarantee development except the two essentials without which we cannot grow, namely, capital and people. The former will flow into this country when the demands for it elsewhere become less urgent, and no doubt people of different nationalities will be glad to seek refuge in Canada, which offers a home amid the environments and customs of the New World. Formerly we accepted strangers without sufficient discrimination and we have, alas, too many monuments to the folly and looseness of our past immigration policy.

During recent years a large number of settlers have come in from the United States. With them they have brought equipment, money, and, in some cases, live stock. As settlers and future full-fledged citizens of Canada we can wish for none better. The British Isle,

The Farmer's Advocate and Home Magazine.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

Published weekly by
THE WILLIAM WELD COMPANY, (Limited).

JOHN WELD, Manager.
Agents for "The Farmer's Advocate and Home Magazine",
Winnipeg, Man.

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too, have contributed throughout the history of this country a class of people who soon become Canadianized and adopt the ways and customs of those they find about them; in fact, our population is built up about a nucleus representing Great Britain as a whole. There are other industrious citizens who speak foreign languages as a native tongue, and who are, nevertheless, willing to become Canadians in every sense of the word. Upon these classes just enumerated we can depend for a healthy national development, but if we have to resort to settlements of foreigners who care for nothing but their own antiquated customs, who adhere to their own languages and who are undesirables in the eyes of would-be neighbors, it were better for us to go slowly and build up a citizenship with clean habits, good ideals and above all a respect for Canadian custom and the language we speak.

Immigration from overseas will be limited for a year at least, and during that time a policy should be decided on that will ensure quality as well as quantity. Immigrants of a questionable kind can be used in the industries and at certain work where their efforts are directed by trained men, but even then it is doubtful if in accepting them we are not paying too high a price for the service they render and their addition to the population of this country. We already have more than 63,000 Russians, sixteen years and over; Montreal has 11,000 of them and Toronto 10,000, while the remainder are scattered throughout the various provinces. There are, too, about 70,000 Austro-Hungarians who registered as enemy aliens, and there can be added still a very large sprinkling of Finns. Seditious and Bolshevism find in these classes a fertile field, and if the West is to be peopled with all tongues and creeds, we may have to enact something akin to the Wartime Election Act in order to conduct elections safely and preserve the constitution. We have room for several times the population now in Canada, but the Dominion would be the poorer if an influx of undesirables were permitted. Our immigration policy should lead to quality rather than quantity.

Dogs or Sheep—Which?

BY ALLAN MCDIARMID.

A few weeks ago I read one of Jack London's dog stories. By the time I had finished it I had about come to the conclusion that the ideas I had been holding in regard to the dog question were all wrong. I had never been a great lover of dogs and according to Jack London that is a pretty poor sign of a man. On thinking the matter over I just about made up my mind that I must get a dog and give the qualities that were lacking in my make-up a chance to develop. A man without any affection for the lower animals isn't likely to have much to spare for his brother man or for humanity in general, and so finds it pretty hard to obey the old command about loving our neighbors as ourselves.

Anyway this dog-hero of Jack London's was such a model of the Irish Terrier breed that it made one forget all their unfavorable impressions in regard to dogs in general and to be willing to throw aside the old prejudices and get on more friendly terms with the only specimen of the brute creation that has managed to fill the position of a "companion" to man.

He was "all dog", this terrier, to use his master's expression, just as we would say in regard to a man, who had all the admirable qualities combined in his make-up, that he was "all man." He would fight to a finish with another dog or with any thing or person who tried to impose on him, and at the same time be as faithful to his master and as good-natured toward those that treated him kindly as it was possible for a dog to be. He certainly was a model for all others of the breed and an example to some of the "higher-born" animals that generally look on themselves as being a good many steps ahead, in the scale of creation, of any dog.

The story ends up by his saving his master's life and leaves the reader with the idea that if there is a future existence of happiness in store for mankind anywhere in the Universe it must be some place where he can take his dog along with him. Altogether I was left with the impression that I had missed a good deal of life by not taking advantage of my opportunities in the way of being on more companionable terms with my would-be friend, the dog.

But, as we have been told a few thousand times, more or less, there are two sides to every story and it wasn't very long before I happened on something which proved to be the other side of my dog-story. And, as may be guessed, it had something to do with the sheep industry. What strong drink is to humanity sheep seem to be to the canine race. It's their weakness and ends up in their ruination. This possibility of "going to the bad" in their case proves, I suppose, their higher development and near relationship to man. The higher you rise the further you can fall, they say.

Anyway, it seems that in the great country to the south of us, the Government is becoming considerably concerned about the way the sheep-raising industry has been falling off in recent years. According to last reports there are twelve million fewer sheep in that country than there were seventeen years ago. And if we can depend on the statements of five thousand farmers in different parts of the land who were canvassed for their opinion on the matter, the cause of this great falling off is simply—dogs. And a case in point is given in the pamphlet from which we gathered the above information. It is that in one night recently a farmer of Beaver County, Pennsylvania, had fifty head of sheep, valued at \$1,000, killed by two dogs.

"Fifty ewes, producers of food and clothing, the product of years of skill and endeavor in breeding, the pride of a good farmer and a main source of his income, totally destroyed in one night by two worthless curs. This is but an incident in the history of the ravages of dogs. Farmers in every section are suffering as they have been for years. Sheep husbandry has been driven out of long-settled communities and kept out of new ones because no adequate protection is afforded. Nearly all municipalities have dog laws that if enforced would lessen such destruction, yet dog laws are nearer dead letters than anything on the Statute books. What is the remedy? Put the dog in the same legal status as sheep, hogs, horses and cattle. Take away the right to run at large anywhere by day or night. Compel every dog-owner to keep his dog on his own premises or under his control when away from home. Anyone has a right to own a dog, but no one has a right to maintain a nuisance. The dog problem is not solved by license. Licensing a dog, requiring the owner to buy a collar for him, or to pay a heavy tax on him, does not keep the dog from killing sheep or being a worthless cur. Require the dog-owner to be responsible for the whereabouts of his dog. Back this requirement with public sentiment and officers with backbone not of gristle, and sheep will come to their own. A medium-sized cow-bell on every tenth sheep will help to frighten dogs away and alarm the owner and neighbors. Don't use little dinky sheep-bells. They don't make enough noise. Use cow-bells."

The conclusion of the above article is that since sheep produce something and dogs don't, they supplying us with neither meat nor wool, that the dog should give place to the sheep, not the sheep to the dog, as is at present the tendency. And this in spite of our sentimental "Jack Londons" and the many other lovers of dogs in all parts of our land. However there's one thing that seems pretty plain and it is that there are more dogs in this country than are absolutely necessary. So what's the matter with getting rid of all we can spare. Many men think it's a crime to kill a good dog. Others think it more criminal to allow our sheep to be unnecessarily slaughtered and the industry itself to be put out of business. As for myself the question of the advantages or disadvantages of becoming the owner of a dog is still

unsettled. Am I to benefit by the society of some canine friend at the possible expense of my neighbor's flock of sheep?

In other words, am I to love my neighbor or my dog? I have no doubt that there are some who, even after mature consideration of this question, will still vote for the dog.

Nature's Diary.

A. B. KLUGH, M.A.

Peat.—(Concluded).

It is quite natural that attempts should be made to get rid of the moisture from peat by artificial means and to compress it so as to render it less bulky, and we have consequently heard a good deal in recent years of the manufacture of peat briquettes. By a combination of heat and pressure it is possible to turn out hard, black and relatively heavy briquettes of peat, but the process is expensive and the cost of the finished product is too high to compete successfully with other fuels. It is remotely possible but hardly probable that some economical method of making briquettes may be invented but at present the statement made in 1910 and again repeated in 1918 by our peat expert, Dr. Haanel, still holds true—"The endeavor to accomplish economically by artificial means and in a short time what has been accomplished by nature in exceedingly long periods of time, namely, the change of peat into a substance similar to coal, has so far apparently not been attended with success."

There is however, a method of utilizing peat as fuel which holds out great promises for the future—the generation of producer gas. The gas producer differs from the common furnace in that less oxygen is admitted to the combustion chamber and the fuel bed is thicker. In an ordinary furnace the effort is made to have the fuel elements take up all the oxygen possible and thus get the maximum amount of heat from the fuel. In the gas producer only a small portion of the fuel is burned, and the heat from this portion is utilized in converting the rest of the fuel into gas which is then piped away from the producer. The amount of gas produced from peat is large, varying from 74,400 to 97,200 cubic feet per ton depending on the quality of the peat.

Peat for use in gas producers does not need as careful preparation nor as thorough drying as when used as fuel under boilers. The gas producers can be located at the bogs and the gas generated can be converted into electrical energy by the use of gas engines and transmitted to centres of consumption as electric current. The gas may also, if desirable, be piped long distances and burned under steam boilers.

Gas producer plants have been in operation in England, Ireland, Sweden, Russia and Germany for some time and have proved highly successful. The fact that there are seven peat-bogs near Toronto and seven in the vicinity of Montreal shows us the possibilities in the matter of the use of producer gas, or power generated therefrom, in our industrial centres.

Reviewing now the facts in regard to peat as fuel we see that cut peat is suitable for local use, and machine peat and producer gas are suitable for commercial purposes. Machine peat cost about \$1.75 per ton to produce, and when it has to be transported only short distances it should be sold at a good profit at \$3.50. Thus the quantity of peat equal in heating value to a ton of coal should cost \$7, whereas a ton of coal costs from \$10 to \$12. It is likely that the price of anthracite will drop when conditions again become normal, but that it will fall below \$8 seems extremely doubtful. It is also to be noted that as time goes on the supply of anthracite will naturally diminish, when prices will again advance, in which case our peat resources will be a valuable asset.

The greatest disadvantage of peat is its bulk. The volume of peat equal in heating value to a ton of coal is 3.6 times as great. This fact precludes the possibility of long hauls and makes storage more difficult. The burning of the peat at the bog and its conversion into producer gas, however, overcomes this difficulty. Moreover in large gas producer plants valuable by-products, such as Ammonium sulphate can be recovered.

It may fairly be asked "If peat is so valuable as a fuel why has no extensive peat industry been established in Canada." The answer is to be found first in the fact that in the past we have a cheap and available fuel supply in our timber and secondly in the fact that propositions for the use of peat have usually been presented by concerns who were chiefly interested in selling stock and such operations as were started lacked the guidance of expert knowledge of practical peat problems.

While we are concerned mainly with peat as fuel we must not lose sight of the fact that it has several other uses. Because of the large amount of tannic acid and tannin in peat a solution for tanning hides can be prepared from it. The more fibrous kinds of peat make most excellent litter for breeding stock, since they are far more absorbent than the materials commonly used, are efficient deodorizers, and keep the valuable nitrogenous compounds of the manure from decomposing. Peat makes a fine packing for delicate and perishable articles, and has been quite extensively used for this purpose in Europe. It is also an ideal fertilizer filler, and chopped peat mixed with the liquids from fish canneries, distilleries, refineries, etc., which are now mostly wasted should be made into a very valuable fertilizer. The peat not only acts as an absorbent for these liquids but contributes its own nitrogenous compounds. This latter use is one which I feel the farmers of Canada should very strongly advocate, as at the present time a tremendous amount of material of high fertilizing value is going to waste, material which might very readily be thus made available for use on the land.

THE HORSE.

The General-Purpose Horse.

What constitutes a general-purpose horse? Some consider that weight classifies; that a horse between 1,250 and 1,350 lbs. is eligible for the class, but those either over or under these weights should "get the gate" if in competition. For show purposes, where the conditions distinctly state that horses of this class shall be of a certain weight, of course, the judge has no option, but must disqualify those that are either above or below the stipulated weight. In our opinion weight has much less to do with the classification than type and general characteristics.

Just what constitutes a "general-purpose horse" depends to a considerable extent upon the individual tastes of the owner, and upon the different kinds of labor he wants him to perform. However, to establish a uniformity of opinion of the necessary characteristics of the class, it is necessary that some definite type be recognized. The "general-purpose horse" is commonly understood to be an animal that is essentially a farming horse, and, in order to avoid confusion, and explain to probable exhibitors what shall constitute a horse of this class, where prizes are offered, the society offering the prizes usually define him in some such words as these: "A general-purpose horse is one that is suitable to go in the plow, wagon, carriage, buggy, cart or under saddle." In some cases weight is designated, in others not. We think it wise to mention a minimum, as a horse under 1,200 lbs. certainly has not the necessary strength to give satisfactory service to a plow in heavy land, or hitched to a loaded wagon; but we do not think that the maximum weight should be 1,350 or even 1,400 lbs. So long as the horse has the desired characteristics as regards type, action and manners, it is hard to limit the weight at which he ceases to be a general-purpose animal and becomes a member of another class. Neither are we justified in classifying all horses of 1,250 to 1,350 lbs. as "general-purpose horses." We frequently see Standard-breds, Hackneys, carriage horses, coach horses, and not infrequently Thoroughbreds, that weigh 1,250 or over, and we cannot, by any system of reasoning, classify a typical animal of any of these classes as a "general-purpose horse." An animal of any of these classes of 1,250 or over that is an inferior animal, not good enough to be classed as "a general-purpose horse" may rightly be put into the general-purpose class, as he has sufficient weight to perform the functions of the class with reasonable satisfaction, and does not look particularly out of place when performing any of the functions demanded of the class.

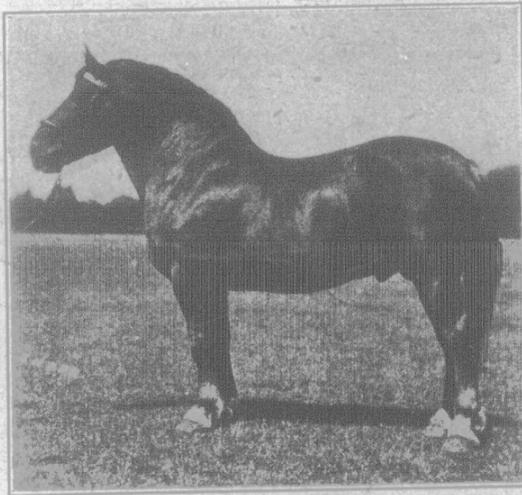
Again, we often see a horse or a pair of horses of draft type, it may be Clyde, Shire, Percheron, Suffolk or other breed, that does not weigh more than 1,350 lbs. We cannot classify these as "general-purpose horses." They would look "particularly out of place" if hitched to a buggy, carriage, road cart, or if used under saddle, notwithstanding the fact that they might give reasonable satisfaction under such conditions. The objection to this argument may be taken "that a horse of the draft type that does not weigh more than 1,350 lbs. is not typical." We admit that as regards weight, but, in most cases, he is typical in other respects, and while too small for his real class, it would be utter absurdity to call him a general-purpose fellow. Again, we may have two horses of the same type, the type we accept as correct, the same breeding, probably full brothers, one weighs 1,350 and the other 1,400 lbs. Are we justified, in a case like this, in disqualifying a pair of typical horses because one weighs 50 lbs. more than the maximum of 1,350? We do not think so. In such a case what class does he represent? He certainly is not an "agricultural horse," even though he be of the required weight; he is not of the agricultural type, which is essentially the draft type. The agricultural horse is one with all the characteristics of the draft horse except weight. If we might be allowed to use the term "light draft" in contradistinction to "heavy draft" we think it would express what we want in the agricultural class. The question then arises: "What shall be the maximum weight for the general-purpose class?" This is not an easy question to answer, but we think at least 1,450 lbs. or even more. A horse of the desired type, but over weight, does not become an agricultural horse, but is simply, like many horses of all classes, a horse that, while probably a useful and valuable animal, has, for show purposes, practically no class. Of course, agricultural societies should not attempt to make classes and sections for horses of all kinds, but on the other hand, make sections for the marketable classes, and thereby endeavor to encourage breeders to produce such animals as will be valuable for both show purposes and the market. This reasoning raises the question, "Should societies recognize the class under discussion?" Is he a special class or a misfit? Can he be bred with any degree of certainty, and if so how? He, in most cases, is of composite breed, and when we try to produce him he may partake of the special characteristics of either sire or dam, or of some more or less remote progenitor on either side, and be an animal of a type essentially different from what we expected, notwithstanding all that may be said pro and con, as to the existence of this class of horse, or as to the advisability of his recognition as a class, the fact remains, if we are going to recognize the class, we should endeavor to establish some uniform conception as to the characteristic type, form and action desired. In our opinion he should be a horse of the blocky type, between 15½ and 16½ hands high and not less than 1,200 lbs. The maximum weight to be not less than 1,400 lbs. His

bone should be flat, the quantity corresponding to his weight, and there should be an absence of feathering, a tuft of long hair on the fetlock pad not objectionable. He should be a rather stylish fellow, neat head and ears well carried; neck rather long and well muscled; withers rather high and not too broad; shoulder of medium obliquity; back rather short; loins strong; croup long and not too oblique; tail well haired and well carried; the forearm rather long and strong; knee strong and straight; cannon, broad, strong and clean; pasterns of medium length and obliquity; feet rather round, of medium size and of good quality; the haunch, gaskin and hock strong, well muscled and well defined; hind cannon and foot same quality as fore. His ribs should be long and well sprung; deep through girth, breast moderately wide and well muscled. In action he must be a good walker and trot well. His manners should be good. There should be an absence of nervousness, fretfulness or excitability. He should be safe under all conditions, suitable for a woman to drive or ride. He is not necessarily typical of any particular class, but should perform the functions, in both appearance and work, of any class in such a manner as to not look or act particularly noticeable under any conditions.

We do not think it wise for any breeder to attempt to produce the "general-purpose horse," but endeavor to produce a "special-purpose animal," and there will be sufficient misfits to fill the demand for general purposes.

Reducing the Cost of Production.

In the following paragraphs, Wayne Dinmore, Secretary of the Percheron Society of America discusses the horse situation in the United States in regard to production and maintenance. This is an excerpt from an address delivered recently at Topeka, Kansas, but the remarks can be applied to conditions in Canada as well. Our colleges and experiment stations have been particularly lax in regard to experimental work with horses, with the result that little up-to-date information is now available for those interested in cheapening production and increasing efficiency. Mr. Dinmore's remarks follow:



A Suffolk Stallion.

An uncommon type in Canada, but good drafters nevertheless.

The watchword in every factory is—"Reduce the cost of production without lessening the quality of the article." In this we, as farmers and horsemen, have much to learn from manufacturers. A factory in which one-half the lathes stood idle would soon face bankruptcy; yet there are many farms where at least one-half the mares are barren each year, not because they will not breed, but because the owner was too careless or indolent to put them into good breeding condition and to make sure that they conceived. The first step in reducing the cost of production on an individual farm is, therefore, to see that every mare of breeding age brings forth a colt each year.

The next step in the factory is to bring the rough product first turned out from forge or foundry through to a marketable point without loss. A factory that broke half its engine castings while they were being machined and finished would soon be ruined; yet on thousands of farms from one-third to one-half the colts that are foaled are lost from navel ill or some other avoidable ailments before reaching maturity. Our second step in reducing the cost of production is therefore to take every human precaution against the loss of colts between birth and maturity. Some loss will inevitably be encountered, for disease sometimes comes in both man and beast that defies all precautions our knowledge can suggest; but the reduction of costs makes it imperative for us, as farmers and horsemen, to learn all we can about preventing these ailments, which take such a toll at times from our colts.

The third step in cutting costs is found in the feed problem. This may be likened to the labor problem of the factory. Inefficient labor, or labor improperly coordinated, increases factory costs; and poor feeds, or a faulty combination of good feed stuffs, increases the cost of production in our horses.

First and foremost in reducing cost of production I would put good pastures. Prof. J. L. Edmonds of the Illinois Experiment Station has a group of pastures that have for the past two years carried an average of one horse per acre: the year round. This has reduced

the cost of production both by lessening the acreage needed and by reducing the labor required to feed and care for the growing colts. He has built these pastures within ten years from a rough corn field to a point where they cannot be excelled in America; and what he has done any farmer can do, for he has used only common sense, close attention, and fertilizers available to anyone.

Second only to pasturage, I place the use of roughage in an intelligent way. Our experiment stations have many sins to answer for, but in no one thing have they been more guilty of sins of omission than in studies relating to the best use of economical roughages for growing or maintaining horses. This question, with that of grains, should receive exhaustive study from our experiment stations. Only one or two are now at work on these questions, and few have contributed any thing of consequence on horse feeding. Horsemen must write to their experiment stations and insist on some worth while work on these subjects.

In the meantime we must go to the experience of some of our best horse raisers for light. These men are using a variety of roughage—such as corn fodder in the morning, oat straw at noon, and alfalfa or bright clover at night. All roughages used must be free from dust. So far as grains are concerned there is nothing better than oats, but a combination of grains may often give a cheaper production cost without impairing the rate of growth or quality of animal produced. It is here, however, that we need some comprehensive experimental work involving large groups of animals, carried through from birth to maturity, for the specific purpose of ascertaining what grain combinations can be used with cheap roughage without retarding normal growth. I urge you to impress upon your own experiment station the importance of this work, for several years' tests must be ended before any definite conclusions can be drawn. These tests should by all means involve combinations of grains which can be grown on every farm, so that, if possible, rations can be evolved independently of purchased products.

LIVE STOCK.

The hog does his share towards keeping the larder full and paying the rent.

Don't neglect to supply the hogs with mineral matter as lime, salt, charcoal, sulphur, ashes, etc.

A dry bed with plenty of straw to cover them on cold nights and a well-balanced ration fed regularly puts the curl in the pig's tail.

Our English correspondent writes that in 1918 around 878 Shropshire sheep were exported from England to Canada and the U. S. A.

Keep the breeding ewes thrifty. The success of the spring crop of lambs depends a good deal on the way the ewes are handled during the winter.

In some trials 100 pounds of clover hay has proven equal to 40 pounds of mixed barley and bran for producing pork. Have you tried feeding hay to your hogs?

In many counties of this province farmers' organizations are shipping their live stock to the central market instead of selling to a drover. In this way they secure the top price for their animals, which, in many instances, has been considerably more than that paid by the local drover. In districts where there has been little or no competition in buying, the organizations have been of material advantage.

According to the fifty-third annual live-stock report of the Union Stock Yards and Transit Co., the 1918 receipts at this great market were: Cattle, 3,789,922; calves, 657,767; hogs, 8,614,190; sheep, 4,629,736; horses, 87,820, or a total of 17,779,435 head with a valuation of \$904,715,357. Cattle and calf receipts were higher than in any previous year, but there have been years when receipts of hogs and sheep were materially higher.

Meats and breeding stock are in demand and, judging from reports of conditions the world over, will be in demand for years to come. Thus it is advisable that attention be given to increasing the quality and numbers of our herds and flocks. It is also important to plan on growing maximum crops which are essential in the growing and fattening of stock. Corn produces a greater quantity of fodder per acre than most other crops, and if ensiled is ready for use at any time. Now is the time to plan for next year's crops. Seeds of all kinds should be secured early and their germination determined. Material can also be hauled during the winter for the silo to be built next summer.

Why should the price of cattle, hogs and sheep be from fifty cents to a dollar a hundred higher one week than another? This question has coursed through the minds of many stockmen, but to many it remains unsolved. Supply and demand largely rules the market, and neither are constant. Market reports frequently show nearly double the receipts one week over another, and prices ease off on a glutted market. The demand is up and down. For instance, at certain seasons consumers take a fancy to fowl, fish, pork or mutton and go lightly on beef, or vice versa. The weather also influences the demand. If the supply and demand were constant there would be little reason for prices fluctuating.

Good Gains in Pigs.

EDITOR "THE FARMER'S ADVOCATE":

I read sometime ago with much interest an article on feeding of slop versus dry meal for pigs. I must say that I do not agree with slop feed right up to the time a pig is market weight. When a pig is slop fed it will eat all it can cram into its stomach three times a day without thoroughly masticating, thus causing a large portion of feed to pass through undigested. It is not what a pig eats, but what he digests that makes him put on weight.

I have had pigs weigh 300 pounds at six months of age, and must say they were not slop fed after weighing 125 pounds, being fed dry meal from the hopper and free access to all the whey they required. I consider it is the best way to feed hogs from 125 lbs. up, if one has a hopper so constructed as not to waste the dry feed; the pigs will stand and thoroughly masticate one mouthful before taking another, therefore, the saliva is well mixed with the feed, which helps aid digestion. When it has drunk in the other trough it will go there whenever it desires. I raise my pigs from the time they are weaned on finely-ground oatmeal, fine shorts, oil cake and tankage soaked one meal ahead, giving them what they will eat up clean at every feed. When large enough they have all the alfalfa hay in rack they can eat. I always keep this before them, for they cannot eat too much of it. They also have all the wood ashes and charcoal they can consume, which is needed to give bone. If the feed is lacking in ash and protein they become weak in back and legs, thus making them lazy and consequently fat at an early age—but small in frame and weak in bone. I always try to give my hogs feed that will give them a chance to develop all they will, and feed them all they will consume after 150 lbs. I have had them gain $2\frac{1}{2}$ lbs. a day and weighing nearly 225 pounds at five months of age. You may think this sounds rather big but it is facts, and I agree with dry feeding after that weight.

BREEDER OF YORKSHIRES,
Lennox and Addington Counties, Ont.

Saving Steps in Choring.

There are different ways of going about much of the farm work, and unfortunately some men apparently choose what turns out to be a round-about method. Planning the work and having a system enables the work to be done more advantageously and expeditiously than where there is lack of definite system. Some buildings are poorly planned. In the course of a day's work about the barns thousands of steps have to be taken which might be saved if the layout of the stables were changed. Grouping of the building is a big help yet on many farms there are several rods distance between barns, and oftentimes the feed must be carried from one to the other. Look over your own proposition and see if changing a door, building an additional meal bin, having feed trucks, etc., will save steps which mean time, and time is money. The large feed truck which holds sufficient silage and straw for feeding the entire herd can be pushed down the passage and the fodder forked off into the mangers. Once down the line and the roughage is fed instead of walking fore and back many times with a basket of feed. The box for concentrates attached to this is also a time-saver. Such trucks are in use on many farms. They consist of a large, rectangular box mounted on two wheels at one end, and one centred at the other to permit of guiding it easily. If you have a good passageway, try a feed truck and you will not want to do without it.

In the piggery the feed is usually carried in pails, but the accompanying illustration shows how one Middlesex County farmer conveys the feed from feed bin to troughs. This feeder believes in soaking the meal one feed ahead. Instead of doing this in a barrel he has a metal feed wagon in which the feed is soaked, and then at feed time the cart is pushed along the feed alley and the rations shoveled into the troughs. It is a convenient arrangement and saves many steps, especially where a large herd is kept. The cart is very handy for carrying feed to shoats or sows running in paddocks during the summer. These pasture lots are not always close to the piggery. Where it would take several trips with pails to feed the pigs, one trip does the work when a feed cart is used.

When building or remodeling stables convenience should be given due consideration. Too many tear out, build up or add to without looking ahead to see if the change or addition will facilitate feeding operations. The placing of feed bins and hay and straw chutes has much to do with the time taken in doing the chores. While it is impossible to alter these when the barns are full of hay and straw, changes could be made before the barns are refilled next harvest. Make a memo-

randum of things which might save steps, as they occur to you now when the most of the time is devoted to chores, then plan how best these changes can be made and get material on hand for doing them.

J. P. Sackville Re-joins College Staff.

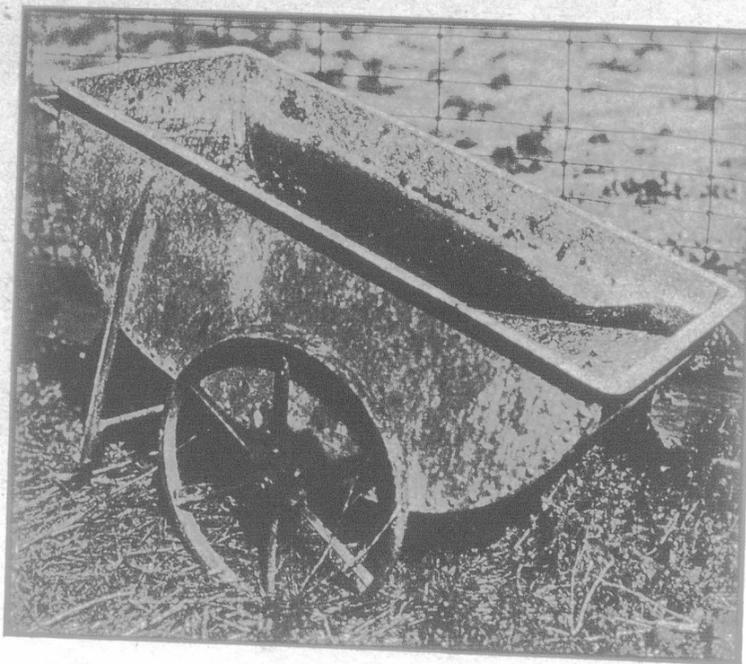
Prof. J. P. Sackville has re-joined the staff of the Ontario Agricultural College after several months spent in agricultural journalism in Western Canada. Prof. Sackville is eminently fitted to carry on the work to which he has returned. He was born on a live-stock farm in Northumberland County, Ontario, where his early training gave him a valuable experience in practical agriculture and live-stock work. He helped to manage his home farm for several years, and had in his charge some good pure-bred Shorthorn cattle. Later



J. P. Sackville.

Recently returned to the Animal Husbandry Department,
O. A. C., Guelph, as Associate Professor.

he removed to Saskatchewan, where he homesteaded to the extent of spending three years on the virgin soil of the prairie with all its pleasures and its problems. Later he decided to take a course at an agricultural college, choosing the O. A. C., Guelph, as the place to gain the scientific knowledge to supplement his already wide practical experience. While taking his course he dropped out for two years, which he spent in District Representative work in Peterboro County, Ontario. Returning to the O. A. C. he graduated in 1915. An outstanding student in Animal Husbandry, he was immediately taken on the College staff as lecturer in Animal Husbandry, and later was given charge of the dairy cattle and sheep at the College. He filled this position ably for three years, and left early in July, 1918, to take up the work of Live Stock Editor of a farm journal in Western Canada, a position which he



Metal Feed Wagon for Hogs Used on a Middlesex Farm.

filled with credit to himself and the paper he represented. Through changes on the staff of the Animal Husbandry Department at Guelph late last fall it became necessary to secure a man of wide experience, and Prof. Sackville was offered the position of Associate Professor of Animal Husbandry, and took up his old work anew at the beginning of the New Year. The O. A. C. and the Province of Ontario are to be congratulated on regaining the services of Prof. Sackville, who will be a valued assistant to Prof. Wade Toole, and who will have charge of sheep and swine at the College.

Britains 1918 Shorthorn Trale.

EDITOR "THE FARMER'S ADVOCATE":

Extraordinary figures are revealed when an analysis is made of the volume of the pedigree Shorthorn trade in 1918. I take in only the public auction sales conducted by the leading auctioneers of England and Scotland. From January to November 75 sales were held and some 7,006 head of cattle were sold for £736,055 16s. 6d., or a general average of £105 1s. 2d. Some of the best sales were as follows:

Perth, 503 head, average £146 2s. 2d.; Aberdeen, 307 head, average £151 18s. 7d.; Birmingham, 353 head, average £98 15s. 11d.; Birmingham, 268 head, average £125 1s. 3d.; Penrith, 359 head, average £115 17s. 2d.; Penrith, 251 head, average £87 17s. 2d.; Belfast, 503 head, average £54 14s. 0d.; Hobbs, 68 head, average £213 8s. 8d.; Duthie, 40 head, average £711 5s. 4d.; Durno, 68 head, average £259 16s. 3d.; Cazalet, 45 head, average £367 17s. 0d.; Edgcote, 51 head, average £342 18s. 9d.; Ritson, 77 head, average £199 12s. 9d.; Crewe, 170 head, average £80 15s. 10d.; Dublin, 192 head, average £67 4s. 2d.; Wingham, 132 head, average £93 8s. 1d.; Marshall, 39 head, average £333 13s. 10d.; Wingham, 116 head, average £87 0s. 0d.

The Hobbs average is the British highest for Dairy Shorthorns. The Duthie average is for the beef type. Ritson's cattle were dual-purpose. So are the stock sold at Penrith.

But fancy £736,055 16s. 6d. in one year's turnover for one breed. Work it out in dollars. I cannot for my education was neglected when it came to reckoning bowbees.

ALBION.

Cheshire Swine.

The origin of Cheshire swine goes back as far as 1855, but it was not until 1872 that the name Cheshire, or Jefferson County, was adopted officially by the Swine Breeders' Convention at Indianapolis, Ind. The breed is the result of constant crossing and breeding of large Yorkshires and White Suffolks to the white pigs in Jefferson County. Found only in the United States, and of no value to Canadian agriculture, it closely resembles the Yorkshire of the middle class, having a long, broad back and straight nearly to the root of the tail. The body has considerable length but often lacks depth, the shoulders and hams being of the thick-fleshed, well-developed sort. About medium in size, the breed is white in color, although black spots do not disqualify pure-breeds. When grown and well fattened the standard of excellence of the Cheshire Swine Association calls for a dressed weight of from 400 to 600 lbs. The quality of the meat ranks high, and the flesh is fine grained. But very few of this breed have been tried as feeders in the great swine-producing sections of the United States, although at the Maine Experiment Station, Cheshires are reported as having eaten more feed per pound of gain than other breeds with which they were compared. The popularity of the breed is distinctly local and mainly in the Eastern United States, with New York State leading.

THE FARM.

Some Important Soil-Infesting Insects.

A knowledge of the common injurious soil-infesting insects is of vital importance to the farmer. He should learn to recognize his crop enemies and be able to take such measures of precaution as are necessary to guard his crops against undue insect infestation. The abundance of one or two species of injurious insects may mean a complete change in his farming operations, and if he is conversant with the more common appearing forms, he is thus the better able to forestall insect injury to his crop. This article is intended to deal with the chief common soil-infesting insects, and that the average farmer may be able to recognize these pests at plowing time, and thus minimize injury to his crop. The chief soil-infesting insects are white grubs, cutworms and wireworms. Their control is somewhat difficult, owing to their hidden life which renders the ordinary insecticidal treatment useless, therefore, the measures of prevention are cultural, rather than insecticidal.

White Grubs.

White grubs are the immature form of the May or June beetle, and may be easily recognized by their large white bodies, with brown, hairy heads, and by their usual habit of being curled up in a semicircle in the soil. Associated with them, especially in sandy soils, may be the immature form of the "goldsmith" beetle, which is very similar but somewhat larger. White grubs are never found around tree trunks and fence posts; these grubs are usually the immature form of various snapping beetles, or pinching bugs, as they are sometimes called. Neither do white grubs breed in manure, which is very generally believed; these are the larval forms of various dung beetles. Inasmuch as white grubs breed and feed preferably in the pasture fields, the importance of a short rotation of grass, coupled with deep plowing and thorough cultivation is indicated. Land found to be heavily infested with white grubs in the spring should not be planted to such crops as potatoes and corn, but rather crops such as peas, beans, oats or barley may be substituted. Even then there may be slight injury, but it will be considerably less than if the former crops were planted. Chickens and all domestic poultry should be allowed the free run of the fields at plowing

Corn Trale.

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Infesting

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time, and should be encouraged to follow the plow. A portable poultry house on wheels, which could be drawn from field to field at plowing time, would naturally lessen the abundance of these pests. The wild birds also should receive more protection and encouragement than is usually allowed them.

Cutworms.

Almost every farmer recognizes the work of cutworms, even if he does not recognize the insects themselves. We can generally look for some slight injury to the corn, following spring plowed sod. This is naturally governed, of course, by the amount and thoroughness of the cultivation.

The insect can usually be found at or near the base of the injured plant, curled up, about one-half inch deep in the soil. The insects are nocturnal, feeding at night, and remain concealed in the soil during the day. Usually fields that are grassy and weedy are the more likely to be infested, so here again clean and thorough cultivation suggests itself. Should they appear to be abundant, as soon as the crop appears above ground, a poisoned bran mash bait may be spread upon the surface of the ground, preferably after sun-down. This treatment is indicated for those species that are surface feeding, but for such species as the glossy cutworm, which is fairly common in Western Ontario, cultural methods are the only ones that will give relief, outside, perhaps, of late planting.

Wireworms.

These well-known light and dark brown, tough, cylindrical grubs are amongst our most important insect pests, and no definite means of preventing injury by these insects is yet to hand. They have a long, complicated life-history, some species feeding on field crops, and others on decaying wood, but the latter species are of no economic importance. The natural habitat of the field species seems to be grassy fields and soils rich in organic matter. It is generally conceded that wireworm land is rich land. Many farmers are under the impression that wireworms infest stored grain; this is incorrect, the yellow grub, quite common in grain bins and superficially looking like a wireworm, is known as the yellow meal worm. As regards remedies for the wireworm, some relief seems to be afforded by

end of the social scale we have a man who is able to present his bride with a cheque for four million dollars; and at the other end, men, women, and children living in the lowest poverty, and having all grades between these. It is little wonder that we have such extremes, as the anti-tooth-brush class, the anarchist and the ultra-radical socialist. There must be some remedy for this condition of affairs or humanity will perish in the not distant future. We have seen men trying to kill each other by all the contrivances which human brains could devise and human hands could make, until parts of the world literally ran red with human blood. And the end is not yet. In fact, we may be entering a worse reign of terror, than has been, because men of the same nationality are turning against each other—brothers are fighting brothers, while, as usual, the women and children are subjected to all the horrors of revolution, in a number of European States, if we may trust newspaper reports.

Various remedies have been suggested, among which may be mentioned "Churchianity", "Socialism", "League of Nations", etc. All of these have been tried in some form or other, and have largely been failures. "Democracy" has been turned into "quackocracy" by the few who know how to "pull the wires". The Church, which is supposed to stand up for the rights of the people, has worshipped the god of gold, while the hungry people look up and are not fed, even as it was in Milton's time. The nations of the earth are growing tired of promises for "a city whose streets are paved with gold", to be inhabited in some time hereafter. What the struggling millions of the world want and need, is a more even distribution of the gold, here and now. This applies more particularly to thinking farmers, who are strongly convinced that they have not had a fair share of the world's wealth which they have produced and who would like a little better mansion to live in on this earth; even though it may mean not quite so good a "mansion in the sky". This is a problem which preachers and teachers everywhere must tackle, or forever lose the confidence of the masses as reliable leaders.

The author of "The Dawn of a New Patriotism", John D. Hunt of the Province of Alberta, deals with some of these problems in his recently published book. He begins with the statement; "Everywhere in human

former, from which, though a Member of the Cabinet, he could not free himself. Some day, the writer hopes to put into readable form, a sketch of the peculiar freaks whom he has seen riding in the farmer's democrat, during a somewhat lengthened experience in public farm life.

Coming back to the question before us, our author says,—"The fundamental requirements of democracy are satisfied, if the people as a whole exercise supreme control over the government." This gets at the root of the whole matter. When the people as a whole are able to express their will in a free and independent manner, there will be an end of autocracy and also of quack democracy. He further says,—"When representation and taxation go hand in hand, when the hand that levies the taxes, pays taxes, when those who make the laws, construe the laws and execute the laws are amenable to the laws as created, construed and executed—then we have the keynote to liberty."

Discussing the question of good citizenship he says,—"The man who is always on the ragged edge of subsistence, who is always living from hand to mouth and who, when hard times come, falls into helplessness and pauperism—such a man is apt to make a very poor citizen." Which is all too true, but what can be done for those who are happy and contented so long as they are able to keep warm in winter, have a few clothes to wear, a place to sleep and always have at least one meal ahead? In hard times this class turns to Anarchism and Bolshevism. There is only one way to deal with this problem, that is, to have the State take up the question and provide each child with an education and have instilled into his and her mind the higher patriotism, and greater respect for himself or herself, personally. Our methods of education are far too superficial and do not touch the deeper springs of humanity. Too many of the leaders in educational matters are characterized by flippancy, and look on life as a great big joke of which they are the "joker."

Pleading for a broader life among the citizens of Canada—"A man cannot live a broad life if he runs only in one groove." This possibly has been one of the greatest weaknesses among farmers—the tendency to run too much in one groove. But farmers are beginning to realize that there are big questions in this country which vitally affect farmers and farming, and that it is advisable for them to "get busy" on these national problems.

Finally our author says—"The truest test of civilization is not the census, nor the size of cities, nor the crops, but the kind of man the country turns out." After all, this is the best index of the value of any policy. What kind of men and women are being formed in the homes of Canada—on our farms, in our towns and cities and elsewhere? Are they clean-minded, strong-bodied, virile people, who will be a credit to the land of the maple, or are they "Dumb-driven cattle," the victims of "bosses", who freeze both the heart and genius of mankind? H. H. DEAN.



Champion Southdown Flock, Chicago.

Winners at the International Live Stock Exhibition, December, 1918. Bred and owned by Larkin Farms, Queenston, Ontario.

deep plowing and turning the organic matter well under; where this is possible a profitable crop may be reasonably assured. Several investigators have found that clover seems to be immune from attack, and where fields are badly infested, getting the land back into clover for a year or two is said to give considerable relief. At various times numerous experiments have been carried on by a number of investigators with soil insecticides, and the treatment of seed, but all such attempts have proved fruitless. Our main reliance at present seems to be cultural methods, and getting such infested land into clover as soon as possible.

Reports of insect injury in Western Ontario should be sent to the writer, and information regarding methods of control will be gladly furnished, if specimens of the insect and their work are forwarded to the Dominion Entomological Laboratory, Strathroy, Ont.

H. F. HUDSON.

Sociology—The Newest "Ology."

The story is told of a certain Professor, who was being rowed across a stormy lake by a boatman who had not studied the various "ologies" in which the Professor was very learned. After asking if the boatman had studied geology, entomology, zoology and a number of others, and receiving negative replies in every case, the Professor is reported to have said, "What a pity that men are not better educated, and do not know more about the sciences. Their lives are half lost." Just then a big wave upset the boat and both were struggling in the waters. The boatman gurgled, "Say Professor, did you ever study swimmin'?" "No." "Well then Professor, you're likely to be a drowned duck and all your life will be lost." The moral of the foregoing story is that men need to study practical things, as well as the theoretical, in order to lead a well-balanced life.

Sociology is among the newest of the Sciences. It treats of the laws that underlie and regulate human society, and in its practical application has to do with not only "the man on the street", but the woman in the home, the farmer on his farm, the mechanic in his shop, the merchant in his place of business, the rich and the poor whom we have always with us.

There is something radically wrong with human society which allows such conditions as have prevailed up to the present and which still prevail, whereby at one

society two principles have been and are at work—principles antagonistic to each other, yet equally essential to the well-being of civil society. These are the principles of obedience and the principle of independence—the submission of the individual will, and the assertion of that will against other wills." We find the first of these principles exemplified in the early State and Church and to some extent in the Church of to-day, but thinking men in all ages have rebelled against autocratic rulers and priestly domination and have asserted their right to do their own thinking. This has led to a conflict of wills which has caused untold misery and bloodshed, but the rights of men to free-will and free thinking must be secured, no matter what the cost. We find a similar condition of affairs in nearly all walks of life. The employer of labor, in some cases, regards it as a "heaven-born right", that he shall do the thinking for his employees. This has caused a sharp conflict between capital and labor. Among politicians this principle is not unknown. On one occasion the writer was driving through a county district in a certain county, with a politician and member of the cabinet, when, waving his arms with a sweeping motion he said: "All these fellows vote for me and just the way I tell them at every election." His manner indicated that the farmers in that section were practically owned by him, at least so far as voting was concerned. In the Civil Service, it is surprising the number of "underlings" who look upon the under-underlings as practically their servants, who must do the bidding of the "bosses" or get out. These men are great students of human nature and practically control the supposed heads of Government Departments. In another instance I had occasion to discuss with an Ontario Cabinet Minister a certain strong man who was given to bullying those under him, and to whose tactics I strongly objected. The Honourable Gentleman's excuse was, that this man met with a good deal of difficulty and opposition in the administration of his department, consequently was keenly sensitive of anything which looked like insubordination. His final comment was, "But I guess we'll have to leave him there, unless he gets too savage." The question naturally arises, why did this member of the Government feel it necessary to leave him there unless he got too savage? It is commonly supposed that this member of the Cabinet, had either been hypnotised by this strong man, or in some way, the latter had gained a hold on the

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

Public Speaking and Debating.

BY G. H. UNWIN, O.A.C.

Part III. Preparing a Speech.

For the speaker without previous experience it is advisable to choose a familiar subject. The actual arrangement of a speech is in itself not easy; if in addition the speaker has to collect a mass of new facts from outside sources, it becomes a very discouraging task. To plunge headlong into books, magazines, and daily papers, to gather material from these, and then to sit down with pencil and paper, and arrange these undigested facts and opinions in logical form, is a terrific undertaking. It is far better to take a subject on which the speaker has at least a nucleus of ideas, and to build up the speech round this. The importance of this original outline cannot be too strongly emphasized. Here is a temptation for the beginner to take the ready-made opinions and language of others and thus save trouble. But a speech composed in this manner never rings true. To begin with, the thoughts, being aliens, are seldom expressed convincingly; and secondly, such a composition never has the compact unity of an original argument. A speech should take its first mould in the mind of the speaker; afterwards it will, no doubt, be changed and shaped to its final form.

Filling in the Outline.

Let us consider that the scaffolding has been set up. It is now possible to begin building with some idea of the result. Facts and arguments are the bricks and mortar. These may be drawn from personal experience, from reading, or from the conversation of others. In this connection the value of the personal element should be recognized. This is not to recommend a speech full of "I said" and "I did" and "I saw," and similar phrases. Nor does it mean that the opinions of well-known men are not to be used; on the contrary, they carry great weight, particularly in debate. But an appropriate illustration from the speaker's own experience has a special power, as it brings him nearer his audience. In a speech delivered last year, a student of this college was commenting on the decline of the dairy industry in his own province. Instead of relying solely on figures from the Government reports, he drew a clever word-sketch of dismantled creameries in fertile country. This concrete picture lent color and shape to

his statement and created a strong impression. The personal illustration has also this advantage, that it often finds parallels in the experience of those listening; and nothing pleases a listener more than to hear his own experience reproduced in public.

The first step in filling in the outline is then to use the material which is ready to hand, namely one's own experience. The reading supplements this. It is not the easiest thing in the world to make appropriate use of ideas gained by reading, particularly when one is getting up a speech for an occasion, and when time is limited. For this reason I think it advisable, even at the risk of being elementary, to outline a scheme of preparation.

Take a large sheet of paper and write down the main headings, leaving a considerable space after each heading. As you read the various articles which you have collected you will come across facts, figures or descriptions which may help to develop your points. These should be noted under the proper headings. The object of taking a large sheet of paper is that you have a bird's-eye view of the whole subject and can thus sort out your material without delay. The outline in front of you is, in short, a grading machine, where the various references drop automatically into their proper compartments. Also this simple method helps the delivery of the speech, because it leaves a picture in the mind. Memory is assisted by all the senses, but by none more effectively than that of seeing. Hence the emphasis on an apparently trifling detail—the size of the paper. The following illustration will show what is meant. The speech was delivered at a recent public speaking contest during the 1917-18 college year. It will be found complete in the May number (1918) of the O.A.C. Review. Only a few of the headings are given:

The Sheep Raising Industry in Canada.

- A. IMPORTANCE OF SHEEP INDUSTRY AT PRESENT TIME.
 - Greatest need, men, food, clothing.—Sheep supplies last two.
 - Abnormal times.—Clothing for soldiers, etc.
- B. A SHEEP SURVEY OF THE DOMINION.
 - The industry has improved recently. Previous to that a steady decrease. See Govt. Reports Comparison of years 1895-1914. (Pp.....).
 - 1918. 2,000,000 sheep in Dominion.
 - 1895. 2,000,000 sheep in Ontario alone.
 - Recent increase—reasons—importance of wool.
- C. RELATION OF WOOL GROWER TO MANUFACTURER.
 - Old system. "Custom" woollen mill, mutual dependence of grower and miller.
 - Modern system. Enmity between grower and manufacturer. Factory system. Competition with foreign industries, strangulation of worsted manufacture, etc., etc.

An outline like this will be sufficient for the practiced speaker. For the learner, however, it is advisable to write out the speech in full. Each section, as will be observed, contains the elements of a paragraph and these only need to be cemented together; also each contains a single topic which is stated at the outset. This last point is worthy of special note. In writing, the topic sentence may occur at the beginning, in the middle, or at the end of a paragraph. Frequently the main point is not reached before the final sentence. In speaking, however, and particularly in debating, the main point should be stated first, and then developed and expanded. This is a cardinal principle of clear argumentation. The subject will be more fully discussed later on.

AUTOMOBILES, FARM MOTORS AND FARM MACHINERY.

Carelessness With Implements Worketh Destruction.

EDITOR "THE FARMER'S ADVOCATE":

Nearly every issue of "The Farmer's Advocate" contains some up-to-the-minute article that inspires me to write my hearty approval and appreciation but before that inspiration's fruit matures along comes something else just as good demanding my attention and enthusiasm. But I'm going to catch up this time even if I must resort to the method of the neighbor's boy in the bean-planting-race, viz., skip a few hills till I get even. It was your article in the issue of December 26, 1918, regarding the care of farm machinery that has caused me to write you my approbation. Your illustrations too, are very good, speaking individually. But I would like to show you a group that I know of amid a clump of little oak scrub on one of our Western Ontario farms. I wonder if I can remember the list? The inventory we took that day as we drove through the farm was but mental yet I think I can tell you the most of them. There was one old and one nearly new grain binder; one new hay-loader and two hay rakes and one side-delivery. There were two mowing machines; one hay tedder, two manure spreaders; one new corn planter; one bean puller; and an old "has-been" reaper which would have been worth salvaging for the bolts alone. Then there was an old seed-drill and a new disk-drill. Two walking plows of one make and one of another. One fairly new cornbinder and one old one. Two corn-sufflers and a new two-horse corn cultivator; a cultivator and two sets of disks and three sets of harrows. Farther over we noticed two land-rollers; and old-time, log and a new steel crusher. Between two cradle-knolls, partly covered with leaves and brush, were two

old wagons and an old family carriage. We also noticed a good looking cross-cut saw hanging in one of the trees.

I am not sure but that I have forgotten some of the implements huddled for warmth in that little grove but I am sure I have not made it look worse than it was for I could tell you other things we saw on that farm that cried for mercy equally loud. But it is about machinery we are talking.

How many dollars worth were tied up yea, being thrown away in that bunch of implements? Figure it up and you will have the answer to a question often asked; "Why does not that man get along?"

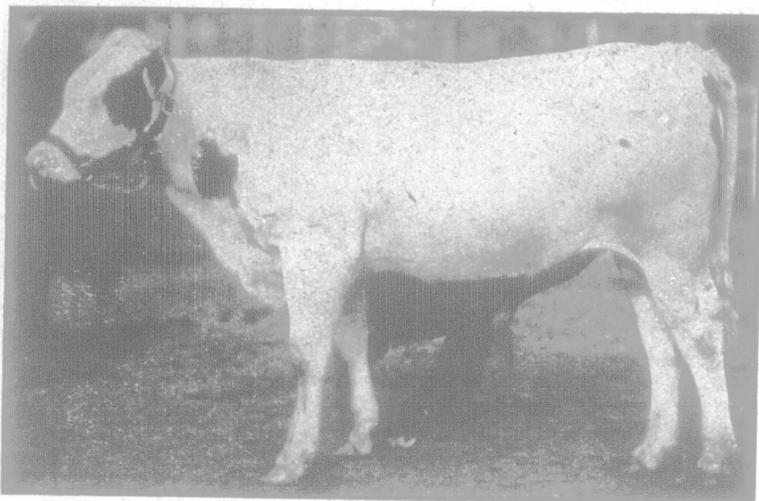
Two years ago the owner of the machinery mentioned bought a new car. I was told at the time that he had contracted for three. The agent was to deliver one each April, taking the old one in exchange, along with a substantial cash consideration, of course. I did not believe the story then, but time is telling. Last spring car number three arrived. This fall there was an accident and to-day number three is in a garage; beyond repair.

You speak of these in your article, as "leak". Don't you think that in this man's case the whole bottom is out or might as well be?

Of course, generally speaking, a man who is careless in a few things is also careless in many things, and thus worketh out his own destruction.

Rust-eaten, oil-hungry machinery, broken-down fences dilapidated buildings and slipshod farming while oft-times characteristic of neighborhoods are frequently characteristic of individuals.

I know of two farmers in the best township in one of our best counties living one one-hundred-acre farms across the road from each other. When they started out twenty years ago their possibilities were equal. To-day the one has the neatest, up-to-date, most profitable farm to be found in a long travel; the other's circumstances are little better, if any, than they were in 1898. Neither does an observer have to ask the reason. While the first man has a place for everything and everything in place; the other fellow is extremely opposite. His machinery is scattered here and there over the farm wherever he had been using it. What few fences remain are but dilapidated rail ones. His barns and out-buildings are all "sque-haw", at the least badly needing new blocking



Sir Fancy Netherland Abbecker.

Junior Champion Holstein Bull at the Canadian National Exhibition, and first prize junior bull calf at the Provincial Winter Fair, Guelph, 1918. Owned by Elias Snyder, Burgessville.

and the doors re-hung. Open ditches zig-zagging across the fields and the poor crops readily indicate that here is another man who does not believe in burying his money by underdraining. In his view every man's hand has been against him. He is at variance with the world and there is no man he detests so much as his prosperous neighbor. And that neighbor has tried oft-times to do him a good turn. Being at peace with the world in general, he would like to be at peace with all fellowmen—one of these "Gee! but 'aint-it-fine-to-day", fellows.

I know another fellow; he is in Detroit now. He and I went through public and high schools together. If ever there was an "implement victim" he was one. His father started him on a good farm with all the necessary farm equipment even to a bunch of stockers and sheep. He always had the name of being "easy" and consequently was a mark for every machine agent in that vicinity. He went along for four years and then came a sale. I was at that sale, so were a number of representatives of various implement and other companies, including the "automobile man"; the "piano man," the "separator man", and the "store man."

I never saw as much machinery on two farms as was there arrayed. No wonder Jack didn't have a machine shed, it would have taken a skating rink to have held that bunch. I heard that Jack bought the most of it on the "I-O-U" basis, and I guess it is a case "I-O-U" for a lot of it yet.

The farm was sold, and Jack got a job in an automobile plant soon after. I am glad to hear he is getting along fine.

I am not myself a "real farmer", for some years I have been following that doubtful profession of general merchandising, but to-day I am living on a farm with the hope that I may some day be a farmer. What machinery I already possess is snugly stored in a brand new machine-shed.

There are many things that go to make for success in farming. I do not pretend to grasp them, as yet but I believe I have the first two principles:

A machine-shed and "The Farmer's Advocate".
Lambton County, Ont. ECHO.

THE DAIRY.

Interesting Holstein Meeting in U. S.

Several things of interest to Canadian Holstein men and other dairy cattle breeders in Canada were accomplished at a recent meeting of the Executive Committee of the Holstein-Friesian Association of America, held at Detroit, Mich., on December 21. The matter of the probable export of registered Holstein cattle to foreign countries, and the purchase of such animals by foreign Governments was discussed. Action was taken to secure information from members of the Association as to the number and quality of cattle available for this purpose. A request was received from the Netherland Rundvee Stamboek of Holland in regard to dropping the word "Holstein" from the name of the Association. This matter was laid upon the table. It was voted to sustain the work of the re-organized National Dairy Council to the extent of a contribution of \$250 per month until further action. A Committee consisting of the President, Secretary and the Superintendent of Advanced Registry was appointed to meet with officers of other dairy breed associations to discuss advanced registry work and rules, as well as other subjects of common interest. The new relationship between the Canadian and American Associations with regard to Herd Book recognition will be ratified by the Canadian Association at its next annual meeting, and by the American Association at its annual meeting in June. The terms as agreed upon between Secretaries Clemons and Houghton are as follows, and will go into operation after the first Wednesday in June, 1919:

"1. All Holstein-Friesian cattle entering the United States from Canada shall be registered in the Holstein-Friesian Herd Book of America and all Holstein-Friesian cattle entering Canada from the United States shall be registered in the Holstein-Friesian Herd Book of Canada on the strength of the official certificates of registry from the country of origin without the registration of ancestors.

"2. Each animal from the United States shall be accompanied by the American certificate of registry, the American certificate of transfer to the Canadian buyer, and a Canadian application for registry blank showing the color markings, name and number of the animal, name and number of the sire and dam, name of breeder and signature of the Canadian importer as owner.

"Each animal from Canada shall be accompanied by the Canadian certificate of registry, the Canadian certificate of transfer to the American buyer and an American application for registry blank showing the color markings, name and number of the animal, name and number of the sire and dam, name of breeder and signature of the American importer as owner.

"The signature of the breeder and the certificate of service of the dam shall not be required in either case.

"3. Both the Holstein-Friesian Association of America and the Holstein-Friesian Association of Canada shall charge their regular registration fees for the re-registration of such imported animals.

"4. In consideration of recognition by the Holstein-Friesian Association of America of the certificates of registry of the Holstein-Friesian Association of Canada, the Canadian Association shall reduce the fee for import certificate required by the Canadian Customs Department to a nominal sum.

"5. The Secretary of each Association shall furnish such progeny records, transfer records and other information as may be required for completion of office files.

"6. The final adoption of this basis of agreement shall be contingent upon its ratification by the annual meeting of each association."

Cattle are often affected with lice during the winter season, and milk production is often decreased considerably. Kerosene emulsion is said to be very effective and is made by dissolving one-half pound of hard soap in one gallon of boiling soft water. As soon as the soap is dissolved, add two gallons of kerosene. Mix by pumping, stirring or any method of creating a thick, creamy emulsion from which the oil does not readily separate. Then add to 19 gallons of water and wet the entire animal thoroughly with a brush or pump. These quantities are sufficient for 20 cows.

There appears to be no satisfactory treatment of contagious abortion. Prevention is still worth several pounds of cure.

London Sees Successful Convention of Western Ontario Dairymen.

Good Attendance—Very Attractive Cheese and Butter Exhibit—Support National Dairy Council—F. Boyes, President.

The Fifty-Second Annual Convention of the Dairymen's Association of Western Ontario opened on Wednesday morning, January 15. The President, James Donaldson, Atwood, reviewed the season's work in dairying and referred to the work of the Dairy Produce Commission during 1918. Mr. Donaldson as a member of that Commission said he would refer more at length to the Commission at a late session. The speaker also referred to the recent formation of a National Dairy Council and thought that once it gets into operation, dairymen would be justified in looking for results.

F. Hems, Secretary-Treasurer, presented the Directors Report and financial statement, excerpts from which are given here:

"The season just closed may be said to have been a fairly profitable one for the dairymen; prices for all dairy products ruled high and no prolonged period of dry warm weather was experienced. Pastures and fodder crops yielded well in comparison with some other years. The labor shortage, however, was a factor with which producers and factorymen had to contend. In this connection it may be pointed out that the output of creamery butter did not diminish, while the output of cheese was slightly less than in 1917. The total cheese output for the season was affected to some extent by the shortage of milk for city consumption occurring in the fall, which made it possible for a portion of the milk which would have been sent to the cheese factories for the fall months, to be diverted into other channels.

"The number of cream buying stations throughout Western Ontario was increased by a few more creameries adopting this method of purchasing cream. For the third time we wish to express our doubts of the wisdom of this movement, giving as reasons (a) Probable effect on butter quality. (b) Economic (c) Increase of competition for cream to the point where disastrous disorganization of the creamery industry may result. We would suggest that in their own interests the creamery men and producers should come to some understanding regarding this point and either submit to drastic regulation of the cream buying stations, or agree to eliminate this method of selling or purchasing cream. Delivery to the local creamery or direct shipment is the suggested solution of the problem.

"Authorities state that for the next several years dairy products will be in heavy demand by Great Britain; indications point to a long period of good prices for these products. Factory cheese and buttermaking tends to increase the raising of live stock. The valuable by-products of whey, skim milk and buttermilk are among the cheapest and best foods for young stock and of immense importance in the economic production of hogs and beef. The cheese and butter industry should, therefore, receive every encouragement, not only for the reasons mentioned, but also that there may be no decrease in the output. The labor situation should improve for the coming season and dairy farmers and factory men will not likely be handicapped to the same extent as was the case during the war."

The financial statement showed receipts amounting to \$5,916.99, expenditures of \$5,731.19, and a balance of \$185.80. Members fees amounted to \$266. In addition, the Dairymen's patriotic fund was closed and a total collection to date of \$5,237.58 was reported. The report showed that the whole fund had been dispersed for patriotic purposes.

The afternoon session on Wednesday was addressed by Geo. H. Barr, Chief of the Dairy Division, Ottawa, on the subject of "Improving the Dairy Herd." The session was well attended in spite of the prevalence of influenza. Mr. Barr referred to the illness of Chas. F. Whitley, as the reason for his treatment of this subject. Extracts from his address follow:

"In our cow-testing work in 1918 we received records of about 14,000 cows in the month of July. Seven per cent. of these cows gave milk testing under 3 per cent. fat, quite a number tested under 2 per cent., and two and a half per cent. of this number gave less than 400 lbs. of milk in 30 days, which means we still have many cows giving less than 4,000 lbs. of milk in their milking period, and many more which give very little over 100 lbs. of fat in a year.

"I believe the simplest and most economical way to keep records is to take up the cow-testing work as carried on by the Dairy Division, Ottawa. It costs very little; it increases your interest and enables you to get a first-class herd. Weighing the milk every day gives you accurate information as to the value of each cow as a milk producer.

"This brings us to an important feature in dairy herd improvement; the sire. Suppose a herd of cows averages 5,000 pounds of milk per year and the per cent. of fat is 3.8. Are the heifers from these cows likely to give larger quantities of milk and test higher in fat if the sire's immediate ancestors gave less than 5,000 pounds of milk per year, or the percentage of fat is less than 3.8? We will admit that size and conformation are important, but they are not always reliable guides as to the value of a dairy sire. To my mind, the dairy sire should stand first for larger quantities and higher testing milk from his offspring. Beauty and conformation are a secondary consideration. It is bad enough to use a grade animal, but to my mind, it is even worse to invest money in a pure-bred animal and know nothing about his ancestors' milk-producing

qualities; and yet scores of pure-bred dairy bulls are being sold every year with no records to show how they are bred in regard to milk production.

"The Dairy Commissioner's Branch employs a Supervisor of cow testing in each of the following provinces: Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan. These men are constantly being asked where pure-bred dairy sires can be purchased. We have decided that in future they will direct prospective buyers of pure-bred dairy stock to only those breeders who are prepared to give reliable milk and fat records of the animal's ancestry. We believe this is necessary if the dairy herds of the country are going to be improved

Figures from the survey were analyzed to find out to what extent a man was justified in specializing in dairying. The farms were divided up into groups with varying percentages of returns from dairy cattle, and in spite of the fact that the man who specialized had the best cows, his labor income was 16 per cent. below the average, while the man who got only 60 to 70 per cent. of his revenue from dairying made a labor income 5 per cent. above the average. As shown by the lower line in the accompanying table, the man who was a really efficient, specialized dairyman still had only 88 per cent. of his revenue coming from milk, got \$160 per year from each cow, and in turn made a labor income 75 per cent. above the average.

Does Intensive Dairying Pay?

Per Cent. Reserve From Dairy Cattle	No. Farms	Per Cent. Labor Income	Labor	Receipts Per Cow	Live Stock Index	Feed Bought	Crops Sold
%							
Below 51	30	98	\$403	\$ 70	99	\$360	\$378
51- 60	41	98	410	88	98	375	246
61- 70	84	105	373	95	100	365	179
71- 80	78	98	346	108	100	381	211
81- 90	53	98	383	116	102	390	134
91-100	31	84	374	124	102	404	41
Efficient dairymen	88	20	175	395	160	512	194

as they should be."

A. Leitch, Director of Farm Surveys, for the Ontario Department of Agriculture, discussed the financial condition of the dairy business by means of data gathered in a farm survey conducted in Oxford County in 1918. The survey included 437 farms, including both good and bad, found in a stretch 10 miles on each side of the Thames River, across the county. The labor income of the average dairy farmer amounted to \$1,198 for the year ending March 1, 1918. This is equal to about \$3.50 per day, for the labor of the farmer, his wife and any children under 14 years of age. Out of 437 farms, 363 were operated by the owner, the balance being rented, and Mr. Leitch referred in his remarks only to the owner farms. For purposes of comparison the farms were divided up into groups differing to the extent of 15 acres in size, the smallest having 40 acres of tillable land. The speaker brought out the fact that the labor income increases very markedly as the acreage increases, but the more owners of land we have, the greater will be the prosperity of our country. It is, therefore, not so important that we have large farms so we may get fewer large labor incomes as that we secure the greatest possible income from moderate-sized farms. Data at hand show that 100-acre farms with the greatest number of tillable acres show, as groups, the largest labor incomes. Farms under 71 acres returned \$666; farms from 71 to 80 acres yielded \$1,116; 81 to 90 acres, \$1,252, and 91 to 100 acres, \$1,408. In these groups, the expenditure for labor was nearly constant, and although current expenses increased somewhat with the size of farm, the real estate value of the land was increased markedly, as more land was cleared, in addition to a greater labor income.

The small table shows a comparison between men who produced 40 per cent. or more of their milk during the six winter months and men who produced 60 per cent. or more of their milk in the summer. The labor income is compared on the basis of 100 as the average of the two groups. The figures speak for themselves.

Summer vs. Winter Dairying.

	No. Farms	Per Cent. Labor Income	Labor	Feed Bought
Summer Dairymen.....	160	97	371	355
Winter Dairymen.....	100	115	379	500

The influence of pure-bred sires was clearly marked, in spite of the fact that many of the 162 men with pure-bred sires had doubtless purchased at one time or another many poor ones. The accompanying table shows the influence of the pure-bred sire as compared with a grade sire. It is clearly shown that the man who had kept a pure-bred sire for more than 10 years got a profit per cow over the cost of feed amounting to \$57, as compared with \$19 where grade sires were used. The average cow in Oxford County returned \$103 per year, and yielded about 5,000 lbs. milk per year. It was found that the average dairyman in Oxford had to receive \$47 per year from each cow, in addition to the cost of feed, in order to pay other expenses, including housing, interest on investment, etc.

Influence of the Pure-bred Sire.

	No. Farms	Receipts Per Cow	Feed Per Cow	Profit Over Feed
Grade sire.....	140	\$ 84	\$65	\$19
Pure-bred sire under 5 years.....	31	116	70	46
Pure-bred sire, 5 to 10 years.....	62	123	72	51
Pure-bred sire over 10 years.....	69	129	72	57

J. A. Ruddick, Dairy and Cold Storage Commissioner, Ottawa, discussed "Some Needed Economies in the Cheese Industry" and spoke, in part, as follows:

"The dairying industry of Canada has established a new record in total value of milk and its products exported during the year just passed. Complete figures are not yet available, but the total in 1918 will be approximately \$47,000,000. The increase for the 7 months ended October last was \$7,600,000 over the same period in 1917. Of course part of this increase is due to higher prices. A careful estimate of the total dairy production in Canada in 1918 places it at something over \$200,000,000, of which about 25 per cent. has been exported.

"The exports of cheese show a decrease in quantity but an increase in value. The decrease amounts to about 100,000 boxes, but it is more than made up by the increase in the quantity of butter, and there has been a large increase in the exports of condensed milk and cream. In spite of the difficulty of getting labor the total production of milk showed an increase during the year, and it is the quantity of milk produced, not the quantity of cheese, butter or other products manufactured or exported that is the important thing.

"Probably the most important dairy event of the year was the Dominion Dairy Conference held at Ottawa, November 25 to 28, under the auspices of the dairy branch. One of the chief objects in calling the conference was to give the dairymen of Canada an opportunity to organize a National Dairy Council. It is not the intention of the Dominion Government, nor is it the desire of the National Dairy Council that this movement shall be dependent on a Government grant, but it was felt that some initial expense on the part of the Government to permit of the organization being started was quite permissible. It may be advisable to carry out some reorganization in some of the provincial associations before the plan of the National Dairy Council can be completed.

"I am very much in favor of the suggestion to have one general association in each province to cover all lines of dairy activity. Such an association would have separate sections to deal specifically with various branches of the industry. For instance, if you had a general dairymen's association for the province of Ontario there could be an eastern and western Ontario section, or a cheese section, a butter section, a milk producers' section, a milk distributors' section, an ice cream manufacturers' section, a milk condensing section, and so on. It would, in effect, be a union of all the existing associations and any others that may be organized in the future. A body of this kind acting together on questions affecting the industry as a whole would have much greater influence and be very much more effective than a number of associations acting independently and without co-ordination.

"The high prices for apparatus and supplies, the high cost of labor, etc., has made the matter of economy in the management of cheese and butter factories a very much more important matter than it was a few years ago. Much of the standard equipment was designed under very different conditions to those which exist to-day. I believe that it would be possible to affect a very considerable saving in many directions. It would be a very easy matter for this association to collect statistics as to the cost of fuel per pound of cheese manufactured in the factories belonging to the association. A comparison of the cost in different factories would lead to investigation on the part of those whose costs were much higher than others. The same method of investigation could be applied to other costs. This, it seems to me, is a line of work which the Dairymen's Association of Western Ontario might very well take up.

"The increased cost of tinned sheets for the manufacture of cheese vats, cream vats, etc., makes the care of such apparatus a much more important matter than it has been hitherto. A great many cheese vats are used up in half the time they would have been if proper

care had been taken to prevent unnecessary rusting, or other damage. It is important in the first place that a cheese vat should be cleaned as soon as possible, as the strong acid of the whey has some corroding effect on the tin. To my mind one of the strongest arguments in favor of the use of the curd sink is that it permits the vat to be cleaned earlier in the day, and the vat is not exposed to the action of salt which is put on the curd, or to damage caused by forks and other utensils used in handling the curd."

F. Hens, Chief Dairy Instructor and Sanitary Inspector for Western Ontario, presented his twelfth annual report, extracts from which appear as follows:

Cheese Report.

"One hundred and thirty-seven factories received 351 full day visits and 379 call visits by the 5 cheese instructors. 9,103 patrons supplied milk to the factories. The estimated average per cent. fat in the milk for the season was 3.35 (.01% greater than 1917). The estimated average loss of fat in the whey for the season was .24% (.01% less than 1917.) 126 patrons were visited. There were 25,255,941 pounds of cheese manufactured in Western Ontario in 1917, which is 3,950,349 pounds less than was manufactured in 1916. The average number of pounds of milk required to make one pound of cheese in 1917 was 11.34. The average price per pound of cheese was \$0.2152. This is slightly less pounds of milk to make one pound of cheese and is \$0.332 greater average price than in 1916. The quantity of cheese made in Western Ontario during June amounted to 3,692,924 pounds. This is 46,161 boxes of 80 pounds each. Using the month of June 1918, for comparison we shall in future secure at the earliest possible date the June output of the current year, which should give early in the season a fair estimate of the likely increase or decrease of production.

"With the exception of about two weeks in July the quality of the cheese was well maintained. The factories were in many cases run under difficulties owing to the scarcity of labor and during periods of extremely warm weather it was more difficult than usual to handle the situation. During no previous season was the milk delivered at the factory in as good condition as last season.

"Factories having ice cool curing rooms 11; septic tanks for disposal of sewage 13. Paying by test—33; pasteurizing whey 55; turn cheese in hoops 74. Owing to the increased demand for fats and the high prices, 36 factories purchased whey butter plants during the past season. Of this number 17 factories sold the cream and 19 factories manufactured the butter at the factory. 24 patrons (same number as 1917) pleaded guilty before a magistrate to delivering deteriorated milk to cheese factories. Fines from \$10 to \$50 were imposed. \$47,110.00 was spent in factory improvements. A considerable amount of this money went into capital expenditure for whey butter plants.

"The high cost of supplies entering into the manufacture of cheese, together with the former acute labor shortage has tended to somewhat discourage a few of our best factory managers and has resulted in some of the best cheesemakers leaving the business to take up some other occupation. It is to be hoped, however, that now the war is over and the situation regarding factory help will in the future be more permanent these men will see their way clear to again enter the business. Their expert services are needed and as factory supplies become more easily available it should encourage not only our cheesemakers but milk producers as well. The producers and factory men deserve every credit for the excellent manner in which they performed their duties during the two past strenuous years and in the face of many handicaps maintained the output of cheese and in addition kept up the quality to a high point so that our reputation for finest quality of cheese has not suffered.

Creamery Report.

"One hundred and twenty-three creameries were given 283 full day visits and 83 call visits. Three new creameries were opened; estimates indicate an increase of about 10% in the output of creamery butter over 1917. In 1917 Western Ontario creameries manufactured 22,497,371 lbs. of butter. The Toronto creameries turned out nearly four million lbs. from cream, about one-third of which came from Eastern Ontario. With the addition of 591,937 lbs. of winter butter made at the cheese factories gives a total production of 23,089,308 lbs. This is an increase over 1916 of 293,725 lbs. instead of a decrease as was anticipated in the fall of 1917 before the actual returns were obtained. 39,526 patrons supplied cream to the creameries; the average per cent. of fat in the cream was 28.1. The average moisture content of 469 samples of butter was 14.78%; a proportion of these tests was made at each creamery; 37 samples contained over 16% moisture and were taken from 22 creameries. The average salt used and retained in the butter according to 430 tests made was 4.68% and 3.12% respectively. 64 creameries used the Metric scale for weighing cream samples for testing.

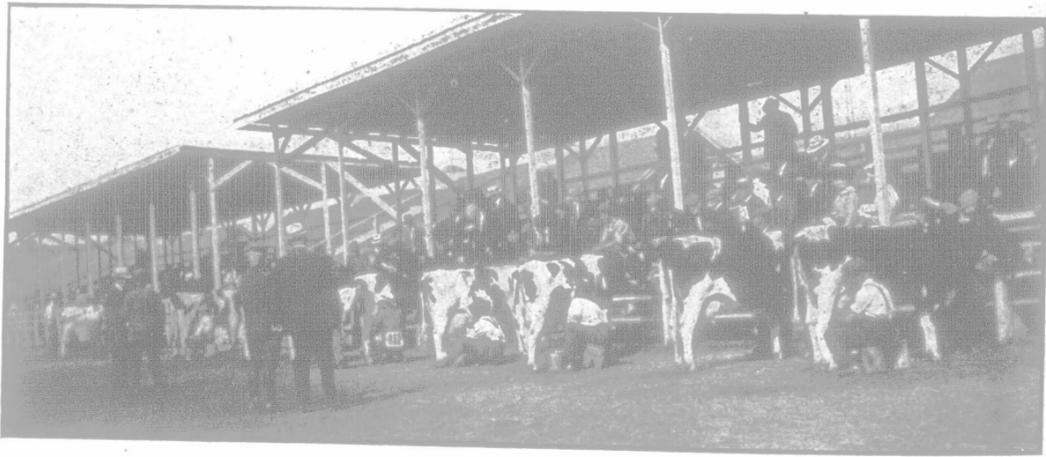
"70 creameries used a cooler; 2 creameries pasteurized the cream all or a part of the time. 10 used a culture; 1 graded the cream and paid according to grade; 3 graded for churning. 12 have a septic tank for disposal of wash water. 8 creameries neutralize very acid cream during warm weather. 3 new creameries were built at a cost of \$15,083.00 and \$107,633.00 was spent in general improvements.

Bacteria, Yeasts and Molds.

"It has been fairly well established that the absence of yeasts and molds in butter is an indication as to whether or not the pasteurizing temperature has been high enough to insure that the butter will keep in cold storage. Such an examination also indicates whether

or not contamination of the cream has taken place after pasteurization, that is to say, cream may be pasteurized at the proper temperature and yet become contaminated from improperly cleaned pumps, piping, and unsterilized churn or in some other way. With a view of doing some preliminary work on this point I asked Prof. Lund, Bacteriologist at the Ontario Agricultural College to do some work on this point and if sufficiently important results were obtained the work could be extended for 1919. In my judgment there is a wide field for this kind of work in the creamery industry. We hope to be able to provide for the creamery men who make butter from pasteurized cream and send in samples regularly to the grading station additional information to that indicated by the score of the grader, by reporting on each sample a count of the yeasts and molds present in the butter. With this information the buttermakers should be in a position to find out the cause if the yeasts and mold count is high in the finished butter from pasteurized cream. He should also have from the results of this examination a pretty fair idea whether or not the butter will keep properly in cold storage."

Dealing with this matter at a later session, Professor Lund in a lengthy paper reviewed the whole matter and stated that on the average there are 215,000,000 bacteria and 3,300,000 yeasts and molds per cubic centimeter of sour, farm-skimmed cream as received at the creamery. There are also an average of 20,000,000 bacteria and 224,000 yeasts and molds per gram of butter made from raw, sour, farm-skimmed cream, with 10 per cent. of starter added. Continuing, the speaker stated that when this same cream is pasteurized, at 145 degrees for 20 minutes, the butter made from it contains only 250,000 bacteria and 900 yeasts and molds per gram. An analysis of 11 samples of creamery butter made from unpasteurized cream showed an average count of 2,039 molds and 1,700 yeasts per cubic centimeter. Concluding his somewhat technical paper, Professor Lund said, "while butter containing numerous yeasts and molds may give good commercial satisfaction at times, as some of our work has shown, nevertheless, the larger creameries are coming to recognize the fact that butter with a low mold and yeast content, indicating efficient pasteurization and use of sanitary methods preventing recontamination, is a better risk on the whole than butter made in a less efficient way.



Milking Them Out.

The mature class of Holstein cows at the Canadian National Exhibition being milked out before the final awards are made.

"I have discussed this matter at some length with the idea of stimulating the interest of Ontario buttermakers and creamerymen in problems of this kind. We know that chemical and physical factors are also involved in butter spoilage, but those subjects do not come within the scope of my talk to-day. It is our intention to carry on and expand if possible, this line of work during the coming season, depending on the time at our disposal, the facilities to hand and the interest shown in the matter by the creamerymen. Many of the larger creameries across the line are getting mold and yeast tests of their butter made regularly and when we know that by strictly efficient and sanitary methods they are able to keep the count down to 10 per cubic centimeter, we must realize that the figures reported here plainly show that we can well afford to take more interest in matters of this kind."

J. H. Scott, Official Butter Grader, Ontario Department of Agriculture, reported on the butter grading service during 1918. Parts of this report are as follows:

"Thirty-seven creameries, including all that were in last year entered for grading in 1918. Six did not send samples, three or four others sent only a few samples. The scarcity of labor was given as the reason why they did not send more. Thirty-one creameries were, therefore, graded more or less regularly throughout the season. The total number of samples graded was 3,854, of this number 3,019 or 78% scored 1st grade, or 92 points and over. This is a slightly lower percentage than in 1917, although the figures given cannot be taken as a comparison of one year with another, for various reasons. Four of the creameries graded, had less than 5% seconds, five had from 5 to 10%, six had 10 to 25%, nine from 25 to 50%, four from 50 to 75% and three had over 75%. These figures cannot be taken literally as representing the quality of butter made by these creameries, but simply mean the butter graded for the creameries in the grading service. Some of them sent samples from every churning throughout the whole season. Some graded only what was packed in solids for storage pur-

poses, and some graded only butter made from cream graded out at the creamery at first grade cream.

"Some very interesting results were noticed where cream was graded at the creamery. The cream graded as second grade by the creamery invariably made butter that was second grade by the butter grader. Nearly all the creameries that had over 50% seconds did not send samples very long. They evidently preferred to go on in the old way rather than have the defects of their butter advertised on a score card. As I see the butter situation in Ontario to-day, after three years of close contact with both ends of the trade, I feel that there is need for improvement. Evidently some of the creamery men do not view it in the same light, as was evidenced by the program of the Canadian Creamery Association Meeting recently held in Toronto, when not five minutes of the time was spent in discussing of how the quality of butter can be improved. If market conditions of the past few years are to continue, then I can see a reason for not paying more attention to quality, but if we are to expect a surplus of butter for export then Ontario cannot afford to go along in the old way. The reports from Montreal, of butter received from Ontario, compared with some other provinces during the commandeering period, are not encouraging to say the least. A number of our creameries are turning out fine butter and should be given every credit for it, but there are others that must improve in quality or eventually suffer serious losses."

W. G. Medd, Woodham, discussed "The Future of the Creamery Industry of Western Ontario", and deplored the present lack of uniformity in Ontario butter. "I question," said the speaker, "if you could purchase a car of Ontario butter made in two or more factories and get it uniform in every respect. The ease with which we can sell butter and the lack of criticism on the market, has reacted on the quality of cream received and on the quality of the output of butter. I would like to see just one kind of good butter made in Canada, Canadian butter, second to none, equal to the best made anywhere—I don't care where its made, Denmark or anywhere else. How much first grade butter is made in Ontario? I don't know, but of the butter commandeered last October and November, 70.73 per cent. of Ontario butter graded number one, and of Quebec butter, 94.48 per cent. graded number one. We must prepare for anything. One sure thing is that our export trade will

increase with the increased production that we count on making, if we are not awake now, the greater competition of butter producing countries will open our eyes to the necessity of concentrating our efforts on the making of a uniform first grade butter.

The convention was addressed by Professor H. H. Dean, O. A. C., who reviewed briefly some experiments in cheese and butter making carried on by his department. Abstracts from his address are given herewith.

"The cheese industry of Canada will need careful consideration during the next few years if it is to remain the strong feature of dairying as has been the case in the past. There are many indications that it will not long survive a return to pre-war prices for cheese. Unless the price of cheese can be maintained at somewhere near its present level, the manufacture of Cheddar cheese is likely to drop to a point where it will be a minor, instead of a major factor, in Canadian Dairying. Among the points which should receive careful consideration, is that of consolidation of cheese manufacturing interests, whereby making charges are reduced to the lowest point possible, consistent with the making of fine quality; and the selling costs, got to a "rock-bottom" basis. It is evident that this cannot be done under the present system of small factories, many of which are poorly equipped and inefficiently manned, while the system of selling in vogue, previous to the war, was not on the lines of good business. Whether these changes shall be brought about by farmers owning and consolidating the factories, or by a consolidation of present interests, or something entirely different, time alone will reveal.

"Prevention of wastes is another factor to be considered in modern factory management. The utilization of all kinds of human food to the fullest extent possible, is characteristic of the times. The separation of whey and the manufacture of the fat formerly fed to pigs, into human food, is an instance of the conservation of what was formerly a waste from the factory so far as human food is concerned. The chief objection

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to the manufacture of buttermilk and cottage cheese is the labor involved. Recent tests made at the Dairy of the O. A. College indicate that the curd can be separated by means of centrifugal force in a separator bowl. While we have not applied it in a commercial way, our work indicates that the separation of curd by centrifugal force from sour milk is quite feasible.

"Pasteurized milk produced an average of 1.84 pounds more cheese per 1,000 pounds milk than did similar milk in raw condition made into cheese. The cheese were of good quality. Good home-made rennet was obtained by soaking calves stomachs at the rate of about four stomachs to a gallon of water and using about ten drams of acetic or hydrochloric acid to preserve it. Rennet substitutes gave very good results, but the quality of the cheese is not quite so good as those made with rennet. The chief weakness of pepsin solutions is the fact that they lose their strength much more rapidly than does rennet. A mixture of pepsin and rennet gives better results than does pepsin alone, and in some tests, the yield was greater and the cheese better as compared with rennet alone, but these results need confirmation.

"Flat cheese made in May and June and paraffined when about one week old saved from 1.5 per cent. shrinkage when one month old, to 3.1 per cent., when three months old, as compared with similar cheese not paraffined. Both lots were held in cold-storage at about 40 degrees F. Similar results were obtained with September cheese and indicate that there is a very marked saving of shrinkage as a result of coating cheese with hot wax when about one week old.

"Milk having an average of 3.25 per cent. fat, when separated with four hand machines, produced cream containing an average of 35.45 per cent. fat. Milk with 3.93 per cent. fat separated under similar conditions, produced cream testing an average of 44.96 per cent. fat. These results indicate that the per cent. of fat in the milk separated has quite a marked effect on the percentage of fat in the cream. Using two quarts of warm water to flush the bowl after separating five gallons of milk produced cream testing an average of 32.55 per cent. fat. Under similar conditions the cream after separating ten gallons of milk and using two quarts of water to flush the bowl, tested 34.31 per cent. fat—an increase of 1.76 in the test. Using two quarts of skim-milk for flushing the bowl after separating five gallons of milk, the cream tested an average of 36.17 per cent. fat; and for ten gallons separated, the cream tested 38.63—a difference of 3.4 per cent. fat in the tests."

The Hon. Geo. S. Henry, Minister of Agriculture, addressed the evening session on Wednesday on the subject, "Getting Back to Normal." The following is quoted: "When will we get back to normal? We find that the industry in which we are engaged is perhaps the biggest factor in the situation. The food supply, instead of being a mere matter of routine, has become the most important matter in the world to-day. Wages and the cost of articles cannot decrease greatly unless there is some corresponding decrease in the cost of living; and there cannot be any great decrease in the cost of living while there is such a shortage in every section of the world and while millions of people are going hungry for want of food. The transition stage, therefore, like the stage from peace conditions to war conditions, seems likely to be gradual.

"There may naturally be expected a great return to production in the old world this year, and the next harvest will be looked forward to with interest and anxiety. If it should prove favorable, it will be the biggest factor in restoring the balance to world conditions. For the present, distribution is the big problem, and we are told that it is being rapidly solved. I read that there is as much merchant tonnage available to-day as in 1914, and I understand that it is being increased at the rate of 600,000 tons per month. With this increase we may expect trade to resume its old channels to some extent at least. It will not be possible, however, for a return to old conditions for some time, and in the meantime there is every reason why we as farmers should carry on our work of production of staple food-stuffs, without fear, but with every confidence. This is particularly true of dairy and live-stock products, as there is every reason to believe that there will be a real demand for them. While falling markets are inevitable with the approach of another harvest, they will no doubt be accompanied, as well, by a decrease in the costs entering into production.

Dairy Products.

The exhibit of dairy products, although not so extensive as that shown at the convention of Eastern Dairymen the week previous, was nevertheless most excellent from the standpoint of display and attractiveness, as well as for the quality of the exhibit. The four classes of large cheese were well filled with about twenty-five entries in each, and the Stilton and flat cheese sections were also well filled. A very respectable exhibit of 56-lb. boxes of creamery butter was headed by a box shown by C. A. Davis, Guelph, and won the trophy presented by the Toronto Produce men. Out of a total score of 97 points, this box scored 43 for flavor, 24.25 for body, 14.75 for color, 10 for salt and 5 for style. The first three awards in each section are as follows: SEPTEMBER CHEESE, COLORED: 1, C. J. Donnelly, Lambeth, 98.37; 2, H. E. Donnelly, Straffordville, 97.75; 3, J. T. Donnelly, St. Thomas, 97.50. SEPTEMBER CHEESE, WHITE: 1, H. E. Donnelly, 98.90; 2, (Imperial Bank Trophy); 2, Martin Calder, Strafford, 98.67; 3, Jos. Shelton, Kintore, 98.25. OCTOBER CHEESE, COLORED: 1, J. T. Donnelly, 98.12; 2, H. E. Donnelly, 97.62; 3, C. J. Donnelly, 97.55. OCTOBER CHEESE, WHITE: 1, H. E. Donnelly, 98.74; 2, J. T. Donnelly, 97.99; 3, C. J. Donnelly, 97.62. STILTON CHEESE: 1, C. J. Donnelly, 98.74; 2, H. E.

Donnelly, 97.25; 3, Wm. Laughlin, Thamesford, 95.22. FLAT CHEESE: 1, C. J. Donnelly, 97.37; 2, Jno. F. Koch, Palmerston, 96.87, (won on flavor); D. C. Flots, Cornith, 97.12. CREAMERY BUTTER, 56-LB. BOX, OCTOBER: 1, C. M. Johnston, London, 95.65; 2, W. G. Medd, Woodham, 95.15; 3, C. A. Davis, Guelph, 94.90. CREAMERY BUTTER, 56-LB. BOX, WINTER: 1, C. A. Davis, 97; 2, J. R. Almonte, Silverdale, 95.70; 3, Silverwoods, Ltd., London, 95.55. DEMONSTRATION BUTTER, 14-LB. BOX, JUNE: 1, O. A. C., Guelph, 95.55; 2, W. G. Medd, 94.10; 3, J. E. Wilson, Forest, 93.50. CREAMERY PRINTS: 1, C. A. Davis, 95.90; 2, J. R. Almonte, 95.85; 3, W. G. Medd, 95.40.

Resolutions.

"Whereas the railway companies have made application to the Railway Commission for permission to increase classifications of cheese and butter boxes which if granted will mean an increase of nearly 50% in the prevailing rates and,

"Whereas freight rates have been increased twice in 1918, and,

"Whereas if the proposed increase is allowed, it will mean increased cost of materials to both cheese and butter manufacturers, which will effect both producer and consumer,

"Be it therefore resolved, that this Association in convention assembled, go on record as distinctly opposed to any increase, and as strongly urging that the present classification stand as at present."

Butter Grading Service.

"Resolved that this Association is in sympathy with the plan for the butter grading service put into effect last season by the Dairy Branch of the Ontario Department of Agriculture and believe if continued this will stimulate and encourage a permanent grading system for creamery products."

National Dairy Council.

"This Association desires to express approval of the formation of the National Dairy Council and also to give the Directors power to appoint the representatives to act on the council board."

Returned Soldiers.

"Whereas the war debt of Canada can best be paid off by developing its natural resources, particularly as having reference to the Dairy industry, and

"Whereas in view of the great increasing demand for dairy products, and

"Whereas the Dairy industry is badly crippled for want of suitable labor.

"Therefore be it resolved, that this convention bring to the attention of the Government, now that Peace is practically declared, the importance of releasing at the earliest moment possible all soldiers in any way connected with the dairy industry, which includes producers, cheese and buttermakers, milk distributors, and others, that they may return to their respective occupations and so be ready when next season opens for a big output of milk and dairy products."

"Stop Off" For Dairy Products.

"Whereas the "stop off" privilege in connection with warehousing of cheese and butter having been cancelled by the Railway Companies, thus imposing double freight rates for small lots of cheese or butter, increasing the cost of handling from producer to consumer.

"Be it therefore resolved that the Railway Commission be requested to reconsider the matter."

Oleomargarine.

"Whereas the federal authorities saw fit to temporarily admit the manufacture and sale in the Dominion of Canada of the oleomargarine, and

"Whereas, the order permitting said manufacture and sale was granted only to relieve food conditions during the war, and

"Whereas on the successful conclusion of the war, conditions in the Dominion will again become more normal,

"Be it therefore resolved, that the said order be rescinded and that the manufacture and sale of oleomargarine within the Dominion of Canada again be declared illegal, and also that no further action be taken before consulting the National Dairy Council."

Co-operative Dairy Company.

"Having heard the report of the special Cheese Committee in reference to the co-operative dairy company which it is proposed shall be established in Ontario, as well as the report of our President who was a member of the committee of dairy farmers that recently visited Saskatchewan, to investigate conditions relating to this proposal,

"We desire to express our appreciation of the importance of this matter and its possibilities for good to the dairy industry and would recommend the re-appointment of our representatives on the Cheese Committee and that our Directors be given full power to deal with this matter in such manner as they may deem wise, should need for such action later arise."

Officers.

The following officers and directors were elected for 1919: President, Frank Boyes, Dorchester; First Vice-President, W. G. Medd, Woodham; Second Vice-President, J. Scott, Innerkip; Third Vice-President, Geo. Taylor, Guelph; Secretary-Treasurer, Frank Hens, London. Directors: T. Ballantyne, Stratford; Jas. Donaldson, Atwood; Robt. Myrick, Springford; Noble Allen, Canboro; Roland Johnston, Bright; Geo. E. Booth, Ingersoll. Representatives to Canadian National Exhibition: F. Hens, London, Robert Johnston, Woodstock. Rep. to Western Fair: F. Hens; J. Brodie, Mapleton. Auditors: J. A. Nelles, London; J. C. Hegler, Ingersoll.

HORTICULTURE.

Co-operative Fruit Growers of Ontario.

For the past two or three years not much has been heard of that federation of co-operative fruit associations known as the Co-operative Fruit Growers of Ontario. The serious disturbance created throughout the fruit industry by the war, made the work of this organization of little avail, with the result that it dropped almost out of existence so far as any actual work was concerned. Now, however, steps are to be taken to bring it once more into active business, and with this in view a meeting of managers of fruit associations in Ontario was held at the Carls Rite Hotel, Toronto, on Thursday, Jan. 9. Quite a number of officers and managers of co-operative associations were present, and considerable discussion took place. The association is incorporated with a capital of \$10,000, made up of one thousand shares of \$20 each. Of this amount \$4,100 has been subscribed, but only ten per cent. has been called in to date. The Association is in good condition financially, and there is a balance of more than \$1,200 in the treasury. Early in the meeting a resolution was passed favoring the continuance of the organization and its extension to include other associations and large orchardists, who would assist in taking up the unsubscribed stock. It was pointed out that the Company has proven an advantage to the fruit growers of the province, and that no associations have lost money through it, while customers have been pleased with the service rendered.

One of the doubtful factors in the handling of future apple crops is the uncertainty that exists with regard to small associations. Several of these have been taken into the co-operative organization in the past, and two or three of them at least are now defunct. The question arose as to who owned the stock allotted to these small unincorporated associations. It was determined that, in the future, in the case of the unincorporated association the stock would have to be held in the name of some large grower, and that other members would ship in co-operation with him through the central association and would be represented by him in this body. It is, of course, much better for small associations to incorporate, since they are thereby enabled to take stock legally in the name of the company and to dictate, themselves, the nature of their representation in the Co-operative Fruit Growers of Ontario.

It is expected that action will be taken very shortly in order to line up as many new shareholders as possible in preparation for an active season's work in 1919.

How Increased Rates Affect the Fruit Crows.

The proposed shipping rates of the express companies have caused fruitmen, dairymen and others no small concern. It is generally felt that the present rate is about high enough, and while the statements issued by the express companies show a loss for the past two years, when taken over a number of years a substantial profit is evident. Conditions during the past four years have been very abnormal, but it is believed that the crisis is past and that the peak-load, so far as wages and operating expenses are concerned, has been reached and from now on, even if wages do not materially lower, more efficient help will be available which will be to the advantage of the companies. A year ago the asking for a reasonable increase in rates would probably not have looked out of place. Even yet producers do not want to see the express companies lose money. These companies evidently are not content with a reasonable profit; they want the whole thing, and this fact in itself is not to their credit. As fruitmen and dairymen use express shipment to a large extent in placing their goods on the market, the cutting off of commodity rates, would, if put into effect, seriously affect their business.

The case was presented to the Railway Board, in Toronto, on January 13, when a number of fruitmen explained their side of the case in a concrete, explicit and convincing manner. G. E. McIntosh, Transportation Agent, Fruit Branch, Ottawa, presented figures explaining conditions existing in these abnormal times, showing the earnings, profits and losses of the express companies during 1917-18. The speaker clearly showed how the new rates were practically prohibitive, and if put into effect would seriously affect the industry which, to a large extent, was built up in certain districts, owing to favorable shipping conditions. To seriously disturb the tariff now would be detrimental to the fruit industry, and eventually would make fruit come very expensive to the consumer. Mr. McIntosh showed that the average increase was approximately 77 per cent., whereas an increase of 5 per cent. would leave the companies considerably more net profit than the average producer receives.

W. H. Bunting, continuing the discussion, contended that the industry was approaching a crisis. The pests of the orchard and severe winters have worked havoc in the orchards. The labor situation has been acute, while markets have been very unstable. These things have resulted in neglect of orchards and a cessation of planting. The speaker explained how the perishable fruits and vegetables must be shipped by express, and if rates are increased it will tend to decrease the acreage devoted to these crops, thus raising the price to the public owing to a shortage of supply. J. R. Hastings, Grimsby, believed that fruitmen have been paying sufficient for the service given. In fact, several fruit-

FARM BULLETIN.

Lloyd-George Names Cabinet.

Premier Lloyd-George has made known the personnel of his cabinet which includes, in high places, the following Conservatives: Andrew Bonar Law, Earl Curzon, Arthur J. Balfour and Viscount Milner. There are two ministers without portfolios, namely, Sir Eric Geddes and George Nicoll Barnes who, nevertheless, have important duties to perform. Churchill is made War and Air Minister and Walter Hume Long is First Lord of the Admiralty.

The new Cabinet will be headed by David Lloyd-George as Premier and First Lord of the Treasury. The other members of the Government will be:

Lord Privy Seal and Leader in the House of Commons—Andrew Bonar Law. President of the Council and Leader in the House of Lords—Earl Curzon of Kedleston. Ministers without portfolio—George Nicoll Barnes and Sir Eric Geddes. Lord Chancellor—Sir F. E. Smith. Home Secretary—Edward Shortt. Under-Secretary—Hamar Greenwood. Foreign Secretary—Arthur J. Balfour. Under-Secretary—Cecil Bishopp Harmsworth. Secretary for the Colonies—Viscount Milner. Secretary of War and of the Air Ministry (which have been combined)—Winston Spencer Churchill. Under-Secretary—Viscount Peel. Financial Secretary to the War Office—Henry W. Forster. Secretary for India—Edwin S. Montagu. Under-Secretary—Sir S. H. Sinha. First Lord of the Admiralty—Walter Hume Long. Parliamentary Secretary—Thomas J. Macnamara. President of the Board of Trade—Sir Albert Stanley. Under-Secretary—W. E. Bridgeman.

Department of Overseas Trade Development and Intelligence—Sir Arthur Steel-Maitland, who also is appointed an additional Under-Secretary for Foreign Affairs and an additional Parliamentary Secretary to the Board of Trade.

Local Government Board.

President of the Local Government Board—Dr. Christopher Addison. Parliamentary Secretary—Stephen Walsh, Laborite. Secretary of Agriculture—R. E. Prothero. Minister of Education—H. A. L. Fisher. Secretary of the Ministry of Munitions, which is to become eventually the Ministry of Supply—Andrew Weir. Food Controller—George H. Roberts. Minister of Shipping—Sir J. P. MacLay. Minister of Labor—Sir Robert Stevenson. Home Minister for Pensions—Sir Laming Worthington-Evans. Minister for National Service and Reconstruction—Sir Auckland Geddes. Chancellor of the Duchy of Lancaster—The Earl of Crawford. First Commissioner of Works—Sir Alfred Mond. Attorney-General—Sir Gordon Hewart. Solicitor-General—Sir Ernest Pollock. Postmaster-General—Albert Holden Illingworth. Paymaster-General—Sir Joseph Compton-Rickett. Chancellor of the Exchequer—Austen Chamberlain. Lord-Lieutenant of Ireland—Gen. Viscount French. Chief Secretary for Ireland—Sir James Ian MacPherson. Secretary for Scotland—Robert Munro. Both Mr. Prothero and Andrew Weir were raised to the Peerage on accepting their new offices.

It is announced that until there has been more time to make permanent peace arrangements, the existing War Cabinet will be continued.

The Government intends to submit to Parliament proposals for the establishment of a Ministry of Ways and Communications. If these are adopted Sir Eric Geddes will be invited to head the new department.

men expressed themselves in a similar way. When asked what he considered a fair net profit would be, he suggested 1½ per cent. of the turnover, and claimed that few fruitmen were getting any more when wages were allowed. M. C. Smith, of Burlington, who ships such perishable products as strawberries, raspberries, cherries, tomatoes, etc., and used the express service a great deal, believed that the proposed increase in rates would practically ruin the business as there was a maximum price which consumers would pay and the new rates would either reduce the price to the producer to such an extent that he would stop growing these crops, or else the price would go so high that consumers would not buy. At any rate there would be a good deal less business for the express to handle.

J. E. Johnston, of Simcoe, explained the situation in his district, showing how the rates would affect business in Norfolk County. At the present rate, tomatoes to Winnipeg cost 45 cents per basket, while at the new rate they would cost 87 cents. It would mean that shipments to northerly points would be greatly curtailed. Mr. Johnston believes the labor crisis to be over and that the proposed rates are outrageous; even a 5-per-cent. increase would give a big net profit. Senator E. D. Smith, of Winona, and others from St. Catharines and Leamington spoke along much the same lines. All pointed out the effect the new rates would have on the industry in their particular district. Evidence showed that the companies were exacting the maximum of rates for the minimum of service.

In asking for the great increase the companies have forfeited any sympathy which might have existed among producers. A raise in rates to give a reasonable profit would undoubtedly have been condoned, but to be so grasping has aroused the producers, and they will do all in their power to prevent these interests from crushing them in order to furnish big dividends.

Experimental Union Holds Fortieth Annual Meeting.

The fortieth annual meeting of the Ontario Agricultural and Experimental Union was held at the Ontario Agricultural College, Guelph, on Tuesday and Wednesday, January 14 and 15. The attendance of actual experimenters was small, as is usual at these annual conventions, but the number of ex-students present with those taking the short and regular courses at the College made up a good audience and constitute a medium through which to disseminate, by personal contact, the information gleaned from experiments and the teachings of those who have the cause of agriculture at heart. This co-operative work in agricultural experimentation has been conducted for thirty-three years, and in that time 92,235 distinct tests have been made. New varieties are first tried out in the experimental plots at the College, and anything with special promise is distributed throughout Ontario to be tested by farmers under widely varying conditions. In this way O. A. C. No. 21 barley, O. A. C. No. 72 oats, and many other varieties of farm crops have been found good, and their seed so distributed that they gradually replace the less profitable ones and particular kinds of oats, barley, wheat, roots, etc., become the standard varieties grown without the producers realizing that the O. A. C. and the Experimental Union have worked for years to originate and popularize them. Ontario agriculture owes millions of dollars to the quiet, unostentatious, yet persistent, efforts of the Experimental Union, and the greatest tribute that can be paid to this organization is the universal popularity of the many varieties of farm crops and cultural methods it has proven good and recommended to the farmers of Ontario.

In his presidential address, H. B. Webster, St. Marys, dealt largely with economic matters and drew attention to the financial burdens we will be called upon to bear. Reference was made to the Premier's address at the Annual Banquet in 1918, when he recommended that farmers elect representatives to the Legislature from among themselves. The President said the advice was taken to heart, but efforts in this direction were not being greeted with any great enthusiasm by the Premier and his colleagues. In regard to agriculture particularly, Mr. Webster said that before farming can become a popular occupation economic conditions must be re-adjusted. He pointed to the general dissatisfaction and discontent on the farm. The labor shortage and other factors contributed to this but in themselves were not wholly responsible. The duties collected on farm machinery alone in the year totalled \$2,120,000, and the speaker pointed out that for every dollar paid in custom taxes on imported implements three dollars were paid to domestic manufacturers. This meant a toll of \$8,500,000 exacted from agriculture. In addition to tariff revision the President recommended standardization of farm machinery, the establishment of common repair shops, and direct sales to farmers' clubs instead of through agents and the round-about channels of trade by which implements are disposed of at present.

The Secretary's Report.

In the Secretary's report Dr. C. A. Zavitz referred to the strenuous seasons through which the Experimental Union has been passing and the loyalty of the farmers to the organization. In spite of the great scarcity of labor, farmers to the number of 3631 conducted co-operative experiments on their own farms in the past year. The great abundance of rainfall experienced in 1918 interfered somewhat with results on test plots. The past four years have been abnormal for crop production in Ontario. The average rainfall for the six growing months for the past four years has been about one-third greater than that of the fifteen years

previous, but in 1918 there was more than four inches of precipitation in each of four months. In no other similar period within the past nineteen years has there been over four inches of rainfall in more than two months. Dr. Zavitz said it was particularly gratifying that during such a strenuous and peculiar season over 3,600 farmers in the Province of Ontario could be found willing to do this work in order that experimentation should not lag.

The Results of Co-operative Tests in 1918.

Crops, varieties and number of tests.	Comparative value	Yield Per Acre		
		Straw (tons)	Grain (bus.)	Grain (lbs.)
Oats (31 tests):				
O. A. C. No. 72	100	1.80	54.19	1,842
O. A. C. No. 3	73	1.46	46.14	1,569
Six-rowed Barley and Emmer (11 tests):				
O. A. C. No. 21	100	1.34	44.53	2,138
Common Emmer	58	1.33	32.62	1,566
Hulless Barley (13 tests):				
Black Hulless	96	1.59	26.67	1,600
Guy Mayle	100	1.55	25.51	1,530
Spring Wheat (25 tests):				
Marquis	100	1.47	25.11	1,386
Wild Goose	96	1.65	22.91	1,374
Winter Wheat (14 tests):				
O. A. C. No. 104	100	1.55	25.52	1,531
Improved Dawson's Golden Chaff	80	1.52	25.33	1,520
Improved Imperial Amber	63	1.77	23.01	1,381
Yaroslaw	43	1.70	21.46	1,288
Kharkov	33	1.52	19.22	1,163
Spring Rye (5 tests):				
O. A. C. No. 61	100	1.88	20.47	1,146
Common	89	1.81	20.00	1,120
Winter Rye and Winter Wheat (4 tests):				
Petkus Winter Rye	100	2.38	36.07	2,020
Imperial Amber Winter Wheat	73	1.63	19.28	1,157
Buckwheat (3 tests):				
Rye	100	2.20	37.78	1,814
Silver Hull	67	2.07	28.05	1,346
Field Peas (68 tests):				
Early Britain	100	1.19	28.75	1,725
Potter	90	1.32	25.67	1,540
Canadian Beauty	95	1.35	25.12	1,507
Field Beans (14 tests):				
Pearce's Improved Tree	100	.89	19.19	1,151
Winter Wonder	88	.73	15.61	937
Elliott's Pea	69	.75	15.29	918
Soy or Soja Beans (2):				
Habara	96	1.04	11.57	694
O. A. C. No. 81	100	.99	11.52	691
Brown	86	.78	8.15	507

The committee appointed last year to look after the co-operative experiments in agriculture were

as follows: Dr. C. A. Zavitz, (Director), W. J. Squirrell, A. W. Mason, C. R. Klinck, and A. E. Whiteside. As Director of this Committee, Dr. Zavitz reported on the results of the field tests conducted during 1918. There were in all 38 distinct and separate tests, 6 being with autumn and 32 with spring sown crops, and the accompanying table sets forth in concise form the results of the season's work.

Four years ago, said Dr. Zavitz, sixty-eight per cent. of the oats grown in Ontario was of the Banner variety. In that year the O. A. C. No. 72 variety was not mentioned as being the most extensively grown in any one county. In 1918, however, as the result of enquiries, it has been found that about 47 per cent. of the Banner, 30 per cent. of the O. A. C. No. 72 and 23 per cent. of all other varieties combined were grown in the Province. The O. A. C. No. 3, an early oat, has achieved good results in Northern Ontario where it is superior to others on account of maturity. In the neighborhood of Sudbury it was the only oat to mature properly in 1918. Throughout Ontario generally it has proved desirable as an early oat, but of course does not compare with the O. A. C. No. 72 as the main cropper.

Some growers are partial to emmer as a grain crop, but compared with barley in a series of experiments over the past six years it has been excelled by O. A. C. No. 21 barley in yield per acre. These results were again repeated in the co-operative tests carried on in 1918.

The test with hulless barley in 1918 showed that Black Hulless surpassed the Guy Mayle by a little over 100 pounds of grain per acre. In each of the past fifteen years these two varieties have been used in the co-operative tests, and in the average of 192 trials conducted in the fifteen-year period it was found that the Guy Mayle gave 2,267 lbs. and the Black Hulless 2,211 lbs. per acre. The Guy Mayle variety has rather stiffer straw than its close competitor.

The acreage in spring wheat has increased from 118,607 acres in 1914 to 351,423 acres in 1918, according to the Ontario Bureau of Industries reports. In the past six years the Marquis and Wild Goose varieties have been distributed for co-operative experiments. The highest average yield was produced by the Wild Goose in four seasons, and by the Marquis in two seasons. In 1918 the Marquis gave the best average showing in twenty-five tests. The Marquis is a wheat of good quality, being particularly well suited for bread production, while the Wild Goose is a coarse Durum wheat more suitable for the manufacture of macaroni than of bread.

Enquiries made in regard to winter wheat would lead one to expect that 71 per cent. of that produced in Ontario is Dawson's Golden Chaff, 10 per cent. Winter King, and 19 per cent. other varieties. Efforts have been made at the O. A. C. to find a variety combining the good qualities of the Dawson's Golden Chaff and of some of the Bulgarian varieties. One hybrid known as the O. A. C. No. 104 has given particularly good results, and Dr. Zavitz was optimistic regarding the future of this new wheat. It has stood highest in each of the past two years in co-operative experiments, and has given good all round results at the College as well. The O. A. C. No. 104 is a white wheat with a white chaff and a bearded head. It is a vigorous grower, stiff in the straw and produces a grain which is rather superior to that of the Dawson's Golden Chaff for bread production.

For eight years the O. A. C. No. 61 spring rye has surpassed the Common variety, the average of the former being slightly over 24 bushels per acre per annum.

In each of four years the Petkus winter rye has surpassed the Imperial Amber winter wheat. The winter rye has been found more hardy and as a result a better yielder.

The Rye buckwheat continued in 1918 to surpass the Silver Hull variety. It may be interesting to note that nearly one-quarter of a million acres of buckwheat were grown in Ontario in 1918.

The area used for the production of field peas in Ontario in 1918 surpassed that of 1917 by over 23,000 acres. Interest in this crop seems to be reviving. Three varieties of peas have been used in each of the past three years in the co-operative work, and the Early Britain has led on each occasion.

The Pearce's Improved Tree Bean led in 1918 by considerable margin. Unfortunately it is slightly later in maturing than either the White Wonder or the Pea bean.

In connection with grains grown in combination the mixture consisting of one bushel of oats and one bushel of barley per acre continues as the best proportion in which to mix these two.

The accompanying table shows in brief form the tests with roots and the results obtained therefrom:

Field Roots.

Experiments	Varieties	Comparative value	Yield per acre (tons)
Mangels (7 tests)	Ideal	88	25.27
	Yellow Leviathan	100	25.01
	Sutton's Mammoth Long Red	76	25.01
Sugar Mangels (6 tests)	Bruce's Giant White Feeding	100	20.93
	Carter's Sugar	75	18.34
Swede (5 tests)	Steele, Briggs' Good Luck	100	27.79
	American Purple Top	73	25.80
Carrots (4 tests)	Canadian Gem	100	25.65
	Rennie's Mammoth Short White	100	21.57
	Bruce's Mammoth Intermediate Smooth White	82	19.24

One hundred and thirty-eight separate tests were successfully conducted throughout Ontario with the Irish Cobbler and the Green Mountain varieties of potato. Samples of each variety were obtained from Southern Ontario, from Northern Ontario and from New Brunswick. The results showed the Irish Cobbler to exceed the Green Mountain by 4.86 bushels per acre. The Green Mountain contained slightly more rotten potatoes than the Irish Cobblers.

Tests were also made to ascertain the advantages of obtaining Northern-grown seed potatoes for use in old Ontario. The reports received from tests made on upwards of one hundred farms show that Northern-grown seed averaged 142.8 bushels per acre; Southern Ontario seed produced 123.9 bushels per acre, and New Brunswick seed produced 119.5 bushels per acre.

In regard to disease the following table is also of interest to potato growers:

Source of seed	Average percentage of disease	
	Leaf roll	Mosaic
Northern Ontario	0	2.2
Southern Ontario	24.9	5.1
New Brunswick	5.0	47.7

Co-operative Experiments in Weed Eradication.

For the past seven consecutive years experiments have been conducted in the eradication of noxious weeds, under the direction of Prof. J. E. Howitt, head of the Botanical Department, O. A. C. Six of these experiments may be outlined as follows: (1) The use of rape in the destruction of perennial sow thistle; (2) A system of intensive cropping for the eradication of perennial sow thistle; (3) The use of rape in the destruction of twitch grass; (4) A method of cultivation and cropping for the extermination of twitch grass; (5) A method of cultivation and cropping for the eradication of bladder campion; (6) Spraying with iron sulphate to destroy mustard in cereal crops. The results obtained in these experiments may be summarized as follows: Experiment No. 1: Total number of experimenters 12; reporting complete success, 9; reporting partial success, 2; reporting failure, 1. These experiments were conducted on soils divided as follows: Black muck, sandy loam, light clay loam, clay loam, gravel to clay and heavy clay. Experiment No. 2: (The use of rape in the destruction of twitch grass). Total number of experimenters, 12; reporting complete success, 9; reporting partial success, 3. Sandy loam, clay loam, gravelly and light loam were the soils on which this test was conducted. Experiment No. 3: Total number of experimenters, 7; reporting complete success, 2; reporting partial success, 4; reporting failure, 1. Experiment No. 4: Total number of experimenters, 7; reporting complete success, 4; reporting partial success, 3. Experiment No. 5: Total number of experimenters, 23; reporting complete success, 20; reporting partial success, 2; reporting failure, 1. Crops in which mustard was sprayed were oats, barley and wheat. The reports show that there is no serious injury to standing crops or fresh seedlings of clover after spraying with a twenty per cent. solution of iron sulphate. The cost per acre of material was \$1.54. This cost would be nearly doubled at the present time, owing to the advanced price of material.

The results of the seven years' work with these six experiments show clearly, said Prof. Howitt, that: (1) good cultivation followed by rape sown in drills provides a means of eradicating both perennial sow thistle and twitch grass; (2) that rape is a more satisfactory crop to use in the destruction of twitch grass than is buckwheat; (3) that rape gives much better results in the eradication of twitch grass and perennial sow thistle when sown in drills and cultivated than it does when sown broadcast; (4) that thorough deep cultivation in fall and spring, followed by well cared for hoe crops, will destroy bladder campion; (5) that mustard may be prevented from seeding in oats, wheat and barley by spraying with a twenty per cent. solution of iron sulphate, without any serious injury to the standing crop or to fresh seedlings of clover.

Another experiment which may be termed No. 7 has been conducted for two years. This is named, "A method of cultivation for the destruction of ox-eye daisy." The directions to be followed in this test are: If the field is in sod, plow shallow, (not more than four inches), toward the end of August and harrow at once. Let it stand a couple of weeks and cultivate it the same way it is plowed, two or three inches deep; after a while cultivate a little deeper; if possible, cultivate even a third or fourth time, going a little deeper each time. Then, if you can manage to do so, rib up with a double mold-board plow, the last thing in the fall. In the spring cultivate the field often enough to keep the daisy from making any growth above ground until it is time to put in potatoes, corn, roots, or rape. The hoed crop must be repeated and thoroughly cultivated in order to be effective. If the field was plowed last fall, cultivate frequently until about the middle of June to keep down the tops and weaken the roots; then apply twelve good loads of manure to the acre and cultivate it in thoroughly. With a double mold-board plow, slightly ridge up the land making the ridges about 26 inches apart. Sow pasture rape, Dwarf Essex variety, at the rate of 1 1/2 pounds per acre. This should be sown when the soil is moist to insure quick germination. Cultivate the rape every week or ten days until it covers the ground and makes further cultivation impossible. When the rape is cut or pastured there should be none of the ox-eye daisy left in the field. Two experimenters have reported complete success, and one partial success, from this treatment.

Increase in Winter Egg Production.

An interesting address dealing with the increase in egg production in the winter season was delivered by Prof. W. R. Graham, head of the Poultry Department, O. A. C. In addition to other factors, Prof. Graham dwelt on the influence of the number of hours a hen can see to eat during the winter season, and said that it is quite possible by maintaining fourteen hours of light for the hen to eat, a twenty-five per cent. or more increased production may reasonably be expected. It was also stated that to lay well a hen must consume more feed than is required for body maintenance, and some hens appear to have difficulty in consuming enough feed to lay well. By adding five hours more by artificial lighting she does much better, and, of course, eats more feed. Roughly the increase in feed amounts to about fifteen per cent. Professor Graham produced charts and records to show the results of artificial lighting. These were indeed interesting, but since the information was published in our issue of November 28, 1918, it seems unnecessary to repeat it here. Artificial lighting, however, is being adopted by many poultrymen, and it is worthy of consideration by those paying particular attention to the flock.

Another factor making for winter egg production is the season in which pullets are hatched. In this regard, Prof. Graham said: "Early-hatched pullets usually lay much better than hens during the winter. Our experience should indicate that it will take from five to six months to mature a pullet ready to lay. Of course, some families of the same breed mature earlier than others, and the general care of the chicks while growing is of importance. Then, again, March-hatched chickens lay at a younger age than do those hatched in April, while those hatched in May or June are still slower to mature, probably owing to the lack of daylight in which to see to eat when nearing maturity." Twelve different pens of pullets were selected for an experiment to throw light on this question, and without reproducing the results here in detail we can quote Prof. Graham's remarks which explain them in a few words. He said: "Taking all the figures one can see the advisability of hatching pullets in late March and April where winter eggs are wanted."

Another perplexing and interesting problem is the selection or breeding of high egg producers. Dr. Pearl, of the Maine Experiment Station, some years ago produced proof to show that good laying qualities are transmitted largely through the male, and also mentioned the fact that among the high-producing hens there were two classes, the representatives of one being much better breeders than those of the other. Prof. Graham has been conducting work along this line which amounts to the selection by means of the trap nest of the good layers. These in turn are mated to sons of high layers, and the progeny of the mating is again tested as to egg production. In Prof. Graham's opinion a pullet that lays over thirty eggs in November, December and January, and over 150 eggs for twelve consecutive months, is considered a good layer. Late-hatched pullets, too, that lay well during June, July and August of the following season are considered good layers. Almost any hen will lay well during March, April and May. Illustrations of the method of progeny-testing with both males and females were given, but it would be impossible to reproduce the matter here in such a way that it would be thoroughly understood.

The Live-Stock Outlook.

"When we look the matter squarely in the face there seems to be little danger in prophesying good times ahead for the breeder of high-class live stock. No one can say what prices will be; they may be lower, but in comparison with prices which will likely prevail for other farm products there is every reason to believe that the market for live stock and live-stock products will be good. This is no time to be planning to go out of the live-stock business. True, prices have been abnormally high, and an easing off must come sometime, but there is little likelihood of the market going back to some of the low levels of years before the war. And, comparatively speaking, the live-stock business should be a good business for Ontario for all time." In the foregoing language, Prof. Wade Toole, head of the Animal Husbandry Department, of the Ontario Agricultural College, expressed himself in regard to the live-stock outlook. He stated that field husbandry and animal husbandry are absolutely dependent one upon the other, and in Ontario, at least, it would seem that the future of our agricultural progress is closely wrapped up in the live-stock industry. "As in the past," he said, "so will it be in the future. The threshing machine will stay longest on the farms carrying the greatest number of good live stock, and the returns from such farms will be larger than from the farms upon which live stock in large numbers is not kept. Prof. Toole advised strongly against fluctuating, or being into live stock at one time and out at another, and stated that the man who goes in too strongly on a high market and goes out quickly when prices drop loses heavily on the transaction.

Reference was made to the great decreases of cattle in Europe amounting to 6,306,000 head without taking into consideration many countries which have suffered badly. In France, Italy, Denmark and Holland alone sheep have decreased two and a half million, and in pigs there has been a wholesale decrease to the number of 24,952,000. Denmark, Canada's strongest competitor on the British bacon market, is 1,873,000 short of a normal supply of pigs. Germany is 19,396,000 short of her 1914 hog production.

Taking the different classes of live stock up separately, Prof. Toole said that if it will pay to breed any horse on the Canadian farm the heavy drafter of good quality should turn in the most money to its owner. Prices at which draft geldings are selling in England indicated a shortage there. About one-fifth of Great Britain's ordinary supply of work horses went to the war, and a number of useful brood mares were also taken, while France, Belgium, Russia and Germany, four of the great horse-producing countries, have lost a heavy percentage of their horse stocks during the war. It would seem that during the period of reconstruction our horse market will be East and not West.

Out of over 1,077,000,000 pounds of beef annually imported by Great Britain Canada ships only a little over 29,000,000 pounds. At present we have only six head of cattle per hundred acres of land in farms; Holland has 29, Denmark 25, and Great Britain 16. Britain imports annually 452,795,264 pounds of butter. Canada supplies a little over 6,000,000 pounds of this. Canada has 2 dairy cattle per hundred acres of land in farms; Great Britain has 5, Holland has 16, and Denmark has 14. The speaker declared that Canadian stockmen should plan to supply a greater part of these British requirements by keeping more and better-bred cattle.

Canada has only 2 sheep per hundred acres in farms, and a great part of this country, said Prof. Toole, is particularly well adapted for sheep breeding. The dog nuisance, a mistaken notion that sheep are hard to fence against, low prices for wool and lambs, and other things have combined, in the past, to turn the farmer against sheep. At present Canada has a little over 3,000,000 sheep as compared with 2,000,000 in 1914. Higher prices for wool and mutton have created an interest in sheep, but our farms would carry millions more. Prof. Toole said he had learned from an authoritative source that it will be six years before the world's supply of wool can become normal. The demand for lamb and mutton is almost sure to be good. The outlook for the breeder of good sheep and the producer of high-quality wool was never better.

Canada must buckle in, said the speaker, and produce a uniformly high-class bacon hog in large numbers to capture and hold the British market. We have only 3 pigs per hundred acres in farms in Canada; Denmark in normal times has 22. It was recommended that breeders keep close to the best bacon type.

Canada exports \$150,000,000 worth of animals and animal products annually. Let us do our part, said Prof. Toole, to bring this figure up to the \$500,000,000 mark, which the Dominion Live Stock Commissioner says we should be exporting inside of five years. This accomplished, we will be doing our part to insure the financial safety of the country, and the individual farmer will be reaping a steady reward from his live stock. "Breed more stock; breed better stock; kill the scrubs; stay in the business."

Co-operation.

One session at the Experimental Union was given over largely to a discussion of co-operation. It was approached from four different angles. F. C. Hart, Director of Co-operative and Markets Branch, Toronto, told of the successes and failures in Ontario. R. W. E. Burnaby, President of the United Farmers' Co-operative Company, explained what that organization is doing and what it intends to do. R. W. Wade, Chief of the Live Stock Branch, Toronto, reviewed the situation in regard to marketing wool. H. H. LeDrew, Lecturer in Economics at the O. A. C., told the meeting something about

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what was being accomplished through organization at the College.

One of the successful organizations mentioned by Mr. Hart was the Kenora District Seed Growers' Association, which was organized in August, 1917. This was soon in a position to deliver \$30,000 worth of clover seed to the market a thousand miles away. They had also been able to gain a market for oats, barley, peas and other crops which at their great distance from central markets would have returned them little had it not been for the services of their association. There was also a little village east of Sault Ste. Marie, on the north shore, where were to be found two stores, a lumber mill and a hotel. The village was located four miles off the main line. A branch road served the community in a haphazard way. Back in 1914 the Northern Co-operative Company of Brydal Bank was organized, and incorporated. They purchased the lumber mill and stores and hired the miller as their business manager. This organization now provides a good market for the farming district around the little village, Brydal Bank. It runs a local store, gristmill, handles farm products, buys supplies, manufactures lumber and lately erected a 50-barrel flour mill. The Association has changed the whole situation so far as the farmers are concerned. Transactions are more satisfactorily carried on, and everything necessary is brought in to this village which was formerly almost isolated from the province.

A few years ago a Potato Growers' Association was organized in the Rainy River District. It shipped farm products from seven points on the line, and was becoming almost indispensable to the producers in that section. It was being heralded as a sample of successful organization, yet in the end it failed because the manager did not keep an accurate accounting system. Money was lost, distrust developed, and the organization went under. Here Mr. Hart declared: "Co-operation, no matter how necessary, cannot succeed unless carried out on sound business principles in every department."

At Sudbury a co-operative organization came into being and spent \$20,000 on a creamery plant. Business was not sufficient to carry the overhead expenses, and had the Government not come to its assistance with a loan of \$12,000 it would have survived only with the greatest difficulty. A change in the management and curtailed expenses have brought about a greater degree of prosperity, and now the Association is enjoying healthy progress. This is an instance of being too ambitious at the start. As another example of starting too big, Mr. Hart referred to a large co-operative association organized in the Niagara District in 1910. The fruit supplied it by too large a patronage could not be disposed of to advantage because markets had not been secured. It failed. As an instance of the other extreme, Mr. Hart referred to the Winona Fruit Growers' Association, which started with fourteen members and has not taken in more than six since. It was a strong organization, but he thought it should serve the community better than it does by allowing others to share in it.

R. W. E. Burnaby, Jefferson, Ont., said: "Before we can have co-operation we must have organization, and organization can be for no other purpose than to co-operate. They go hand in hand and cannot be separated." He referred to the organizations in other lines, and said that farmers' organization was perhaps the least efficient of all. Some of the reasons for this is the very nature of the business, lack of public gatherings and the large numbers involved. The difference between the wholesale and retail price of the commodity is largely a question of selling cost. The manufacturer sells in large quantities to the retailer at small selling cost; the retailer sells in small quantities, often on credit, at a considerable cost plus whatever profit competition will allow. If then we as farmers can co-operate or work together so that we are in a position

to buy in large quantities, we are then in a position to materially reduce the cost of distribution and eliminate altogether a retailer's profit. Just in the same way, the nearer we can get to the consumer with the produce of our farms by reducing the distribution or selling cost, the better prices we can expect to receive. Mr. Burnaby furthermore said: "We often hear the statement that the middleman gets all the cream; therefore we must get rid of the middleman. Such an idea to my mind is erroneous. No business can be conducted without the middleman; someone must distribute the goods, and he is the middleman. I do believe, however, by co-operation among ourselves that we can become the middleman both for buying and selling. This is the place the United Farmers' Co-operative Company Limited is trying to fill, and the success the Company has had in the five years it has been in existence is ample proof that there is a place in the business world for such an organization." The speaker then enumerated briefly the activities of the company in question and outlined the program which was drawn up for the future. In this regard we cannot do better than refer readers to the report of the United Farmers of Ontario and of the United Farmers' Co-operative Company meetings in our issue of December 26, 1918. The speaker mentioned some of the difficulties and competition they were obliged to meet, and concluded by asking farmers to get behind this big movement and make it a success.

R. W. Wade gave a concrete example of results from co-operation when he reviewed the activities of the Ontario Sheep Breeders' Association and told how they had co-operatively disposed of 750,000 pounds of Ontario wool, for which the highest market price had been obtained. By collecting at one central depot this large quantity of wool, having it graded and cared for properly, the Association had been able to get bids equivalent to the Government fixed price on the Boston market. The very fact, too, that the Canadian Co-operative Wool Growers' Ltd. had the selling of this wool as well as vast quantities in the other provinces made it possible to demand a reasonable price and get it.

"It is true," said Mr. Wade, "that where the dealer has given approximately a flat price for wool the growers of this grade (coarse wool) have obtained a higher price than the market demands would warrant. In some cases the dealers, while making money on the finer grades, have lost money on the coarse. The co-operative selling of wool by grades is intended to put the wool trade on a proper basis and give each grade its proper market value. It should, moreover, be borne in mind by the wool grower that co-operation has brought the price of wool up to a level which it could not have attained if co-operation had not been employed. Some of our shippers may have obtained a lower price by selling co-operatively then if they had sold to the local dealer, but the reason that they had the offer of a higher price from the local dealer was the competition set up by co-operation, and the fact that the dealer was buying on practically a one-price basis."

H. H. LeDrew said he started to preach co-operation at the College in 1906, and what he taught then and later had been repeated by the speakers who preceded him. At one time it appeared to him like "The voice of one crying in the wilderness," but he was glad to see that his teachings were being put into practice. He had furthermore learned that organization was much more easily accomplished in a community where ex-students of the O.A.C. reside. Mr. LeDrew explained the manner in which the Students' Co-operative Company was operated, and used it to illustrate many of his remarks about co-operative associations in general. The speaker stated that an efficient manager should be selected, and then the board should leave him alone. A board of directors is to see that the manager carries out his program, but the function of a board is not to

advise or obstruct their manager at every turn. If the manager cannot be trusted, one should be employed in whom confidence can be placed.

Soil Requirements.

The different types of soils in Ontario were discussed by Prof. R. Harcourt, Head of the Chemical Department, who said that there were two distinct groups into which Ontario soils could be divided. One of these groups embraces those soils laid down in water. They are usually a clay type, but they may be covered with soils washed down from the uplands. These lowland soils may be found in Southwestern Ontario and in the Niagara Peninsula. They are usually deficient in lime, and in Welland County an increase in hay amounting to 60 per cent. was obtained by the use of lime. In Norfolk County where sand, in many instances, overlies the clay it has been possible to get an increase in the potato crop amounting to 45 per cent. with the use of lime. The lime in many cases has leached down to the lower strata, making it necessary to supply it in order to produce profitable crops.

The other great groups embraces the upland or water-sorted soils. These as a rule are not deficient in lime, but frequently respond to applications of phosphates. Basic slag gives good results as a carrier of phosphoric acid on account of its lime content, but it is not the cheapest material to purchase when only lime is wanted. Prof. Harcourt has started a soil survey of Ontario in order to locate definitely the types of soils so as to be able to instruct farmers wherever they may live, what their soils may be deficient in.

Flax Growing in Ontario.

L. R. L. Defries, Secretary of the Canadian Flax Growers' Association, spoke very optimistically regarding the future of flax growing in Ontario. He described the processes through which flax passes when being made into linen, and spoke highly of Canadian-grown seed and the possibilities for a great development in flax production.

Other Addresses.

J. Coke, a member of the O. A. C. Farm Survey staff, gave the results of a survey conducted in Oxford County. The same material was presented by A. Leitch at the Western Ontario Dairymen's Convention, a report of which will be found in this issue.

On account of illness, Prof. W. H. Day was unable to be present, so the economic use of the tractor on the Ontario farm was taken up by L. G. Heimpl, of the Department of Physics. Information had been obtained from a number of tractor users, and this was imparted to the meeting.

The Annual Banquet.

The annual banquet in the Dining Hall at the O.A.C., is always looked forward to with pleasure, and the event just past was enjoyed by a number of ex-students, the faculty, the student body and a large number now taking the short courses. Dr. G. C. Creelman was the chief speaker of the evening, and delivered a very interesting address on his trip overseas and his impressions of French and British agriculture. A feature of the program was the unveiling of a life-size painting of Prof. G. E. Day, the gift of the 1918 graduating class.

Officers.

Following are the names of the officers for the ensuing year: President, Hon. Nelson Monteith, Stratford; Vice-President, H. K. Revell, Goderich; Secretary, Dr. C. A. Zavitz, O.A.C.; Assistant Secretary, W. J. Squirrill, O.A.C.; Treasurer, A. W. Mason, O.A.C. The Directors are: Dr. G. C. Creelman, O.A.C.; J. B. Spencer, Ottawa; H. Nixon, St. George; C. M. Laidlaw, Cheswick, and A. F. Hansuld, O.A.C., Guelph.

The 1919 Ottawa Winter Fair.

One of the best horse and poultry shows ever held in the Capital City was staged in the Howick Pavilion the week of January 14. The cattle, sheep and swine exhibition, however, was not on a par with past events. Last year the building was urgently needed by the Militia, consequently it is two years since the Winter Fair was last held. It was not known until a late date whether or not the building would be available this year. This was somewhat of a handicap, as breeders of Eastern Ontario did not know a show would be held until it was too late to fit their stock for competition. Then, too, the recent epidemic of influenza was probably responsible for keeping some breeders away, as their help was not sufficiently recovered to risk leaving home with the stock for a week. However, breeders of heavy and light horses made large entries which made keen competition in most classes. The evenings were devoted principally to the showing of carriage horses, saddle horses and jumpers. The performance of the entries in the various classes was particularly good and drew large crowds. The sensation of the performance came when "Sunrise," the entry of Messrs. Crow & Murray, Toronto, tried and almost cleared the bar at slightly over seven feet.

The accommodation at Howick Pavilion is the best in Eastern Canada for the holding of a Winter Fair. The stables for stock are warm, roomy and well ventilated. The arena is large, giving horses a splendid opportunity to show action. Seats are arranged around the judging ring so that a large crowd can see the animals in the ring to advantage. The fair board are to be congratulated on the success of this fair, which was

gotten under way in a comparatively short time. It is deserving of the support of live-stock men, the residents of the city and people of Eastern Ontario and Quebec.

Heavy Horses.

Clydesdales with quality and trappy action made a splendid showing in the Howick Pavilion arena. While some of the classes were not filled there was keen competition for the premier honors. A number of the entries appeared in the Guelph Arena last December but they had stiff opposition at Ottawa from entries of Eastern Ontario. Percheron breeders brought out several particularly good representatives. Not only had they substance and quality but they picked themselves up well in the ring. The entries in the Shire classes failed to appear. There was a good showing of heavy draft horses both singles and teams. Alex Mutch of Lumsden, Sask., and D. Thorburn, De Winton, Man., worked together on the Clydesdale classes. The Percherons were placed by Robt. Graham, Toronto.

Clydesdales.—Both in the open and Canadian-bred Clydesdale classes appeared some of the best representatives of the breed in the country. Substance and quality characterized the entries. The grand champion stallion was found in Smith & Richardson's, massive high-quality horse, Baron Arthur. The grand champion mare was Duff's winner of the Canadian-bred three-year-old-class. Nine big, strong, masculine horses came into the ring at the call for aged stallions. Baron Arthur's right to the red ribbon was not disputed from the start. He is an attractive individual, with his

big body, heavy crest and intelligent looking head. He is supported on the kind of feet and legs Clydesdale men like to see, and he knew how to use his hocks and knees when travelling over the tan bark. Quality and character were in evidence. Everard a stablemate of the winner won the blue. He has scarcely the scale of the Baron Arthur but he is a good topped horse with particularly deep, broad feet and clean, flinty-boned legs. Village Swan and Thessilian from the same stable as the above stood third and fifth. The former is a stylish individual with a thick, deep body and good underpinning. The latter is possibly a shorter coupled horse with heavy muscling and well-laid shoulders but did not move as free as some of his competitors. Baron Stanley, a horse of less scale than those placed above him moved up fourth. He has a trappy action and good Clydesdale feet with well sloped pasterns and clean ankles and hocks. McGregor in sixth place had substance and strong underpinning but possessed scarcely the finish of some of the others.

Craigies Heir and Baron Revolt competed in the three-year-old stallion class. Both are big, strong, masculine individuals with good quality. The latter possibly had barely as good a foot as the former, but he showed a good deal of character. However, his competitor defeated him for the red ribbon.

A trio of two-year-old stallions made keen competition. Dunlevie is a particularly good colt with desirable kind of feet and legs and a free, snappy mover. However, Duskie Knight, a big, black colt, having scale along with quality and comparing favorably in action with the above was in the ring. He is a stylish, masculine

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appearing individual and was finally moved to the top. No mean individual was Lookout 2nd, a chestnut with possibly more substance than either of the other two. Lord Maryfield, a beautiful grey won the yearling class. He possesses all kinds of quality and is about faultless at the ground. He appeared to be in better spirits than he was at Guelph a month ago. He travelled straight and snappy in the ring. His competitor, Woodside Seal is a good colt with substance and muscling, but he has scarcely the quality of the winner, and was not so well behaved in the ring.

There was only three aged mares brought out but they were a trio of big, strong, useful individuals—Sweet Mary, a mare with a well-proportioned body, splendid feet and ankles and showing a good deal of breed character won the class and was also the champion mare. Denholmhill Blossom in second place had more substance and also possessed a good deal of quality, but she was barely as trappy a mover as the winner. Her stable mate, Farmer's Belle, a more rangy mare but with great legs and feet went third. There were five in the three-year-old class. Mendal Princess that high in winning the red ribbon. She is a particularly sweet quality, well-brought out mare of Duff's had no trouble in winning the red ribbon. She is a particularly sweet thing with an attractive bearing. Rosemary's Last was second. She is a mare with all kinds of quality and the feminine character. She was not in as high fit as the winner and is possibly a little plainer about the head. Woodside Jeanie, a strong, well-proportioned mare with deep, broad feet was third. Sweet Lavender in fourth had qualifications which from the ringside looked as if they would have justified her going a place higher.

It was not easy to follow the work of the judges in the two-year-old class. There were three right, good mares in the ring, and all were picked for the top by spectators at the ringside. Hillside Pearl, a colt with great scale and heavy muscling went first. She had heavy but clean bone and good feet. Topsy of Fairacres, a high-quality colt good at the ground but not as snappy a mover as the others went second with Ada Fleming third. The latter has a beautiful head and lots of quality and style, while she picked herself up well she might be faulted for being a little straighter in the hock than her competitors.

Exhibitors.—A. A. Scharf, Cummings Bridge; G. E. Jackson, Lyn; M. O'Brien, Osgoode; R. Ness & Son, Howick, Que.; Smith & Richardson, Columbus; T. Burke, South March; A. Watson & Sons, Forest; B. Rothwell, Ottawa; Bater Bros., Oakville; S. J. Prouse, Ingersoll; W. W. Hogg, Thamesford; Kemptville Agricultural School, Kemptville; R. Duff & Son, Myrtle; B. Henry, Britannia Bay.

Awards.—Stallions, aged: 1, 2, 3, 5, Smith & Richardson, on Baron Arthur by Baron's Pride; Everard by Everlasting; Village Swan by Kinlieth Pride and Tressilian by Sir Hugo. 4, Ness, on Baron Stanley by Baron's Pride; 6, Scharf, on Macgregor by Baron of Bucklyvie; 7, Jackson, on Bright Guard by On Guard Stallion, three years: 1, Scharf, on Craigie's Heir by Craigie Member; 2, Watson, on Baron Revolt by Knockinlaw Revolt. Stallion, two years: 1, Prouse, on Duskie Knight by Up-to-date Knight; 2, Rothwell, on Dunleire by Dunnottar; 3, Bater Bros., on Lookout by Lovely Baron. Stallion, yearling: 1, Smith & Richardson, on Lord Maryfield by Knight of Maryfield; 2, Ness, on Woodside Seal by Sir Spencer. Stallion foal: Hogg, on Denholmhill Prince.

Mare, aged: 1, Rothwell, on Sweet Mary by Squire Ronald; 2 and 3, Hogg, on Denholmhill Blossom by Marmarides and Farmer's Belle by Farmer's Counsel. Mare, three years: 1, Duff, on Mendal Princess by Mendal; 2 and 5, Kemptville School, on Rosemary's Last by Baron Gartly and Susie of Riches by Sign of Riches; 3, Ness, on Woodside Jeanie by Sir Spencer; 4, Henry, on Sweet Lavender by Dunnottar. Mares, two years: 1, Scharf, on Hillside Pearl by Golden Knight; 2, Smith & Richardson, on Topsy of Fairacres by Scotia's Pride; 3, Watson, on Ada Fleming by Ravenscraig. Mare, yearling: 1, Watson, on Hazel Dean by Pal O' Mine; 2, Rothwell, on Vanity Fair by Dunnottar; Mare, foal: 1 and 2, Rothwell, on Bonnie Heather and Queen O' Beauty. Champion stallion: Smith & Richardson, on Baron Arthur. Champion mare, Rothwell, on Sweet Mary.

Canadian-bred Clydesdales.—The entries brought out under this classification are improving both in numbers and quality. The curtailing of importations owing to abnormal conditions has possibly given an impetus to the selection and breeding of high-quality Clydes on this side of the water. It is not uncommon for Canadian-bred horses to win championships over imported horses. Outside of the aged stallion class the classes were better filled than the open ones. At the call of the aged stallion class, Spencer of the Briers, the worthy son of old Sir Spencer, entered the ring with that aristocratic bearing and snappy step which challenged any horse to win from him. He is a thick blocky individual with splendid feet and legs. There are few horses that can travel with him. Not only did he win his class but secured the championship as well. Glenavon's Chancellor, a beautiful topped horse with well-laid shoulder and sloping pasterns was second, and Whitney, a horse with substance but that travelled a little wide was third. Charming Choice, the winner of the three-year-old class is all horse. Style, character and quality are combined in his make-up and he had no difficulty in going to the top of his class. Golden Taylor in second was of more upstanding type and is barely as good at the ground. Roscraigie, a high-quality, tidy two-year-old was first in this class.

A strong class of aged mares appeared in the ring. Woodside Queen was slated for first place. While she has not the scale of her competitors she possesses the quality and knew how to move. Mabel Khandahar,

a big useful mare with quality and fair action was second with Fairview Darling the biggest mare of the trio in third. She has great quality and an excellent top, but her action was a little faulty. Favorite Blend was soon picked to head the three-year-olds. She is a sweet mare with lots of substance and beautiful quality. She shows splendid feminine character and style. She was champion mare of the show. No mean individual was second in Margery Daw. She is a well-built mare but has scarcely the quality or style of the winner. Elvina, Elrig, while a good bodied mare with quality right to the ground, travelled a little wide to get higher than third place. Floss McMillan topped the two-year-old class, of three big, strong, nice-quality fillies.

Exhibitors: J. Callendar, North Gower; R. Ness & Son, Howick, Que., Smith and Richardson, Columbus; Wm. Young, Lancaster; Geo. H. Hooton, Mt. Pleasant; R. N. Harris, Pointe Gatineau, Que.; A. H. Foster & Son, Richmond; T. L. Fairbairn, Billings Bridge; N. S. Rothwell, Navan; J. T. Thompson, Bainsville; B. Rothwell, Ottawa; Peter Christie, Manchester; R. Duff & Son, Myrtle; A. A. Scharf, Cummings Bridge; H. McKay, Stittsville; J. H. Wiggins & Son, Kemptville; Bater Bros., Oakville; W. W. Hogg, Thamesford.

Awards.—Stallion, aged: 1, Ness, on Spencer of the Briers by Sir Spencer; 2, Smith & Richardson, on Glenavon's Chancellor by Glenavon; 3, Callendar, on Whitney by Baron Elrig. Stallion, three years: 1, Harris, on Charming Choice by Hedley's Choice; 2, Hooton, on Golden Taylor by Golden Gleam; 3, Young, on Dominion Boy by Auchencloigh. Stallion, two years: 1, Fairbairn, on Roscraigie by Craigie Provost; 2, N. S. Rothwell, on Dunshimmooh by Dunnottar; 3, Foster, on Marquis of Richmond by Gartley Pride 2nd. Stallion, yearling: 1, B. Rothwell, on March Past by Dunnottar; 2, Christie, on Baron Gleniffer by Lord Gleniffer; 3, Duff, on Royal Gleniffer by Lord Gleniffer; 4, Thompson, on Laird of Lakeview by Glassford Laird. Stallion, foal: Duff on Mendal Fairview by Mendal Prince. Mare, aged: 1, Ness, on Woodside Queen by Sir Spencer; 2, Thompson, on Mabel Khandahar by Khandahar; 3, Duff, on Fairview Darling by Gallant Carruchan. Mare, three years: 1, Duff, on Favorite Blend by Burgie Favorite; 2, B. Rothwell, on Margery Daw by Dunnottar; 3, McKay, on Elvina Elrig by Baron Elrig; 4, Scharf, on Janie Crest by Cambushinnie Crest. Mare, two years: 1, Christie, on Floss McMillan by Majestic Baron; 2, Ness, on Dunmore Rose by Spencemore; 3, Wiggins, on Hillside Lucy by Viscount Kinnaird. Mare, yearling: 1, Duff, on Flora Lansdowne by Lansdowne; 2, Ness, on Woodside Juno by Sir Spencer; 3, Scharf, on Fairview Phyllis by Craigie Revolt; 4, Bater Bros., on Miss Maud of Oakville by Lovely Baron. Foals: 1, B. Rothwell, on Flower Girl; 2, Hogg, on Royalettes Keepsake; 3, Bater Bros., on Miss Allan. Champion stallion: Ness, on Spencer of the Briers. Champion mare, Duff, on Favorite Blend.

Heavy Draft Horses.—Exhibitors: Wm. Young, Lancaster; Geo. A. Hay, Marvelville; A. A. Scharf, Cummings Bridge; B. Henry, Britannia Bay; H. Wyatt, Osgoode; B. Rothwell, Ottawa; R. Ness & Son, Howick.

Awards.—Geldings or mares shown in single harness: 1 and 2, Scharf; 3, Wyatt; 4, Henry; 5, Hay; 6, Young. Open to amateurs only: 1 and 3, Hay; 2, Young. Heavy draft team in harness: 1, Scharf. Team in harness, (pure-breds not eligible), 1, Henry; 2, Hay. Three heavy draft horses: 1, Ness; 2, 3 and 4, Rothwell.

Percherons.—While there was not a large turnout of Percherons at Ottawa Fair, a number of choice individuals were brought into the ring. There was a large entry, but for some reason or other several breeders failed to get their horses to Ottawa. The awards were made by Robt. Graham, Toronto.

Only two stallions contested the aged class. Juvenil, a big black horse showing masculinity and style, won the red ribbon and the championship. If anything his feet were superior to his competitor, and he had more scale. Very little fault could be found with his build and underpinning. Grenadier, an attractive individual and a trappy mover, was the other entry. He is a horse with splendid quality, but he has scarcely the scale that Percheron men desire. A quartet of two-year-old stallions made a strong class. Royal Duke, a stable mate of the winner of the aged class, went first. He is a dark grey with a well-proportioned, neatly-turned body supported on deep, broad feet. He was trim at the hocks and ankles, and carried himself gracefully when travelling. Jouciquy, a grey from the same stable, was next in the line. This is a good-bodied horse and a free mover, but is hardly as trim as his stable mate at the hocks. Sylvio, in third place, was a trifle plainer individual, while Quartermaster was not in the fit of his competitors.

The aged-mare class brought out a pair of typey mares showing splendid feminine character. Nitriere was considered the better of the two, and was also awarded the championship. She has more substance than Bonnie Doon, her competitor, and is a stronger-topped mare. However, the latter is no mean individual. She has good feet and ankles, and picked herself up well when in the ring.

Exhibitors.—M. Porter, Simcoe; K. E. Hutt, Winchester; H. B. Dowler, Billing's Bridge; J. A. Roberts, Peterboro.

Awards.—Aged stallion: 1, Porter on Juvenil by Mahkarof; 2, Hutt, on Grenadier by Gaic. Stallion, two years: 1 and 2, Porter, on Royal Duke and Jouciquy by Koquelin and Jacia; 3, Dowler, on Sylvio by Micoton; 4, Hutt, on Quartermaster by Gaic. Stallion, yearling: 1, Porter, on Roy McGregor by Koquelin. Stallion, foal: 1, Dowler, on General Foch by Jobard. Mare, aged: 1, Roberts, on Nitriere by Jousset; 2, Hutt, on Bonnie Doon by Illette. Mare, two years: 1, Roberts, on Daisy Nitriere by Involcure. Mare, foaled on or

after Jan. 1, 1917: 1 and 2, Roberts, on Princess Marquerite and Lady Nitriere by Jovial.

Light Horses.

The various classes for light horses were well filled. Competition was keen, especially in the Standard-breds, Thoroughbreds and Carriage horses. The light horses were principally shown at night, and drew a large crowd each evening. In the Carriage section there was upwards of ten entries in several classes, while in the classes for saddle horses and jumpers there was as high as fourteen entries in some classes. The performance put on in the ring was very creditable. E. B. Clancy, Guelph, was the judge.

Hackneys.—As a rule this section is well filled, but this year several entries were not out. Some of the old warriors which have contested for premier honors on many occasions were absent, leaving the battle to younger blood. There was no competition in the class for aged stallions 15 hands 2 inches and over in harness, and A. Yeager, of Simcoe, had things his own way in the aged-stallion class under the above height. He had Overton Prince, a six-year-old horse, out, which was a good representative of the breed. Victor Model, a flashy young horse, won the class for stallions foaled on or after Jan. 1, 1917, for A. Watson & Sons, of Forest. In the aged-mare class a nice trio were out, and demonstrated their ability to move. The first and third placings went to Crow & Murray, of Toronto, on Dunhill Wild Rose and Willesden Maud. Yeager nosed in second with Fanny Mary. Watson & Sons were alone in the two-year-old and yearling mare classes with Spartan's Goldflash and Vanity Model. Overton Prince was champion stallion for A. Yeager, and Maud Mischief, shown in the harness class, was champion mare for Crow & Murray.

Standard-breds.—There was a good showing of Standard-breds. While some of the entries were not in as high bloom as others, there were a number of neatly-turned, well-fitted, free-going entries brought out.

Exhibitors.—A. Blackburn, Ottawa; John Kinkaid, Russell; Ashley Stock Farm, Foxboro; F. Parker, Winchester; R. E. Webster, Ottawa; J. J. Gleeson, Ottawa; C. E. McCaffrey, Russell; W. H. Hartin, Twin Elm; O. McGovern, Oxford Station; J. Menzies, Galt.

Awards.—Stallion, aged: 1, Kinkaid, on Corporal Charles; 2, Blackburn on The Gleaner; 3 and 4, Ashley Stock Farm, on McMartin and Jack Rayner. Stallion, foaled after Jan. 1, 1916: 1, Parker, on Mainbow; 2, 3 and 4, Ashley Stock Farm, on Todd L., Kerensky and Sir Admiral Beattie. Mare, aged: 1, Webster, on Ceylona Guy; 2, McGovern, on Rosay; 3, Menzies, on Mamie Sphinx. Mare, foaled on or after Jan. 1, 1916: 1, McCaffrey, on Queen of Lewis; 2 and 5, Ashley Stock Farm, on Cynthia McMartin and Helen Longwell; 3, Hartin, on Luly McGregor; 4, Gleeson, on Minnie Watts. Champion stallion: Parker, on Mainbow. Champion mare: McCaffrey, on Queen of Lewis.

Thoroughbreds.—The competition in the Thoroughbred classes was confined to seven entries. In the aged-stallion class, Fair Montague had things pretty much his own way. He is a well-proportioned individual and a flashy mover. Gold Note, who challenged him for first place, is fourteen years old, consequently is not in the bloom of youth. A trio of aged mares made an interesting class. All were of good type, and picked themselves up with ease.

Exhibitors.—G. J. McKercher, Winchester; Crow & Murray, Toronto; Gold Note Stock Farm, Ottawa; Bater Bros., Oakville; Mrs. S. H. Shore, Ottawa; Hugh S. Wilson, Oakville.

Awards.—Stallion, foaled previous to Jan. 1, 1916: 1, Crow & Murray, on Fair Montague; 2, Gold Note Stock Farm, on Gold Note; 3, McKercher, on Bann Hard. Stallion, foaled on or after Jan. 1, 1916: 1, Bater Bros., on Frenchman. Mares: 1, Wilson, on Flower Queen; 2, Gold Note Stock Farm, on Lday Spinterelle; 3, Shore, on Vivian.

Beef Cattle.

Eastern Ontario being devoted largely to dairying, there is seldom as large an entry in the beef classes as is seen at fairs in Western Ontario. While the beef entries at Ottawa Winter Fair were not large this year, there was keen competition in several classes. However, most of the competing herds came out of the West. Some of the animals which had won laurels at the recent Guelph Winter Fair were again able to win over all competitors. The classes were not nearly so large as those at Guelph, but were superior to what have appeared at Ottawa on past occasions. The Shorthorn was the only breed represented. The prizes were awarded by W. A. Dryden, of Brooklin.

Shorthorns.—The entries in the steer classes, over one year, were not in too high fit, but they had the frame and quality. A trio of steer calves made a strong class. In this line-up was Hillcrest Lad, the champion steer at Guelph last year, exhibited by J. K. Campbell & Son, of Palmerston. This is a thick, sappy calf just a year old. He is a light roan, and is particularly smooth and well-finished. His great depth and thickness made him an easy winner of his class, and also secured for him the championship honors. This calf is in good form to be carried over for next fall's shows. If he continues developing as he has he will be a hard individual to beat. Kyle Bros., of Drumbo, and Pritchard Bros., of Elora, had entries in this class, and while they were thick, low-set, sappy calves, they were out-classed by Campbell's entry. Kyle Bros. had two sweet heifers in the two-year-old class. Trout Creek Sea Weed, a big, deep, thick heifer with a strong back and broad loin carried off the red ribbon.

A good deal of breed character was shown by all the entries in the yearling heifer class. Village Maid 41st, a white heifer, won for Kyle Bros. She is a good lined heifer, finishing well behind. She is smooth and evenly fleshed, and has a breezy appearance. Her stable mate, Victoria C 74th, an older and larger heifer, but plainer behind and not so straight on the top, was second, with Campbell's Mildred, a growthy roan with an excellent front but plain in the hind quarters, third. Kyle Bros. has a sweet pair of mossy-coated heifers in the calf class. They were strong topped with well-sprung ribs and full quarters.

D. Brown & Son, of Bright, had a thick, sappy calf at the head of the junior bull class. He has a strong, masculine head showing breed character. Kyle Bros. had a larger, well-proportioned youngster in second. A big, strong, rugged calf won third for A. MacLaren, of Quebec. He was not as smooth as those placed above him.

The classes for grades or crosses were fairly well filled and brought out some particularly good individuals.

Exhibitors.—J. D. Ferguson & Son, St. Thomas; Pritchard Bros., Elora; Kyle Bros., Drumbo; J. K. Campbell & Son, Palmerston; Jas. MacLaren, Buckingham; D. Brown & Son, Bright; J. S. Wallace, Galt; S. Marshall, Ayr; D. M. Allan, Elora; D. N. McLennan, Summerstown Station.

Awards.—Steer, two years: 1, Ferguson; 2, Pritchard Bros. Steer, one year: 1, Pritchard Bros.; 2, Kyle Bros. Heifer, two years: 1 and 2, Kyle Bros., on Trout Creek Sea Weed and Minnie Scott. Heifer, one year: 1 and 2, Kyle Bros., on Village Maid 41st and Victoria C 74th; 3, Campbell, on Mildred. Heifer, under one year: 1 and 2, Kyle Bros., on Spring Valley Lovely and Lady of the Valley 12th. Bull, junior yearling: 1, Brown, on Donald; 2, Kyle Bros., on Village Ramsden; 3, MacLaren, on Meadow Lad. Bull, senior calf: 1, Kyle Bros., on Rex. Bull, junior calf: 1, Kyle Bros., on Missies Joy; 2 and 3, Pritchard Bros., on Butterfly and Beauty Marquis.

GRADES OR CROSSES.—Awards.—Steer, two years: 1, Wallace; 2, Ferguson; 3, Pritchard Bros. Steer, one year: 1, Wallace; 2, Pritchard Bros. Steer, calf: 1, Allan; 2, Kyle Bros.; 3, Marshall. Heifer, two years: 1, Wallace; 2, Ferguson; 3, Pritchard Bros. Heifer, one year: 1, Pritchard Bros.; 2, Wallace; 3, Kyle Bros. Heifer calf: 1, McLennan; 2, Kyle Bros.; 3 and 4, Pritchard Bros. Grade steer, sired by pure-bred Shorthorn bull: 1, Wallace; 2, Allan; 3, Pritchard. Pure-breds, grades or crosses (amateurs), steer, two years: 1, Wallace; 2, Ferguson. Steer, one year: 1, Wallace. Steer, calf: 1, Allan; 2, Marshall. Heifer, two years: 1, Wallace; 2, Ferguson. Heifer, one year: 1, Wallace.

Dairy Bulls.

There were classes this year for senior and junior bull calves of the dairy breed, but only eleven entries were out. Among the number was some promising material for herd headers. Not only did the calves have choice backing, but they possessed the individuality desired by breeders. Prof. Archibald, of the Experimental Farms, Ottawa, placed the awards. There were only three Holsteins out, but they were an aristocratic trio. The red ribbon was awarded to Count Rauwerd Rattler, the entry of the Kemptville Agricultural School. He is a very pleasing individual, with a particularly strong back and good at the heart. He is not as trim as he might be at the throat. So far as pedigree goes he is bred in the purple, carrying the blood of Hillcrest Rauwerd O.A.C. and Molly Rue Rattler. E. C. Chambers, of Hatchley Station, had no mean individual in Baron Segis Alcartra. While he was barely as strong on the back as the winner, he handled well and was superior in head and neck. In third place stood Prue O. Mercena Pontiac, an entry from the herd of T. P. Charleson, of Ottawa.

R. R. Ness had the only entry in the Ayrshire class for senior bull calf. Burnside Maggie Imperial, a son of Burnside Maggie Finlayston 5th, would have welcomed competition, as he possessed the qualifications of a winner. In the junior class there were five competitors. W. G. McArthur, of Howick, Quebec, secured the red on Victory Bond of Maplehurst, a strong, well-built, masculine individual. The blue ribbon went to Ness's Burnside Bar None, a typey, fine quality youngster that was a little thin and had scarcely as masculine a head as some of the others. His stable mate, Burnside Topsman, an older calf by over three months, was third, with Eric Balmangan, an entry of C. P. Pillar, of Russell, fourth.

The Dairy Test.

Situated in the centre of a large dairy section and having good accommodation for the holding of a dairy test, there is usually keen competition at the Ottawa Winter Fair. It was rather disappointing to visitors on entering the dairy barn to see less than a score of animals in the competition. There are reasons for the small showing. About the time cows should be brought to Ottawa the temperature was down to 20 degrees below zero, and breeders hesitated risking their animals out of warm stables and exposing them to the elements during transit. Then, influenza was still rampant in many districts. This alone accounted for the absence of many herds that were entered. Although the entries were small there was close competition for first place. The score showed Ethel, a grade Holstein cow from the herd of T. A. Spratt, of Billing's Bridge, as having won the sweepstakes prize with a score of 230.310. She freshened on December 20, and during the test gave 213.6 pounds of 3.3 per cent. milk. Her nearest competitor was Quora Pontiac Segis, exhibited by T. P. Charleson,

Ottawa. She is a pure-bred Holstein, and scored 220.330. Grade Holsteins also stood third and fourth, while a pure-bred Shorthorn came in sixth for J. E. Brethour & Nephews, of Burford. She is a typey cow of good conformation, and gave 161.5 pounds of 3.7 per cent. milk during the test. The second day of the test she became frightened by a dog which had by accident got into the stable. This caused her test to drop a full one per cent. Had it not been for this she would, in all probability, have stood highest in the contest. Among the entries of the different breeds were many excellent individuals with large, well-balanced udders and long milk veins showing their capacity of producing at the pail. It is not likely that the unfortunate circumstances which resulted in the entries being away below normal will prevail next year. This year's showing of dairy cows at Ottawa is no criterion that dairymen are losing interest. It is expected that next year the entries will surpass any previous show. In looking over the resume of the dairy test it will be noticed that some of the cows had been several months in milk. Only one has freshened since the first of the present year.

Knox & Allen; 2, Ayre. Ewe, under one year: 1, 2 and 3, Knox & Allen; 4, Ayre. Three ewes, under one year: 1, Knox & Allen; 2, Ayre.

Hampshires and Suffolks.—Exhibitors.—Jno. Kelly & Son, Shakespeare; Knox & Allen, Caledonia; A. Ayre, Hampton.

Awards.—Wether, under one year: 1, 3 and 4, Kelly; 2, Knox & Allen. Three wethers, under one year: 1, Kelly; 2, Ayre. Ewe, under one year: 1, 2, 3 and 4, Kelly. Three ewes, under one year: 1, Kelly.

Grades and Crosses (Short Wooled).—Awards.—Wether, under one year: 1, 2, 3 and 4; Kelly; 5, Knox & Allen. Three wethers, under one year: 1, Kelly; 2, Knox & Allen. (Long Woaled)—Wether, under one year: 1, 2 and 3, Ayre. Three wethers, under one year: 1, Ayre. Ewe, under one year: 1, Kelly.

Swine.

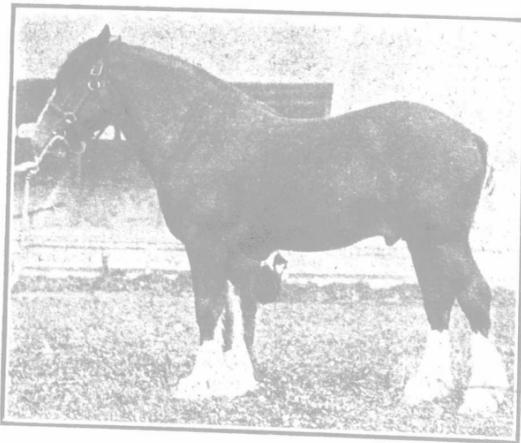
As in the sheep division the swine exhibit was made up by a very light entry list drawn from very few herds. To be exact, there were only 41 single lots listed with nine additional entries in the pens, making 50 lots in

RESUME OF DAIRY TEST

	Lbs. milk	Per cent. fat	Dates of freshen	Total points	General standing
Holsteins.					
Cows, 48 months and over:					
Quora Pontiac Segis, T. P. Charleson, Ottawa	193.7	3.5	Dec. 11	220.330	2
Juliet Waldorf, Hopkins Bros., Ottawa	218.4	2.5	Dec. 28	191.278	7
Belle Jewel, J. Dowler, Billing's Bridge	184.8	3.1	Dec. 26	188.467	8
Countess Clay Mechthilde, T. A. Spratt, Billing's Bridge	175.8	3.0	Jan. 1	177.711	10
Heifer, under 36 months:					
Shadelawn Gerben Queen, Hopkins Bros.	162.5	3.7	Dec. 19	194.803	5
Lady Segis Jewel, J. Dowler	132.0	3.0	Dec. 27	133.98	12
Ayrshires.					
Heifer, under 36 months:					
Kitty Clover, T. G. McLaurin, East Templeton, Que	107.6	3.7	Nov. 3	132.824	13
Shorthorns.					
Cow, 48 months or over:					
Darlington Lizzie, J. E. Brethour & Nephews, Burford	161.5	3.7	Dec. 27	194.319	6
Darlington Bess, J. E. Brethour	121.4	3.5	Dec. 24	140.904	11
Roan Rosalyn, Alex MacLaren, Buckingham, Que	90.13	4.3	Apr. 13	132.488	14
Cow, 36 months and under 48:					
Welcome Queen, A. MacLaren	94.7	3.4	Oct. 25	111.676	15
Grades.					
Ethel, T. A. Spratt	213.6	3.3	Dec. 20	230.310	1
Cow, 36 months and under 48:					
Currie, T. A. Spratt	169.5	3.5	Sept. 11	204.512	3
Oak Lodge Pet, J. E. Brethour & Nephews	159.6	3.5	Nov. 30	184.568	9
Heifer, under 36 months:					
Ruth 2nd, T. P. Charleson	170.0	3.6	Nov. 28	199.760	4

Sheep.

In no section of the live-stock exhibit was the falling off in entries more noticeable than in the sheep division. Ottawa in the past has usually brought out an entry list that was, at least, fairly representative in so far as numbers were concerned. This year, however, entries in all sections were unusually light, and while the quality of the exhibit throughout was normal, there were several breeds that not only had lone exhibitors but there were also classes that had lone entries. The breeds having lone exhibitors were Cotswolds, Lincolns, Dorset Horns and Oxford. The entries of A. Ayre, of Hampton, Ont., made up the showing of three former breeds, while Knox & Allen, of Caledonia, Ont., had the only entries in the latter. The awards in the long-wooled sections were made by J. M. Gardhouse, of



Spencer of the Briars.

Champion Clydesdale stallion of the Canadian-bred classes at Ottawa Winter Fair for R. Ness & Son, Howick, Que.

Weston, and in the short-wooled sections by David McEwen, of London.

Leicesters.—Exhibitors.—Jno. Kelly & Son, Shakespeare; Knox & Allen, Caledonia; A. Ayre, Hampton.

Awards.—Wether, under one year: 1, 3 and 4, Kelly; 2, Knox & Allen. Three wethers, under one year: 1, Kelly; 2, Ayre. Ewe, under one year: 1, 2, 3 and 4, Kelly. Three ewes, under one year: Kelly.

Southdowns.—Exhibitors.—Knox & Allen, Caledonia; A. Ayre, Hampton.

Awards.—Wether, under one year: 1, 2 and 3, Knox & Allen; 4, Ayre. Three wethers, under one year: 1,

all. Three breeders, J. E. Brethour & Nephews, Burford; Alex. Dynes, Ottawa, and Pritchard Bros., Elora, were the only contributors, and the latter had only four entries. Competition between the other two breeders was quite keen throughout, each being represented by several or more entries in all classes, making a fairly even division, as will be noted in the awards which follow. Jno. Flatt, of Hamilton, Ont., made the awards. Yorkshires, grades and crosses and export bacon hogs were the only sections that filled.

Yorkshires.—Exhibitors.—J. E. Brethour & Nephews, Burford; Alex. Dynes, Ottawa.

Awards.—Barrow, six months and under nine: 1 and 3, Dynes; 2 and 4, Brethour. Barrow, under six months: 1 and 2, Brethour; 3, 4 and 5, Dynes. Sow, six months and under nine: 1 and 2, Brethour; 3, 4 and 5, Dynes. Sow, under six months: 1, 2, 3 and 4, Brethour.

Grades and Crosses.—Awards.—Barrow, six months and under nine: 1 and 2, Brethour; 3 and 4, Dynes. Barrow, under six months: 1 and 2, Dynes; 3 and 4, Brethour. Sow, six months and under nine: 1 and 2, Brethour; 3 and 4, Dynes. Sow, under six months: 1 and 5, Brethour; 2 and 3, Dynes.

Export Bacon Hogs.—Three pure-breds: 1, Alex. Dynes; 2 and 3, Brethour. Three grades or crosses: 1, Brethour; 2 and 4, Dynes; 3, Pritchard. Three best export bacon hogs: Brethour.

Dressed Carcasses (Sheep).—Cotswold lamb: 1, 2 and 3, Ayre. Lincoln lamb: 1, Ayre. Leicester lamb: 1, Kelly; 2, 3 and 4, Ayre; 5, Knox & Allen. Oxford lamb: 1 and 3, Knox & Allen; 2, Ayre. Shropshire lamb: 1 and 2, Knox & Allen. Southdown lamb: 1, 2 and 3, Ayre; 4, Knox & Allen. Dorset Horn lamb: 1, 2 and 3, Ayre. Hampshire and Suffolk lamb: 1 and 2, Kelly; 3 and 5, Ayre; 4, Knox & Allen. Long-wooled grade lamb: 1, 2 and 3, Ayre. Short-wooled grade lamb: 1 and 4, Kelly; 2 and 3, Knox & Allen.

Dressed Carcasses (Swine).—Three pure-breds: 1 and 4, Dynes; 2, Pritchard; 3, Brethour. Three grades or crosses: 1 and 4, Dynes; 2, Brethour; 3, Pritchard. Three best carcasses any breed: Dynes.

Inter County Judging Contest.

The Inter County Judging Competition, held at our winter fairs, are a good thing. They are a training school of live-stock judges for our future fairs and exhibitions. The boys are trained not only to size up a class of animals and place them, but to tell why one animal is superior to another. At the Ottawa Fair the boys from Eastern Ontario, coached by their County Representatives, compete for the Peter White trophy. To win this trophy is an honor, and both Representatives and boys work hard to win. This year the team of three boys from Lanark County, coached by Fred Forsythe, were the winners. This is the second time that Lanark County boys have been successful in

securing the trophy. Dundas County were second with 2,130 points, just 40 behind the winning team. Renfrew was third, 2,072 points; Grenville fourth, 1,952; Northumberland, 1,935; Carleton, 1,852; Frontenac, 1,845; Leeds, 1,273. The boys were called upon to pass judgment on two classes each of horses, cattle, sheep and swine, and give oral reasons. The following is the individual score made by the competitors in the different classes:

Dairy Cattle.—1, W. Strong, Lanark, 180; 2, H. B. Nixon, Northumberland, 177; 3, Garret Poapst, Dundas, 169; 4, Fred. Graham, Carleton, 160; 5, J. Hughes, Lanark, 159; 6, John Keyes, Frontenac, 158. **Beef Cattle.**—1, W. Strong, Lanark, 181; 2, Clinton Briscoe, Renfrew, 180; 3, Sheffield Graham, Lanark, 171; 4, Earl Kemp, Frontenac, 168; 5, J. Hughes, Lanark, 162; 6, Clifford Bishop, Grenville, 160. **Swine.**—1, Clinton Briscoe, Renfrew, 195; 2, Trevor Beckett, Grenville, 182; 3, Dalton Timmins, Dundas, 180; 4, J. Heffernan, Leeds, 174; 5, Claude J. Coon, Leeds, 170; 6, Earl Kemp, Frontenac, 150. **Sheep.**—1, Fred Marshall, Dundas, 167; 2, Fred. Graham, Carleton, 163; 3, Douglas Redpath, Northumberland, 162; 4, Harold Scott, Grenville, 160; 5, Harvey Plaunt, Renfrew, 143; 6, Orville Daly, Carleton, 142. **Heavy Horses.**—1, Orville Daly, Carleton, 165; 2, Dalton Timmins, Dundas, 160; 3, Fred Marshall, Dundas, 159; 4, Ellis Snelgrove, Northumberland, 158; 5, H. B. Nixon, Northumberland, 155; 6, Harvey Plaunt, Renfrew, 145.

Poultry at Ottawa.

The commodious, light, well-ventilated poultry building at the Ottawa exhibition grounds was filled to capacity this year, when over one thousand more entries than ever appeared on any similar occasion were out. Even with an additional room requisitioned for the event, space to properly display the feathered tribe was at a premium. To permit of the show continuing to grow at the rate it has in the past, at least one hundred and fifty feet will have to be added to the building. It is doubtful if a more attractive exhibit of poultry has been seen in Ontario. The quality was superior to that at any previous show held in Ottawa. Superintendent R. McKinstry, in spite of the handicap of lack of space to handle the big entry, kept everything running smoothly.

There were upwards of 3,800 entries, and the quality was of a superior nature. Silver Wyandottes led in number with 170 entries. There were upwards of 100 entries in both single and rose combed Rhode Island Reds. White Wyandottes, White Leghorns and Barred Rocks each had about 90 entries, with White Orpingtons following close. In the bred-to-lay classes were 50 entries about evenly divided between Rocks, Wyandottes, Rhode Island Reds and Leghorns. There were large classes of turkeys, geese and ducks. Pigeons surpassed other years by over 200 entries. The showing of dressed poultry and eggs was not quite so large as usual.

The egg-laying competition, an innovation at poultry shows, created a good deal of interest. Nineteen pens of five birds each, representing the leading breeds, were in the competition. Each entry was cooped in a comfortable pen which furnished the regulation floor space for the birds; although housed and fed under similar conditions there was a considerable difference in the results. The egg chart was closely followed by poultrymen. There were a number of pens which laid one hundred per cent. on several days of the contest. Weight of eggs was taken into consideration when awarding the prizes. W. C. Phillips, of Westboro, won the contest with his pen of Rhode Island Reds. The five birds laid 18 eggs in the five days, making a score of 88 points. W. F. Garland, Ottawa, was second with a pen of Silver Wyandottes which produced 17 eggs, scoring 84 points. The pen of Buff Orpingtons entered by A. W. E. Hellyer, Ottawa, was third with a score of 83. The White Wyandottes of P. M. D. Veale, Ottawa, were fourth with 14 eggs, making 68 points. Craig Bros., of Deschenes, Que., were fifth; fifteen eggs were laid, by their birds but the score was 65 points.

Poultrymen believe that the show next year will be bigger and better than ever, provided the space can be secured. Next year's show may be as far above this year as this show is above past years.

Grain and Seeds at Ottawa Fair.

Quality of seeds and grains exhibited at Ottawa made up for the lack of quantity. From number of entries standpoint the seed end of the show was disappointing. While there were entries in practically all classes, there were not enough in some to make keen competition. However, there were some excellent samples of grain and small seeds to be seen, and at auction a fairly good price was obtained. The entries of winners in the Standing Field Crop Competition were very good, and sold higher than at Guelph. It is unfortunate that more grain growers do not make entries at the winter fairs, and so help to spread good seed throughout the country. The following is a list of the winners in the different classes:

Full wheat: 1, Jas. Sloan. Spring wheat, any variety: 1, A. R. Wood; 2, M. A. Powell; 3, Jas. Sloan; 4, Elmhurst Farm. Oats, Banner type: 1, S. Bingham & Sons; 2, A. Schmidt; 3, Kemptville Agric. School; 4, Wm. A. McCutcheon. Oats, O. A. C. No. 72: 1, Oscar Klopp; 2, Wm. A. McCutcheon; 3, A. Schmidt; 4, Kemptville Agric. School; 5, A. H. Foster & Son. Oats, any early white variety: 1, A. Schmidt; 2, R. M. Vanderlip. Barley, six-rowed variety: 1, A. W. Van Sickle; 2, Wm. Rutcliffe; 3, A. Schmidt; 4, S. Bingham & Sons; 5, M. A. Powell. Best mixture oats and barley: 1, Wm. A. McCutcheon; 2, W. Brownlee & Son; 3, Jas. Wm. Rutcliffe; 4, M. A. Powell; 5, A. H. Foster & Son;

6, Jas. Sloan. Field Peas, any variety: 1, Wm. A. McCutcheon; 2, A. Ayre. Beans: 1, M. Maynard; 2, R. J. Johnston; 3, A. H. Foster & Son; 4, A. Ayre. Red Clover: 1, Con. Snider, Jr.; 2, R. Barker; 3, Wm. Roth; 4, E. G. Schweyer; 5, J. A. Fletcher; 6, A. Schmidt. Alsike: 1, Elmer Watts; 2, Wm. Roth; 3, J. M. Hutchison. Alfalfa: 1, E. C. Schweyer; 2, Wm. Roth; 3, Frank Shapland. Timothy: 1, A. Schmidt. Potatoes, A.O.V. type: 1, Wesley Brownlee & Son. Corn, Compton's Early: 1, F. A. Smith; 2, Wm. A. McCutcheon. Long-fellow: 1, R. J. Johnston; 2, L. D. Hankinson; 3, M. Maynard; 4, A. S. Maynard; 5, B. R. Cohoe. 'Salzer's North Dakota: 1, R. J. Johnston; 2, M. Maynard; 3, A. S. Maynard; 4, E. G. Warwick. Bailey: 1, R. Knister; 2, T. J. Ouillette; 3, B. R. Cohoe; 4, F. A. Smith. Improved Leaming: 1, J. A. Fletcher; 2, A. Mitchell; 3, R. W. Knister. White Cap Yellow Dent: 1, T. J. Ouillette; 2, B. R. Cohoe; 3, J. A. King; 4, A. Mitchell; 5, W. A. McCutcheon. Wisconsin No. 7, or Quebec No. 28: 1, J. A. King; 2, R. J. Johnston; 3, J. Parks; 4, B. R. Cohoe. A. O. V. Dent: 1, A. Mitchell; 2, B. R. Cohoe; 3, Wm. A. McCutcheon. Sweet Corn, table variety: 1, R. R. Moore; 2, L. D. Hankinson; 3, T. Totten; 4, W. M. Smith. Sweet Corn, canning: 1, F. A. Smith; 2, W. M. Smith; 3, Jas. Sloan; 4, L. D. Hankinson. Flint, 10 best ears grown east of Toronto: 1, J. S. Moore; 2, R. B. Leitch; 3, J. D. McDonald. Dent, 10 best ears grown east of Toronto: 1, J. S. Moore; 2, R. B. Leitch. Mangel seed: 1, R. R. Moore; 2, R. H. Crosby. Turnip seed: 1, R. R. Moore. Beet seed: 1, R. R. Moore; 2, R. H. Crosby; 3, W. M. Smith. Carrot seed: 1, R. R. Moore; 2, R. H. Crosby. Onion seed: 1, R. R. Moore; 2, R. H. Crosby. Parsnip seed: 1, R. R. Moore. Cucumber seed: 1, R. R. Moore. Tomato seed: 1, R. R. Moore. Beans: 1, R. R. Moore. Peas: 1, R. R. Moore.

Classes for Specially Selected Seeds.—Spring Wheat, sheaf: 1, H. L. Goltz. White Oats, sheaf: 1, H. L. Goltz; 2, B. R. Cohoe; 3, M. A. P. McFarlane. Six-rowed Barley, sheaf: 1, A. Schmidt; 2, H. L. Goltz; 3, N. R. Cohoe. Spring Wheat, any variety, best 100 lbs.: 1, Elmhurst Farm. White Oats, any variety: 1, Oscar Klopp; 2, W. Brownlee & Son; 3, A. Schmidt. Six-rowed Barley, any variety: 1, A. W. Van Sickle; 2, A. Schmidt; 3, A. Klopp. Best 10 ears of corn from hand-selected plot, any 8-rowed variety, Flint: 1, L. D. Hankinson; 2, A. S. Maynard; 3, F. A. Smith. Any variety White Dent: 1, B. R. Cohoe; 2, J. Parks; 3, J. A. King. Any variety, Yellow Dent: 1, F. A. Smith; 2, L. D. Hankinson. Any variety sweet corn: 1, F. A. Smith; 2, B. R. Cohoe; 3, W. M. Smith; 4, L. D. Hankinson.

Prize Winners from the Standing Field Crop Competitions.—Oats: 1, T. H. Lewis, Oxdrift; 2, C. H. Ketcheson, Belleville; 3, Chas. B. Bonnycastle, Campbellford; 4, Thompson Bros., Indian River; 5, Jas. Higginson, Inkerman; 6, Fletcher Walker, Royston; 7, D. E. Coon, Frankford; 8, Henry Moffatt, McKellar; 9, D. H. Dick, Omeme; 10, C. J. McKeown, McKellar. Spring Wheat: 1, J. H. Sloan, Kemptville; 2, John Stevenson, Beachburg; 3, J. C. Connerty, Kemptville; 4, John A. Stanton, Woodrout; 5, A. Johnston, Cobden. Barley: 1, D. E. Coon, Frankford; 2, C. H. Ketcheson, Belleville. Beans: 1, Ralph Goodin, Spencerville; 2, Richard M. Rutton, Spencerville. Corn, Dent: 1, Edward A. Deneau, North Malden; 2, G. P. Estabrook, Merlin; 3, P. McKinlay, Tecumseh; 4, R. J. Wilson, Charing Cross; 5, J. A. King, Wardsville. Corn, Flint: 1, R. J. Johnston, Chatham; 2, A. S. Maynard, Chatham. Potatoes: 1, T. H. Lewis, Oxdrift; 2, Wm. Geo. Leigh, Scotia; 3, Fred. Pummell, Charlton; 4, John Shaule, Bruce Mines; 5, J. C. Marshall & Son, Sprucedale.

Interior Terminal Elevator Asked for Ontario.

A deputation waited on the Government recently, and requested that the Cabinet give consideration to a proposal to erect an interior terminal elevator for Ontario. The delegation was comprised of the Hon. Geo. S. Henry, Minister of Agriculture for Ontario; R. H. Halbert, President of the United Farmers of Ontario; R. W. E. Burnaby, President of the United Farmer's Co-operation Company, Ltd.; A. O. Hogg and F. W. Hay, representing the Grain Section of the Toronto Board of Trade; L. H. Clark and E. L. Cousins, representing the Toronto Harbor Commissioners.

It was assumed that the proposed elevator would be included as one of the chain of elevators at present operated by the Board of Grain Commissioners of the Dept. of Trade and Commerce, and similar in type to those now in operation at Calgary, Saskatoon and Moose Jaw. In capacity it should be sufficient to meet the needs of central and western Ontario. It was pointed out that Ontario produces in the neighborhood of 200,000,000 bushels of grain annually, and in 1918 the crop aggregated nearly 225,000,000. There is, however, no Government interior terminal elevator where grain can be officially weighed and graded as is done in the other provinces.

The deputation submitted the following arguments in favor of such a project:

- (a) "It would provide accommodation for the weighing, cleaning, drying, storing and grading of all kinds of grain in the province.
- (b) "It would thus be an advantage to individual farmers by enabling them to ship carload lots of grain which would be officially weighed and stored, and for which there would be issued an official certificate which would be recognized by the bank at once, thus broadening the farmer's market. Similar accommodation would be available to the grain trade.

(c) "It would provide facilities for the storing, cleaning and grading of different kinds of seed, and in this regard would be of great advantage to the farmers of the province, particularly with reference to grass and clover seeds.

(d) "It would be of much advantage to the live-stock industry of the province by facilitating the distribution of feeding stuffs from one section to another in the case of short crops in local districts or in the province as a whole.

(e) "It would be able to perform a distinct service in preventing the deterioration of certain crops in the province in years of too much moisture, as is illustrated in the bean crop in recent years. The crop of buckwheat this year has had to be dried because of the wet weather which prevailed at the time of harvesting.

(f) "Special emphasis is laid on the fact that such an elevator would be a public elevator, and certificates issued would be official Government certificates, both of which are advantages affording great protection to the public and not available in the same sense from private enterprise."

It was also argued that the facilities afforded through such an elevator would in no wise interfere with the expansion of the live-stock industry, but would make the trading in feeding stuffs casier and thus encourage live-stock production.

Hallman Holsteins Sold.

A general average for 32 head of \$218.44 was the net result of the dispersion sale held at Springbrook Stock Farm, the farm of the late A. C. Hallman, Breslau, Ont., Wednesday, January 15. The total proceeds of the sale amounted to \$6,990, a very creditable amount indeed, when it is considered that there were very few mature cows in the sale and the list of animals included six calves. The high price of the sale was reached when H. L. Jansen, Kitchener, paid \$775 for Hill Crest Ormsby De Kol, the same bull which was sold at the Brethen sale a little more than a year ago. The highest priced female was Korndyke Queen Segis which sold for \$550 to E. B. Mallory, of Ottawa, who bought a number of head as Superintendent of the farm owned by John Lumsden. Another bull selling for \$345 was Sir Echo Beets Posch, a son of Inka Sylvia Beets Posch, sire of May Echo Sylvia, as well as 29 other tested daughters and 6 proven sons. This bull was bought by Arthur Becker, of New Dundee. The average for stock of different ages runs as follows: 2 cows, 7 years old, averaged \$275; 3 six-year-old cows averaged \$338.33; 3 four-year-olds, \$273.33; 3 three-year-olds, \$251.67; 4 two-year-olds, \$207.50; 7 yearlings, \$173.93; 3 heifer calves, \$110; 4 bulls averaged \$332.50, and 3 bull calves averaged \$47.50. A list of individual sales for \$100 or more is given below:

Females.	
Bessie Ione Grant, E. B. Mallory, Ottawa	\$200.00
Korndyke Queen Segis, E. B. Mallory	560.00
Korndyke Cornelia, E. B. Mallory	350.00
Korndyke Aaggie Cornelia, H. L. Jansen, Kitchener	175.00
Minnie Korndyke Boon, G. A. Brethen, Norwood	300.00
Korndyke Segis Ormsby, H. L. Jansen	280.00
Korndyke Pietertje Hengerveld 2nd, G. A. Brethen	220.00
Willowbanks March Spink, H. L. Jansen	270.00
Springbrook Korndyke Boon, C. Schrag, Zurich	300.00
Korndyke Canary Boon, H. L. Jansen	280.00
Korndyke Segis Ormsby 2nd, H. L. Jansen	260.00
Lady Inka Segis, Porter Bros., Thornhill	225.00
Korndyke Pamela De Kol 2nd, McCulloch Bros., Sutton, Que.	175.00
Griselda Korndyke Boon 2nd, Peter F. Lichti, Wellesley	175.00
Belle Lyons Colantha, I. Moyer, Beamsville	200.00
Countess Korndyke Boon 2nd, I. Moyer	160.00
Minnie Echo Posch, I. Moyer	220.00
Echo Queen Segis Korndyke, Frank Lampskin, Cainsville	200.00
Minnie Statesman Korndyke, Thos. Bird, Georgetown	137.50
Echo Korndyke Boon, Fred O. Woodley, Wilsonville	140.00
Echo Queen Segis, Fred O. Woodley	200.00
Echo Wayne Boon, Fred O. Woodley	160.00
Echo Korndyke Cornelia, H. Ludolph, New Dundee	120.00
Echo Segis, Ormsby, J. C. Smith, Ancaster	125.00

Males.	
Sir Echo Beets Posch, Arthur Becker, New Dundee	345.00
Hill-Crest Ormsby De Kol, H. L. Jansen	775.00
Pontiac Sarcastic Grant, Thos. Bird	140.00

Another of the O. A. C. Staff Dies From Pneumonia.

Influenza followed by pneumonia recently caused the death of Walter H. Scott, Lecturer in the Department of Physics of the Ontario Agricultural College, and in charge of drainage for the Province of Ontario. The late W. H. Scott was a son of Robert A. Scott, Norwood, Hastings County, and was in his twenty-eighth year at the time of his death.

If a pure-bred sire is able to increase the production of his daughters by 250 lbs. butter-fat, over that of their dams, how much is such a bull worth to the dairyman?

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending January 16

Receipts and Market Tops

Dominion Department of Agriculture
Stock Branch, Markets Intelligence Division

	CATTLE						CALVES					
	Receipts		Top Price		Good Steers		Receipts		Top Price		Good Calves	
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	7,312	2,212	5,851	14.50	12.35	14.00	598	146	540	18.00	16.00	19.00
Montreal (Pt. St. Charles)	1,408	718	1,015	12.50	11.60	13.50	185	137	252	15.00	17.00	14.00
Montreal (East End)	1,863	654	1,018	12.50	11.60	13.50	259	77	96	15.00	17.00	14.00
Winnipeg	4,361	2,162	2,695	14.25	12.00	14.00	158	40	46	10.50	12.00	10.50
Calgary	2,824	1,105	2,464	14.50	10.75	14.00						
Edmonton	821	192	757	12.75	9.00	13.00	28	33	9		10.00	

	HOGS						SHEEP					
	Receipts		Top Price		Selects		Receipts		Top Price		Good Lambs	
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	7,581	503	9,699	18.75	19.50	19.00	5,161	7,529	5,095	16.75	19.50	16.75
Montreal (Pt. St. Charles)	1,665	800	1,697	19.00	19.75	19.15	2,268	1,829	312	14.00	16.50	14.00
Montreal (East End)	2,077	548	600	19.00	19.75	19.15	1,435	879	766	14.00	16.50	14.00
Winnipeg	17,426	9,600	12,58	17.00	19.00	18.00	325	47	199	15.25	16.50	18.00
Calgary	5,790	3,639	5,173	16.25	18.25	17.75	1,236		106	13.00		13.00
Edmonton	1,382	754	1,364	16.00	17.35	17.00	193	6	305		16.00	13.50

Market Comments.

Toronto (Union Stock Yards.)

Over seven thousand cattle, ten thousand hogs and five thousand sheep were received during the week. The weakness that developed in the hog market early in the week reflected on the market in general and with a few exceptions all stock of all classes sold at lower levels. Outside packers and American buyers were operating in cattle, a condition of trading which gave some activity to what might otherwise have been a very slow cattle market. Over seven hundred head of cattle were bought for shipment to the United States, while outside packers purchased one hundred head. Choice heavy steers and canners were in the best demand, while handy-weight butcher cattle appeared to be the slowest sellers some drovers estimating the decline as ranging from 75 cents to \$1 per hundred, although 25 to 50 cents would cover the cuts on most of the sales. Only a few cattle weighing twelve hundred pounds and over were on sale. Two head of thirteen hundred and sixty pounds sold at \$15 per hundred; five head of twelve hundred and fifty pounds were weighed up at \$14.75, and two head at \$14.10. Of steers between the weights of ten hundred to twelve hundred pounds, one load of fourteen head which averaged eleven hundred and sixty pounds, sold at \$14.40; fifteen head averaging ten hundred and ninety pounds at \$14.00; twenty-six steers and heifers averaging ten hundred and sixty at \$13.50; sixteen head averaging ten hundred and eighty at \$13.40; while other sales of good stock within these weights were made from \$13 to \$13.75 per hundred; stock of medium quality sold from \$11.75 to \$12.50. Of the steers and heifers under ten hundred pounds, seven head averaging nine hundred and twenty pounds sold at \$13.25; twenty-four head averaging nine hundred and forty pounds at \$12.60; twenty-two head averaging nine hundred and seventy at \$12.15; twenty-two head of nine hundred and fifty pounds at \$12.50, and numerous other sales from \$12 to \$12.25 per hundred. Most of the sales of good stuff were made from \$11.50 to \$12.25, while medium quality stuff ranged from \$9 to \$11. Sows and bulls were in good demand at unchanged quotations. A few choice animals sold from \$11 to \$11.50, and an odd head at \$12. These prices, however, were realized on stock of exceptional quality only, and most of the good animals moved from \$9.75 to \$10.75, and medium stock from \$8 to \$9. Canners and cutters were in active demand from \$6 to \$7 per hundred. There was little demand for stockers and feeders and prices were unchanged. Calves were inclined to be a little easier and no sales were reported above \$18.50, and few above \$18, most of the veal bringing from \$16 to \$18.

Lambs and sheep were lower and while on Monday one deck of choice lambs sold at \$17 per hundred it took an extra good lamb to realize \$16 on Thursday. The ruling range early in the week was from \$16 to \$16.50 per hundred, while on Thursday choice lambs sold from \$15.50 to \$16, and heavy lambs from \$15 to \$15.25.

Considerable weakness developed in the hog market following the report of the temporary suspension of buying

CLASSIFICATION	No.	TORONTO (Union Stock Yards)			MONTREAL (Pt. St. Charles)			
		Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price
STEERS								
heavy finished	17	\$14.51	\$13.75-\$15.00	\$15.00				
STEERS good	331	13.45	13.00-14.00	14.50	8	\$12.25	\$12.00-\$12.50	\$12.50
1,000-1,200 common	17	11.75	11.00-12.50	12.75				
STEERS good	1,435	12.39	11.25-13.00	13.25	134	11.25	10.50-12.00	12.50
700-1,000 common	602	10.88	9.75-11.75	11.75	136	9.50	8.50-10.50	10.50
HEIFERS good	1,015	12.67	12.00-13.25	13.75	33	10.25	10.00-10.50	11.00
fair	293	10.24	10.00-10.75	11.00	41	9.00	8.75-9.50	9.50
common	152	9.25	8.50-9.75	9.75	139	7.50	6.50-8.25	8.25
COWS good	533	9.75	9.00-10.25	10.75	46	9.75	9.00-10.50	10.50
common	1,202	7.58	7.00-8.50	8.50	280	8.25	7.00-8.50	9.00
BULLS good	133	9.65	9.00-10.50	10.75	10	10.00	9.00-10.00	10.50
common	131	7.83	7.00-8.50	9.50	187	7.75	6.75-8.50	9.00
CANNERS & CUTTERS	881	6.25	6.00-6.75	6.75	383	5.90	5.75-6.50	6.50
OXEN					5			
CALVES veal	573	16.29	15.00-18.00	18.00	107	14.00	12.50-15.00	15.00
grass	25	7.00	6.00-8.00	8.00	78	6.00	6.00-	6.50
STOCKERS good	105	9.40	9.00-10.00	10.00				
450-800 fair	280	8.54	7.75-9.00	9.50				
FEEDERS good	113	11.25	10.75-11.50	11.50				
800-1,000 fair	72	10.50	10.25-10.75	10.75				
HOGS selects	7,170	17.88	16.00-18.75	18.75	1,397	18.25	17.75-19.00	19.00
(fed and watered) heavies	30	18.05	16.00-18.50	18.75	11	17.25	16.75-18.00	18.00
lights	192	15.49	14.00-17.75	17.75	208	16.25	15.75-17.00	17.00
sows	186	14.86	13.00-17.75	17.75	43	15.25	14.75-16.00	16.00
stags	3	13.66	12.00-14.00	14.75	6			
LAMBS good	4,545	16.24	16.00-16.75	16.75	496	14.00	14.00-	14.00
common	178	13.25	12.00-14.00	14.00	1,339	13.00	12.00-13.50	13.50
SHEEP heavy	103	9.50	9.00-10.00	10.00				
light	238	10.54	10.00-11.00	11.00	71	9.50	9.00-10.00	10.00
common	97	7.67	6.00-9.00	9.00	362	8.00	8.00-	8.00

by the Allied Buying Commission, and for a few days it appeared uncertain as to where hog prices would settle. Early in the week a few sales were made from \$16 to \$16.50 per hundred for selects, fed and watered, but on Wednesday the market gained strength and prices went to \$17 per hundred. While it is difficult to forecast prices a feeling prevails that if the present quotations do not strengthen they will be expected to hold at the new level.

Of the disposition from the Yards for the week ending January 9, Canadian packing houses purchased 214 calves, 4,099 butcher cattle, 10,600 hogs and 3,858 lambs. Local butchers purchased 100 calves, 250 butcher cattle, 692 hogs and 650 lambs. Shipments back to country points were made up of 38 calves, 57 milch cows, 155 stockers, 119 feeders and 52 sheep. Shipments to United States' points consisted of 93 calves, 118 butcher cattle and 277 feeders.

The total receipts from January 1 to January 9, inclusive, were: 6,392 cattle, 720 calves, 11,126 hogs and 5,955 sheep; compared with 6,679 cattle, 843 calves, 14,495 hogs and 3,506 sheep, received during the corresponding period of 1918.

Montreal.

Receipts for the week at the two yards amounted to thirty three hundred cattle,

forty-three hundred sheep and thirty-one hundred hogs. Calf receipts totalled only two hundred and fifty-nine. Demand for all classes of butcher cattle was if anything stronger than during previous weeks. Practically all the steers offered weighed less than ten hundred pounds; among the exceptions was that of one small lot which averaged eleven hundred and sixty pounds per head, and sold for \$12.50 per hundred. One lot averaging slightly under ten hundred pounds per head sold at \$12.00 and twenty-one head averaging nine hundred and twenty-five pounds were weighed up at \$11.50. Most of the steers were of still lighter weights and sold from \$9.50 to \$10.50 per hundred, while some very light stuff sold down to \$7.50. Canners sold in most cases for \$5.75 per hundred and cutters from \$6.25 to \$6.50. Common butcher cows were in some cases 50 cents higher. The best cows offered sold up to \$10.50 per hundred. Light and common heavy bulls were stronger than on the previous week's market and sold from \$6.50 to \$8.50 per hundred. The price of the bulls was governed largely by weight, bulls of twelve hundred pounds being sold around \$1 per hundred more than those of equal quality weighing from six hundred to eight hundred pounds. Veal calves sold at better prices, a number of sales being

made at \$15 compared with a top of \$14 during the previous week.

The run of sheep and lambs was fairly large, but the quality was only medium. There was however, a firmer tone to trading, this being indicated by the fact that many lambs of poor quality were included in the sales of lots of \$14 per hundred. Sheep of good quality sold at \$10 and some very common stuff at \$8.

Most of the sales of select hogs were made at \$18 to \$19.25 per hundred, off cars. The hogs offered were sold almost entirely to the retail trade. Until further information is available concerning the condition of the export trade, the commission men are advising their clients to curtail shipments. A large percentage of the hogs being offered would benefit by a few week's extra feeding.

Of the disposition from the Yards for the week ending January 9, Canadian packing houses purchased 252 calves, 324 canners and cutters, 212 bulls, 454 butcher cattle, 1,697 hogs and 766 lambs.

The total receipts from January 1 to January 9, inclusive, were: 1,015 cattle, 252 calves, 1,697 hogs and 766 sheep, compared with 883 cattle, 269 calves, 2,125 hogs and 878 sheep, received during the corresponding period of 1918.

EAST END.—Of the disposition from the

JANUARY 23, 1919

FOUNDED 1866

Markets

Agriculture Live Intelligence Division

Price Good Calves

Same Week	Week Ending
1918	Jan. 9
\$16.00	\$19.00
17.00	14.00
17.00	14.00
12.00	10.50
10.00	

Price Good Lambs

Same Week	Week Ending
1918	Jan. 9
\$19.50	\$16.75
16.50	14.00
16.50	14.00
16.50	18.00
	13.00
16.00	13.50

Range Top Sales Price

\$12.50 \$12.50

12.00 12.50

10.50 10.50

10.50 11.00

9.50 9.50

8.25 8.25

10.50 10.50

8.50 9.00

10.00 10.50

8.50 9.00

6.50 6.50

15.00 15.00

6.50

19.00 19.00

18.00 18.00

17.00 17.00

16.00 16.00

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osition from the

Every farmer who desires to do business with

The Molsons Bank

is always assured of a courteous reception by local managers. And their object is to assist the farmer in a legitimate way, to make his land and stock more productive.

Yards for the week ending January 9, Canadian packing houses purchased 86 calves, 1,012 butcher cattle, 504 hogs and 162 lambs. Local butchers purchased 6 butcher cattle and 96 hogs. Shipments back to country points were 10 calves, and 150 lambs.

The total receipts from January 1 to January 9, inclusive, were: 1,018 cattle, 96 calves, 700 hogs and 312 sheep; compared with 1,093 cattle, 230 calves, 12,229 hogs and 1,623 sheep, received during the corresponding period of 1918.

Buffalo.

Cattle.—Prices held to a steady level with the preceding week on cattle at Buffalo during the first part of last week, but values broke a full quarter to half dollar during the last half of last week. Trade opened up very satisfactory for the first half of the week—giving Buffalo three very strong weeks in the cattle trade, which is rather unusual, it being seldom that three good market weeks follow in succession. Supply of Canadian cattle was larger than for a couple of weeks back, and these sold generally at high prices. Best native steers sold up to \$16.75, with the best Canadians reaching \$16.50. There were no heavy or choice cattle offered. In the butchering line prices generally looked lower, except on common butchering cow stuff which sold about steady. Bulls sold a big quarter lower, feeders and stockers being in light demand and holding to about a steady level. Milk cows and springer trade was quite satisfactory. Some authorities are predicting lower cattle prices, as values have ruled exceptionally high for several weeks, and sellers maintain that they cannot get their money out of them. Offerings for the week totaled 6,025 head, as against 5,150 head for the previous week, and as compared with 1,975 head for the corresponding week a year ago. Quotations:

Shipping Steers, Natives.—Choice to prime, \$17 to \$17.50; fair to good, \$15.25 to \$16; plain and medium, \$11.25 to \$12; coarse and common, \$10 to \$11.

Shipping Steers, Canadians.—Best heavy, \$15.25 to \$15.75; fair to good, \$13 to \$14.75; medium weight, \$12 to \$12.75; common and plain, \$10.50 to \$10.75.

Butchering Steers.—Choice heavy, \$15.50 to \$16; fair to good, \$13.75 to \$14.50; best handy, \$11.75 to \$12.25; fair to good, \$11 to \$11.50; light and common, \$9 to \$10; yearlings, choice to prime, \$16 to \$18; medium to good, \$12 to \$15.50.

Cows and Heifers.—Very fancy fat cows, \$10 to \$11; best heavy heifers, \$11.25 to \$12; fair to good, \$10.50 to \$11; good butchering heifers, \$10 to \$10.50; fair butchering heifers, \$8 to \$9; light common, \$5 to \$7; best heavy fat cows, \$9 to \$10; good butchering cows, \$8.25 to \$8.50; medium to fair, \$7.50 to \$8; cutters, \$6.75 to \$7; canners, \$6.25 to \$6.60.

Bulls.—Best heavy, \$10 to \$11; good butchering, \$10 to \$10.50; sausage, \$7.50 to \$8; light bulls, \$6.50 to \$7.50.

Stockers and Feeders.—Best feeders, \$10.50 to \$11; common to fair, \$8 to \$9.50; best stockers, \$8.75 to \$9.25; fair to good, \$8.25 to \$8.75; common, \$5 to \$7.

Milchers and Springers.—Good to best, small lots, \$100 to \$135; in carloads, \$90 to \$100; medium to fair, small lots, \$80 to \$85; in carloads, \$70 to \$75; common, \$50 to \$55.

Hogs.—The range in prices was somewhat lower last week, heavy receipts and

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Deposits may be made—butter and cheese cheques cashed—money withdrawn—just as easily and safely, by mail as in person.

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THE MERCHANTS BANK OF CANADA

Head Office: Montreal. Established 1864. With its 162 Branches in Ontario, 32 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 53 Branches in Alberta, and 8 Branches in British Columbia serves Rural Canada most effectively. WRITE OR CALL AT NEAREST BRANCH.

a bad trade west being responsible for the break in prices at Buffalo. Monday the good hogs sold generally on a basis of \$18 and pigs, which showed a drop of 75 cents, landed mostly at \$17. Tuesday the better weight grades went at \$17.80, while underweights ranged from \$16.75 to \$17; Wednesday good hogs brought \$17.80 to \$17.85, and the next two days the bulk had to take \$17.80. Thursday and Friday underweight hogs ranged from \$16 to \$16.50. Good throwout roughs sold largely at \$15.50, and stags ranged from \$13 down. The past week's receipts totaled 28,700 head, being against 32,379 head for the week before, and 9,700 head for the same week a year ago.

Sheep and Lambs.—Market on lambs occupied a very favorable position all of last week. Demand was light, and a goodly number had to be carried over from day to day. Monday the best lambs moved at \$17.25 and \$17.50, with culls going from \$16 down, and before the week was out buyers got top lambs down to \$16.50 and \$16.65, and culls ranged downward from \$15.50. Best yearlings sold around \$14.50 and \$14.75; choice wether sheep, although none were here, were quoted up to \$12, and while a few ewes sold the fore part of the week up to \$11, the latter part of the week they ranged from \$10.50 down. Receipts for the past week aggregated 27,300 head, being against 23,179 head for the week preceding, and 6,300 head for the corresponding week a year ago.

Calves.—Prices last week showed a heavy decline. As a result of a bad trade being reported in the east, the demand was light and it was a slow-going market all week. Monday the best veals sold at \$21, with culls going from \$17 down, and before the week was out or on Friday buyers landed the tippy kinds at \$19, and culls ranged from \$14 down. Few grass calves sold above \$8. Receipts the past week totaled 3,100 head, as against 3,077 head for the week previous, and 1,225 head for the same week a year ago.

Toronto Produce.

Live stock receipts at the Union Yards, West Toronto, on Monday, January 20, consisted of 231 cars, 5,692 cattle, 223 calves, 1,869 hogs, 2,166 sheep and lambs. Slow, uneven market. Some heavy steers sold steady, most of them, however, went at 50 cents lower. Butchers' steers, heifers, cows and bulls averaged 25 cents to 50 cents lower. Sheep steady; lambs \$14.60 to \$15. Calves steady. Hogs, \$17, fed and watered but market weak.

Breadstuffs.

Wheat.—Ontario (f.o.b. shipping points, according to freights)—No. 1 winter, per car lot, \$2.14 to \$2.22; No. 2, winter, per car lot, \$2.11 to \$2.19; No. 3 winter, per car lot, \$2.07 to \$2.15; No. 1 spring, per car lot, \$2.09 to \$2.17; No. 2 spring, per car lot, \$2.06 to \$2.14; No. 3 spring, per car lot, \$2.02 to \$2.10. Manitoba (in store, Fort William, not including tax)—No. 1 northern, \$2.24½; No. 2 northern, \$2.21½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.11½.

Oats.—Ontario (according to freights outside)—No. 2 white, 70c. to 73c.; No. 3 white, 69c. to 72c. Manitoba (in store, Fort William)—No. 2 C. W., 71c.; No. 3 C. W., 68c.; extra No. 1 feed, 68¼c.; No. 1 feed, 66c.

Corn.—American, (track, Toronto, Jan. shipment), No. 3 yellow, \$1.75; No. 4 yellow, \$1.70.

Peas (according to freights outside)—No. 2, \$2.

Barley (according to freights, outside)—Malting, 85c. to 90c.

Buckwheat (according to freights outside)—No. 2, \$1.25.

Rye (according to freights outside)—No. 2, \$1.45, nominal.

Flour.—Manitoba, (Toronto)—War quality, \$11.35. Ontario (prompt shipment)—War quality, \$10.25, in bags, Montreal and Toronto.

Millfeed.—(Car lots delivered, Montreal freights, bags included)—Bran, per ton, \$37.25; shorts, per ton, \$42.25.

Hay.—(Track, Toronto)—No. 1, per ton \$23 to \$24; mixed, per ton, \$21 to \$22.

Straw.—Track, Toronto)—Car lots, per ton, \$10 to \$11.

Hides and Wool.

Prices delivered in Toronto, furnished by John Hallam:

City Hides.—City butcher hides, green, flats, 18c; calfskins, green, flats, 30c.; veal kip, 20c.; horsehides, city take-off \$6 to \$7; sheep, \$3 to \$4.

Country Markets.—Beef hides, flat, cured, 18c. to 20c.; green, 16c. to 17c.; deacon and bob calf, \$2 to \$2.75; horsehides, country take-off, No. 1, \$6 to \$7; No. 2, \$5 to \$6; No. 1 sheep skins, \$2.50 to \$4; horsehair, farmers' stock, \$28.

Tallow.—City rendered, solids, in barrels, 14c. to 16c.; country solids, in barrels, No. 1, 14c. to 16c.; cakes, No. 1, 18c. to 19c.

Wool.—Unwashed fleece wool as to quality, fine, 50c. to 55c. Washed wool, fine, 75c. to 80c.

Farm Produce.

Butter.—Prices again kept stationary on the wholesales during the past week, selling as follows: Creamery, fresh-made lb. squares, 56c. to 57c. per lb.; creamery, cut solids, 54c. to 55c. per lb.; dairy, 45c. to 52c. per lb.

Oleomargarine.—32c. to 34c. per lb.

Eggs.—Cold storage eggs again firmed slightly, but new laid were a little easier, selling as follows on the wholesales: Cold storage, 60c. per doz.; cold storage selects, 62c. per doz.; new laid, 68c. to 70c. per dozen.

Cheese.—Cheese sold at unchanged prices, viz., new, 28c. to 29c. per lb.; new twins, 28½c. to 29½c. per lb.

Honey.—Five, 10 and 60-lb. pails, per lb., 27c. to 28c. per lb.; sections, each, 30c. to 40c.

Wholesales Fruits and Vegetables.

There was a firming tendency in wholesale fruits and vegetables during the past week with the exception of potatoes, which were easier.

Apples.—Owing to the increased demand for export, apples, especially the red varieties, were quite active, at the slightly higher prices. Boxes ranging from \$1.50 to \$3.50 for Ontarios and \$2.75 to \$4 for Westerns—Ontario barrels selling all the way from \$3.50 to \$8 according to variety and quality.

Grapefruit kept stationary at \$4.50 to \$6 per case.

Lemon prices remained unchanged at \$4.50 to \$5 per case.

Oranges were slightly firmer at \$4 to \$7.50 per case.

Tomatoes.—Hot-house tomatoes continued to be very scarce and high priced.

Thrift is the Maker of Character

Thrift is patriotic at this time. It is more—it is evidence of practical common sense, sound judgment and prudence, because it shows you are willing to make present sacrifice for future competence.

This Bank will gladly open a Savings Account for you, and deposits may be made by mail or in person.

Paid-up Capital \$ 6,500,000
Reserve Fund . 12,000,000
Resources . . 130,000,000

THE BANK OF NOVA SCOTIA

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No. 1's selling at 40c. to 45c. per lb., and No. 2's at 25c. to 35c. per lb.

Beets, turnips and parsnips kept stationary at \$1, 65c. to 75c., and \$1 per bag respectively.

Cabbage.—Choice cabbage firmed materially in price, selling at \$1.75 per bbl.—small quantities of rather inferior grades going at \$1.25 and \$1 per bbl.

Carrots have been scarce and advanced in price, selling at 75c. and 85c. per bag. Some asking \$1 per bag.

Onions have been very inactive at unchanged to lower prices, 75-lb. bags selling at 75c. to \$1.25 per bag and 100-lb. bags at \$1.75 to \$2.

Potatoes were a little easier: Ontarios selling at \$1.35 to \$1.40 per bag and N. B. Delawares at \$1.75 to \$1.90 per bag.

Montreal.

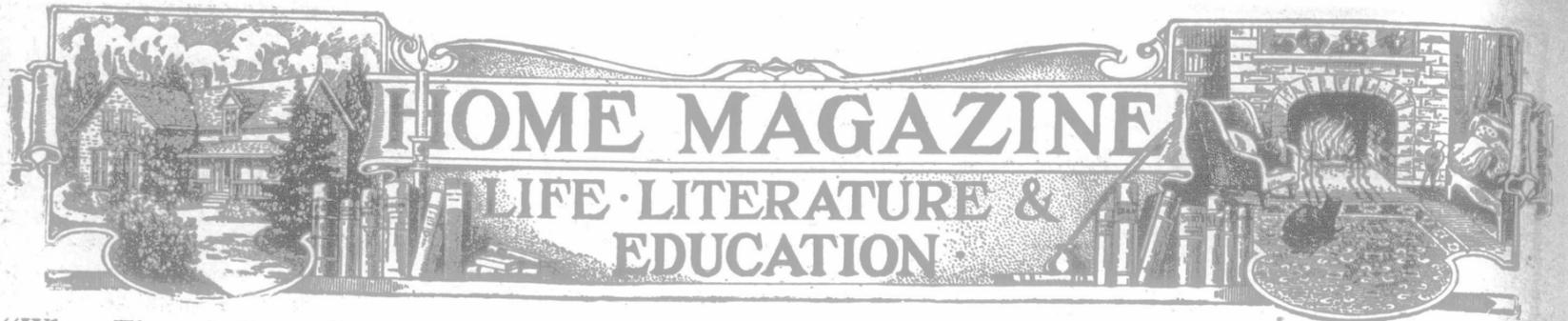
Horses.—Trading was dull, and prices steady as follows.—Heavy draft horses, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light weight, weighing 1,400 to 1,500 lbs. \$200 to \$250 each; light horses, \$125 to \$175 each; culls, \$50 to \$75 each; fine saddle and carriage horses \$175 to \$250 each.

Dressed Hogs.—During the week, quite a decline took place in the price of live and dressed hogs, this being no doubt due to the discontinuance of purchasing of hog products by the Allied Purchasing Commission. Country dressed hogs were quoted here at 21c. to 23c. per lb., while abattoir dressed were about 24c.

Poultry.—Demand for poultry was by no means active but quite a good trade was going on and some sales were taking place for export. Locally, the market was firm at 42c. for choice turkey's, 38c. to 40c. for good, and down to 32c. for poor. Chickens were 32c. for milk fed, and as low as 24c. for poorer grades. Fowl sold at 24c. to 28c.; geese, 25c. to 26c. and ducks 33c. to 34c.

Potatoes.—The market for potatoes held fairly steady. The weather was favorable to shipments and demand was good for everything offering. Green Mountains in carloads, ex-track, were quoted at \$1.75 to \$1.85 and Quebec whites

Continued on page 138.



"When There is Peace."
 "When there is Peace, this land no more
 Will be the land we knew of yore."
 Thus do the facile seers foretell
 The truth that none can buy or sell
 And e'en the wisest must ignore.

When we have bled at every pore,
 Shall we still strive for gear and store?
 Will it be Heaven, will it be Hell,
 When there is Peace?

This let us pray for—this implore—
 That, all base dreams thrust out at door,
 We may in nobler aims excel,
 And, like men waking from a spell,
 Grow stronger, worthier than before,
 When there is Peace!
 Austin Dobson, in The Spectator.

The United Farm Women of Ontario.

BY THE SECRETARY.

WHO started the U. F. W. O.? My answer is, it started itself; it is in the nature of things and had to start.

The Saskatchewan Grain Growers "had" to organize in 1901 to secure fairer conditions for their industry, their women lining up with them later. The Alberta farmers saw the benefits of organization and in 1910 took action, the women following suit. Manitoba, new Brunswick and British Columbia have also fallen into line, and the women of the Pacific province are "asking information." In 1914 the United Farmers of Ontario launched out; what other course is open to the farm women of this province except to line up in support of their men?

The necessity of the men and women of the farms acting together in their interests should be plain without words. Farm women work longer hours, at heavier tasks, and with less relief from social interchange with neighbors than any class of women in Canada. The situation of the men is little better. The lives of both are lives of toilsome servitude. If the men and women of any class in the nation need to get together to think out and to work out their salvation, it is those of the farming class. No organization supported and controlled by Government will enable them to do this; they must be perfectly free to discuss their own interests, to examine into the acts of government, and to give utterance to their ideas in relation to their duty to their own class, and their responsibility as voters.

This can be done only in a free and independent organization like the combined U. F. O. and U. F. W. O.

ON June 17, 1918, a small group of representative Ontario farm women gathered, at the instance of Secretary Morrison of the U. F. O., to hear Mrs. Violet McNaughton, pioneer of the Saskatchewan Women Grain Growers' Association, tell of the rise, course of development, and aims of organization she represented. Her hearers, all keenly interested in the subject, then and there formed themselves into a Provincial U. F. W. O., the whole number, sixteen, comprising a Standing

Committee with power to add to their numbers. The work this committee laid out for itself until the U. F. O. should at the Annual Convention amend its constitution to admit women on the same terms as men, was to distribute literature, to arouse interest in the proposed organization and to do whatever else circumstances permitted in the furtherance of the cause.

In December '18 and '19, these women met again in Convention in Toronto, at the same time as the U. F. O. The number of visitors, owing to the prevalence of influenza, was small but interest and enthusiasm were manifest throughout.

The first day's session opened at 2 p.m. in a class room of the University, with the Provincial President, Mrs. Brodie, in the chair. After words of greeting, the meeting was open for business. Miss Yates, who is on the University staff as lecturer in Rural Sociology, addressed the gathering, with the purpose of interesting the United Farm Women in the subject of Rural Sociology as presented in her course of lectures.

The main discussions of the afternoon were on "Rural Education", and, "How to Arouse the Farm Women to a Sense of their Duty, Privilege and Responsibility" at this time. The former topic was discussed in lively fashion and it was apparent that this most important matter has a place deep in the hearts of the women. The present system of scattered rural schools, poorly equipped and maintained, lacking in comfort and attractiveness and where the course of study led interest toward the city and away from the country was held to be mainly responsible for the undoubted unsatisfactory results. One woman, however,

General action of a wider sort was through the U. F. O. and having an official organ which would come into the home with a constant appeal.

The evening session was a joint meeting of the U. F. O. and the U. F. W. O., the address being given by members of the U. F. W. O.

Mrs. Brodie, of Newmarket, in an interesting address congratulated the U. F. O. on being the first organization to admit women to full partnership. She touched on the matter of the close partnership in the labors and in the problems of the farm, these needing the co-operation and the efforts of both men and women to bring to satisfactory conclusion. She advocated the building up of community life in rural Ontario, the establishment of consolidated schools and technical training, and urged that old party lines in politics should be ignored, and that rural interests should take precedence of party allegiance.

Miss Griesbach, Secretary of the U. F. W. O., followed with a presentation of the difficulties in the way of organizing the farm women. "There are 150,000 farms in Ontario of 50 acres and over," she said, "and for the U. F. W. O. to reach the women on these farms in any adequate way, with the means of resources at our disposal is an absolutely hopeless proposition. But they can be effectively reached through a friendly organization already in the field—the U. F. O." The speaker then went on to urge that every U. F. O. should organize a U. F. W. O. in connection with the local. "The Saskatchewan Women Grain Growers closed their first year with six locals and their second year with sixty. We are closing our first year with six locals,

finding time for social gatherings, Mrs. Laws said, "I expect sometime to die and leave my farm. If I can leave it forever, surely I can leave it for a few hours or a few days to go somewhere else."

The reception of the U. F. W. O. by the U. F. O. was most cordial, in fact, was something in the nature of an ovation; and if the attitude of the delegates is any indication of that of the clubs in general, the rural women may feel that their entrance with the association will be most warmly welcomed by the men.

THE second day's deliberations included the subject of "How to Get Existing Organizations into the U. F. O." and the formulation of the aims of the organization. In regard to the former, Mrs. Annis of Woodville, in a thoughtful address suggested avoidance of raising antagonism; securing the sympathy of officers and enlisting their co-operation; inviting other organizations to attend as a body enthusing them with the high ideals of the U. F. W. O.; and working up the co-operative marketing situation so as to show the benefit of co-operative action. "Do not let us have any fads in our organization," urged Mrs. Annis. "Let us show the women that we can help the men's cause by going into the U. F. O. If we can get the co-operation of the men in working out our problems by membership in other organizations, let us stay in them. But can we? No."

THE Women's branch of the Association accepts the men's platform in full, and their special aims, beside the general one of strengthening the men's association are expressed in these clauses.

1. Improvement of rural homes and schools.
2. Removal of disabilities of rural women in qualifying for trustees.
3. Special attention to our educational system.
4. Ascertaining views of M. P. P's. on questions directly affecting farm women.
5. Appointment of County Police Matrons.
6. Labor-saving devices for the home on the free list.

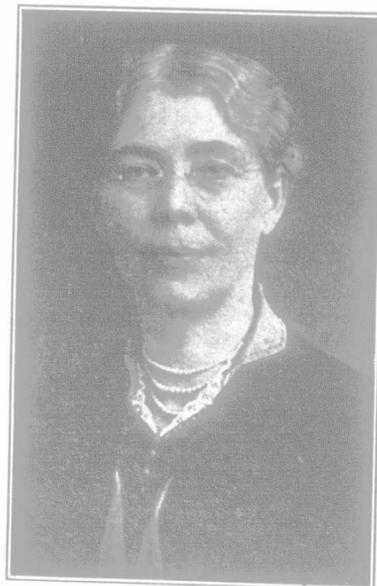
The Provincial Executive was re-elected by acclamation, being as follows: President, Mrs. G. A. Brodie, Newmarket; Vice-Pres., Mrs. Jas. N. Foote, Collingwood; Secretary, Miss Emma Griesbach, Collingwood.



Mrs. Geo. A. Brodie
 Newmarket, Ont.
 President of the U. F. W. O.



Mrs. Jas. N. Foote
 Collingwood, Ont.
 Vice-President of the U. F. W. O.



Miss Emma Griesbach
 Collingwood, Ont.
 Secretary of the U. F. W. O.

held the parents individually to blame, as not feeling or displaying sufficient interest in Education; while still another declared that "a two-for-a-cent way of running a school will make any kind of a school no good."

The remedies suggested for the ills of Rural Education were: consolidated schools; a revised system; women trustees; while one member was a strong advocate of technical training.

"How to Reach the Farm Women?" In the way of individual and localized effort the methods recommended were, to invite attendance at specially prepared meetings with interesting programmes; to distribute literature, and have women come from other places to address meet-

ings. General action of a wider sort follows my suggestion, with 600, and the strength, the interest, the importance and the influence of the organization will be doubled."

Mrs. Laws of Cayuga, followed with a bright address in which she touched on many matters of rural interest, emphasizing the importance of the study of civics and the high and sacred responsibility of the ballot. She believes that the school should be made the beauty spot of the community, should contain a library and should be a community centre for young and old to meet for recreation and mutual improvement. Speaking of the difficulty which the men and women on the farms experience in

As these lines are written, Mrs. Brodie is representing the U. F. W. O. in Brandon at a meeting for the formation of an Interprovincial Council of farm women, which is to resemble closely the National Council of Agriculture of the men's association. Thus, the prospects of usefulness of the U. F. W. O. are already extending beyond the confines of the province, though the most immediate benefits will undoubtedly be to the farm women of Ontario. It is earnestly hoped by the many devoted women who are heart and soul in this movement that the women on the farms will realize that this is their really own organization; that they are every one needed in it, and that they will everyone be immeasurably helped and benefited by it.

What My Neighborhood Needs For Advancement.

(A Competition Essay.)

BY "L."—PRINCE EDWARD CO., ONT.
To sum up tersely—Most neighborhoods need the "Community" spirit—the elimination of selfishness and greed. One feels that it is hardly safe to criticize one's own neighbors in an essay, especially when this letter blames gossip and jealousy for destroying the peace of any locality; but I infer from the wording of the title that it is the surroundings that must be improved thus giving an uplift to those benefitted by the bettered conditions.

I was going to place the church ahead of the school as being of most vital importance, but as the minority go to church, as a rule, and the majority go or have gone to school, we'll attack the school first.

Picture to yourself an average country school house—too cold at the back, because of many a crack, and too warm at the front, caused by the vain effort to warm the rear. It's a well-known fact that people who are kept too cold are of a very low order of intelligence, viz. the Eskimos and the Patagonians and Tierra del Fuegians. Neither are those who spend their time where there is excessive heat noted for their power to assimilate knowledge.

See the windows, set too high, with diminutive panes resembling a crazy quilt because of the painted panes interspersed with transparent ones. Look at the old blackboards with four wide cracks across each. Observe the old seats and broken seats, the whittled desks of a past generation—all inviting the present-day hopeful to be as sloven and untidy as his surroundings.

Our environment influences our manners disposition, progress and most things in our life that we consider worth while.

I positively hate to take you behind the school-house, but I must call your attention to the barnyard adjoining. Note how it slopes towards our yard. Then would you expect us to meet any flies during their busy season, when they hatched in that barnyard manure? We have no screens to hide behind. When children are brought up with flies they become so accustomed to them that they do not realize what a menace to life flies may become. When keeping house in the future will they try to avoid the friendly hum of the muscidae?

PASSING on to one of the churches, it has a pathetic little graveyard with no caretaker other than an innocent cow or a rambling horse. That the animals have scratched their backs on the tombstones, till the slabs have fallen down in their efforts to escape, is no reason why we should blame the stock. The woodchucks have burrowed upon the graves and if the bodies have not escaped desecration, it seems to concern no one. Said one to me, "If Mr. —wants his cow to trample on his mother's grave for her pasture, what do we care?"

As to the church itself: This cheerful, neat, little edifice is never warm enough in winter to take the numbness from ones fingers and toes. The congregation must depend upon brotherly love and genial smiles for warmth. I ask you, "Can you be agreeable and have that 'glad-to-be-here' feeling, when you are keeping your mouth shut so your teeth won't chatter loose? Few people are good enough Christian Scientists to risk their health with impunity, convinced that no ill can come to them when carrying out their good intentions. Church-going is a good deed. Why not go to the trouble of making it an enjoyable duty? Good music, warmth and cleanliness would win souls to attendance if not to Christ. We cannot give and receive warm welcomes when bodily discomforts are uppermost in our minds. The Stoics did it perhaps, and the Indians mayhap, but need we? A comfortable atmosphere helps to thaw hearts and, incidentally, opens pocket-books. Is it not good policy to make people comfortable and happy? In this frame of mind they will give more freely to the needs of others.

Our neighborhood, be it understood, is a well-to-do thriving community, with various industries giving work to everybody. Lots of work and good

wages advance any class of people. Rich farming land, beautiful fruit, healthy and handsome stock, lots of water teeming with fish prove that we are not a needy community. In fact, this is a section where one finds not only the "milk of human kindness" but the cream; but you did not ask about our blessings but desired to learn what would add to them.

May I point to our roads? I am sorry to call the attention of outsiders to them but, in truth, they are not good even in summer and don't you feel for us in winter? They are oftentimes impassable, dear reader, I'm ashamed to admit. If all the old snake-fences were removed, and no buildings touching the road allowance the snow would blow off instead of lodging in the road.

Of course we need the Hydro Electric. We heard we were going to get it, or a ten mile extension of the C. N. R. We could sell many thousands of dollars' worth of horses, boats and motor trucks, if our canned goods, cheese, evaporated fruits, fish, ice, etc., could be disposed of by rail.

About our people: I think everybody wants the same people we have, and we need more of the same kind, but some ways of some people might be changed for the better. If there were more joy in their lives and less labor, it would be a greater pleasure to live with them. The old-fashioned penny readings, spelling matches, apple-cuts, huskings and sauerkraut bees should be revived and an advancement in education and harmless jollity would ensue.



The Lap Robe Open.

Lastly, "In Union there is Strength" and if we farmers would work together, threshing, buying, selling, etc., instead of harboring jealous suspicions and distrust of each other, or of a neighbor with better executive ability than ourselves, we would co-operate with him, we would be more progressive than ever before.

Let's all take hold of hands and **PULL TOGETHER.**

A Useful Lap-Robe For Three Dollars.

BY VIRGINIA STYLES.

IF you need a wind-proof, and waterproof auto rug for fall driving,—but at the same time, do you feel, that you cannot afford to pay \$15-\$20, or \$30 for one? Here is the solution: Purchase from 3 to 4 yds. (according to the size you wish the rug) of heavy black oilcloth. Have a shoe man sew it up for you—very much as if it were a pillow case, only with the long side left open, instead of an end. Have the edges of this turned inside; neatly hemmed, and large dome fasteners put across.

The reason for it being made this way, is that on raw, windy days, you can put your legs inside, as if it were a sleeping bag, and be kept quite warm.

The snappers are on, so that when you do not wish to put your feet inside it can be snapped across and used as if it were like any other ordinary rug. When it is very cold, say in late fall or winter, you can put a steamer rug or old comforter inside and make it doubly warm.

The use of oil cloth has many advantages, it is as rainproof and wind-proof as rubber. It can therefore, be used all summer as a convenient rug to have

folded in the bottom of the car and used on picnics and it is cheap.

You will be surprised how well it looks after it is made up. The oil cloth does not crack, nor is it as stiff as you would naturally think it to be, so that if you drove up "Main Street" with it, no one would notice but what you had a black rubber rug, and perhaps you will find, as I have found, that it is quite the most useful article for which I ever invested \$3.50.

3 yds. oil cloth at 60c.....	\$1.80
(wider width at 80c.....)	2.40
For making	1.00- 1.50
	<hr/>
	\$2.80

Women's Institute Convention.

The Women's Institute Convention for Central Ontario will be held in Toronto at the Technical School, on Feb. 4th, 5th and 6th. An especially good program has been prepared, including, an address on "Reconstruction and Education", by the Hon. Dr. Cody, Minister of Education; addresses on health problems, war-relief work, canning centres, housing, etc.; also a talk on "The Needs for 1919," by Dr. W. A. Riddell, Director of the Labor Bureau, Toronto.

The Sorbonne, Paris, has conferred, upon President Wilson, for his work as jurist and historian, the honorary degree of Doctor, the first time such a degree has been conferred by the university.

That is what He says. "All" that labor and are heavy laden are invited to share in the priceless gift. Of course there are conditions. We are to come to Christ, to take His yoke upon us and learn of Him. He is our Rest, and apart from Him we shall miss the gift. We can't come to Him one day and then go away, carrying rest in our hearts. The coming must be an abiding, a constant communion, or the rest will not stay.

There is only One Who ever dared to say to all the weary and heavy laden (or, for that matter, to even one weary soul) "I will give you rest."

It is a glorious offer! Have we any right to go on wearily, without making any real attempt to fulfil the conditions and win the promised rest?

We love our Master, and honestly try to serve Him (I am speaking to His friends) then why do we so often disappoint Him? He loves us, with a marvelous love; and it must hurt Him to have us toiling constantly, jaded, nervous, almost ready to drop. Work ought to be a joy, not the weary drudgery which it so often becomes. I know that many people are fond of saying:

"Work, for the night is coming, When man's work is done."

But, for my part, I prefer to sing:

"Work, for the LORD is coming!
 Children of light are we.
 Not to the dark we're tending,
 But to the day we go."

When our Lord was visibly among men He told them that His Father worked and He worked—and, if we are to be a yoke-fellow of the Carpenter of Nazareth and learn of Him, it can't be that we shall find our rest in the uninteresting form of "doing nothing for ever and ever." Try that kind of rest for a week and see how dull it is.

Even the people whose lives are very full of necessary work can ply their daily toil while their secret souls a holy strain repeat. Work can be set to music—music which is like a hidden orchestra, heard in the temple of the soul.

Yesterday I visited a sorrowing mother, whose daughter slipped from her after a few days' illness. The mother's face was bright as she told me one of the daughter's beauty of life. "Just before the end," she said, "I asked her if she loved Jesus. She smiled and said, 'Certainly I love Him. I can see Him now'."

That mother is heavy laden and sad, yet she is finding soul-rest in the Presence of the Lord she loves. He never promised that His disciples should escape tribulation—far from it! But He did promise peace which passeth understanding, and joy that the world is powerless to kill.

But—though rest in the midst of work is one of the gifts of Christ to His loyal servants—it is our business to learn of Him, to come to Him, to walk with Him consciously. He does not force His company upon us, like an unwelcome guest, if we are so taken up with worldly concerns that we entirely forget the spiritual.

When we try to pray only in the rush of the early morning, or when we are "dead tired" at night, of course we can't concentrate our attention on Him Who is invisible. It is little wonder that our breathless, half-hearted prayers seem to accomplish very little. Too often they are merely duty-prayers—something to be done because the habit of "saying our prayers" cannot be dropped without pricking of the conscience. When the daily exercise has been gone through—without either joy or any particular desire that God should heed our petitions—then we can attend to what we consider the real business of the day. When prayer is an interruption to work it has no power to give rest of heart.

Our God is our Father. It is a delight to Him to take one of His weary children into His arms at night, quieting the excited nerves and giving new strength to His beloved in sleep. If we fall asleep, leaning on His everlasting strength, we shall wake up like the Psalmist to find that we are present with Him—His Presence will be our first conscious thought.

But we must guard against the temptation to put everything else first and crowd our communion with God into a corner. As I am writing this at 9.30 p.m., after a very busy day, perhaps it would be a good thing for me to put my preaching into practice and begin

Hope's Quiet Hour.

The Rest-Giver.

Come unto Me, all ye that labor and are heavy laden, and I will give you rest. Take My yoke upon you, and learn of Me; for I am meek and lowly in heart: and ye shall find rest unto your souls.—S. Matt. 11:28, 29.

"There are in this loud stunning tide
 Of human care and crime,
 With whom the melodies abide
 Of the everlasting chime;
 Who carry music in their heart
 Through dusky lane and busy mart,
 Plying their daily toil with busier feet,
 Because their secret souls a holy strain repeat."

The words of our text are so familiar that we accept them thoughtlessly, forgetting what an amazing offer they contain. On one side stand the weary and heavy laden—a multitude which no one but God can number. See that vast crowd of discouraged, tired people!

"O ye, beneath life's crushing load
 Whose forms are bending low,
 Who toil along the climbing way
 With painful steps and slow;—"

There were many of these before the War began, but there are many more now. And facing those wistful people stands one Man, offering the gift of soul-rest. That is what they need and want. That is what they have long been seeking. Is it within reach—offered to each weary soul?

to prepare for bed. The reason I can say so confidently that it is a great loss to our souls to allow communion with God to be crowded into a corner of the day is because I so often do the very thing I am warning you against. Did you think that "Hope" lived up to her ideals? It is very easy to preach, you know.

If we are to rest in Christ while we work for Christ we must copy the example of a famous doctor, who wrote in his diary: "I have resolved to pray more, and pray always, to pray in all places—in the house, on the highway, and on the the street; and to know no street or passage in this city that may not witness that I have not forgotten God."

Each room in our house should be a holy temple—a place where we meet God constantly.

And now I must give up talking to you—for there is Someone waiting for me in my room. He is waiting for you, too. Shall we keep Him waiting?

"I grow weary on the way I go,
Put underneath the Everlasting Arms—
Just for to-night."

DORA FARNCOMB.

Gifts for the Needy.

Although Christmas is over the Quiet Hour Purse is not allowed to grow empty. From "H. T.", Strathroy, came a gift of \$2; from "A Discharged Soldier", (sent especially for soldiers' dependents) came \$12, and from a "Friend" (for some "dear old lady") came a dollar. I may give that dollar to a dear, happy-faced maiden lady in the Hospital. She is about 70 years old, and deserves all the good luck she can get. Very often she finds it difficult to speak (she has asthma), but she is living up to the motto "Keep Smiling!" which is a worldwide motto to-day.

What a lot of good people there are in this old world of ours!

DORA FARNCOMB,
6 West Ave., Toronto.

The Fashions.

Note.—We cannot possibly supply patterns of designs clipped from other papers. If you order a number of patterns and one or two arrive before the rest, do not be alarmed. The division is sometimes made unavoidably.

When sending your orders for patterns to us, please cut out the picture of the pattern you want and enclose it. Also cut out the following blank, fill it in carefully and address to "Pattern Department, Farmer's Advocate and Home Magazine," London, Ont.

Name.....
Post Office.....
County.....
Province.....
Bust measure (if for waist or one-piece dress).....
Waist measure (if for skirt).....
Age (if for child).....
Number of pattern.....
Date of issue in which pattern appeared.....

Allow a week or ten days in which to receive pattern.

2715—A Stylish Dress.
Cut in 3 sizes: 16, 18 and 20 years. Size 16 will require 6 1/4 yards of 27-inch material. The skirt measures about 1 3/4 yards. Price, 10 cents.

2349—Girls' Dress.
Cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 will require 3 1/2 yards of 36-inch material. Price, 10 cents.

2723—"A Cover All Apron."
Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium will require 5 3/4 yards of 27-inch material. Price, 10 cents.

2730—Girl's Dress.
Cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 requires 3 3/8 yards of 36-inch material. Price, 10 cents.

2721—A Simple Day Dress.
Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 38 requires 5 1/2 yards of 36-inch material. Width at lower edge is about 1 3/8 yard. Price, 10 cents.

2710—Child's Dress.
Cut in 5 sizes: 6 months; 1, 2, 3 and 4 years. Size 2 will require 2 yards of 36-inch material. Price, 10 cents.

2707—Ladies' House Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 1/4 yards of 36-inch material. Width at lower edge is about 2 1/4 yards. Price, 10 cents.

2725—Girl's Dress.
Cut in 4 sizes: 8, 10, 12 and 14 years. Size 12 will require 3 yards of 36-inch material. Price, 10 cents.

2569—Ladies' House Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires for a 38-inch size, 6 1/8 yards of 36-inch material. The dress measures about 2 1/2 yards at the foot. Price, 10 cents.

44-46 inches bust measure. Size Medium will require 3 3/4 yards of 36-inch material. Price, 10 cents.

2732—Girl's Dress.
Cut in 5 sizes: 2, 3, 4, 5 and 6 years. Size 4 will require 2 3/4 yards of 44-inch material. Price, 10 cents.

2724-2734—Ladies' Costume.
Waist 2724 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2734 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. To make the dress for a medium size will require 6 3/4 yards of 36-inch material for the entire costume. The skirt measures 1 1/2 yards at the foot. TWO separate patterns, 10 cents FOR EACH pattern.

2719—Girl's Dress.
Cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 requires 3 3/4 yards of 27-inch material. Price, 10 cents.



2486—Boys' Suit.
Cut in 4 sizes: 3, 4, 5 and 6 years. Size 4 requires 2 1/2 yards of 40-inch material. Price, 10 cents.

2729—Ladies' Costume.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6 yards of 44-inch material. Width of skirt at lower edge is about 1 3/4 yard. Price, 10 cents.

2722—Girl's Dress.
Cut in 5 sizes: 6, 8, 10, 12 and 14 years. Size 10 will require 3 1/2 yards of 44-inch material. Price, 10 cents.

2711—A practical Apron.
Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large,

The story goes that Mr. Taft, in his younger days when he was a law reporter, had been studying a case in Somerville, O., and found he couldn't get back to the office that night unless he managed to stop a through express. So he wired to headquarters, "Will you stop the through express at Somerville to take on large party?"

The answer came back, "Yes."

The express was duly stopped at Somerville. The young law reporter got aboard with his copy, and the conductor said,

"Where's that large party I was to take on?"

"'Tis him," was the grinning answer. "That's all"—C. E. World.

The Beaver Circle

Dear Beavers.—The "Beaver Circle" is to be closed, because another department for boys and girls is to be opened. You will find it always—unless for some reason it has to be held out—on the inside of the back cover.

So to-day we say good-bye to the Beaver Circle. There are many letters still on hand. They cannot be published, but we can, at least give you the Honor Roll, and a few parting notes:

Honor Roll.—Margaret Ford, Lydia Earl, Bertha Faint, Hazel Bellisle, Marie Longman, Greta Bailey, Marion Ellwood, Estella Nelson, Gladys Morcombe, Dora Shaw, Ella Coffin, Amy Kelly, Isabel Lowery, Donald McCorquodale, Margaret Cappelin, Edna Saunders, Marjorie Ecker, Mae Duckett, Lloyd Wagg, Louise Henderson, Violet Watkins, Eileen Ord, Lizzie Jewell, Bertha Allan, Isabel Munro, Margaret Duncanson, Alma Hagan, Edna Fourney, Marjory Edminston, Willie Hales, Jean Henderson, Dorothy Saunders, Gladys Woods, Mary McPhail, Ervin Gibson, Bert Thompson, Ellen Davidson, Murray Kernighan, George Hilt, Mildred Lipsett, Mary McCurdy, Ruby Norris, Lyla Whittington, Ruby Nichols, Janet Nesbitt, Anna McVicar, Marjorie Brown, Ella Phyley, Margaret Charles, Helen Gilbertson, The Franklin Boys, Clayton McCauley, Max Boog, Vera Carlton, Ellen Davidson, Isabel Duncan, Isabel Squires.

Beaver Circle Notes.

Marie Longman, R. 1, Alma, Ont., wishes Eva Pollock to write to her. Ellen Davidson, Clear Lake, Muskoka, Ont., wishes to hear from Bessie Brown.

The following wish some of the Beavers to write to them: Margaret Ford (age 15) Portneuf Que., Bertha Faint (age 12) R. 1, Midland, Ont.; Gladys Morcombe, Froisher, Sask.; Dora Shaw, R. 1, Coldwater, Ont.; Helen Gilbertson, (age 10), Simcoe, Ont.

Puck in saying good-bye to you, thanks you all for the pains you took in writing for the Beaver Circle and your patience when, often your letters had to be held out for many weeks. And now a very happy New Year to you all, and may you keep on living up to your old name, busy and happy as "Beavers," and trying your best to so the things that the new corner for you may suggest.

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.]

DEAR Ingle Nook Friends:— I wonder if you are ever "consciously conscious" of a deep satisfaction when you hear voiced by someone who by every test should know whereof he speaks, the very opinions to which you have held and which you have even dared to advocate. Such a satisfaction, it should be clear, is a very different thing from empty conceit; it means simply and chiefly that one can at last feel that the things one has felt to be right for the world are in good hands, and will be "pushed", to use a very expressive colloquialism. For where there is one man or woman of influence who has taken up a subject vigorously and enthusiastically, there are sure to be others. Moreover, each must be a center of dissemination for the ideals and principles enunciated; each center must be the inspiration of many other centers—and so the work goes on and great changes are eventually wrought.

Please do not think I am egotistic if I say that such a peculiar satisfaction was mine last night.—I am sure you have often experienced the same in your reading, or when listening to some speaker.

As you know I have always stood out for these ideas:

That the worship of the material—the mania of owning things, as Whitman puts it, is at the bottom of most of the evils of the world.

That the development of the mind

Beaver Circle

The "Beaver Circle" cause another department is to be opened.

ay good-bye to the ere are many letters cannot be published, give you the Honor ing notes: Margaret Ford, Lydia Hazel Bellisle, Marie Wiley, Marion Ellwood, Dora Kelly, Isabel Low...

Beaver Circle Notes.

R. I. Alma, Ont., k to write to her ear Lake, Muskoka, from Bessie Brown, some of the Beavers Margaret Ford (age 15) a Faint (age 12) R. I. D. L. Morcombe, Frob- Shaw, R. I. Cold- Gilbertson, (age 10),

good-bye to you, the pains you took Beaver Circle and your en your letters had many weeks. And New Year to you all, on living up to your happy as "Beavers," st to so the things for you may suggest.

The Nook

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Nook Friends:— you are ever "con- scious" of a deep ou hear voiced by ery test should know the very opinions to and which you have cate. Such a satis- e clear, is a very m empty conceit; chiefly that one can e things one has felt world are in good "pushed", to use colloquialism. For man or woman of taken up a subject astiastically, there are Moreover, each must ination for the ideals aciated; each center tion of many other work goes on and ventually wrought.

nk I am egotistic if peculiar satisfaction t.—I am sure you ed the same in your ning to some speaker. ve always stood out

and richness of it mean more to one's happiness and usefulness in life than the mere possession of over-large houses, and over-much land, and all the trappings that express material wealth.

That to correct and stem all foolish and off-the-track ideals, it is only necessary to educate, along right lines, from the very beginning:—To teach children, so that it shall be a part of them when they grow up, that they have been put here for the sole purpose of doing useful work and developing high character, not, primarily, to "grab" for themselves; that this bit of time spent on earth is but a drop in the vast ocean of years in which we shall have to live, and that there- fore, it is scarcely the part of wisdom, or even commonsense, for us to spend our best energies in amassing for ourselves an over-supply of material things if, in so doing, we run the risk of neglect- ing the more permanent non-material things "of the spirit"—sympathy, high ideals, world-brotherhood, common sense, unselfishness, truth, honor, tolerance, and all the rest of the fine attributes for which we should strive.

Finally, that, while agricultural edu- cation, taught by experts, is most necessary, in the rural districts, it must not be pushed, like the foot of the camel in o the tent, to the too drastic exclusion of the broad general education so necessary to the all- round man or the all-round woman.— Because: All children born in the country are not fitted to be farmers, and must have their chance to find out what else they are good for.—And Because: There is a whole world of pleasure in life bound up with non- agricultural subjects—literature, art etc.—and a whole world of thought stimulation in such subjects as phil- osophy and psychology, and from neither of these should dwellers in the rural districts be shut out. Men and women in the country, as well as in the city, must be trained to think along more lines than one before they can attain other than a lop-sided development or take their place with confidence among the most highly evolved humans in the common- wealth.

There have been times, indeed, when I have been somewhat worried lest my readers should think I have dwelt over- much upon educational subjects, and not enough upon the fancywork, fashions, etc., that are so dear to many hearts. But last night I had not a single regret left, for I heard similar ideas put forth —only so much better—with all the eloquence and forcefulness that one of the greatest men in Ontario could minister.— And I was glad.

The speaker was the Hon. Dr. Cody, Minister of Education for Ontario.

Now it is true that in some quarters Dr. Cody has been "slammed". Never- theless this hearing of him has confirmed me in my opinion that we have at last been given the very right man for the post of Minister of Education in our Province—a selection that reflects credit upon the perspicacity of Mr. Hearst. Upon one matter, it is true, I cannot agree, personally, with Dr. Cody, but it is so trifling that it is not worth mention- ing here. I am convinced that, in all main essentials, his principles and ideals are those that will establish just what we need.

He was here in connection with the opening of the new technical school, and of course, part of his address dealt with the matter of technical education, by which, as you understand, is meant education in all that pertains to work with the hands—industries of all kinds, including agriculture.

It was a delight to hear, not only that Dr. Cody has in mind to help and en- courage technical education of all kinds, but also that he elevates it to an equal status with the more strictly academic training which, for so long, has appropri- ated to itself the term "education."—It was a still greater delight to hear that he has also in mind to have mental work and manual work go, as far as possible, hand in hand. Every child, he maintains, must have a good general education, as well as the more specialized technical training for which his capacities and talents especially fit him. . In the new era upon which, after the conclusion of the Great War, we are now entering, we must have, he says, better living all

the way round, a chance for all needful comfort and culture in our homes, better facilities everywhere for necessary ad- vancement socially and otherwise, but everything looking, as the chief end, to development of Character.—When a man puts "character" first, you may depend upon it he is on the right track.

Incidentally Dr. Cody foreshadowed the establishment of medical and dental inspection to the farthestmost school in the farthestmost rural district of Ontario. Because of his help we may also look forward to better housing for the little ones in their school homes, and better teachers, upon the whole, to give in- struction. He sets great store by the personality of the teacher; and so should we all.

I think I could write on about this, and about all that he said, for a week, but "lack of space, as usual, prevents.

Let me advise you, then, to hear Dr. Cody for yourselves. Invite him to your Teachers' Conventions, and to meetings of other organizations formed for progress; if he is not already "booked" for some place else he will go.—And if you have him for the Teachers' Conven- tion do not confine his speaking to the Convention, nor, indeed, ask him to speak during the regular sessions. Let him rest during the day, then have a big public meeting at night, in your biggest hall. Give everyone a chance of hearing him. He is a real orator as well as a man of ideas, ideals and commonsense. (Per- haps the real orator must always be possessed of the first two of these.) The parents have as good a right as the teachers to hear the Minister of Educa- tion; surely they are quite as much in- terested in all that pertains to the up- bringing of the children.

In this city, before the lecture, a banquet was given in Dr. Cody's honor, attended by the Board of Education, the principals of the schools, and others especially interested. . I think it would be a good idea for you to have some- thing of the kind when Dr. Cody visits your locality, a banquet attended by the rural trustees, preachers, teachers, etc., of your district. In the intimacy of such a gathering, with its informal after- dinner speeches, much might be accom- plished; the trustees must surely go home from such a gathering with new inspira- tion—something to think about and work upon for a long time; the Minister of Education, on the other hand, must surely welcome such an opportunity to get close to the view-point of the rural trustees and learn, at first hand, the more pressing needs of the rural districts.

I have no fear that the farmers, com- paratively unused to speaking in public, will be at all tongue-tied in the presence of Dr. Cody. They are rapidly learning to express themselves "on their feet". After all, when a man has ideas, and is enthusiastic enough, words usually come when needed, and, as I well know after attending many rural Conventions, elo- quence, if not oratory itself, is not lacking among the folk of the farms.—But, lest there should lurk an inkling of shyness in the mind of any reader, in regard to the program I have suggested, I want to state right here that Dr. Cody is so genial, so approachable and so "home-y" that no one can possibly feel the slightest abashment with him. After all a truly big man is always approachable. The bigger a man is the more certainly does he induce unselfconsciousness in shy folk who come in contact with him.

LAST of all—I expect there will be women at the banquet. Last night Dr. Cody stated his wish that there may soon be a woman on every school-board, even to the remotest rural section. . Think of that, dear woman readers, and "get busy". The Minister of Education is depending upon you to help forward in the great work of educa- tion in Ontario.—In Ontario? No,—in the world. For no longer is any spot on the globe, no matter how small, isolated. The pebble that is thrown into the corner of the great world-pond in one's own little village or school-section must henceforth start circles that will, eventually, encircle the earth.

I had intended, to-day, to write about some pet economics in the making over of clothes, "cheap though nourishing" cookery, etc., but that can very well wait over until next week. It has been switched off by a worthy cause, has it not? JUNIA.

WANTED! Time to help others! These GOLD DUST hints shorten house- hold tasks.

Short work after baking Mixing bowls, rolling pins, spoons, pans, are obstinate to clean when they get "stuck up."

Bathroom quickly cleaned Even in the bathroom there's a bit of oil, a bit of grease. But Gold Dust quickly gets rid of dark circles and rims in wash bowls and bath tubs—because Gold Dust quickly dissolves the grease.

Sparkling mirrors and windows Your everyday plain or "pressed" glass will quickly respond to this treatment: Dissolve a tablespoonful of Gold Dust in a dishpan of hot water, and use a small brush.

A quicker way to wash the dishes If you want to get rid of drying your dishes with a towel, try this: Use a tablespoonful of Gold Dust to a dishpan of water, wash all dishes of one kind together, scald with boiling water in a wire dish drainer.

GOLD DUST The Busy Cleaner MADE IN CANADA THE FAIRBANK COMPANY LIMITED, MONTREAL

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WANTED Crate-fed Chickens (Dressed) Also LARGE FOWL (Alive) Write for Price List. WALLER'S, 702 Spadina Ave., Toronto

DO YOU NEED FURNITURE Write for our large, photo illustrated Catalogue No. 7—It's free to you. THE ADAMS FURNITURE CO., Limited Toronto, Ontario The Advocate Advts. Pay.

Paper Beads.

For "a True Friend", Oxford Co., Ont. To make paper beads take any rather thick colored paper, a magazine cover will do nicely, and cut it into triangles 6 or 7 inches long and 1 inch wide at the wide end. Next take a knitting needle and begin rolling at the large end, then fasten the little point down with mucilage or paste. This makes a long, narrow bead. When all the beads have been made string them on hat-pins or knitting needles and give a coating of clear shellac varnish. When dry put together with glass beads of various sizes between. Be very careful about the kind of glass beads used, as upon this depends, greatly, the beauty of the "string."—Yes, they are as you say, "lovely"; if they were hard to get, and a big price put upon them, people would value them highly. One can have a string to match every dress, too, which is a great recommendation.

Canning Beef.

For Mrs. G. D., Middlesex Co., Ont. There are several methods for canning meats. One is as follows: Cut up the meat (beef or other), remove the bone, season to taste and pack tightly in clean jars, adding enough fat to form a "lid" on top when cooked. Do not add any water. Put on the glass lids, without rubbers and place on a rack in a wash-boiler, then fill boiler with water to within one-third of the top of the jars. Boil slowly for 5 hours, adding more water to the boiler as necessary. Next put on the rings which have been dipped in boiling water, also the steel rims which have been boiling beside the jars, screw down, let cool, then put away in a cold place. The jars which snap down, by the way, are much better than those that screw down. Also it is best to select wide-mouthed jars, as it is easier to get the meat out of them. The whole process, you see, is exactly similar to that used in canning fruit, only that long boiling

WILLIAMS

New Scale PIANOS



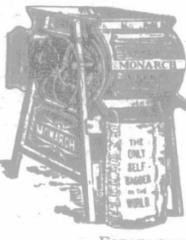
THE Pure, rich, mellow tone, and the sensitive responsiveness of this famous instrument combine to lift it high above the commonplace. It is a piano that will maintain its enduring charm for generations.

Georgian Model, \$550.00
THE WILLIAMS PIANO CO., LIMITED, OSHAWA, ONT.
 Canada's Oldest and Largest Piano Makers

Seed Corn

Highest Quality.
 Germination Guaranteed.
 Wisconsin No. 7, White Cap Yellow Dent and Yellow Dent, selected from Essex County's best crops. Write and see how much a three-cent stamp will save you.
J. A. MUNGER, Harrow, Ontario

The "Monarch" FANNING MILL



Endorsed by The Seed Growers' Association of Canada; also by Dept. of Agriculture, Nova Scotia.
 Get Our Factory to Farm Prices.
Mississippi Iron Works
 Almonte, Ont.
 ESTABLISHED 1875

is necessary. If the meat in any of the jars seems to have boiled away to leave too much space at the top, it may be well to fill the jars' up with the liquid from one of the jars, the meat from which can be used at once. Always use good lids and new rubbers. Suet may be rendered and poured over the top to make the sealing doubly sure.

Fresh pork may also be canned in this way. Fry the slices well, pack in wide-mouthed sterilized jars, then fill up with hot lard or fat and seal. Before using melt the fat and drain it off.

To Corn Beef.

Corned beef is really very nice, if properly cooked, especially when served with boiled cabbage or turnips. It is an easy matter, too, to corn it at home. First make a brine of cold water and salt, strong enough to bear up a potato. Add a pinch of saltpetre, but this must be used sparingly, as even a little too much will make the beef hard; 2 ounces will be quite enough for a barrel of beef. Lay the beef in the brine and leave for 2 or 3 weeks, turning it over now and again. This will keep beef very nice during winter weather and cool spring and fall weather. For the heat of the summer a more concentrated brine is necessary, and may be made by boiling the brine down, say from 3 pailfuls to 2 pailfuls.

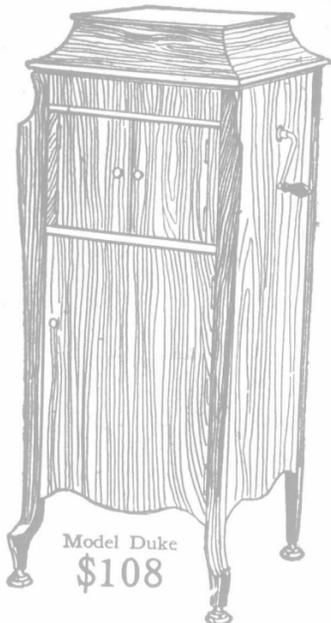
If spices are liked, add allspice, cloves, etc., to the brine.

To cook corned beef so that it will be really palatable, put it in boiling water and let boil 2 or 3 minutes, hard, then draw to the very back of the range and let simmer several hours; all afternoon will not be too long. Put any left-over pieces back in the water until used, as that will keep the meat moist and pink. If the beef seems very salt soak it for a while in cold water and drain off before putting it to boil.

Test It Alongside Any Other

That is the fairest way to prove the quality of the "Phonola."

We welcome such a test with any other make of phonograph, because the "Phonola" tone arm and sound box have proved the most perfect on the market to-day. The "Phonola" plays without any "blasting" or foreign sounds. The motor is noiseless. The cabinet is perfect in design and finish. The "Phonola" plays all makes of disc records to your liking. The more critical your musical judgment, the more thoroughly you'll appreciate the



The price of the "Phonola" is from \$10 to \$25 less than other high-class phonographs. We make the "Phonolas" complete right here in Canada in our two factories at Kitchener and Elmira.

The model illustrated is one of our best sellers. It is a large cabinet, standing 42 3/8 inches high, 18 1/4 inches wide, 20 1/4 inches deep. Mahogany, Oak or Walnut. All metal parts heavily nickel-plated. Double spring motor.

Other "Phonola" Models from \$25 to \$310.

"Phonola" Records Very Popular

Every month the demand is increasing. They play with the sapphire point—no needles to change. A new list of beautiful, clear, full-toned double disc records issued each month. Bands, vocal, instrumental. Look for the "Phonola" trademark on each disc.



"Phonola" Double Disc Records 90c

DEALERS—There are some localities in Canada where we require good, live representation. The "Phonola" agency is getting more valuable every day. Write for our proposition.

The Phonola Co. of Canada, Limited
 Kitchener, Canada

Our Serial Story

The Forging of the Pikes.
 A Romance Based on the Rebellion of 1837.

Serial rights secured by the Farmer's Advocate and Home Magazine.

CHAPTER X.

An Unexpected Encounter.

July 30th, 1837.

SUNDAY night again, and have just returned from Hank's, where I went after church. Very warm weather. Hank and I did not stroll off as usual for there was staying at his home over the day a man from Toronto who talked much about how things are going at the Capital—to which Hank and I were very keen to listen.

As we know, Mackenzie has been much more outspoken, of late, in his *Constitution*, and this man says that talk and dissatisfaction increase daily; that Elliott's tavern on Young Street has become a favorite rendezvous of the more radical among the Reformers; and that it is rumoured that more secret caucuses are held from time to time at Doel's brewery, which is somewhere in the heart of the place, but which I do not remember.

In reply to a question from my father, who was there too, as to whether there has been any talk about armed resistance, as we have heard mooted, he said that he understands that such is mentioned more and more frequently but that the thing is not taken seriously except by a few of the more hot-headed, which is what my father always argues must be the case.

And now I must record how once again I have had an encounter which was altogether unexpected, and which I do not even yet know was, on the whole, pleasant or otherwise.

Yesterday evening, the work for the day being fairly over, I went down to the Corners to get the mail, it being time for the weekly visit from the "stage."

As soon as I got there I ran first of all into Hank, who said there was a fellow at Mistress Burns's who wanted to be taken up the river right away.

"I can't go away," said Hank, "so maybe you'll do the job."

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by the Farmer's
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R. X.

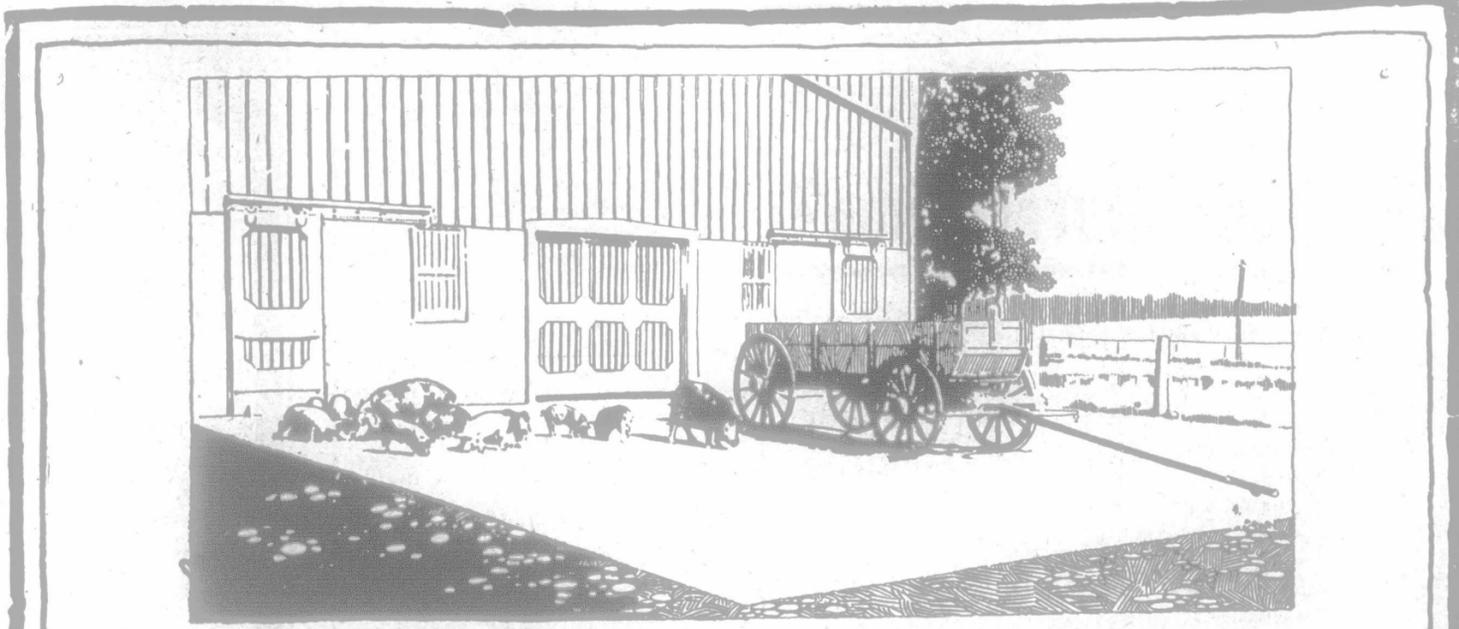
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July 30th, 1837.
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right away.
said Hank, "so



SAVES FEED—and delivers the Bacon

WHY feed your hogs in the mud?
Why waste high - priced feed?
Feed is worth money—Concrete Feeding floors save it.

A mud lot is an extravagance—it wastes the feed.

A concrete-paved lot is an economy—it saves grain, labor, manure and money. In these days of high-priced feed you cannot afford to feed grain to

mud-holes. It's pork we need. Hogs are at top-notch prices. Now is the time to make every grain of feed bring market value. This can only be accomplished by methods of feeding that absolutely prevent waste.

Feeding in the old knee-deep feeding lot involves waste of the most terrible kind. Feed is lost, hogs become covered with filth, disease is encouraged, loss is invited.

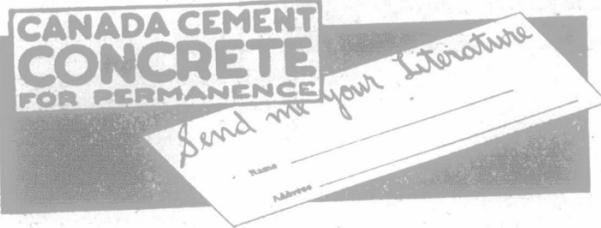
Concrete Feeding Floors

are money-makers for farmers and money-savers for the country. It has been proved by experience that the saving of feed on a concrete floor may be as high as 30%. Such a floor will pay for itself in one normal season through saving of feed and rapid gain in weight of animals. It is not a difficult matter to build one. Write for our free "Concrete Feeding Floor" Booklets. These describe the methods of construction in detail.

Our Free Book

entitled "What the Farmer can do with Concrete," that has helped more than 100,000 farmers, will help you—by showing you how easy it is to construct improvements that are permanent, fireproof, weather-proof, vermin-proof, repair-proof. Contains 100 pages of practical suggestions with plans and full directions for building barns, foundations, floors—everything in fact, that is best made of concrete.

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Sales Offices at Montreal, Toronto, Winnipeg, Calgary
"Canada" Cement can be secured from over 8,000 dealers, in nearly every city, town and village in Canada. If you cannot locate a convenient Dealer, write our nearest Sales Office.

"How far does he want to go?" I asked.
"As far as the Gulch. It's a pretty stiff pull, considering the rapids, but he's to meet somebody there to-night and wants to get through."
"I'm his man," said I, for if there is one thing more than another that I like it is a river trip of a summer's evening.
"You'll find my canoe around the bend," said Hank. "I'll drop in and tell him to go down to the landing and meet you."
"All serene," I agreed, giving Hank a poke, "I'll take good care of 'Dimple'."
—One day I had discovered that name traced in very small letters on the bow, and had made it an excuse for teasing.
"See that you do," he laughed. "By the way the fellow seems to be an artist or something. He spent all day sketching bits about the river, with a crowd of the youngsters at his heels. Talks like an Englishman."
"All right," I said, "I'll manage him."
"Be careful at the rapids," he warned.
"The rain has swollen the river a bit and it isn't so easy to see the stones."

Sydney Basic Slag
FERTILIZES YOUR LAND ECONOMICALLY AND EFFECTIVELY

If you know the goods place your order with our local agent right away. On the other hand, if you have never used SYDNEY BASIC SLAG, write for our pamphlet giving all information.

Agents wanted where not already represented. Write immediately.

The Cross Fertilizer Co., Limited
Sydney, Nova Scotia

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

"I'll be careful."
So off he went one way and I another.

Hank's canoe is a beauty. The school-master helped him build it, and an Indian from up the river. It is light and strong, graceful as a swallow, and buoyant as an autumn leaf on the water. Almost I coveted it as I ran it down off the bank.

In ten minutes I was at the little landing waiting for my passenger. It was nearly dark, but a very clear evening and very still so that the swoop of a nighthawk's wings in the woods beyond could be clearly heard; and for a quarter of an hour I sat there very happily, pushing the canoe out a little from time to time to keep it from grating on the landing, and looking about,—at the farms on the slopes dimly limned in gray against the black forest, and at the houses of the Corners snuggled down near the river, and at the great dome of sky above, intense with almost the blue of midnight, only the faint aurora of gold arising from the far west to show where the sun had gone down.

No one was in sight, for the houses.

WHAT IS Elora Agricultural Lime?

It is a mixture of burnt lime and ground lime stone

It is so mixed as to assure immediate sweetening of sour soils for the benefit of the first crop to be sown after a dressing has been applied—and for the benefit of subsequent crops.

It is the BEST POSSIBLE dressing for sweetening all sour soils. It is particularly adaptable for heavy clay soils.

It cures acidity, releases plant foods from the soil, and makes it work up well.

You should spread this on your soil this spring. The Burnt Lime will sweeten it in a few days, while the Ground Lime Stone will remain to work subsequent improvements.

Rains do not wash it away.

If you are in doubt as to the condition of your soils, send us a pound of your soil, we will analyze it and advise you.

Consult us. Write for our booklet.

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PARIS :: ONTARIO



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kills lice and mites. Keeps down bad odors. Destroys disease germs. Use it for spraying roosts, nests and poultry houses. At your dealer's in 1 gal. and 1 qt. cans.

Produce More Eggs Waste Less Feed

PRATTS Poultry Regulator will help you get more eggs—more chicks—more layers—more profits. What's more, it will help you to save money on feed, because it makes your fowls digest their feed and turn it into eggs. Poor digestion is a source of waste, and waste reduces your profits.

"Pratts," added to the daily ration, will pay handsome dividends in health, vigor, and egg-production.

At your dealer's in popular priced packages, also money-saving 25-lb. pails and 100-lb. bags.

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Canada's Best Poultry Fencing

The shut-in and shut-out Fencing—a poultry fence strong enough to withstand the combined weight of two big horses. And that without a top or bottom board either. Our lock is the secret of its strength—a real protection to large fowls and little chicks too. If you are interested in such fencing, write us. Ask for our literature. We also manufacture farm fence and ornamental fencing and gates. Dealers nearly everywhere. Live agents wanted in unassigned territory.

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

do not come very close to the landing. "It is," I was thinking, "the peacefulness that Barry says 'is almost pain,'" and then I heard the crunching of shoes on the gravel path above the bank, and presently could descry my passenger. Even in the half light there was something about his manner of walking which revealed him no yokel in his movements as are we here in the bush, not so much, I think, because of our work as because of our carelessness.

A few paces nearer he whistled, and I whistled back.

"Oh, there you are!" he called, "Now will you steady that confounded American boat of yours about so I can get in?"

Instantly I recognized the voice. It was that of Howard Selwyn, and I swear it gave me a peculiar sort of start, though why I do not know.

Answering nothing I swung the craft about and prepared to steady it with extra caution, but then had reason to know that Selwyn spoke only in jest, for scarce had he reached the water's edge than he landed in the canoe, fair in the middle and as lightly and surely as any Indian.

"There!" he said, "That wasn't so badly done! Now, I can manage your infernal roads, and I can dream sweet dreams in your log cabins, and eat your pigeon breasts and maple sugar with good relish; I can even stomach your feather beds and your accent.—But when it comes to your especial brand of river-craft it's hit or miss."

"You managed very nicely that time," I said, as icily as I could muster, to which he took no notice.

"Oh, that was a hit," he said, seating himself, and proceeding to make himself comfortable with a pack of something at his back. "Half the time I miss. Would you believe it?—I've upset a canoe twelve times this season. I'm rather superstitious about the thirteenth, so keep it off, like a good fellow."

"Perhaps you'd prefer someone with a better accent," I said, "to take you up."

At which he looked up quickly.

"Oh come, come," he said, "Can't you take a joke? Push out! My man will be waiting for me by this time, with a pan of partridge roasted, and half-starved himself, poor nunny, for he never will eat a bite until I come."

All this time he had been arranging himself, and was at last comfortable, with his long, shapely legs extended down the canoe.

"Not by any means bush-fashion," he observed, "but by George it's solid luxury.—A canoe in Ontario!—A gondola in Venice is nothing to it."

He had taken off his hat, and the faint light from the West shone full upon him, so that I could see his rather long and fair hair blowing back from a forehead as white as ever was, though the lower part of his face was somewhat browned from the sun and wind. Yes, this Selwyn was handsome; with a thrilling personality, too, for one could not but be sharply conscious of him. Yet my heart, for some reason, did not go out to him, and for that I felt demeaned of myself. For surely the little incident at the tavern had not been worth this grudge.

To be continued.

The Dollar Chain

For War Relief Work: Contributions from Jan. 10 to Jan. 17: "X", \$1; "Toronto", \$2; "H. C. P.", \$5.

Previously acknowledged \$5,795.00
Total to Jan. 17 \$5,803.00

Please Note: HENCEFORTH CONTRIBUTIONS TO THE DOLLAR CHAIN WILL BE DEVOTED EXCLUSIVELY TO THE HELP OF BLIND AND MAIMED CANADIAN SOLDIERS.

Kindly address contributions to The Farmer's Advocate and Home Magazine, London, Ont.

Plans are now under way for salvaging for use in times of peace the countless tons of shells and other ammunition now ready for use or lying on the fields of Europe.

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CABLE BAND
SILOS
ARE BEST
BY TEST

Over four thousand satisfied owners in Canada. Will keep the ensilage perfectly, right down to the last forkful. Lasts a lifetime. Only the choicest lumber used. Cable bands ensure rigidity full or empty. Easily erected, requires no special skilled help. Can be put up in 10 to 15 hours. Write us for descriptive literature and prices for complete silo.

Patented March 16, 1916.

The Nicholson Lumber Co.
Limited
Burlington - Ontario

The Essex Two-Plow Light Farm Tractor

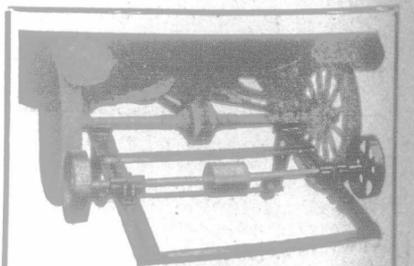


MADE IN CANADA

10 to 20 H.-P.

Equipped with a good belt pulley.
AGENTS WANTED.

Essex Tractor Co., Ltd.
Essex, Ontario



The Handy Power Plant

Modernize your farm or business with the best and cheapest power device made.

544 F. O. B. TORONTO

We still have openings for a few live dealers. Write now.

WEBBER MACHINE CO.
848 Dupont St. Toronto, Ont.

Essex Co. Seed Corn

White Cap, Wisconsin, Golden Glow, Bailey and Leaming. Germination 95-98%. Bags free. Special rates for Farmer's Clubs. W. A. Barnett, Harrow, Ont.

Current Events

The Faculty of Applied Science, University of Toronto, will start a special course for returned soldiers on Feb. 1st.

Fifteen hundred Canadian soldiers who were reported missing and presumed dead, have been located in German prison camps.

The Ontario Government is to take over the business of selling liquor for medical purposes.

Hon. C. J. Doherty, Minister of Justice; Sir Geo. Foster, Minister of Trade and Commerce; and Hon. Arthur Sifton, Minister of Customs, have joined Sir Robert Borden in Paris, and may take their turn and sit with him at the Peace Conference. Also, some of the Western "Grain Men," will go to Paris to confer on matters relative to feeding Europe, an important matter if Bolshevism is to be checked.

The first formal meeting of the Peace Conference was held on Saturday, Jan. 18. The five great powers, Britain, France, the United States, Italy and Japan are represented by 5 delegates each. Canada, Australia, South Africa and India have 2 delegates each, and New Zealand. Siam sends 2 delegates. The delegates of the British overseas Dominions are participating in the proceedings, but shall have no separate voice in arriving at the ultimate decisions, as the British Empire will vote as a unit with Premier Lloyd-George as spokesman.

The United States has voted to go dry, and the measure will become effective July 16, 1920. Over half of the States already have prohibition.

Prince John, youngest son of King George, died at Sandringham on Sunday.

The Sinn Feiners met in Dublin on Jan. 21 for the first Assembly of the Irish Republican Parliament.

The elections in Russia for the German National Assembly began on Jan. 19th, the returns for Baden, Bavaria and Wurtemberg, already in, showing an overwhelming victory for the Moderate Socialists. All favored the establishment of a Republican form of Government similar to that of the United States of America. Altogether the "Reds" secured very few seats. At time of going to press the results in Prussia are not known, but it is thought that the "Reds" will have little chance of a foothold. On Jan. 17 their leaders, Karl Liebknecht and Rosa Luxembourg were both killed in the streets, and although on Jan. 19 there was some rioting the Government troops were ready. In presenting its claims for election the Ebert Government published a draft of a new Constitution to be submitted to the National Convention. It provides for a "United States of Germany", with a President elected for 10 years by direct vote of the whole people. The Ebert Socialists are also laying plans to bring all the industries under state control, including the coal mines and chemical works. The railroads and munitions factories are already under state control.

The Salvation Army Appeal.

The Salvation Army is appealing to the citizens of Canada for funds to carry on their good work during the period of "home-coming" and reconstruction, and the record of the Salvation Army warrants a hearty response from the hearts and pocketbooks of the Canadian people. Throughout the war they have been exceedingly modest in their requests but their efforts and achievements have been above criticisms. The better people know the Salvation Army; what it has done and is doing, the more gladly do they contribute to it. An opportunity will be presented this week to help the "Army" assist men, women and children who need aid. Everyone should endeavor to share in this good work by giving.

The Salvation Army Million Dollar Fund

MAIL YOUR CONTRIBUTION TO ONE OF THE TREASURERS BELOW, OR TO COMMISSIONER RICHARDS, 20 ALBERT ST., TORONTO

We MUST provide for the need of the Soldier and his family!

It is absolutely necessary to ensure certain safeguards and comforts to our boys over there and over here, so that they may be re-established in Canada, strong in body and soul, contented that we at home have stood by them to the finish. What sacrifice can we make for the boys who were prepared to sacrifice everything for us?

What the Salvation Army Has Done

It has provided comforts for fighting men since the twelfth day of the War. Hundreds of thousands of parcels of food and clothing for the boys. Tens of thousands of beds in Hostels in daily use in France, England and Canada. 197 Huts for Soldiers. 1,200 uniformed workers. 45 ambulances. Thousands of War widows cared for. Looked after soldiers' families. Labored for the Master. Helped to preserve the home ties. Given the MOTHER touch to lonely men.

What Remains to be Done

Keep the Hostels open and open more, so that every returning soldier can get a clean bed and wholesome meals at a price he can afford to pay.

Provide comforts and safeguards for our boys, advancing into Germany, as well as those coming home and needing a place to eat and sleep, in Halifax, St. John, Quebec, Montreal, Kingston, Toronto, London, Chatham, Winnipeg or Vancouver.

Guide and assist soldiers' families, especially the widows and orphans.

Soldiers Home



Coming Campaign

January

19th to 25th

The Salvation Army is equipped and organized to take care of the soldiers' URGENT AND PERSONAL needs—needs that are imperative. It has never made a general appeal for funds to carry on this work until now. Give and give liberally. If you are not certain that your contribution will be taken up by a canvasser, send it direct to the Hon. Treasurer, Sir Edmund Walker, Toronto—subscriptions will be acknowledged.

"God loveth a cheerful giver"

SALVATION ARMY MILLION DOLLAR FUND COMMITTEE
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SIR EDMUND WALKER
13 Toronto

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J. J. MORRISON, Secy.

HIGH-CLASS HOLSTEINS at AUCTION

The entire herd of Albert Mittlefehldt will be sold to the highest bidder on
WEDNESDAY, JANUARY 29th, 1919

This herd contains individuals of as good breeding as there is in Canada and comprises 25 head, including 12 cows, a number of heifers and heifer calves, and one bull calf, also the stock bull Pontiac Korndyke Toitilla. This bull has given a large percentage of heifer calves.

This will be a good chance to procure some excellent females at your own price. Mr. Mittlefehldt has bred and raised this herd and knows their breeding to be of the best.

WM. McQUILLAN
AUCTIONEER

There will also be sold an Imp. Percheron Mare (black) 12 years old. The farm is only a minute's walk from T. H. B. Station, Port Davison. Trains stop right at the farm morning and evening of day of sale. Sale commences one o'clock. Lunch will be served for those coming from a distance.

TERMS: cash or 6 months' credit on bankable paper with interest at 6% per annum.

ALBERT MITTFELDLT, Proprietor
WELLANDPORT, ONT.

POULTRY AND EGGS

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 advertisement inserted for less than 50 cents.

AFRICAN GANDERS, INDIAN RUNNER, Pekin and Muscovy Ducks, Barred Rock Cockerels. John Annesser, Tilbury, Ont.

BARRED ROCKS, THE SAME OLD STRAIN that wins in egg and show contest; cockerels, two and three dollars; also a few nice pullets. Central Ontario Poultry Yards, Colborne, Ont.

BREEDER OF HIGH-CLASS BARRED Rocks and Pekin ducks. Stock for sale at reasonable prices. Leslie Kerns, Freeman, Ont.

FOR SALE—ROSE-COMB BROWN LEG- HORNS—cockerels and pullets; bred from our best layers, and are very vigorous. Galloway & English, "Box A," Ingersoll, Ont.

MAMMOTH BRONZE TURKEYS FOR sale; prize winners. Angus Beattie, R.R. No. 1, Wilton Grove, Ont.

Offering a few White Wyandotte Cockerels of good type, at \$5 each, Approval. Frank Morrison, Jordan, Ontario.

TWENTY FIVE YEARS A BREEDER OF barred rocks, that are barred and bred right from first-class laying hens. Cockerels for sale, show and utility. Four and five dollars a cock. Order direct from this advertisement. Satisfaction guaranteed. Walter Bennett, Box 43, Kingsville, Ontario.

WHITE WYANDOTTE COCKERELS, HENS, and pullets bred from winners at Guelph for 4 successive years. Improve your stock. Satisfaction guaranteed. R. Trivett, Box 346, Newmarket, Ont.

LIVE POULTRY WANTED
Special prices for large, fat hens alive. Also good spring chickens, alive or dressed. It will pay you to sell to
C. A. MANN & CO.
78 King Street - London, Ontario
Canada Food Board License 7-078

WANTED

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.

CHEESEMAKER, OPEN FOR ENGAGEMENT for coming season. Best of references. Apply Box No. 20 Farmer's Advocate, London, Ont.

FOR SALE—200 ACRE FARM, FIRST-CLASS condition, buildings included. Apply E. H. Orris, Box 142, Springfield, Ont.

FOR SALE—BLACK AND WHITE COLLIE pups; heelers. Price \$4. T. W. Campbell, Alliston, Ont.

FOR SALE—MAGNIFICENT STOCK FARM, fine soil, land neatly undulating; superior buildings, modern labor saving appliances, broad, unbroken fields; hardwood bush; delightful location, easy distance to churches and schools. Intending purchasers should write direct to S. G. Read & Son, Limited, Brantford, Ont.

MAN AND WIFE TO MANAGE SMALL farm where prize stock is kept. Man must understand stock and fowl, wife must be good butter-maker. A beautiful home, and extra good outbuildings. Good wages will be paid. Box 1 Farmer's Advocate, London, Ont.

YOUNG MAN DESIRES WORK WITH stock breeder fourteen months' experience on stock, grain, fruit, truck farming. Can handle horses, milk and cow. Box A, Farmer's Advocate, Toronto.

WANTED—EXPERIENCED MAN TO TAKE charge of small dairy, with cows, in District. Must be a worker, and of good character. The right man. State age, experience, and references. W. J. Brown, 193 Woodward, Toronto, Mich.

21 Complete Clearing Sale 21

Twenty-one pure bred and three high grade Holsteins to be sold at lot 3, con. 11 East Zorra, one mile from Woodstock on

JANUARY 29th, 1919 at one o'clock sharp.

There are ten mature cows, five two-year-olds and four calves. We have never done any official testing but believe these cows would make good under test. We have used such sires as King Segis Pietertje, his dam with an A. R. O. record of 30.51 lbs. butter in 7 days, average test 4.70, average test for 30 days 4.06. Centre View Butter Baron M, a son of Brookbank Butter Baron, and Prince Colanthus Canary A, his own dam being a 30-lb. daughter of a 34-lb. cow, with a yearly official record of 27597.4 lbs of milk and 1123.53 lbs of butter, while his sire's dam has a record of 31.95 lbs of butter and is a daughter of a 34-lb. cow. Most of the younger members of this herd are sired by Prince Colanthus Canary A. There are four heifers that will freshen soon. I am selling poultry, feed, farm implements and some household goods. Having sold my farm everything will be sold without reserve.

TERMS: Six months' credit will be given on bankable papers. Six per cent. off for cash. Parties coming by train will be met at the Royal Hotel, Dundas St., Woodstock at 12 o'clock.

A. J. CHAPIN - R.R. No. 3, Woodstock, Ont.

Wm. PULLIN, Auctioneer A. E. HULET, Sales Manager
F. W. GOBLE, Clerk

Lloyd-Jones Dispersion Sale

WILL BE HELD AT

Burford, Ont., Tuesday, February 4th, 1919

Commencing at 1 o'clock. G.T.R. trains will stop at farm.

There will be sold without reserve

100 PURE-BRED

Shropshire and Southdown Sheep

Including some choice breeding ewes bred to an imported Bibby ram.

8 PURE-BRED JERSEYS 5 SHOW WELSH PONIES
5 HORSES, including Saddle and Hackney

This will be an exceptionally good opportunity to procure high-class stock at your own prices.

J. LLOYD-JONES, Prop., Burford, Ontario

Sale Dates.

Jan. 28, 1919.—Victoria County Pure-Bred Stock Association.—Lindsay, Ont.

Jan. 29, 1919.—J. H. Scott, Avr, Ont.—Dorset Horn Sheep.

Jan. 29, 1919.—A. J. Chapin, Lot 3, Con. 1, East Zorra, Holsteins.

Jan. 29, 1919.—Alton Drawing, Can. Imp. Cows, Ont.—Shorthorns.

Jan. 29, 1919.—Albert Mittlefehldt, Wellandport, Ont.—Holsteins.

Jan. 30, 1919.—Peterboro County Shorthorn Breeders' Association, Peterboro, Ont.

Feb. 4, 1919.—J. Lloyd Jones, Burford, Ont.—Shropshire and Southdown Sheep.

Feb. 5, 1919.—John Miller, Ashburn, Ont.—Shorthorns.

Feb. 6, 1919.—Thos. L. Mercer, Markdale, Ont.—Shorthorns.

Feb. 6, 1919.—Lambton County Stock Breeders' Dispersion Sale, Petrolia, Ont.; W. P. Macdonald, Secretary.

Feb. 7, 1919.—J. L. Elliott, R. R. 4, Guelph, Ont.—Shorthorns.

Feb. 7, 1919.—Canadian Hereford Breeders' Association, Toronto, Ont.; H. D. Smith, Secretary; K. R. T. Ancaster, Ont.

March 3 and 4, 1919.—Union Stock Yards, Toronto, Ont.—Horses.

March 5, 1919.—Guelph Fat Stock Club, Guelph, Ont.—Pure bred stock.—J. M. Duff, Secretary.

Markets

Continued from page 129.

at \$1.35 to \$1.45 per 90 lbs. Quebec turnips were steady at \$1.25 and red onions at \$1.50 to \$1.75 per 70 lbs., ex-store.

Eggs.—The tendency in prices of eggs was upward, and fancy new-laid stock sold as high as 80c. per doz., the price ranging down to 77c. Strictly new-laid were 72c. to 75c.; cold storage selects, 57c. to 58c., and cold storage No. 1, 53c. to 54c.

Butter.—The market for creamery held firm and supplies were by no means large. Finest creamery was quoted at 53c. to 54c. per lb., and fine at 52c. to 52½c., while dairies sold from 41c. to 46c. per lb.

Cheese.—The Commission continued to purchase at 25c. per lb. for No. 1 cheese; 24½c. for No. 2, and 24c. for No. 3.

Grain.—The market for oats was moderately active. Car lots of No. 2 Canadian Western were quoted at 88c. per bushel, ex-store. No. 3 is 84½c.; extra No. 1 feed, 85c.; No. 1 feed, 83c.; and No. 2 feed, 78½c.; No. 2 white Ontario oats were quoted at 84c.; and No. 2 at 83c. per bushel, ex-store. American corn was quoted at \$1.60 for No. 3 yellow, and \$1.57½ for No. 4 yellow, ex-store, while No. 2 Canadian buckwheat was \$1.50. Car lots of Ontario No. 3 barley were quoted at \$1.11; No. 3 at \$1.10; and Manitoba sample grades at \$1, ex-store.

Flour.—Demand was light, and prices were steady with Government standard Manitoba spring wheat flour for shipment to country points, or delivered to city bakers, at \$1.25 per barrel, with 10 cents off for spot cash. Ontario flour was \$11.10 per barrel, in new cotton bags. White corn flour was quoted at \$9.60 to \$9.80 per barrel, in bags, delivered to the trade.

Chicago.

Hogs.—Butchers', \$17.60 to \$17.95; light, \$16.85 to \$17.65; packing, \$16.60 to \$17.55; throw-outs, \$16 to \$16.50; pigs, good to choice, \$14 to \$15.

Cattle.—Compared with a week ago, choice steers and best butcher stock, steady; common and medium grades, 25c. to 40c. lower; canners, 15c. to 25c. lower; calves, \$1.50 lower; stockers and feeders, strong to 25c. higher.

Sheep.—Compared with a week ago fat lambs mostly 25 cents lower; feeders and sheep, steady; choice yearlings, 25c. higher.

Cheese Markets.

New York, special, 36c. to 36½c.; average run, 35c. to 35½c.; Montreal, finest easterns, 24c. to 25c.

Coming Events.

Jan. 14-March 29—Short Courses at Ontario Agricultural College.

Jan. 29-April 11.—Short Courses at Kemptville Agricultural School.

February 3-7.—Live Stock Breeders Meetings, Toronto.

February 4, 5, 11 and 12.—Live Stock Breeders' Meetings, Montreal.

February 4-5-6.—Ontario Beekeepers Association, Toronto.

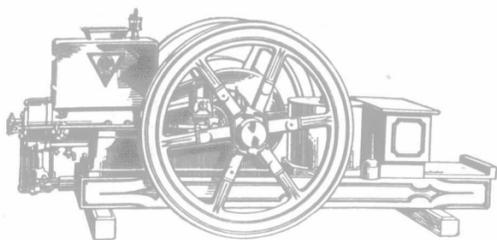
Feb. 5-6-7.—Ontario Horticultural Association, Toronto.

February 13-14.—Ontario Association of Fairs and Exhibitions, Toronto.

Feb. 18-19-20.—Ontario Fruit Growers Association, Toronto.

Canada's Position in Finance and Trade.

The presidents and general managers of our chartered banks are in an enviable position to collect data and get an accurate conception of Canada's finance and trade. Furthermore their advice to the public in a general way must be sound for the whole banking business depends on the activities of the various industries which look for guidance to those who have shown themselves to be leaders in the realm of finance. Sir Edmund Walker's address at the annual meeting of the Bank of Commerce deals with the financial and industrial situation as the close of the war finds it. This address, reproduced in another part of this paper, is particularly interesting at this time, as is that of Sir John Aird, the General Manager, of the Bank.



Thousands of Canadian Engine Owners "Swear by" the ALPHA—

WHY?

BECAUSE IT'S DEPENDABLE

The Alpha runs right along, day after day, and does not get out of order. It's an engine you never have to "fuss" with. It's always ready.

BECAUSE IT'S SIMPLE

The Alpha has no delicate electric batteries or fragile or complicated attachments. It starts and runs on a simple, low-speed magneto, guaranteed for the life of the engine.

BECAUSE IT'S A FUEL SAVER

The Alpha is most economical in the consumption of fuel, and it uses either gasoline or kerosene.

Go in and see the local Alpha agent. Let him show you the many different uses to which you can put the Alpha—how it will save time and work and make money for you. If you don't know who handles the Alpha in your vicinity, write us for his name.

THE DE LAVAL COMPANY LIMITED

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butter-Workers. Catalogues of any of our lines mailed upon request.

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

The Toronto Sale.

Shorthorn breeders who are prospective buyers of good cattle should keep in mind the combination sale to be held at the Union Stock Yards, Toronto, on Wednesday, February 5. There are fifty-five lots selling, a large number of which are cows that will have their calves by their sides. There are others showing well forward in calf, a number of which are imported and due shortly after sale time. A summary of the pedigrees of three consignments shows ten imported matrons, while the pedigrees of Robert Miller's offering have, at this writing, not been received. Of the ten referred to, John Miller is consigning seven, all of which are noticeable as breeding cows of high merit. Like the home-bred stuff that made up the Miller allotment, these cows represent for the most part families that are pure Scotch and present-day fashionable tribes throughout. With very few exceptions all will be selling well forward in calf, or have calves at foot, by sale day. Of the five bulls in Mr. Miller's consignment, the twelve-month's Augusta Barron is perhaps the most outstanding. As an individual he is low down, smooth and wide, probably one of the most promising youngsters that will be seen in any sale this year. In breeding he is straight Bruce-bred Augusta and is got by Cluny Nonpareil Brigadier (imp.), a Lady Cathcart sire by the good breeding bull President of the Mint. With the exception of the three-year-old bull, Butterfly Duke, by Prince of Orange, Mr. Miller's other bulls listed are all calves just now ready for service; and they too will add strength to the offering.

A perusal of the pedigrees attached to W. F. Batty's entries also reveals some excellent breeding. Wartle Golden Drop (imp.), a twenty-two-month's heifer bred by Watson, of Aberdeenshire, has two Gordon and two Duthie-bred bulls on top of his pedigree. Lady Clemence, a roan heifer just a month younger, is also imported and safely settled in calf since December, while the five other females in this lot are all Canadian-bred 1916 and 1917 heifers. These represent as strong breeding as will be found in the sale, and should all make splendid buying on February 5. Nonpareil Chief, a fifteen-month's bull by Merry Hope, is the only bull selling with this lot, and carries an exceptionally strong Nonpareil pedigree. Further notes regarding the other consignments to this sale will be given in these columns next week.

SEEDS

1866 1919

BUY YOUR SEED EARLY

CLOVER	
Red Clover—(Gov't Standard)	Per Bush.
No. 1 (almost extra No. 1 for purity)	\$31.00
Timothy—No. 1 (Extra No. 1 for purity)	7.75
No. 2 (Extra No. 1 for purity)	7.25
No. 2 (No. 1 for purity)	7.00
Alfalfa—No. 1	21.00
Alfalfa—Ontario Variegated No. 2 (almost No. 1 for purity)	27.00
Sweet Clover—White Blossom (Biennial) hulled seed	13.50
Cotton Bags for Clover and Timothy, 65c. each.	Per Bush. 70 lbs.
CORN ON COB	
Longfellow	\$4.50
White Cap	3.75
Golden Glow	3.75
Wisconsin No. 7	3.75
Balley	3.75
Improved Leaming	3.75

Specially priced for early shipment, carefully selected, strong, vigorous seed. Recent tests show 95 to 98 per cent. germination.

Bags Free
Orders of 5 bushels of corn or more, we will pay freight in Ontario and Quebec. Write at once for our ADVANCE PRICE LIST and compare our prices with others. We sell direct to farmers. No Middleman's profits.

BARGAIN IN BAGS
Second hand bags strongly patched by machinery. Cotton first quality, \$6.00 per dozen. Cotton, second quality, \$5.00 per dozen; third quality, \$3.50. Jute sugar bags, \$1.85 per dozen. Jute flour bags, \$2.00 per dozen. Write for our Poultry catalogue.

GEO. KEITH & SONS
124 KING ST. E. TORONTO

PHONOGRAPH BARGAINS

Get our new illustrated catalogue of factory-to-home bargains and particulars of trial offer. A style for every taste—table and cabinet models—a price for every purse. Write now and save money. It's free. Please address Desk F.

The Grand Phonograph Co.
123 Bay St., Toronto

IMPORTANT

The Third Annual Sale of Registered Stock of The Lambton County Pure-Bred Live-Stock Breeders' Association, Market Square, Petrolia, Ont.

on FEBRUARY, 6th, 1919 at 1 p.m. sharp.

60 head of choice cattle, consisting of Shorthorn and Aberdeen Angus, bulls, cows and heifers.

In Shorthorns such well known families as Rosemary, Carnation, Winsome, Mar Rachel, Lancaster and Jealousy are represented.

In Aberdeen Angus such families as Fair Maid of Earnside, Waterside Fair, Frederica.

Apply to Secretary for catalogues.

Sale under cover if stormy

W. S. STEADMAN, Pres.
PETROLIA, ONT.

W. P. MACDONALD, Sec.
PETROLIA, ONT.



SKUNK, COON MINK, WEASEL

Are all bringing good prices. Ship your lot to us and receive highest market figures, returns made same day as shipment is received. Shipping tags furnished free. Write for some and price list.

WM STONE SONS, LIMITED.

WOODSTOCK, ONT.



Takes the Slant Out of Hills

The time-tried piston ring

McQUAY-NORRIS LEAK-PROOF PISTON RINGS

Increase Power—Decrease Carbon—Save Gas

For eight years these rings have stood the test—made good.

By creating uniform pressure on the cylinder walls, McQuay-Norris LEAK-PROOF Piston Rings stop piston ring leakage, increase power, decrease carbon and save fuel and oil.

Wherever you are you can get McQuay-Norris LEAK-PROOF Piston Rings to fit any car, truck and tractor. Jobbers in over 300 distributing points carry complete stocks of sizes and over-sizes. Many thousands of dealers can extend to you our service, which enables them to specify your size requirements for practically every make or model of motor without delay.

Send for Free Booklet

"To Have and to Hold Power"—a simple, clear explanation of piston rings, their construction and operation.

Manufactured by McQuay-Norris Mfg. Co., St. Louis, U. S. A.

Canadian Factory: W. H. Banfield & Sons, Ltd., 374 Pape Ave., Toronto.

9F

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

Canada in War and Peace

The President and General Manager of the Canadian Bank of Commerce Review the Year.

The addresses of Sir Edmund Walker, President, and Sir John Aird, General Manager of the Canadian Bank of Commerce at the meeting of shareholders held in Toronto on 14th instant are an able review of the year's work, both as regards Canada and the great bank of which they are the heads. Sir Edmund Walker deals principally with Canada, the wonderful expansion of her trade in the past year, what she has been doing to help win the war, and what she can do in the future to ensure prosperity to her people. He also recounts briefly Great Britain's astonishing share in the victory which has been won by the Allies. Sir John Aird deals more particularly with the affairs of the bank, but has also something to say about the future for Canada. Both addresses sound a note of quiet confidence, and the extracts given below are worthy of careful reading. Sir Edmund Walker says:

The war is over and we are struggling with the terms which we intend to impose on Germany. One turn of the kaleidoscope has changed the aspect of almost everything in our daily life and in our mental horizon. Only yesterday we were bending every faculty as a nation and as individuals to the thousand different kinds of effort necessary to win the war. We had completely disrupted the co-operation of individuals in the various pursuits of life which are necessary to the happiness of society in times of peace, and men and women were drawn either into military and munition work, or into the production of food, almost to the limit of our powers. Now the work in munition factories has stopped, our armies will return, and from 500,000 to 600,000 men and women, an enormous proportion of our small population, will have to find new kinds of employment. The enlistment of soldiers, and the withdrawal of others from peaceful occupations to the making of munitions, took four years to reach a climax, but the reverse process comes upon us in an instant. We shall in the end have work for all, but much that could have been started at once in spring or summer is impossible in winter. The troops will come home gradually, and as six months' pay is to be given to some of them, and smaller allowances to others, our anxiety regarding them is partly removed. The munition workers, however, cannot be shifted to new employment fast enough to prevent there being a considerable number out of work during this winter.

Our Foreign Trade.

In order to appreciate the scale of industrial events we turn as usual to the figures of our foreign trade. Disregarding coin and bullion, which have fallen to inconsiderable figures, the excess of exports, for the fiscal year ending 31st March, amounted to \$623,647,000. The excess for the two previous years, large as it was when compared with the past, was \$563,795,000, or considerably less than for the one year under consideration. Our total foreign trade was \$2,548,691,000, as against a total of \$1,129,616,000 in the year ending 31st March, 1914.

The enormous surplus of \$623,647,000 during the fiscal year ending in March was due to an increase in exports of \$406,958,000, while imports increased only \$98,017,000. The increase in pastoral and agricultural products was \$241,442,000, and in manufactures \$173,527,000. This would seem to be very satisfactory indeed, were it not that for the bulk of our exports we give long credit to Great Britain, while for our imports we must pay in international money; so that this surplus in exports, much as it adds to our prosperity, carries with it difficult financial problems.

The field crops of Canada for 1918, the figures of the last month being only an estimate, are valued at \$1,383,000,000, as against \$1,145,000,000 for 1917, the actual value that year being larger than the estimate. The total production from our mines is estimated at \$220,000,000, as compared with \$189,646,000 in 1917 and \$177,201,000 in 1916.

Great Britain's Task.

This may be a good point at which to consider the position of Great Britain. The report of our London manager should be read by everyone who desires to realize

the part that country has played in the war. Unprepared—except as to that navy which by blockading Germany really won the war—she raised a vast army, which, like none of the other armies, fought in all the widely separated areas of the conflict. For two years, while we awaited the entry of the United States, she bore the heavy part of the whole war, lending money, supplying munitions, coal, food, sympathy and advice to her allies. In resourcefulness, invention, daring and unyielding courage, whether in the trenches, at sea, or especially in the air, she astonished her own children and she amazed that part of the world which has never understood her, unless it be now that the war is won. When the war began she had a debt of three and a half billions of dollars. If we deduct what she has lent to her allies, and certain other recoverable items, she will probably owe twenty-two billions of dollars at a rough estimate. From the first report of the Committee on Currency and Foreign Exchanges after the War, it is clear that the mind of the British banker is steadily bent not upon further possibilities of inflation, but upon recovering the gold position of Great Britain as soon as possible.

Gold Reserves.

The Bank of England has the largest quantity of gold in its history, but its ratio of reserve is low, and the new Government issues of £1 and 10-shilling notes have reached the large total of £293,790,000. Great Britain controls a large percentage of the new gold produced throughout the world, and in the scramble for gold which we shall doubtless see for many years to come, she will have the best position. In raising money for the prosecution of the war she has shown a wonderful confidence in her people, as to their power, as well as to their willingness, to provide whatever was necessary, week by week, and she has latterly avoided the large issues at particular moments which have so disturbed finance elsewhere. She at first alarmed some of us by the vast amount of Treasury Bills which she kept afloat, but later in 1917 she seemed to have "found herself," and sold National War Bonds and War Savings Certificates in a steady stream through banks and post offices, to a sufficient extent to meet her needs of £25,000,000 per week. What she was not able to pay was her indebtedness to the United States and Canada for munitions supplied, as this required international money, that is, gold or balances due by foreign countries. She had shipped to the United States, either directly or through other countries, over \$1,000,000,000 in gold, as well as a large amount of securities, and had closed down her manufactures for export in order to produce munitions, and thus, after making huge loans to the allies, she began to require those outside loans which are now roughly estimated at about \$5,000,000,000. Her loans to the allies are supposed to balance the loans she obtained abroad, and we need have little fear that she will not very soon re-establish her supremacy in the field of finance throughout the world, great as are the difficulties surrounding her position.

We have endeavored during the war to give some idea, even if the information were fragmentary, of the scope of munition-making in Canada, especially the work of the Imperial Munitions Board. This year we have been anticipated by the excellent government publication entitled "Canada's War Effort 1914-1918," published not as a final record but as an inspiration for the "fifth year of the war," "the prelude of a greater effort still to come." That the work being done was beyond all expectation we felt to be our excuse for special reference to it, but few of us were prepared for the unstinted praise given by the Premier, Mr. Lloyd-George, and by Mr. Churchill, shortly after hostilities ceased. Mr. Churchill telegraphed to Sir Joseph Flavelle as follows:

"As an armistice with Germany has now been concluded, I wish, as Minister of Munitions, to congratulate you, and through you all your staff, on the splendid work of the Imperial Munitions Board during the last three years. You have carried through a work of the greatest

magnitude with uniform success and efficiency, and I wish to pay my personal tribute to the great ability, energy, and organizing power you, as chairman, have shown. Canada's remarkable output of munitions has played a large part in the munitioning of the British armies, and will remain a testimony to the high value of the work of the Board in this great struggle. . . . Before August, 1914, no Canadian manufacturer had ever made a shell or a cartridge case or a fuse, but already in the second half of 1917 it was producing 55 per cent. of the shrapnel shells, 42 per cent. of the 4.5 shells, 27 per cent. of the 6 inch, 15 per cent. of the 8 inch, and 16 per cent. of the 9.2 inch shells used by the British armies. The Imperial Munitions Board, created in November, 1915, is an integral part of the British Ministry of Munitions, directly responsible to the Minister, and the British Government was financially responsible for all its expenditure."

Vast Orders.

We have already been told that the value of the orders placed in Canada on British account exceeded \$1,200,000,000, covering munitions, ships, aeroplane timber, and sundry war supplies, but it is more interesting to hear that actual cash disbursements had been made down to two months ago, amounting to \$1,075,000,000. Some of the material represented in these purchases is as follows:

Steel Forgings.....	\$75,600,000
Shells.....	68,300,000
In the production of these forgings and shells upwards of 2,100,000 tons of steel have been used, of which 1,600,000 tons were produced in Canada.	
Copper Bands.....	73,600,000
of which 23,000,000 were produced in Canada.	
Fuses.....	29,000,000
of which 19,000,000 were produced in Canada.	
Powder.....	81,000,000 lbs.
High explosives.....	75,000,000 lbs.
Steamships built under construction and under contract:	
Wooden.....	46
Steel.....	44
with an aggregate of 340,100 tons dead-weight and an aggregate value of.....	
\$64,500,000	
Aeroplanes built.....	3,000

In addition to this seven national plants were built at a cost of over 15 millions, the capital being largely written off already as part of the cost of manufacture. Acetic acid was being made in a plant costing over a million and ferrosilicon in two plants. Carbide was being shipped at the rate of 700 tons monthly. The Board arranged the purchase of timber in Canada for all purposes in Great Britain, private as well as government. Of the special timber used in constructing aeroplanes in Great Britain, Canada supplied 40 per cent. How important this was may be gathered from the following statement telegraphed by the Controller of Timber:

"It is a notable performance. To have increased production to this extent is a great achievement. This increase should enable us to look forward with some confidence to being able to meet the requirements of the Aircraft Production Department during the year."

Some idea of the work of the Transportation Department of the Board may be gathered from the fact that the volume of inland traffic to and from machinery plants in 1917 was 1,600,000 tons, while 785,000 tons were shipped overseas.

The expenditures for war supplies apart from those of the Imperial Munitions Board are more difficult to trace than last year. During the period of the war the Department of Agriculture bought for the British Government, oats, hay and flour to the value of a little less than 100 million dollars, and before the war ended they had already begun to buy hay for the United States Government. The War Purchasing Commission recently undertook to supervise the expenditures of other departments, and these two cannot be readily separated, but altogether we can trace expenditures on war account of from 70 to 80 millions during the past year.

Cattle Market Abroad.

There is such a scarcity of cattle throughout Europe, and the work of

building up reserves is so slow, that we may expect a good market for some years to come. An admirable report by the Canada Food Board shows that, based on the number of animals to every hundred acres of farm lands, we are still at the bottom of the list as producers of cattle, sheep and hogs. That we should have only about one-fourth as many cattle per hundred acres as Holland or Denmark, and only about one-half as many as Great Britain or France, is not so strange as that we have not as many as the United States. Of Great Britain's immense requirements we supply only about three per cent. We do not count at all so far as sheep raising is concerned, and if, as is estimated, the world's supply of wool will not be normal for six years, the opportunity is evident.

Hog Production.

It is, however, our relative standing as a producer of hogs that is most surprising. We raise only 3 hogs per hundred acres of farm lands, against every 8 in the United States, 19 in Holland, and 22 in Denmark, and we supply England with only ten per cent. of her requirements. To repeat the words of this report, "the enormous possibility for development of the Canadian live-stock industry is apparent." Our farmers have much more capital than ever before, and we hope that not only a large annual supply of animals for the market will result, but much larger herds as the basis of supply.

Peace Problems.

We can now start afresh with the problems of peace, conscious that greater effort is necessary for the future but that we are able to do many things thought impossible before the war; that our war burden, heavy as it is, is lighter than that of several of the leading nations, and that with our small population and vast country we should be able to attract immigration more successfully than ever in the past. Our war debt, at least that part of it which is held at home, will not seriously interfere with our power of production. Our heaviest burden will still be the annual sum we must pay for interest on our debts to other countries. Because of securities floated in the United States during the war, this is now about 185 millions. If, therefore, living in our comfortable way, we could provide for our public and private improvements by loans at home, and export more than we import to a sufficient extent to enable us to pay this foreign interest, we should prosper and not feel the cost of the war too much. I am aware, however, that we have a small population and a great country to develop, that immigrants may come in large numbers, that railway building is far from being at an end, and that our credit will be good in all markets where money can be obtained. So that although our Victory Loans have taught our people to invest their savings in securities, and have made manifest an ability to absorb securities which has amazed us, we shall doubtless, as in the past, borrow abroad for our larger schemes of development and thus still further mortgage the future of this country. The wisdom of borrowing depends in each case upon the resulting gain in productive power, but as a rule we shall do well in the near future to look with suspicion upon loans obtained abroad, and to remember that the interest and amortization of such loans is, like the farmer's mortgage, the shadow over every working day.

Sir John Aird spoke as follows:

For the first time since January, 1914, we meet without the sinister shadow of the great war upon us. Difficult as is the outlook before many of the warring nations and perplexing as are the problems for which a solution has to be found before a satisfactory peace can be concluded, hostilities have ceased and cannot be renewed on the same colossal scale. We rejoice that the sacrifice of life has come to an end and that those members of our staff at the front who have survived the conflict, and others who are near and dear to many of us, can now look forward with assurance to the welcome that awaits them at their home-coming. The past year has been pleasurable marked by the jubilees of both our President and Vice-President in their respective callings.

The close coincidence of these two events, so unusual in themselves, with the fiftieth anniversary of the Bank itself and with the consummation of our long-deferred wish to see the rest equal to the paid-up capital, was very remarkable; and being followed so closely by the close

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of the great war, make the past year a very notable one in the history of the institution.

An Excellent Statement.

We have, therefore, many reasons for a feeling of jubilation on this occasion, and this is added to by the excellence of the statement which we have pleasure in presenting to you. The earnings of the Bank have been good, and the profits have again reached a new high level, amounting to \$2,850,000, or \$212,000 more than a year ago. We confess to a feeling of pride that we have been able to maintain the premier place among Canadian banks in this, to you, important item. Notwithstanding the apparent size of the figures, however, it must not be forgotten that the rate of earnings of this Bank, as of Canadian banks in general, is steadily decreasing, when measured by the services rendered and the extent of the effort put forth by our staff. On the average of our total assets during the year we have earned only 7/10ths of one per cent. as compared with 1.27 per cent. in 1913, the last year prior to the war, and 1.37 per cent. ten years ago. The main causes of this, as I have pointed out in previous years, are, on the one hand, the enormous increase in the volume of those banking services which are performed for the public without remuneration, and the fact that banking is one of the few businesses in which charges are sometimes lowered but seldom increased, in spite of the general increase in the cost of everything else; and on the other, the increases in salaries and wages which are inevitable to enable our men to meet the great increase in the cost of living. It must not be forgotten that salaries and wages constitute the most formidable item of expense in the budget of a bank, and it will readily be understood that the responsibilities and the difficulties of dealing fairly with the members of our staff, in view of the high level of the cost of living, are not small.

Depreciation Unnecessary.

An unusual item in our Profit and Loss account this year, which affords us much gratification, is the recovery of the appropriation of \$1,000,000 set aside in the year 1915 to provide for the depreciation of securities. We then expressed the hope of saving this, or at least a part of it, at the end of the year, and it is a source of satisfaction to find our prediction fulfilled.

We have been able to transfer \$1,500,000 to Rest account, which thus becomes equal to the paid-up capital, a goal which we have aimed to reach for many a day, but which has called for long years of tireless striving, before we could consider it as fairly won. We might perhaps have made a better showing on the surface and have seemed to reach our goal in a shorter period of time, but our wish has been to build surely and carefully upon a firm foundation, and in the meantime to provide beyond peradventure for every weak spot in our loans and securities. We carry forward into the new financial year an undivided balance of profits amounting to \$1,444,842, or \$112,000 more than a year ago.

Increased Deposits.

The increase in our total deposits is \$76,733,000, or 27.7 per cent., and the greater part of this is under the heading of deposits not bearing interest, which account for \$64,552,000. Deposits bearing interest show an increase of \$12,181,000, an amount which would have been much greater had it not been for the Victory Loan of 1918. If we turn to the monthly statements to the Government we shall find that deposits payable after notice dropped \$18,853,000 during November, which is solely due to the Victory Loan. On the other hand, it must be remembered that under the arrangements made by the Government for the deposit of the proceeds of the Victory Loan with the banks from which the money was withdrawn, a large part of this money is still at the credit of the Dominion Government, subject to its requirements.

Once again the Minister of Finance and the organization which controlled the Victory Loan campaigns have won an outstanding success. The Victory Loan of 1918 was over-subscribed many times, and without the use of any compulsion save the more breath of public opinion, the Government has been provided with more than the sum which it required. Yet, as I pointed out last year, the lesson in how to save, so strongly upon the

community by these campaigns, is their great result from the national point of view. Who may venture to predict what the knowledge thus acquired of how to invest savings wisely may mean to Canada in the years to come? Except for the increase in the productive capacity of the country, this is perhaps the greatest material benefit derived from the war. Alongside it the loss of a few millions of deposits to individual banks is a very small matter, which, if the lesson is thoroughly learnt, will require only a short period of time to remedy itself.

Banks Helped Loan.

Our efforts to assist the Minister of Finance in obtaining subscriptions to the Loan have resulted in our securing through this Bank the large sum of \$104,543,000, represented by 150,773 individual subscriptions. This amount included \$100,000,000 of new money and represents 15 per cent. of the total. It is gratifying to know that we have far exceeded the proportion which might be reasonably expected from us. This result has not been obtained without very strenuous efforts on the part of our staff, and also the expenditure of a large amount of money by the Bank. Unfortunately the heavy task came upon our staff just at the moment when their ranks were depleted by the ravages of influenza. In connection with this, as well as previous loans, we shall also be required to perform for the Government special services, such as the payment of coupons and interest during the term of the loans, the last of which does not mature until the year 1937.

Cash on hand, consisting of gold and silver coin and Dominion notes amounts to \$61,971,000, as compared with \$54,652,000 a year ago, an increase of \$7,319,000. Of this we had \$17,500,000 in the Central Gold Reserves, to provide cover for our excess note circulation.

Commercial loans show an increase of \$52,621,000, nearly all of which is lent in Canada. While there is no doubt a good deal of activity in such manufacturing as can be carried on under the circumstances of the past few months, a large part of this increase is due to high prices and to delay in realizing on our wheat and other produce, which has been reserved by the Government. The delay in this connection, while no doubt largely inevitable under existing conditions, has a prejudicial effect on those immediately concerned. With the passing of the era of high prices, especially those of farm produce, and a return of wages to a more normal level than that of munition-making, we must expect to see decreases in the volume of both our loans and deposits. Indeed, it will not be surprising if the figures of the present balance sheet are not exceeded for several years to come. Total assets have increased \$95,935,000, and now amount to the very large sum of \$440,310,000. This increase is 27.8 per cent. over the figures of last year, a remarkable showing when it is recalled that we have been marking time in the opening of new branches, and that we have not taken over the business of any other bank.

Reinstate Returned Men.

With regard to the staff, it is our desire to reinstate all officers who wish to come back to our service from military duty, and at the same time to avoid any hardship which might be created by dispensing with the services of the members of the temporary staff, who have filled the breach so acceptably during the past four years.

With sorrow we record the death in action of eighty-five additional members of our staff during the past year, making a total of 226 who have been killed in action, or have died of wounds, since the outbreak of the war. The number of wounded men reported to us has now reached 294; 7 are still recorded as missing and 23 as in the prison camps. Under the terms of the armistice we trust that these prisoners have now been successful in reaching allied or neutral countries.

Increased Export Trade.

A year ago I urged the importance to Canada of stimulating the production and export of food, the need of organization for the purpose, and the attractiveness of the outlook for this branch of commerce. The ending of the war has in no wise dimmed the prospect. The last number of the Agricultural Gazette, the official publication of the Dominion Department of Agriculture, contains an appeal from

the Dominion Government along similar lines, and particularly emphasizes the bright prospects of the meat export trade. Speaking of the outlook before this country now that the war has ended, the Minister of Finance, Sir Thomas White, writes: "There would seem no reason to apprehend any failure of markets for all the food that Canada can produce. Our grain, live stock, and their products, with those of our fisheries, should all be in keen demand at high prices."

Increase in our agricultural production will not only help to furnish food for a hungry Europe, but will be a chief factor in maintaining our favorable international trade balance as well." All countries are seeking to increase their export trade; all are hoping to be sellers and to limit their purchases. Under such conditions the successful ones will be those which have special natural advantages for a certain line of production and which can find a market for the same line of goods. Is there any country better fitted than Canada for the production of food, or any branch of commerce in which an ample market is more assured?

Sane Spending.

Any number of plans are afloat for the carrying on of large public works after the war. These are advocated on all sides in the hope that the era of free spending may tide over that of falling prices. Few of the promoters, however, appear to have considered where the money is to come from. By all means let a wise and statesmanlike view of the matter prevail, and all public works be undertaken which are in the best interests of the community, having regard to all aspects of the question. But let it not be forgotten that such works have to be paid for sooner or later out of the taxes, and the hope of every citizen at the present moment, I may safely say, is to see his tax bills reduced rather than largely increased. Even public borrowing cannot indefinitely postpone the evil day of payment.

Reconstruct With Savings.

Some of our municipalities are already hampered by the load of debt incurred in former eras of prosperity, and no one would advocate any considerable increase at this time in the national debt of the Dominion. The safe course is wisely set out in the Cunliffe report to which I have already referred. After speaking of the pressure that is sure to be brought to bear upon the state for capital expenditure in many forms for reconstruction purposes, it points out that all money expended on reconstruction work should come out of savings and not be obtained by the creation of new credit. The burden of prevailing high interest rates in the case of such works has also to be considered, and although the outlook as to the value of money after the war is uncertain, it seems probable that current rates in England are held below the natural level at present by war-time regulations, and that when these restrictions are removed, rates may tend upward rather than downward. It is clear that the importance of saving and economy in personal expenditures as a public duty will not be lessened by the ending of the war, but, if possible, increased.

The Future.

As to the future, we feel that we can look forward with quiet confidence. The multifarious restrictions which have necessarily been placed on business during the war will doubtless disappear before long, and they should be removed by the Government as speedily as possible. This will aid in lessening unemployment at home, and enable our exporters to resume their operations in other countries before the field is occupied. Attention should also be given to the prompt settlement of all outstanding contracts and obligations of the Government, and to the claims arising out of the cancellation of contracts. These are sometimes allowed to drag, causing great injustice to individuals and corporations, and preventing them from resuming their accustomed place in the peace activities of the nation. By prompt attention to such matters the Government can assist materially in the restoration of a normal state of affairs in the business world. We have been fortunate in this country in that our participation in the war has not involved material damage at home. Our efforts have entailed no exhaustion on our part, and while the problems before us are many and difficult, we believe that a satisfactory solution will be found for all of them.—Adv't.

SEEDS

Grown in the County of Haldimand.

Our County took First Prize at Guelph Winter Fair this season on Red Clover, Alsike and Alfalfa.

These prices good till next issue of this paper as long as our Stocks last

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RED—No. 2.....	29.00
ALSIKE—No. 2.....	18.50
(No. 1 Purity)	
TIMOTHY—No. 2.....	7.25
(No. 1 Purity)	
TIMOTHY—No. 3.....	6.25
ALFALFA—No.2 and No.3	25.00

Bags are 60c. each

These prices are per bushel freight paid on purchases of three bushels or over. Cash must accompany Order. If seeds does not satisfy on arrival ship back at our Expense. We can highly recommend our grade of No. 2 (No. 1 Purity). Ask for Samples.

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Caledonia - Ont.

(Canada Food Board License No. 87)

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You Can—and right in your own home, too. War time pay rates guaranteed for three years knitting socks with



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No experience essential, easily learnt. Sets on any table. Does the work of about twenty hand knitters. We want more workers as there is always a good demand for hosiery and woolen goods. If you will consider spending part of your time in a profitable, fascinating employment, send us 3c stamp for interesting full particulars. Address:
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London, Ontario.

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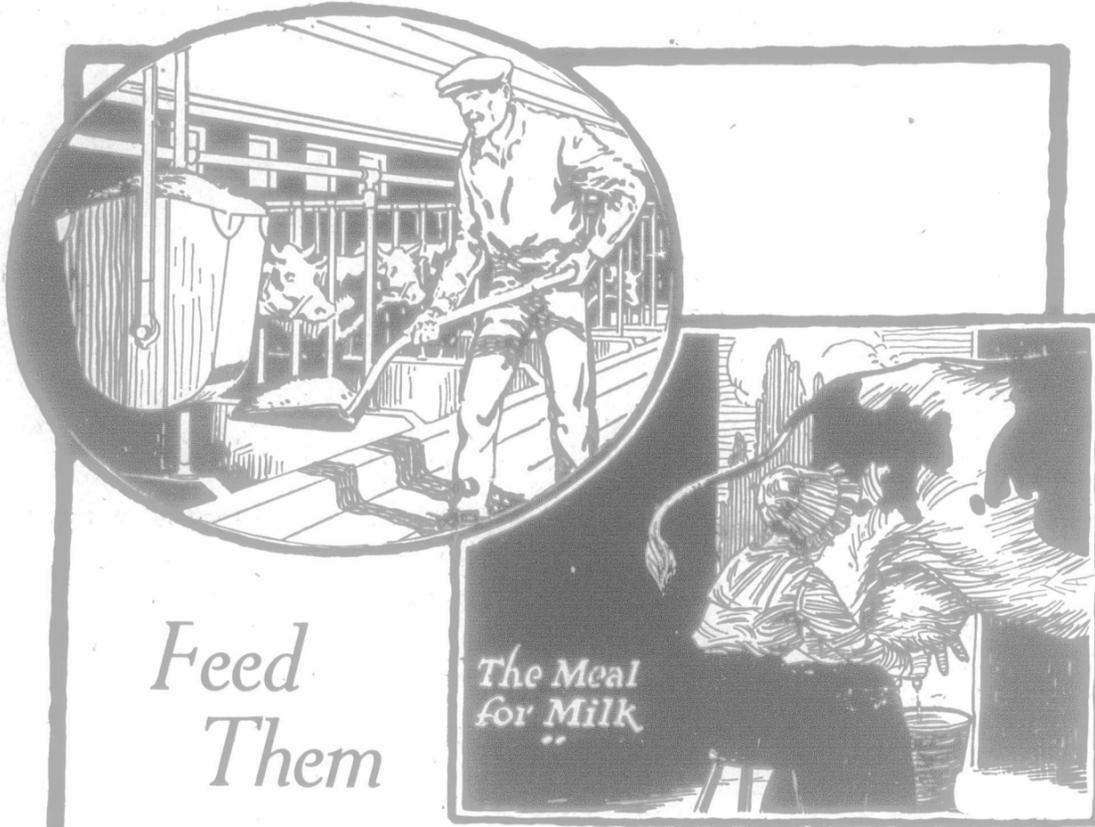
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Seed Corn—A quantity of Select Early Feaming, Longfellows and White Cap Yellow Dent. A card will bring full particulars.
GEO. B. LANGFORD, Kent Bridge, Kent Co.



Feed Them

SUGAR BEET MEAL

Since Sugar Beet Meal was announced to Canadian farmers, prominent dairymen and stock raisers have tried it out and found that it had a splendid effect on their animals.

Mr. E. H. Stonehouse, Weston, President of the Ontario Dairymen's Association, has convinced himself that Sugar Beet Meal promotes the production of milk, and he is using it right along. Write and ask him his opinion of Sugar Beet Meal.

It is a fact, that Sugar Beet Meal has many of the properties of Fresh June Grass, which though low in protein, is undeniably effective in increasing the flow of milk.

Sugar Beet Meal is so succulent and palatable that cattle really enjoy it. Its laxative qualities make it a valuable aid to digestion, and it can be included in any ration with beneficial results to the herd.

Henry & Morrison, in their authoritative work on "Feed and Feeding" highly recommend Sugar Beet Meal. They say: "Breed-

ers of pure-bred dairy stock recommend dried beet pulp for cows on official test, which are receiving heavy concentrate allowances, as it has a tendency to keep the bowels open, and is not apt to cause digestive disturbance."

For young steers destined for market, Sugar Beet Meal is a most desirable and economical feed, as it promotes rapid growth, and shortens the feeding period.

For many years we have sold our Sugar Beet Meal largely in the United States, where the farmers have learned to highly appreciate this feed. We have received offers as high as \$45 per ton f.o.b. Chatham for our output, but, at the request of the

Canada Food Board, we are this year disposing of our entire output to Canadian farmers. To hasten the introduction of Sugar Beet Meal in this country, we have decided to fix a special price of \$35 per ton—containers to be returned to us. In this way we hope to help out the existing shortage of cattle feed in Canada.

Guaranteed Analysis of Sugar Beet Meal:

Protein.....not less than	8%
Crude Fat....." " "	5%
Crude Fibre...not over	23%
Sugar and Starch (Carbohydrates).....	60%

Write for our free Booklet describing the value of Sugar Beet Meal, and telling how to obtain it, and how to use it.

Dominion Sugar Company, Limited

HEAD OFFICE

CHATHAM, ONTARIO

Cream Wanted

Ship yours to us, as we must have it to supply our well-established trade with good quality butter. Therefore, we are prepared to pay you a higher price than any other creamery. We furnish cans and pay express charges. References, any bank.

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a standard text of over 900 pages adopted by the United States Government. Money refunded if dissatisfied. Every automobile and tractor owner should have one. Send \$4.50 for postpaid copy to Dept. B, Dominion Text Book Co., Calgary, Alta.

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Questions and Answers.

- 1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd—Questions should be clearly stated and plainly written on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Horse Out of Condition.

Have a mare which is "hay bound." She is rather poor but eats and works well. What treatment should I apply?

W. R. G.

Ans.—We scarcely understand what you mean by "hay bound." Animals are sometimes described as "hide bound." If not in foal give a drench of 8 drams aloes and 2 drams ginger. After purgation ceases feed mare on good, clean feed. Do not give more hay than she will clean up in one and a half hours, and feed oats according to work done. A little bran and oil cake might advisedly be fed with the oats. An occasional feed of boiled oats aids in putting a horse in condition. A few roots are also good.

Sweet Clover.

1. How much sweet clover seed would you recommend sowing per acre, and what other grass seeds would you combine with it, with the object of either cutting for hay or pasture? It is a piece of light land gravely in spots, and has had two coats of manure in four years, in addition to two hundred pounds fertilizer per acre sown with the barley crop last year. I purpose sowing a mixture of oats and barley as a cover crop for the clover. Would you advise sowing more fertilizer this coming spring on this field?

2. Which variety of the sweet clover, the white or yellow do you prefer?

3. At what stage would you advise cutting the sweet clover for hay? S.

Ans.—1. We sow about eighteen lbs. per acre, although some use a few pounds less. We doubt the advisability of sowing other seeds with it. Orchard grass is about the only crop which matures at around the same time as sweet clover. Red clover and timothy would not be near enough maturity to cut for hay at the time sweet clover should be cut. Evidently your land is in good heart, and we doubt if further fertilizing is necessary. Sweet clover catches and gives good yields on comparatively poor soil.

2. The white blossomed.

3. Unless it is cut about the time it commences to blossom it becomes rather coarse and woody. As a rule it must be cut by the middle of June. Care should be taken to raise the cutting bar of the mower so as to leave some new shoots at the bottom of the plant if a second crop is desired.

Victoria County Pure-bred Stock Breeders' Association are holding their tenth annual sale of Shorthorns at Lindsay on January 28. Sixty head are being offered, forty-five of which are males. It is a grand opportunity for breeders to secure herd headers. The offering is the progeny of such bulls as Chief Link, Golden Arrow, Balaclava, Bandsman's Chief, etc. The animals have been inspected by a committee and the Association are aiming at excellent their previous sales. For further particulars see advertisement in another column of this issue and write A. A. Knight, Lindsay, for catalogues, giving further details of the breeding.

The widower had just taken his fourth wife and was showing her around the village. Among the places visited was the churchyard, and the bride paused before a very elaborate tombstone that had been erected by the bridegroom. Being a little nearsighted she asked him to read the inscription, and in reverent tones he read:

"Here lies Susan, beloved wife of John Smith; also Jane, beloved wife of John Smith; also Mary, beloved wife of John Smith—"

He paused abruptly, and the bride, leaning forward to see the bottom line, read, to her horror:

"Be Ye, Also Ready."

Questions and Answers.

Questions by bona-fide subscribers of "The Farmer's Advocate" are answered in this column.

Questions should be clearly stated and the side of the paper only indicated by the full name and address.

Questions, the symptoms and clearly stated, others cannot be given. By mail is required to urgent enquiries. \$1.00 must be enclosed.

Miscellaneous.

Condition.

Which is "hay bound," which is "hide bound," but eats and works well? Should I apply? W. R. G.

Understand what "bound" means. Animals are bound as "hide bound," a drench of 8 drams ginger. After purgation on good, clean feed, say than she will clean off hours, and feed oats done. A little bran advisedly be fed with occasional feed of boiled horse in condition, good.

Clover.

Sweet clover seed would grow per acre, and seeds would you come object of either culture? It is a piece of spots, and has had in four years, in hundred pounds fertilizer the barley crop last sowing a mixture of a cover crop for the advise sowing more spring on this field? of the sweet clover, do you prefer?

Would you advise clover for hay? S. about eighteen lbs. use a few pounds advisability of sowing Orchard grass is which matures at me as sweet clover. Nothy would not be y to cut for hay at ver should be cut. l is in good heart, further fertilizing is lover catches and comparatively poor

Abortion.

I have three cows which have aborted. One was three months ahead of her time, another one lost her calf a month before she was due to freshen. Would this be contagious abortion? Can it be carried from one cow to another by the bull? What is the best treatment to use? How soon should a cow be bred after aborting? Can the disease be transmitted to a heifer? After a cow aborts once is she liable to do so again?

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Questions and Answers. Miscellaneous.

Writing a Date.

What is the correct way to write a date in figures? Should January 5th, 1919, be 1/5/19 or 5/1/19? G. H. S.
 Ans.—It is written both ways, but the logical way is day, month, year.

Grading Up—Trapping.

1. Can Clydesdale horses be bred up so as to be eligible for registration?
 2. How many crosses does it require?
 3. Is it lawful to trap on your own property without a license? A. L.

Ans.—1. Yes.
 2. Clydesdale stallions having five top crosses by sires recorded in the Clydesdale Stud Book of Canada and Clydesdale mares having four top crosses to sires recorded in the Canadian Stud Book.

3. Sub section 2, section 9 of Game and Fishery laws state that licenses for trapping fur-bearing animals do not apply to farmers or farmers' sons trapping on their own lands or to hunting or trapping foxes or wolves.

Starting Farming.

Is it possible for a young man without capital to start farming in Ontario? The man in question would like to go somewhere near a market in some of the western counties where land is good. Could he expect to pay for it all in a lifetime? Would you advise him to go out West where land is cheaper and where he has been told little capital is necessary? W. A. H.

Ans.—It may be possible, but we doubt very much the advisability of doing so. Capital or credit would be necessary to secure stock, implements and seed even if the land were rented. Many have started with very little capital and made good, not only clearing the place of debt but having money on deposit. As to whether or not the incumbrance could be met in a life-time will depend on a number of circumstances, such as the business ability and energy of the man. As to where to locate will depend on the system of farming engaged in. For small fruits and vegetables it is well to be near a good market, although if there is good transportation a few miles out does not matter so much. It is possible to secure land in New Ontario and in the West for homesteading. Of course, there would be new land to break, and for the first few years life might not be as congenial as on an improved farm. However, many have secured their homes by doing homesteading duties. This is possibly the cheapest way of securing land.

Abortion.

I have three cows which have aborted. One was three months ahead of her time, another one lost her calf a month before she was due to freshen. Would this be contagious abortion? Can it be carried from one cow to another by the bull? What is the best treatment to use? How soon should a cow be bred after aborting? Can the disease be transmitted to a heifer? After a cow aborts once is she liable to do so again?

2. What is the treatment for blue lice? K. C. W.
 Ans.—1. The symptoms are those of contagious abortion, and the disease can be carried from cow to cow by the bull, by cows switching, by utensils, etc. Treatment consists in isolating aborted animals from the herd and then disinfecting stalls and gutters, burning or burying all discharges from aborted cows. It is necessary to flush the vagina and wash the exterior genitals, tail and thighs with an antiseptic solution until all discharges cease. Three per cent. solution of carbolic, phenol or chloral naphtholeum is considered good for internal work, while for external disinfection zenoleum or any other like coal-tar product is satisfactory. The Health of Animals Branch are experimenting with serum and vaccines for the control of the disease. It is well to delay breeding for three or four months. Heifers may contract the disease. A cow may abort twice and then it frequently happens that she is sterile or becomes immune to the disease.

2. A mixture of three parts common cement and one part hellebore is usually effective. Mix the ingredients thoroughly and sift over the back and infected parts; it will work down the sides of the animal and exterminate the vermin. If the cattle are badly infested with lice it would be a good plan to clip their necks and backs.

IMPORTANT HEREFORD SALE

Toronto, Friday, February 7th, 1919

60 HEAD—15 BULLS, 45 FEMALES



This select offering, by members of the Canadian Hereford Breeders' Association, comprises choice individuals of up-to-date breeding, rich in Anxiety blood, and including bulls and females of the following strains: Alvin Fairfax, the Bonnie Braes, Dale, Lord Fairfax, Peter Fairfax, Princeps and the Refiners

SALE AT THE TORONTO EXHIBITION GROUNDS

Friday, Feb. 7th, at 1.30 p.m.

FOR CATALOGUES, ADDRESS:

THE SECRETARY, Canadian Hereford Breeders' Association
 Ancaster, Ontario



Sunnyside Herefords

Young cows; heifers due, or calves at foot; heifer calves; 1st prize bull calves, Toronto, London and Guelph, 1918. A few yearling bulls. Collie pups, cattle dogs, parent heifers and sheep dogs \$5; females \$3.
 Arthur F. O'Neil - Denfield, Ont., R. No. 2

Hereford Bulls for Sale

Rex Ingleside 19371, an exceptionally good herd bull, 3½ years old, in excellent condition. Three fine, healthy, young bulls, sired by Rex Ingleside, all well marked and eligible for registration. Prices on application.
 W. T. GOODISON, Sarnia, Ontario

LARKIN FARMS Queenston, Ontario

ABERDEEN ANGUS and JERSEY CATTLE
 SHROPSHIRE and SOUTHDOWN SHEEP

Correspondence and Inspection Invited
 (Please mention "Farmer's Advocate")

MESSRS. A. J. HICKMAN & CO.

Halse Grange, Brackley, England (late of Egerton, Kent)

Exporters of all breeds of stock, draft horses, beef cattle and show and field sheep are specialties.

You can buy imported stock through us cheaper than in any other way, and we hope to get your enquiry at once, so that we can fit you out before this country is skinned of good stock, as it soon will be now war is over.

Shorthorns Landed Home

—My last importation of 60 head landed at my farm on June the 20th, and includes representatives of the most popular families of the breed. There are 12 yearling bulls, 7 cows with calves at foot, 24 heifers in calf, of such noted strains as Princess Royal, Golden Drop, Broadhooks, Augusta, Miss Ramsden, Whimple, etc. Make your selection early.

GEO. ISAAC. (All railroads, Bell 'phone.) Cobourg, Ont.

Pure Scotch and Scotch Topped Shorthorns

We have several choice young bulls of the best of breeding and ready for service. Two are by Rapheal (imp.), one by Right Sort (imp.), one by Sittytton Selection, and several by our present herd sire, Newton Cedric (imp.). Prices write. R. M. MITCHELL, Freeman, Ont., R. R. No.

GET CLEAN MILK

Old methods of clipping cows left too much hair on udders and flanks. Cows that had been confined to barn and yard during winter gathered dirt that endangered purity of milk. Leading milk producers use the Stewart No. 1 Ball Bearing Clipping Machine—removes every bit of hair from the udders and flanks. Also clips horses. Get one from your dealer. Send for 1919 catalogue. CHICAGO FLEXIBLE SHAFT COMPANY, Dept 161, 12th St. and Central Ave., Chicago, Ill.

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 Velvet Beans in Pods
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 MEMPHIS, TENN. Branch Office Dallas, Texas.

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Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunched, does not kill the hair, absorbs Capped Hocks, Bog-Spavin, thick pastern joints; cures lameness in tendons; most powerful absorbent known; guaranteed or money refunded.

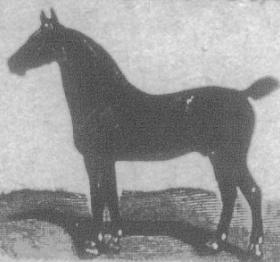
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Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeney, Capped Hock,
Strained Tendons, Founder, Wind
Puffs, and all lameness from Spavin,
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Cures all skin diseases or Parasites,
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As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
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fail to effect a cure of any case,
old or new, we will refund the
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Per Box, \$1.00; 6 for \$5.00
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Gentlemen—I gave a course
of your Tonic Powders, which
has put a horse and his mate
in fine shape, and a touch of
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Veterinary Adviser
Write us for a Free Copy
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75 Church St. - Toronto, Ont.

SUNNY ACRES Aberdeen-Angus

The present string of young bulls for sale in-
cludes some classy herd bull prospects, winners
themselves and sired by champions. If interested
in Angus, write your wants. Visitors welcome.
G. C. CHANNON, P.O. and Phone, Oakwood, Ont.
Railway connections, Lindsay, C.P.R. and G.T.R.

Springfield Farm Angus

I have six bulls from 8 to 15 months. All sired
by Middlebrook Prince 5th, a son of Jock of
Glencairns. Four of these are show calves. Also
have other calves younger and could spare a few
heifers safely bred to same sire.
Kenneth C. Quarrie, Bellwood, Ont.
R.R. No. 5, Bellwood, C.P.R. Fergus, G.T.R.
Bell Phone Fergus

Alloway Lodge Stock Farm

Angus—Southdowns—Collies
SHOW FLOCKS
Rams and ewes. Heifers in calf to Queen's
Edward, 1st prize, Indiana State Fair.
Robt. McEwen, R.R. 4, London, Ont.

Aberdeen - Angus

Meadowdale Farm
Forest, Ontario.
Alonzo Matthews Manager
H. Fraleigh Proprietor

Kennelworth Farm Angus Bulls

The strongest offering we ever had, all are sired
by Victor of Glencairn and a number are ready
for service. Prices reasonable.
PETER A. THOMSON - Hillsbury, Ont.

Angus Cattle—Our present offering is three
good yearling bulls, and could
spare enough females to make balance of a car-
load. Western buyers should call to see them.
One of the oldest herds in Canada. J. W. BURT
& SONS, Aberdeen Farm, R.R. 1, Hillsburgh,
Ont. Long-distance phone, Erin Central.

Evergreen Hill Farm R.O.P. SHORTHORNS

Offering two bulls 12 months old by St. Clare,
R.O.P. No. 5. S. W. Jackson, Woodstock, Ont.

SHORTHORNS

Present offering, 6 choice young bulls and a few
females, their dams are good milkers and best of
breeding. Prices moderate.
Stewart M. Graham, Lindsay, Ontario.

Questions and Answers. Miscellaneous.

Weight of Wood.

What does a cord of hard maple wood
weigh, just as it comes from the woods,
that is not seasoned or cured?

P. N. F.

Ans.—A cubic foot of maple weighs
around 42 pounds. On this basis a cord
would weigh a little over two and a
quarter tons. However, taking a cord of
wood in pile there are many openings
between sticks, consequently the weight
would not be as great as above stated.
There is a great difference in the way
men pile wood, consequently some cords
would weigh more than others, depending
on the closeness of piling.

Witnessing Will. Executors.

1. Is a will legal without being witnessed?
2. Is an executor appointed under a will required to take out papers of administration?
3. Does the law regulate his charges for services as executor?
4. What is the cost of probating a will? Ontario.

Ans.—1. No; that is to say, not in the
Province of Ontario if signed there.
2. Yes—probate.
3. Yes.
4. There is no fixed amount. It
depends upon many circumstances.

Colt Stified.

A colt about four months old has a
lump on the stifle about the size of your
hand. It slips in and out every time it
steps. What is the trouble and the
cure?

T. S.

Ans.—There is a weakness in the stifle.
Keep the colt quiet and apply a blister
of 1½ drams each biniodide of mercury
and cantharides mixed with 2 ozs. vaseline.
Clip the hair off front and inside of joints
and rub the blister well in. Tie so the
colt cannot bite the parts. After 24 hours
blister again, and at the end of another
day wash and apply sweet oil every day.
It may be necessary to repeat the blister
once every month for 4 or 5 months.

Voting in School Sections.

In march, 1918, the Trustees of S. S.
No. 2 and 4 met and decided to alter
the above-mentioned sections by taking
certain lots from No. 2 and adding them
to No. 4, also taking certain lots from
No. 4 and adding them to No. 2. Those
living on lots taken from No. 2 and added
to S. S. No. 4 have always sent their
children to No. 4 school; and those living
on lots taken from No. 4 and added to
No. 2 have always sent their children to
No. 2 school. In May, 1918, the Council
passed by-law making the changes as
above set forth; said by-law to take
effect on the 25th day of December, 1918.
Can those people vote now in the sections
they have been added to, or will they
have to be residents of the section for
6 months? No. 2 are contemplating
building a new school, so an answer to
the above is very important.

Ontario. W. J. M.

Ans.—We consider them entitled to
vote in the section to which their lands
have, respectively, been added.

Fitting Calves.

Having a few good grade Angus calves
that have been raised on their mothers
and in good condition. I would like to
make them do the best possible, both as
regards growth and flesh, so as to have
them ready for next winter's fair. Have
not many roots to feed but plenty of grain
of all kinds for meal. Would like to
give for roughage equal quantities of cut
oat straw and good, well-saved clover
hay. The calves are now weaned and
eating their food well. Kindly give a
good ration for growth and flesh combined.

H. K.

Ans.—Oat straw, clover hay and roots
or silage make excellent roughage for
growing and fattening animals. In regard
to grain it depends on how fast one wishes
to push the stock. Oats and oil cake are
excellent concentrates for growing stock.
For fattening, a little ground barley
and corn could be added. Oats and barley
mixed make a very good meal ration, and
the addition of oil cake keeps the animal
in condition and helps give it a glossy
coat. The amount to feed depends on the
age and size of the animals. The feeder
must be governed by the appearance and
thriftness of the stock he is looking after.

CHEAPER THAN A WHIP AND BETTER FOR YOUR HORSES

A horse with bruised, galled and
chafed neck or shoulders can't earn
his feed. Whipping only increases
his suffering. You can prevent such injuries
for less than the price of a good whip.
Equip your faithful animal with Tapatco—
The pad made with our

NEW PATENTED HOOK ATTACHMENT

(Found Only on Pads Made by Us.)
Consists of wire staple with felt washer.
It gives hook a firmer hold and prevents
pulling off, even though fabric is weak-
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terially lengthened. This is the greatest im-
provement since we invented the hook.

STUFFED COLLAR PADS

Filled with our Special Composite Stuffing
are better than other kinds. They are soft,
springy, absorbent and serve as a guarantee
against bruised, galled and chafed shoulders.

THIRTY-SEVEN YEARS MAKING PADS

Look for the Felt Washer
SOLD BY DEALERS EVERYWHERE

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Special. Ask your dealer or
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SPRUCE GLEN FARM

Herd headed by Nonpareil Ramsden =101081= and Royal Blood =77521=. At present we have
nothing to sell, but we have some very good ones coming on.
JAMES MCPHERSON & SON DUNDALK, ONTARIO

GLENGOW SHORTHORNS

We have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding and
are thick, mellow fellows, bred in the purple.
WM. SMITH, COLUMBUS, ONT. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.

Shorthorns

Herd headed by Pride of Escana, a great son of
Right Sort. Several bulls and a few females with
calves at foot for sale. Herd of over seventy head.
A. G. FARROW (between Toronto and Hamilton) OAKVILLE, ONT.

Burnfoot Stock Farm--Dual-Purpose SHORTHORNS

Herd headed by Burnfoot Chieftain =97786= whose dam has an R. O. P. record of 13535 lbs. milk
and 540 lbs. fat, offers 6 thick, growthy bulls, with R.O.P. records of 10800 up to 13535 lbs. milk back
of them. Come and see the cattle, or if inconvenient, your inquiries are solicited.
S. A. MOORE, Prop., CALEDONIA, ONT.

SPRING VALLEY SHORTHORNS

We sell or exchange for females. Nonpareil Ramsden =83422=, we have used him five
years. He is an extra good sire. We also have for sale Village Ramsden =123782=, winner of 2nd
at London and 3rd at Winter Fair. Will price a few females.
KYLE BROS., DRUMBO. (Phone and Telegraph via Ayr.)

Walnut Grove Shorthorns—Trout Creek Wonder 56167. Gainford
Eclipse 103055. We are offering an excep-
tionally choice lot of bulls and heifers from the best Scotch families, and our herd sires
Trout Creek Wonder and Gainford Eclipse. If interested, write.
Twelve miles west of St. Thomas.
Bell Phone. M.C.R. and P.M. Ry. **DUNCAN BROWN & SONS**
Shedden, Ontario

The Outstanding Event of the Season

Elliott's Sale of Shorthorns

The Greatest Sale of Show and Breeding Cattle
Ever Sold in a Canadian Auction

AT WINTER FAIR BUILDINGS

Guelph, Ontario, Friday, February 7th, 1919



THE WINNING HERD OF CANADA, 1918

Orange Maid

Emma 62nd

Rosa Hops 21st

Roan Lady

Newton Loyalist (Imp.)

(All five are included in the sale)

Of the 48 lots listed for this sale, five are here shown;

Newton Loyalist (imp.), the herd sire and champion of the 1918 Western Fair Circuit, is also one of Canada's greatest breeding sires. His get will be a feature of this sale throughout.

Roan Lady, a Mary Ann of Lancaster, and winning cow last season, is got by Maxwalton Sultan, and due just sale time to Newton Loyalist.

Rosa Hope 21st, by Right Sort (imp.), and grand champion female for the year 1918, is guaranteed in calf to the service of the same sire.

Emma 62nd, by Prince of Orange, is the unbeaten yearling, east or west; and Orange Maid, a get of Orange Ringleader, often found the top of the calf class on the circuit the past season.

Other noted 1918 winners selling are: Queen Emmiline, the winning two-year heifer by Sittyton Selection; Princess Emmiline, a senior calf by Newton Loyalist; Augusta of Langbank, a

rich outstanding Augusta yearling, and Brawaith Rose 2nd, an imported in dam 1918 heifer bred by Durno.

Of the young bulls shown last season, and all of which are included in the offering, Newton Perfection, by Newton Loyalist, is the most outstanding. He won championship honors in the West last season, was first at Guelph this winter, and stood sixth in a class of 69 calves at Chicago in December.

These youngsters are all from cows that are at present in Mr. Elliott's herd, and all listed in the sale. Prominent among them are several big, deep, imported cows, and each again have a calf at foot. The Canadian-bred cows, too, are large, full of character and of the sort one would expect to find in a breeding herd that has produced so many winners in the past. Fifteen of these are selling with calves at foot, six more are due in February or early March, and the balance are safely bred. They include nearly all the tribes that are fashionable among present-day families, and make up an offering of show and breeding Shorthorns that has never been excelled in a Canadian auction.

EVERY THING OF BREEDING AGE GUARANTEED A BREEDER

WRITE FOR CATALOGUE

AUCTIONEERS:
CAREY JONES, TOM. ROBSON
A. WOOD

J. J. ELLIOTT, R.R. No. 4, Guelph, Ont.

Other sales in this series: Toronto Combination Sale, Feb. 5; Mercer-Currie Sale, Feb. 6. (Both at Union Stock Yards, Toronto.)
C.P.R. and G.T.R. trains for Guelph same evening.

English Dual-Purpose Shorthorns

Young bulls fit for service and bull calves. A choice and highly bred collection from imported stock on both sides. The right kind to increase the flow of milk, in any herd.

English Large Black Pigs. A great breed. Approved where tried. Come or write.

LYNNORE STOCK FARM
F. Wallace Cockshutt, Brantford, Ont.

FOR SALE

Several classy young bulls from six to twelve months, also a few heifers.
J. A. WATT, Elora, Ont., G.T.R & C.P.R., Tel. 101

I HAVE FOUR RED BULLS

Two imported, also a few females for sale. Six Lincoln ewe lambs, got by an imported ram, and from heavy Shearling registered ewes. \$25 each.
J. T. GIBSON DENFIELD, ONT.

6 BULLS BY ESCANNA FAVORITE

A son of the famous Right Sort (imp.). All are ready for service and priced to sell. We have others younger and could spare a number of young cows calving early to the service of the same sires. Write, don't delay.
W. G. GERRIE, Farm at C.P.R. Station, Bell Phone Fergus. Bellwood, Ontario.

Creekside Shorthorns

Herd headed by Gainford Count out of a Stamford cow and by the great Gainford Marquis (imp.). He is a choice, thick, 21 month's youngster and right. Would exchange him for females. Also have 8 other Scotch bulls from 11 to 16 months (reds and roans). Write me for anything in Shorthorns.
GEO. FERGUSON, Elora, Ontario.

SPRUCEDALE

Shorthorns and Berkshires

Herd headed by Sprucedale Butterfly, whose dam, Orma of Northlynd 105359 (owned in herd), has a 4-year-old R.O.P. record of 10483 lbs. milk, 390 lbs. fat. Shorthorns and Berkshires of different ages and sex for sale. Inspection invited.
Frank Teasdale - Concord, Ont.

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Ask for prices on car lots of Cotton Seed Meal, Linseed Oil Cake Meal, Gluten Feed, Corn, Bran, Shorts.

WE BUY—Feeds of all kinds, state quantity and send sample. We can supply field and garden seeds in packets and bulk. Get our prices on Ontario-grown, high-grade Seed Corn.

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Breeders of

Milking Shorthorn Cattle, Belgian Draft Horses, Berkshire Swine.

We offer animals that will raise herds to a level of war-time efficiency. Bull calves from \$125 up.

DALTON
Massachusetts

MAPLE SHADE

Shorthorns

Young bulls sired by "Archer's Hope." Ten imported bulls. Best Scotch breeding.

WILL. A. DRYDEN
BROOKLIN - ONTARIO

Mardella Shorthorns

Herd headed by The Duke, the great, massive, 4-year-old sire, whose dam has 13,599 lbs. of milk and 474 lbs. of butter-fat in the R. O. P. test. I have at present two exceptionally good young bulls ready for service, and others younger as well as females all ages. Some are full of Scotch breeding, and all are priced to sell. Write or call. Thos. Graham, R.R. No. 3, Port Perry, Ont.

Shorthorns and Clydesdales—We have a number of Shorthorn bulls which are pure Scotch and Scotch-topped; extra good quality, out of high-record cows; also a few females, and one extra good yearling Clyde stallion; also a good two-year-old mare. P. CHRISTIE & SON, Port Perry, Ont.

Shorthorn Bulls for Sale—Eight yearling bulls of serviceable age. Sired by the imp. bull Donside Prince 101809. WM. GRAINGER & SON, Auburn, Ont.

DUAL-PURPOSE SHORTHORNS
I am offering five choice bulls from 10 to 12 months old. Their Grandam a Mina Gem, has a R.O.P. of over 10,000 lbs. Quality and satisfaction guaranteed. E. R. WOOD, Freeman R.R. 2, Burlington St.

BULLS BULLS BULLS
I have for sale 4 very high class Shorthorn bulls, 2 yearlings and two years old. These bulls are to be sold immediately, and the price will be right. Don't over look this chance. Barred Rock Cockerels, \$5.00 apiece. S. Dymont, Barrie Ont.

Graham's Dairy Shorthorns
I have a choice offering in cows and heifers in calf. Bulls from the heaviest milking strains. Satisfaction guaranteed. Charles Graham, Port Perry, Ont.

Springbank Pure Scotch Shorthorns and O. I. Chester White Swine, young stock, both sexes at all times. In Chesters we have a number sired by Sunny Mike 15917, first at Toronto in 1917. Satisfaction guaranteed. Inspection invited. Wm. Stevenson & Son, Science Hill, Ont.

Questions and Answers. Miscellaneous.

House Plans.

Could you advise me where I could get plans for a modern farm house? I. E. D.

Ans.—Plans of various styles of houses are frequently published in our issues. Next month we hope to print several plans. Plans and specifications may be secured from contractors and architects.

Feeding Pigs.

I am feeding three-months-old pigs on mixed grain, oats, barley and wheat, with a little oil cake added. Is it advisable to soak this feed? If so how long? I have no skim-milk. W. F.

Ans.—There is a difference of opinion on this point. Good results have been obtained from both methods. Soaking the meal one feed ahead will possibly make it more readily digestible and there will be less waste.

Enlarged Heart.

A chicken I recently killed had the heart enclosed in a sac of yellow water. The bird appeared healthy and was fat. Was the meat fit to eat? S. T.

Ans.—The symptoms indicate inflammation or dropsy of the heart sac. The trouble may result from exposure to cold or dampness. As the trouble cannot be diagnosed until after the bird is dead treatment is impossible. So far as we can learn the meat is not affected.

Cow Giving Bloody Milk.

In regard to question about cow giving bloody milk, recently asked through "The Farmer's Advocate" columns, I have found the following treatment to give excellent results. Give one pound Epsom salts and a teaspoonful of saltpetre dissolved in a quart of lukewarm water as a drench. Also give a teaspoonful of saltpetre in a mash every night. After milking bathe the udder with white liniment, then oil it with lard or goose oil, and it will soon be all right. A. N.

Election Days.

Have all elections to be held on the first Monday in the year—in townships, villages, towns, cities, or can they be changed to another day? Ontario. D. W. W.

Ans.—We assume that you refer to Municipal Elections. The general rule is that such elections must take place annually on the first Monday in January. But councils of particular municipalities may arrange by by-law to have the elections on the first of January, or on the day following if that date happens to fall on a Sunday.

Drains Aerate Soil.

If one opens a tile drain when it is dry a current of air can be felt. In fields where tile drains are laid growth is always more marked immediately over the tile. Have any experiments been conducted regarding this? It appears as though aeration of the roots of plants might be advanced as a strong argument for under-draining. J. W. C.

Ans.—It has been proven that tile drains greatly benefit crops by permitting interchange of air in the soil. Where water is drawn off by tile, air naturally fills the spaces and fresh air is permitted to reach the roots of plants.

Turnips Growing.

Last year I had about four acres in Swede turnips, and this year about three acres. Both years they were a most splendid catch and for some time they grew fine. After some time a worm, I think, known as the "Zebra Worm" fed on the leaves and in a short time stripped them, leaving nothing but the stalks. Advise me what to do to prevent these another year, and also tell me what butterfly lays the eggs that produce them. L. R.

Ans.—The Zebra caterpillar which at times defoliates plants is not a new pest but, as a rule, it is controlled by natural enemies. The best remedy is to dust the plants with Paris green diluted with twenty to thirty times its own bulk of hydrated lime, air-slaked lime, land plaster, or any other fine powdered cheap substance. Dusting should be done in the same way as potatoes are treated for Potato Beetles. The leaves of the plants should be covered with the dust. The butterfly or adult has chestnut brown fore-wings and pale yellow hind wings.

Imported Shorthorns

SIRES IN SERVICE:

Imp. Collynie Ringleader
(Bred by Wm. Duthie)

Imp. Clipper Prince
(Bred by Geo. Campbell)

Imp. Orange Lord
(Bred by Geo. Anderson)

We are offering a large selection in imported females with calves at foot or in calf. A few home-bred females, 19 imported bulls and 8 home-bred bulls, all of serviceable age. If interested, write us, or come and see the herd.

J. A. & H. M. PETTIT - Freeman, Ontario
Burlington Jct., G.T.R., half mile from farm. Phone Burlington.

HARNELBEL SHORTHORNS

Some Choice Young Bulls For Sale

No. 1—Dark Roan, Calved Dec. 8th, 1917, Sire Sultan, choice Dam, Jealousy 4th.
No. 2—Red, calved May 23rd, 1918, Sire Meadow Lawn Prince Dam, Lady Castlemont.
No. 3—Dark Roan, Calved July 15th, 1918, Sire Sittytan Sultan Dam, Elendale Lily.
No. 4—Light Roan, Calved July 25th, 1917, Sire Mortimer Dam, Darlington Queen.
No. 5—Red and White, Calved Sept. 19th, 1918, Sire Gainford Sultan Dam, Crimson Fuchsia 3rd.
No. 6—Red, Calved Dec. 13th, 1917, Sire Mortimer Dam, Lady Sovereign 4th.
No. 7—White, Calved Aug. 1st, 1918, Sire Gainford Supreme Dam, Glen Buell Clipper 8th.
No. 8—White, Calved Aug. 2nd, 1918, Sire Gainford Supreme Dam, Darlington Queen.

HARRY MCGEE, Proprietor, 61 Forest Hill Road, Toronto
SAML. TRUESDALE, Manager, Islington, Ont.

GREAT AUCTION SALE OF 30 HEAD OF Scotch Shorthorns 30

The property of **ADAM DAWSON**, Cannington, Ont.
To be sold by Public Auction at his farm, 2 1/2 miles from Cannington, on
Wednesday, January 29th, 1919

The herd represents such families as the Matchless, Jilts, Gloster, Village Girl, Rameton Cecelia, Crimson Flower, Bloom.
There will also be sold his Clydesdales and farm implements, as he has sold his farm.
TERMS—All registered stock cash, if arrangements have not been made previous to purchasing. Implements on 10 months' credit.
Trains will be met at Cannington Station, Midland Division of G.T.R.
Catalogues on application to

W. F. MARQUIS, Uzbridge, Ont. Auctioneer
ADAM DAWSON, Cannington, Ontario



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T. H. HASSARD - MARKHAM, ONT.

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THE QUALITY SORT. F. W. EWING, ELORA, ONT.
The thick, soggy, smooth, furry coated kind. Marr Stamfords, Campbell Clarets, Marthas, Wimples; eight to sixteen months old. If you want a right, good heifer write your wants or come and see them. They'll suit you. Also two 12 month Claret bulls.

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Herd headed by Dominator 106224, whose two nearest dams average over 12,000 pounds of milk in a lactation: cows with records up to 11,000 pounds of milk in a year. Bulls from three to ten months of age for sale. Heifers and cows for inspection. Weldwood Farm, Farmer's Advocate, London, Ont.

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Sired by Royal Duke 2nd =102332. Dam is Lavinia Duchess =64347. He is 12 months old, and a deep red, well-proportioned fellow. Also a fine, square, deep roan bull, sired by Britannia Count =99437, whose dam is Lythmore Ruby =99344. He is 2 years old. For further information and price, write to **FRED NICHOLAS, CALEDONIA, ONT.**

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60 Shorthorns 60—Bulls—During next few weeks we will sell bulls of serviceable age at a big sacrifice, to make room. Near Grey 72692, a champion and sweepstakes bull. **JOHN ELDER & SON, Hensall, Ont.**

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Herd still headed by Proud Victor =102587 =. For Sale—One red, 20-months old, and eight 10-months-old choice reds and roans. Also females of all ages. **J. B. CALDER** - **GLANFORD, STA. R.R. 3**

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1861 IRVINEDALE SHORTHORNS 1919

Herd headed by Marquis Supreme =116022 =; have on hand a number of good young cows and heifers, bred to Marquis Supreme. Also a right good lot of bulls, all by Gainford Select =90772 =. Anyone in need of a good young bull or a nice, well-bred heifer, will do well to write to **JOHN WATT & SON** (G. T. R. & C. P. R.) R.R. 3, Elora, Ontario

Canada's Premier Combination Sale of SHORTHORNS

At Union Stock Yards

Toronto, Ontario, Wednesday, February 5th, 1919

Listing Fifty-five Lots of Imported and Canadian-bred Shorthorns,
Drafts From Four of Canada's Leading Herds

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MANY OF THE BEST PRODUCTS OF THESE HERDS ARE SELLING.

In practically every instance the cattle listed for this sale represent the strongest blood obtainable in the Shorthorn world to-day. Each of the four contributors have drawn heavily on the best representatives of their herds, and the offering throughout has every promise of being equal to the best ever consigned to a Canadian sale ring. There are imported cows with calves at foot, others in calf to British service. There are Canadian cows with calves at foot, and others safely bred to the country's best sires. There are heifers carrying their first calves, and others not bred; and there are young bulls,

fifteen in number, and each of the herd-sire sort. Among the families represented are Augustas, Broadhooks, Lady Ann of Lancasters, Missies, Mysies, Jilts, Red and Roan Ladys, Nonpareils, Duchess of Glosters, Clarets, Butteflys, etc. Shorthorn breeders and intending purchasers will find here the best of breeding blended closely with correct type and individuality, making up 55 lots of breeding cattle that should, with very few exceptions, each appeal strongly to those who are buyers of the best.

All requests for catalogues should be addressed to

Jno. Miller, Jr., Ashburn, Ont.

Please mention the Advocate when writing.

Auctioneers: CAREY JONES, T. E. ROBSON

Other sales in this series: Mercer & Currie on the 6th, J. J. Elliott on the 7th.

The Mercer-Currie Sale

OF

Breeding Shorthorns

at the Union Stock Yards, Toronto, Ontario, Thursday, February 6th, 1919

is an event that should interest the buyer in the market for good bulls and females.

75 HEAD

40 Breeding Cows, 30 Calves included with their dams, 8 Bred Heifers, 12 Open Heifers, 15 Young Bulls. An offering throughout of Scotch bred sorts of the richest ancestry; all selling in useful breeding condition.

The real outstanding feature of this offering is the unusually large number of cows that are selling with their calves also in the sale ring. As foundation females these are breeding propositions and as such their value is already assured. It will also be noted that in nearly every instance the pedigrees are mostly Scotch or Scotch topped which brings into the catalogue as fashionable a lot of families as have been listed for a Canadian sale in years.

The bulls to which many of these cows are bred will also add strength to the offering throughout. Noticeable among them are such sires as Excelsior by Gainford Marquis (imp), Roswood Champion by Nonpareil Archer, Christmas Gift by Broadhooks Golden Fame, Nonpareil of Hillside 6th by Count Averne 4th and others. In many cases the younger things in the sale including most of the young bulls catalogued are also got by these sires. Among these youngsters may be found much that is herd sire material.

If you are in the market for Breeding Shorthorns attend this Sale.

Auctioneers: Carey Jones, Tom Robson

Owners, Thos. Mercer, Jas. Currie, Markdale, Ont.

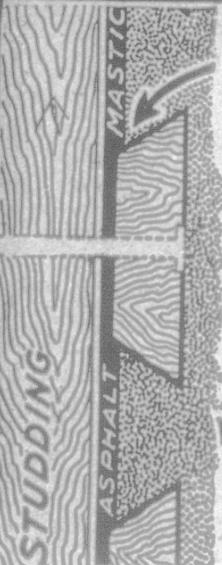
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This Auction follows the Toronto Combination Sale at same place Feb. 5. J. J. Elliott sale follows this at Guelph, Feb. 7.

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This Cut represents a cross section of wall, showing Plaster, Stucco, Stucco Board (note the Key holding Stucco), Asphalt, Mastic and Fibro Paper

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Holstein Bulls

Ready for service and younger. Cows and heifers bred to ORMSBY JANE BURKE, whose two nearest dams average 38.82 lbs. of butter in 7 days. The three nearest sires' dams and his dam's cords average 35.69 lbs. for 7 days, and 112 lbs. milk for one day.
R.M. Holtby, R. R. 4, Port Perry, Ont.

Bolshevism.

A fortnight ago at the Albert Hall the audience cheered the Bolsheviks. It cheered them with the best intentions. The Bolsheviks and Bolshevism represent to many honest English minds the embodied protest of mankind against the order which has condemned suffering humanity to four years of hell. And why should it not be true? The act for which they have been vilified in the Western Press, their conclusion of a separate peace with Germany, has now proved to have been a service to the world. It broke the spell of war, revealed the German powers for what they were, and sapped the moral strength of the German people. Even more than the victorious armies of the Entente, the peace of Brest-Litovsk has been the cause of the German downfall, the occasion of the insensate pride and the deeper doubts which conspired to the German catastrophe.

Moreover, the witnesses against the Bolsheviks are utterly discredited. The word of journalists who could find it in them (for heaven knows what inducements) not merely to condone, but to champion the autocracy, is worthless to the honest inquirer. The naive presumption of the fools (or worse) who in the same breath assured us that the Russian peasantry was animated by a spirit of incredible devotion to the Tsar and a love of one man for his brother, of the warmth of which we of the West had no faint conception, and held up the Russian people to execration because they refused to make war any longer, moved us not at all, or only to contempt. It was hard indeed not to be driven by such denunciations of the Bolsheviks to take refuge in enthusiasm for them.

But ill-informed enthusiasm is only a little better than malignant detraction. It is, for instance, possible to be enamored of the Bolshevik conception of the social revolution as a theoretical solution of the ills of society. It is more possible to suppress a distaste (natural to the English mind) for the dictatorship of the proletariat in the conviction that some such dictatorship is a necessary transition to a better order of things. But we have no right to allow an approval of Bolshevik theory in the abstract to cover Bolshevik practice, unless we know exactly what that practice is, and unless we are prepared to have it applied to our own vile bodies. The Bolsheviks, as subjects of our judgment, are not abstract theorists any more; they are the actual governors of a vast number of men of like passions with ourselves. More than this, the judgment which we pass on their practice touches their theory also, for a theory stands or falls by its application. Ideal harmonies are no justification for actual wrongs.

Everything, therefore, depends upon the character of the witness. The Germans have realized this, and with a view to enlightening the people as to what Bolshevism really means, have published a literal translation of Maxim Gorky's articles in "Novaia Zhism". Gorky at least is above suspicion. In the modern literature, not merely of Russia, but of the world, he occupies a place apart. He has spoken for, revealed, and championed the proletariat. We inheritors of an old civilization first learned the incredible truth of what it means to belong to the proletariat from Gorky's works. The truth is not easy to learn. No imagination can exactly realize what it is to spend one's childhood and youth in an unremitting struggle with actual starvation. The poor of the West are not poor in the same degree or in the same way as the poor in Russia. It is a monstrous and hardly believable exception if in our society in some isolated case poverty sinks definitely below the level of substance. With us the dividing line is one of greater or less luxury; in Russia it has been between the possibility and the impossibility of physical life.

From his birth and long sojourn in these unknown depths Gorky bears indelible marks. Of these the most obvious and unmistakable is his fear. He has seen the beast in man and is afraid. Those who know anything of the generosity and devotion of Gorky's private life know that he has always since his fame began, been prepared at any moment to sacrifice all he had in the struggle against the beast. If at any time an appeal came to him—and thousands came—for books or money with which to start a library in an illiterate village, he answered it with a speed and liberality undreamed of by Western philanthropy. To those who asked for

LLENROC STOCK FARM

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You can get young bulls from tested dams at these reasonable figures.

That means the fellow with scrub grades can now get a record sire at his price.

Drop us just a card and we will send you full details on any kind of bull you desire.

DON'T let your neighbor get here first.

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ON THE BOULEVARD OF THE BEAUTIFUL NIAGARA RIVER.

Raymondale Holstein Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pieterje) and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. These youngsters should not remain long. Write to-day.

Raymondale Farm, Vaudreuil, Que.

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HOSPITAL FOR INSANE HAMILTON - ONTARIO

Present herd sire is one of the best sons of King Segis Alcartra Spofford; we have three of his sons born during May and June last, and also a grandson of Lakeview Lestrage. Apply to Superintendent.

Manor Farm Holstein-Friesians

If it's a herd sire you want, write me. I have sons of both my senior and junior sires, King Segis Pontiac Posch and King Korndyke Sadie Keyes. All from good record dams. Choice bull calves at present to offer—average for two nearest dams, up to 34.71 lbs. butter in seven days. Correspondence solicited; visitors welcome.
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Offers—One 30-lb. bull, and several grandsons of the great King Segis. Two of these are ready for heavy service. We also have a number of heifers of same breeding—all from approved dams.

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For Sale: Two extra good (30-lb.) thirty-pound bulls ready for heavy service. Priced to sell. Also younger ones by a son of May Echo Sylvia.

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33-lb. Grandsons of Lula Keyes

I have at present ten young bulls all sired by my own herd sire King Korndyke Sadie Keyes a son of Lula Keyes 36.05 lbs. of butter and 785 lbs. of milk in 7 days. These youngsters are all first-class individuals and their dams' records run as high as 33.29 lbs. of butter in 7 days. Several of them must go quick to make room.

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(Hamilton House Farms)

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CLOVERLEA FARM HOLSTEIN-FRIESIANS

Offers for sale some choice young bulls ready for service from tested dams. Priced right for immediate sale. Phone or write

GRIESBACH BROS.

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from R.O.P. champions and dams and sisters of R.O.P. champions, sired by Canary Hartog and some by a son of Queen Butter Baroness, the dam of two champions in 7-and-30-day tests. We invite inspection and will meet prospective buyers at G.T.R. or C.P.R. stations—Woodstock or Ingersoll. Walburn Rivers & Sons, (Phone 343 L Ingersoll, Independent Line) R.R. 5, Ingersoll, Ont.

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Echo Segis Fayne, our herd sire, is by a brother of the world's 50-lb. cow, Segis Fayne Johanna. He is a grand bull in every way, and is not yet 4 years old. To avoid in-breeding would sell him at a price. Also have bulls from 1 month to 17 months old for sale, sired by Echo Segis Fayne and out of grand producing cows.

JOHN M. MONTLE, Prop., STANSTEAD, QUE.

Choice Grandson of Queen Butter Baroness

I am offering a choice 14-months bulls from a 21-lb. junior 2-year-old daughter of Louis Prilly Rouble Hartog, and sired by Baron Colantha Fayne, a son of Queen Butter Baroness, the former 33-lb. Canadian champion cow. Also have others younger. T. W. McQUEEN (Oxford Co.), Tillsonburg, Ont.

Walnut Grove Holsteins

I am offering a choice lot of bull calves, all sired by world's champion, May Echo Sylvia. All are from R. O. M. dams and good individuals. Also having the usual offering in Tamworth Swine.

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I am offering for immediate sale several young sons of my senior herd sire Judge Hengerveld De Kol 8th, who is a 32.92-lb. grandson of De Kol's 2nd Butter Boy. The dams of these bulls all have R.O.P. records running up as high as 195.26 lbs. of milk for the year. Write for pedigrees.

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We are offering a choice lot of young bull calves, all sired by King Lyons Colantha, only one of serviceable age on hand at present. We also have some richly-bred young cows due to freshen soon to offer. Write us what you want, or better come and see them.

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We have bred over one-half the world's Jersey champions for large yearly production at the pail. We bred, and have in service, the two grand champion Berkshire boars. If you need a sire for improvement, write us for literature, description and prices.

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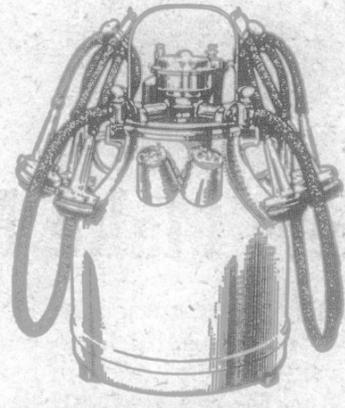
his coat he gave his cloak also. To him there is one means, and one alone of combating the beast in the people. It slinks away afraid in the light of education. To conjure away the powers of darkness by the powers of light has been Gorky's self-appointed aim. In its pursuit he has made no distinction between Jew and Gentile. One of the most vivid recollections of the present writer is of the emotion with which a Jew of the Pale once told him how, when as a young man he had first learned to read Russian, he wrote to Gorky asking him for help in the work of opening the eyes of his villagers to the new light, and how Gorky wrote to him by return, beginning "Dear Brother", and sending him three hundred roubles.

With the same clear purpose of education Gorky founded the "Novaia Zhism" at the beginning of the revolution. From day to day he chronicled what he saw, and almost daily he renewed his passionate appeal that the leaders of the revolution should be conscious of their responsibility, and should give the masses the light without which they lived and perished as the beasts. With the first Bolshevik outbreak of July his voice becomes more desperate. He sees in the endeavor to rouse the ignorant people against the revolutionary government deliberate criminality. He describes scenes which must convince his audience that the indictment he is slowly shaping is true. He stands at the street corner and listens to a conversation between one of the rioters and a student. The student says that he is a Socialist. The rioter replies: "We spit on the Socialists; we are Bolsheviks," and, he adds: "We know you student so. You have always rebelled. You're bourgeois." On another day he is at the corner of the Lityeny Prospekt, watching a group of some hundred people talking quietly. Suddenly, for no visible reason, someone begins to fire at a house. A frenzied mob dashes in the door. No one knows why or at whom they are firing. A girl comes staggering out of the house through the crowd, wounded. Gorky goes up to her and helps her to shelter. She pushes him away. "Tell them they are firing on their own people." At another moment an armored car rushes along the street. A machine-gun is being fired from it incessantly. Someone on it cries: "Comrades, the social revolution!" and Gorky just has time to see the hand of a soldier beside him trembling on the trigger of his gun with the itch to fire at somebody or anybody.

The November days come, and with them an increase in Gorky's fear and also of his conviction that the Bolshevik leaders are deliberately setting themselves to arouse all the beastlike instincts in the ignorant mob, not with any view to a subsequent reconstruction of society, but merely in order to gratify a cold-blooded intellectual curiosity. The new Government allows no books to be published. All newspapers, save those which incite their readers to acts of redoubled violence against the bourgeoisie, are suppressed. The Commissary of Education abolishes the great Russian writers from the school and replaces them by a modern poet who has won notoriety by his glorification of the obscene. Gorky gives us a picture of the children. A handful of Red Guards are dragging what was once a man along the street. They have battered his face with the butts of their guns. All that can be seen of him is blood, a tangle of hair, and an eye still hanging to the socket by a sinew. Behind them is a crowd of children running and shouting, on their way to the river. After a little while the children come running back, laughing and shouting: "He's drowned!" But the children laugh seldom enough. Most of them are starving. The peasants are blockading the towns, and the Bolsheviks, who know that their power depends on the acquiescence of the peasantry, connive at their extortions. Most of the Soviet officials are themselves engaged in the illicit trade. The Red Guards, the railway workers, and the Bolshevik officials alone are fed, and the sole ray of light in the growing darkness is the news that one group of railwaymen—a very small group, alas!—has refused to accept the unequal treatment.

Of the starvation, Gorky gives one unforgettable picture. A woman reader writes to him to tell of what happened to her last night as she was hurrying through the dark streets of Moscow. She explains that you walk very fast now if you are out at night. As she was hurrying along, she was suddenly aware of a tall figure in military uniform follow-

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If you request it we will send these dairymen's statements with the illustrated booklet showing how Burrell Milkers increase milk profits, reduce dairy troubles and do this year after year.

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Brampton Jerseys at National Dairy Show

At the National Dairy Show at Columbus, Ohio, in October, Brampton Jerseys won among other major awards first for the best five females of the breed, which is perhaps the greatest award which can be won at this the World's Greatest Dairy Show. Among these was Beauty Maid, the champion four-year-old R. O. P. butter cow for Canada. We also bred and owned the dam and imported the sire of the mature champion R. O. P. butter cow for Canada. Why not make your selections from the Brampton herd?

B. H. BULL & SONS BRAMPTON, ONT.

THE CANADA'S MOST BEAUTIFUL JERSEY HERD Herd headed by Imported Champion Rover. Winner of first prize with five of his daughters on the Island of Jersey, in 1914 second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service. Sired by imported bulls and from record LONDON ONTARIO of performance imported prize-winning cows. Also some cows and heifers. Jno. Pringle Prop. Prices right. We work our show cows and show our work cows.

THE EDGELEY CHAMPION HERD OF JERSEYS

Write us about your next herd sire. We now have sons of our present herd sire, Edgeley's Bright Prince who is a son of Canada's champion butter cow, Sunbeam of Edgeley. Pay us a visit. Sunbeam of Edgeley is not the only high-record cow we have. We are pleased to show our herd at all times. JAMES BAGG & SONS (Woodbridge, C.P.R., Concord, G.T.R.) EDGELEY, ONTARIO

LAKESIDE AYRSHIRES

Our bull took the Senior Championship, Junior Championship and Grand Championship in Sherbrooke, and first in their respective classes at Quebec, in addition to taking the special prize for the best bull on the grounds any breed. We have others like them.

WRITE FOR CATALOGUE GEO. H. MONTGOMERY, Dominion Express Building, Montreal. D. McARTHUR, Manager, Phillipsburg, Ont.

HILLHOUSE AYRSHIRES—F. H. Harris, Mt. Elgin, Ont.

Headed by Burnside Lucky Master Swell, a combination of blood so hard to equal, being of the Masterpiece and Lucky Girl families, a combination which means quality, production and constitution. Ninety head to select from. Special offering—20 yearling heifers and 3 bulls. Inspection invited.

SPRINGBANK R.O.P. AYRSHIRES

For a few weeks we will offer a few select young heifers from our excellent herd sires, Nether to n King Theodore Imp. and Humeshaugh Invincible Peter. All from R.O.P. dams. Also a few choice cows. We still have 4 choice young bulls under 9 months of age. Inspection solicited. A. S. TURNER & SON, Ryckman's Corners, Ontario.

GLADDEN HILL AYRSHIRES

We have a choice selection of females, 35 head to choose from, every animal in the herd is for sale. If in need of a young bull having record of performance dams. Write or come and see them. LAURIE BROS. AGINCOURT, ONT.



Dairy Farmers Make More Money

CALDWELL'S Dairy Feeds are recommended by many Canadian authorities for their milk producing qualities. They are high in their protein content. Other necessary ingredients have been added in exact proportions according to the nutriment they contain to form a perfectly balanced ration. These feeds bring your cows up to their maximum flow of milk.

You can therefore make more money by feeding your cows with

CALDWELL'S DAIRY MEAL

If your dealer does not handle Caldwell's Feeds, write us direct—Ask for our booklet.

THE CALDWELL FEED AND CEREAL CO. LIMITED
Dundas - Ontario

MILLERS OF OVER 30 KINDS OF STOCK FEEDS.

TRY Caldwell's Horse Feed, Chop Feeds, Dairy Meal, Hog Feed. Also Caldwell's Scratch Feed and Laying Meal and Chick Feed for Poultry—you will be surprised at the results.

Summer, Hill Oxfords



The Sheep for the Producer, Butcher and Consumer.

Our Oxfords Hold an Unbeaten Record for America.

We have at present a choice offering of yearling ewes and rams, as well as a lot of good ram and ewe lambs—the choicest selection of flock-heads and breeding stock we have ever offered.

PETER ARKELL, & SONS
R. R. No. 1 Teeswater, Ontario
H. C. Arkell W. J. Arkell F. S. Arkell

Shropshires

Yearling rams and ewes. A few nice ram lambs by imported ram.

W. H. PUGH, R. R. 1, Myrtle, Ont.

Tower Farm Oxfords—We are now offering a choice lot of shearing rams and ewes, also ram and ewe lambs. Prices reasonable.

E. Barbour & Sons, R.R. No. 2, Hillsburg, Ont.

Shropshires and Cotswolds—A lot of young ewes in lamb to imp. ram, and ewe lambs, good size and quality, at reasonable prices.

JOHN MILLER, Claremont, Ont.

CHOICE YEARLING

and two shear ewes heavy in lamb, also a quantity of ewe lambs for sale at a reasonable price. **STUART J. ROBERTSON, Hornby, Ontario.** (Formerly of J. Robertson and Sons).

LINCOLNS C. Nicholson of Horkstow

LINCOLNSHIRE - ENGLAND

has for sale Pedigreed Lincoln Long Wool Rams and Ewes from his world-famous flock of ALL DUDDING-BRED SHEEP. By winning the CHAMPION and "ALL" the prizes in the two-shear and shearing ram classes at the Royal Show of England, 1915, all previous records were broken. Coates Shorthorns and Lincoln Red Shorthorns also for sale.

STATION—BARNETBY

Imported Shropshire Ewes

Imported Shropshire ewes bred to lamb in March and April. Write for prices
Will A. Dryden, Brooklin, Ont.

Newcastle Herd of Tamworths and Short-horns—Choice lot of boars and sows, three months old. Several young sows bred to farrow in January, February and March. Also a grand breeding sow carrying her third litter. All descendants of Colwill's Choice, three-year champion at Toronto Industrial, and Imp. Cholderton Golden Secret, and bred to Bruisson, No. 11975, bred by Sir Rodolph Forget. Several Shorthorn bulls ready for service, from deep-milking strains. A few young cows with calves at foot and bred again. Also a few young heifers. **A. A. Colwill, R.R. No. 2, Newcastle.** Long-distance phone.

Poland-China Swine AND SHEEP

Registered Sept. pigs, either sex not akin. Registered Dorset Horn rams and ewes. 10 reg. Southdown-bred ewes. All stock priced for immediate sale.

Cecil Stobbs, Leamington, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon 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 on Brantford and Hamilton Radial.

Berkshire Pigs

Large size, choicely-bred sows in pig; boars and gilts. Can supply pairs not akin; also dual-purpose Shorthorn cattle. Young bulls for sale. send for our breeding list.

Credit Grange Farm, Meadowvale, Ont., - - J. B. PEARSON, Mgr

BERKSHIRES

My Berkshires for many years have won the leading prizes at Toronto, London, and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age.

ADAM THOMPSON, R. R. No. 1, Stratford, Ont. Shakespeare Station G.T.R.

INVERUGIE TAMWORTHS

A choice lot of young sows; boars ready for service. Sows carrying second litters. Young stuff all ages; pairs not akin. Express charges prepaid to your nearest station.

LESLIE HADDEN, Pefferlaw, Ont., R.R. No. 2

ing her. The faster she went the faster he followed. In her terror she ran till she was exhausted, and then covered up against a wall, helplessly awaiting the worst. She saw that the soldier was an officer. When he drew near, he saluted, "Madam. . . pardon. . ." At the unexpected words she looked into his face. It was spectre-thin and greenish pale. Beneath his stiff moustache showed hungry teeth. His eyes were big and staring. "Madam. . . your charity. . . I am starving!" She gave him what she could, but said: "That won't buy any food. Come home with me." The officer bowed and shook his head, murmured, "Your reputation," turned on his heel and went away.

"I cannot love the proletariat," says Gorky, "but I can forgive it." It is stupid and cruel, because it does not know. But Lenin is not to be forgiven. What has he, the grand seigneur, to do with the proletariat? He is a ruthless experimenter with the lives of men. He has deliberately sought for anarchy and provoked it, not in order that good may come out of the chaos which he has created, but merely in order to see what will emerge. One day the people will understand what Ulianoff-Lenin has done to them, how he has made them beasts that he may treat them as beasts; and then they will turn upon him also. Till that time there is one hope in the midst of so great despair. By this orgy of indulgence the beast instincts in the people may be glutted, and at last in a final paroxysm the devil of cruelty and bestiality cast out. In June he thought the paroxysm had come, for then he accepted Andreyev's story, "The Abyss," as a symbol of Russia. That ghastly story tells how in the mad days of 1905 a boy and a girl were walking together through a wood. Some men fell upon them, stunned the boy, and violated the girl one after the other. When the boy awakened, he saw the girl's broken body beside him, and he too violated her. Thus Bolshevik Russia has violated the soul of Russia.

One may judge of Gorky's loathing and despair by the parable. Recently the news has come that Gorky himself has joined the Bolsheviks. But that does not mean that Gorky has recanted, even if it were possible, as it is not, to recant an indictment of this kind. He has accepted a post under the Bolsheviks, and it is a tribute to their astuteness that they should have offered him the one post which he could not refuse, but was sure to accept gladly. He is now in charge of the issue of millions of cheap books to the Russian people. He is preparing the end of the tyranny of the beast. He believes that education is the only way; but whether education alone is sufficient who shall say? Will anyone guarantee that Bolshevism in educated Germany would be less bloody than it has been in Russia? Or in England?

If Gorky is right in his diagnosis and his remedy Bolshevism is a unique manifestation, possible only in Russia. But perhaps Gorky is wrong. Perhaps men can put away their education more easily than they can put away the beast within them. We shall know by Germany's example. But until we know, Gorky's witness of what Bolshevism actually is must serve us. Those who call for it in England in ignorance of what it is will not escape the charge of having gambled with humanity itself. (The "Nation" London.)

Row's Sale Correction.

Fred. Row, Curries, has called our attention to some errors which appeared in our report of his sale held December 12, 1918. From Mr. Row's information we gather that there were ten calves in this sale of both sexes, ranging from two days to three months of age, and that these calves averaged \$63.70. Leaving out two cows, one of which was sixteen years old and the other with only one-quarter of her udder, 27 head ranging from calves under eight months up, averaged \$220. Four two-year-old heifers brought \$1,205. These errors arose from the fact that it is not the practice of "The Farmer's Advocate" to report the ages of animals sold.

In the advertisement which ran in this paper under instructions from Lake Marie Farm, King, Ont., it was stated that the young things were sired by St. Clare. This was a misprint and should have read: "a son of St. Clare."

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STANDARD FEEDS Oil Cake Meal and Cotton Seed Meal

The Organization of Resources Committee, as a war measure made arrangements to avoid a shortage of feeding stuffs in Ontario through the manufacturing of Standard Feeds, and for this purpose imported Oil Cake and Cotton Seed Meal. This action of the Committee seemed necessary as the trade was unwilling to incur the necessary risk, and because of embargoes and transportation difficulties Ontario would have been short of concentrates. The Committee assumed the risks and has concentrates on hand for you.

Standard Feeds are manufactured and sold by the following:

- The Campbell Flour Mills Company Ltd., West Toronto.
- The Campbell Flour Mills Company Ltd., Peterboro.
- Howson & Howson, Wingham.
- D. C. Thomson, Orillia.
- A. A. McFall, Bolton.
- Peterboro Cereal Company, Peterboro.

Oil Cake and Cotton Seed Meal.

As a result of changed conditions, these materials can now be sold as such. Sales will be made to any person or firm desiring to purchase in car load lots at the following prices:

Oil Cake Meal—\$65.00 F.O.B. Hamilton.

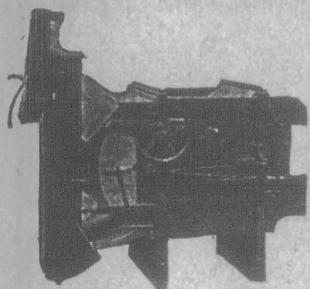
Cotton Seed Meal—\$62.65 Basis Hamilton freights. Delivered price on application \$63.65 F.O.B. Hamilton for immediate delivery from storage.

Inquiries and purchases direct from Jas. Richardson & Sons, Ltd., Royal Bank Building, Toronto.

As this advertisement is written Oil Cake Meal is quoted at \$70.00 F.O.B. Buffalo, and prices generally for concentrates have advanced in United States since our purchase. The Committee could therefore dispose of a portion of purchases at advanced prices across the line, and this action was contemplated in view of the slow demand in Ontario. The Committee has decided otherwise and while they last feeders now have the privilege of obtaining these concentrates at attractive prices.



Organization of Resources Committee, Parliament Buildings, Toronto



The Kline Mill

sold at Auction after Inventor died, when new ones could be got, at Twice the Price of new one To-day. The Public thought they would not get any more Kline Mills, in vicinity of Beeton and near towns. It is the only mill that weighs and grades grain. In separating wild oats has no Comparison. Capacity One Hundred bushels an hour; also power attachment. Easiest mill to turn made. Write for particulars.

Kline Fanning Mill Co., Beeton, Ontario

There will be sold by PUBLIC AUCTION at AYR, ONT., on

JANUARY 29, 1919

at 1 p. m., the following registered

Dorset Horn Sheep

9 ewes, 6 with lambs at foot, some due time of sale. 5 ewe lambs.
 2 shearing rams, magnificent types
 1 ram lamb. 1 good stock ram.

Parties by rail will be conveyed from depot.
 J. H. SCOTT, Proprietor, AYR, ONT.

SHEARING MACHINES

For flocks up to 300 use Stewart No. 9 Ball Bearing Machine, hand operated. For flocks up to 3,000 use Stewart Little Wonder, two horse power engine, high tension magneto, two power shearing machine and power sharpener. For larger flocks there are as many power shearing units to operate on line shaft as needed. If your dealer can't supply you send us his name. Write for catalogue.
 CHICAGO FLEXIBLE SHAFT COMPANY,
 Dept. 181, 12th St., and Central Ave., Chicago, Ill.

Seed Corn To make sure of a crop buy only home grown seed. Ours is selected from standing corn meal matured, thoroughly dried. Germination - guaranteed. Special prices to clubs. Try us once you'll buy again. Lake Ros Stock and Grain Farm, P. G. LUDWIG, Essex, Ontario.

SAVE LABOR

By sending your
Cream

to our factory. We have a modern plant and best facilities to produce highest results.

**Lindsay Creamery Limited,
 Lindsay, Ontario.**

There is
BIG
MONEY
IN TRAPPING

FREE

Hallam's Trappers' Guide—96 pages; illustrated; English or French; tells how and where to trap; what bait and traps to use; is full of useful information.

Hallam's Trappers' Supply Catalog—36 pages; illustrated; rifles, traps, animal bait, headlights, fish nets, and all necessary trappers' and sportsmen's supplies at low prices.

Hallam's Raw Fur News—Gives latest prices and advance information on the raw fur market.
 Write to day. Address giving number as below.

when you ship your
RAW FURS
To **John Hallam Limited** 731 HALLAM BUILDING, TORONTO.

SAW-BLADES

PRICE OF SAW BLADES F.O.B. FACTORY			
20	\$5.00	26	\$7.75
22	5.75	28	9.00
24	6.60	30	10.00

You can order direct from this list, saving both time and money. Simply mention diameter of blade with size of hole wanted, and remit with your order. I ship promptly.

My Catalogue, "The Heart of the Farm," illustrating Lundy Oil Engines, Saw Frames, Grain Grinders, Etc. sent on request.

A. R. LUNDY,
 255 KING STREET, WEST TORONTO

We Buy Rawfurs

It stands to reason that we, being manufacturers, can give you

More Money for Your Furs

than can be obtained elsewhere. Save the dealer's profit.

Price List on Request

**THE GILLESPIE
 FUR CO., Limited**

Established Toronto Over 25 Years

TREES & SHRUBS

BROWN BROTHERS CO.
 NURSERYMEN LIMITED
 BROWNS NURSERIES, ONT.

FOR SALE

ONE GASOLINE OPERATED
No. 1 Buckeye Ditcher

Capacity, 14 inches wide, 5 feet deep.

A. A. SCULLY LIMITED
 123 Bay St. Toronto, Ont.

Europe Wants Our Beef

Supply Her Now—Prepare for the Future

IN Europe 100,000,000 people face either a shortage of food or actual starvation. In many countries the foundation herds and flocks have been sacrificed. It would take many times the total number of cattle, sheep and hogs in Canada to restore Europe's present shortage which amounts to approximately 115,005,000 animals.

Canada's Opportunity

During the war Canada's meat exports grew by leaps and bounds. We have the opportunity of continuing and increasing our war time exports of meats to Great Britain. Our products have become favorably known in France, Italy and Belgium, and it is likely that new trade connections will be formed. But we must have volume and we must have quality. Canada has the opportunity and Canadians can meet it.

But the question is, will the production of meat products continue to be profitable? The Canadian farmer who pinned his faith to live stock during the ups and downs of the past twenty-five years has prospered. This policy has been proved in the United States, Great Britain, Denmark and many other countries.

Canada has the foundation stock and can produce the necessary feed. Considering the present European conditions, should the future hold any fear for us?

Competition from Other Countries

Canada's opportunity is equalled by that of no other country. The United States may be regarded as a strong competitor but it is probable that before long her full production of beef will be required again for home consumption. The beef exports of the United States declined steadily from nearly 1,200,000,000 pounds in 1906 until in 1914 to supply home consumption it became necessary to import 300,000,000 pounds. Although it is true that during the war the United States exported immense quantities of beef, that situation was due, largely, to the saving of meat by American people in order that Europe might be fed rather than to any considerable increase in production.

Canada is nearer to Great Britain than any other great beef producing country. Her superior position offers opportunity for the chilled meat trade.

Develop the Chilled Meat Trade

To realize full market value, chilled meat must be consumed within six weeks of time of killing. If the distance from market be too great, the meat has to be frozen. Frozen meat brings a much lower price than the same quality in a first class chilled condition. Time and distance favor Canada, and these are the deciding factors.

The European situation means that for years there cannot be any danger of over production of beef. Therefore,—

Conserve and build up the herds—improve quality—finish thoroughly.

Beef and Bacon for Canada's Permanent Prosperity.



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Live Stock Branch
Dominion of Canada, Department of Agriculture
OTTAWA, CANADA