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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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FOUNDED 1879

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LIV.

LONDON, ONTARIO, FEBRUARY 20, 1919.

No. 1378

The same care
and skill is used
in milling
PURITY OATS
as in our more
famous product

PURITY OATS
MAKES
Better Porridge

Canada Food Board
License Nos.
Cereal 2-009
Flour 15, 16, 17, 18

PURITY FLOUR

(Government Standard)

"MORE BREAD AND BETTER BREAD AND BETTER PASTRY"

Western Canada Flour Mills Co. Limited

HEAD OFFICE:—TORONTO, ONTARIO

WILL SILO FILLING TIME FIND YOU READY?

SILO FILLING time will soon be here—and the Canadian Farmer is depending upon the corn crop this year as never before. It is your duty, and it will mean more money in your pocket, to use every effort, to get ALL the FEEDING VALUE out of every stalk of corn.

The most important thing is to silo your corn crop when it possesses the GREATEST FOOD VALUE. If you get a Gilson Silo Filler EARLY—before we are sold out—you will fill your own silo. This means that you will silo your own corn when it is just right for silage. Be independent of the cutter gang. You do not need big power to operate the "Gilson." Your own farm engine—4 h.p. or larger—will do the work.

Write for Free Silo Filler Book to-day
It tells the Gilson Story from start to finish—points out the advantages of design, and describes the all-metal construction in such a way that you will understand WHY our machines cut and elevate MORE silage with LESS power than ANY OTHER Blower Cutter. This is a matter of dollars and cents to you. A Gilson Silo Filler will, in all probability, pay for itself the first season. BEWARE OF IMITATIONS AND INFRINGEMENTS.



The Wonderful **GILSON**

Your small engine will run it

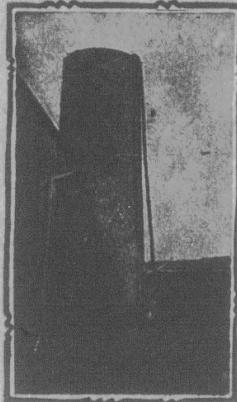
It is as much a part of your Farm Equipment as your Binder or Plow.

GILSON MFG. CO., LIMITED

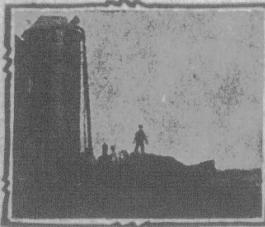
Makers of the Genuine and Only **GILSON** The Lightest Running Blower Cutter made

389 YORK STREET

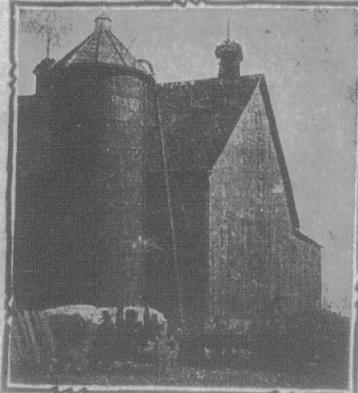
GUELPH ONTARIO



"My silo is 40' high," writes Frank Bolton, Guelph, Ont. "but my 8 h.p. engine which I purchased from you nine years ago operates my 13' ensilage cutter splendidly, sending corn over the top in a steady stream. This outfit is the admiration of all who see it."



John H. Murray, Sea View Farm, Cap La Ronde, O.B., N.S., writes: "Enclosed find picture of my 10' Gilson Silo Filler, 6 h.p. Gilson Engine and 30' Gilson Hilo Silo. I filled my silo with oats, peas and vetch, and it is coming out fine and not a bit spoiled. My outfit does splendid work and I am very well pleased with it."



Fred Huether's farm at Kitchener, Ont., showing his 8 h.p. Gilson Engine and 13' Gilson ensilage cutter filling his 30' Gilson Hilo Silo.



Jacob N. Halst, Ridgville, Ont., writes, "The enclosed picture shows our 13' Silo Filler and 12 h.p. Gilson Engine hard at work filling our silo. This outfit works beautifully and is as much a part of every farm as a binder or mower."



M. I. Adolph, of Gowans-town, Ont., declares that his silo filling outfit "is a source of real satisfaction and profit. I would not want to be without my 10' Gilson Silo Filler, 8 h.p. Gilson Engine and 12x30' Gilson Hilo Silo. I have used it for three seasons, and have had practically no trouble—it was always ready when wanted."

33

GILSON TRACTOR



"Goes like Sixty"
MADE IN CANADA
THE STANDARDIZED TRACTOR
—is a business machine designed along sound mechanical lines of proven worth, with no freak features. Sizes 10-20, 12-25 and 15-30 h.p.
Write for free catalogue and rock bottom prices. Dealers write for our Money Making proposition.
GILSON MFG. CO. LTD.
379 YORK ST. GUELPH, CAN. 37

Now is the Time to Order Your Potato Bug Poison

Acco Spray Powder kills the potato bug and flea beetle. Half the price of Paris Green and equally as effective. A guaranteed product. For sale at all Drug and Hardware Stores. Send for circulars.
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25 River St. Toronto
HAROLD F. RITCHIE & CO., Ltd.
Toronto Sole Agents

CENTRAL NURSERIES

TREES, SHRUBS, ROSES IN VARIETY.
Reliable Customers Say So. Filling orders over 40 years. Direct to Planters. No Agents. Send for Price List
A. G. HULL & SONS
St. Catharines - Ontario

SEED CORN

Wisconsin No. 7, Bailey, Leaming, White Cap, Yellow Dent, Longfellow, North Dakota and Smut Nose. High germination guaranteed.

ED. MATHER, Leamington, Ontario
Essex County

The HYLO SILO

THE everlasting silo—yields 100% profit on the investment every season—sweet, fresh, ensilage down to the last forkful.

Exclusive patented features of great value—specially selected, important material of the highest quality, and careful workmanship, explain why the Hilo is the choice of the most progressive and prosperous farmers in each community.

Write for free silo book today.

GILSON MFG. CO. LTD
339 York St. Guelph, Can.

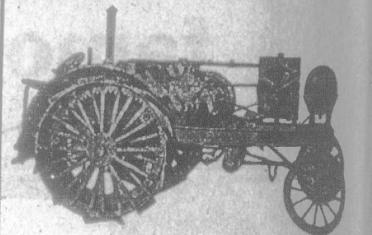
"Goes Like Sixty" This Engine Will Cost You Nothing

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.

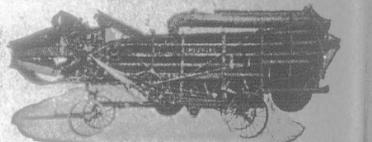
Gilson Engines have long enjoyed an indisputable reputation for dependability, power, simplicity and economy. This year finds us with an even more attractive proposition for but, by careful management, we are able to furnish Gilson Engines at remarkably low prices. Write to-day for catalogue, price,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

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

Tractors and Threshers



WATERLOO BOY
The Simplest, most Accessible, most Powerful 3-Plow Tractor on the market. Suitable for hauling 3 Plows, Threshing, Silo Filling and General Farm Work.



Individual Farmers' Threshers, suitable size to be driven by small Tractors and Gasoline Engines. Do your own threshing. Keep your farm clean and save expense.
Write for free catalogue, prices and any information wanted.

THE ROBT. BELL ENGINE & THRESHER COMPANY, LIMITED
Seaforth, Ont.
Also Steam Tractors, and large size.

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or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature.

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Fine Taxidermy Book Now Free
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Learn to Stuff Birds taxidermy, make your own robes. Quickly learned by men and boys. 400 profits from spare time, intensely interesting. Investigate. Write today for free book. Only a few more copies.
NORTHWESTERN SCHOOL OF TAXIDERMY
502 Second Building, Omaha, Nebraska

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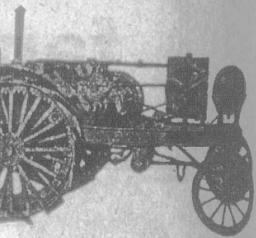
Equipment as your



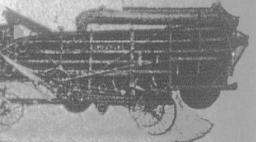
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for three seasons, and have
had practically no trouble—it
was always ready when want-
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38

Tractors and Threshers



WATERLOO BOY
Simplest, most Accessible, most Powerful
Tractor on the market.
For hauling, plowing, Threshing, Silo
General Farm Work.



Farmers' Threshers, suitable size to
small Tractors and Gasoline Engines.
Own threshing. Keep your farm clean
and safe.
Free catalogue, prices and any infor-
mation.
ROBT. BELL ENGINE & TRACTOR
COMPANY, LIMITED
Seaford, Ont.
Steam Tractors, and large size.

HAMMERING

Bring over come positively. Our
methods permanently restore
speech. Graduate pupils every-
where. Free advice and literature.
ARNOTT INSTITUTE
CHENER, CANADA

to Hunters and Trappers
The Taxidermy Book Now Free
with hundreds of photos of
birds and animals. Learn the art of
taxidermy. Decorate your home and
office with mounted game heads.
Hunt Birds in the Fall, make rugs &
carpets from them. The profits are
large. Write for interesting, investiga-
tory book. Only a few days left.
STERN SCHOOL OF TAXIDERM
1111 St. Nicholas St., New York



The World's Best Bread Wheat

WE call it "Cream of the West" for the best of good reasons. Just as the cream is the best part of milk, similarly the wheat we use is the "very cream" of Western hard wheat, the finest wheat in the world for bread. That is why

Cream of the West Flour

The hard wheat flour that is guaranteed for bread

makes splendid, big swelling loaves, always highly nourishing, always dependable.

The reason is, the Western hard wheat we use is exceptionally rich in gluten, the elastic substance that enables the yeast to make the bread rise properly. Be-

sides, the gluten has a wealth of body-building protein which ensures the highest nutritious value.

Cream of the West is always the same high quality and uniform strength. It never varies, never upsets your recipe.

Every shipment of wheat undergoes a test in our laboratory, by which we know exactly what it contains; this test enables us to keep our flour uniform in quality. Not only this, but our expert bakers are continually testing the flour by baking big bulging loaves with it.

You can have these splendid results too, with your own bread. Just give Cream of the West the right good trial it deserves. Then you will use it always.



The Campbell Flour Mills Co., Limited

West Toronto, Ontario

Canada Food Board Licenses, No's 6, 7 and 8.

Unity-Stability-Prosperity

are the aims of the

Canadian Reconstruction Association

Its National Programme is:

1. To support a tariff adequate to develop Canadian industries and to ensure employment for Canadian workers.
2. To create a good economic understanding between East and West and to show the necessity for industrial stability in order that excessive taxation may not fall upon farmers and workers.
3. To co-operate in movements to increase agricultural production and improve rural conditions.
4. To maintain national credit and to encourage investment in Canada.
5. To stimulate the development of national resources, to promote the utilization of Canadian raw materials, and to encourage final process of manufacture in Canada.
6. To develop domestic and foreign trade and to promote necessary industrial organizations.
7. To facilitate the adaptation of war industries to peace conditions and to ensure employment for war veterans and war workers.
8. To improve the relations between capital and labor and to emphasize the advantages of consultation and co-operation.
9. To encourage scientific research in the interests of Canadian producers and manufacturers.
10. To improve the economic and industrial position of women.

The Canada that has been saved by sacrifice and valor must not be destroyed by rash legislation. National Prosperity Depends on Industrial Stability.

The Canadian Reconstruction Association urges wise and prudent treatment of Reconstruction Problems.

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\$1000 MAPLE SYRUP PRIZE CONTEST

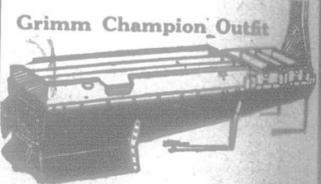
For Maple Syrup and Sugar

Every maker of Maple Goods in Eastern Canada should be interested in this remarkable contest. It will help all makers of Sugars and Syrup in the Grimm Champion Evaporator to have an expert opinion of their goods, whether they win a prize or not. The

Grimm Champion Outfit

is built with one idea—the best syrup and Sugar at the least cost. Start with good, clean sap and the Grimm Champion does the rest. Put a champion in your grove as early as possible. We can give you the right size at the right price. Write

The Grimm Manufacturing Co. LIMITED
 40 Wellington Street
 MONTREAL QUE.



Grimm Champion Outfit

SEEDS

Grown in the County of Haldimand

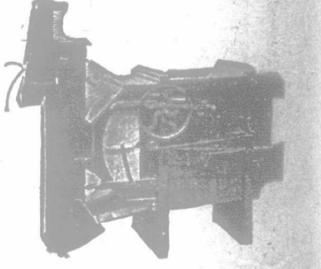
Our County took First Prize at Guelph Winter Fair this season on Red Clover, Alsike and Alfalfa.

These prices good till next issue of this paper, as long as our stocks last.

Red—No. 1	23.00
Red—No. 2	26.50
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	24.00
(Is home grown, Ontario Variegated)	
Bags are 60c. each.	
Seed Peas—Golden Vine	2.50
Flax Seed	4.25

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.

The Caledonia Milling Co., Limited
 Caledonia, Ontario
 (Canada Food Board License No 87)



The Kline Mill

sold at Auction after Inventor died, when no one could be got, at twice the Price of new ones 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

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For Maple Syrup and Sugar

Every maker of Maple Goods in the Province of Ontario should be interested in the remarkable contest. It will help all makers of Syrup and Sugar in the Province to have an expert opinion of their goods, whether they win or not. The

Grimm Champion Outfit

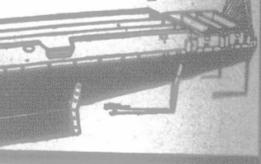
Start with one idea—the best Syrup Sugar at the least cost. Start with clean sap and the Grimm Champion the rest. Put a champion in your hands as early as possible. We can give the right size at the right price.

The Grimm Manufacturing Co. LIMITED

40 Wellington Street

QUEBEC

Grimm Champion Outfit



SEEDS

County took First Prize at Winter Fair this season on Red Alsike and Alfalfa.

Prices good till next issue of paper, as long as our stocks last.

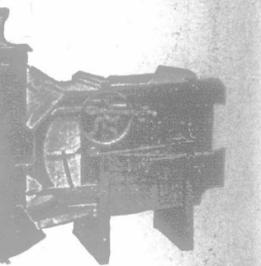
- No. 1 \$25.00
- No. 2 25.50
- No. 2 18.50
- (No. 1 Purity) 7.25
- (No. 2 Purity) 6.25
- No. 2 and No. 3 24.00

Bags are 60c. each. Seeds—Golden Vine..... \$2.50

Prices are per bushel, freight paid on order of three bushels or over. Cash must be paid on order. If seeds does not suit, ship back at our expense. We can recommend our grade of No. 2 (No. 1) Ask for samples.

Caledonia Milling Co., Limited Caledonia, Ontario

Canada Food Board License No. 87



Kline Mill

After inventor died, when new one got, at twice the price of new one. Public thought they would not get line Mills, in vicinity of Beeton and It is the only mill that weighs and In separating wild oats has no capacity One Hundred bushels as power attachment. Easiest mill to Write for particulars.

ing Mill Co., Beeton, Ontario



BISSELL LAND ROLLERS

are all steel except the Pole. They are braced and stayed to stand all kinds of hard work and wear well. The entire frame, bottom and all, is built of steel. The (18) anti-friction Roller Bearings make light draught. The Draw Bracket and low hitch do away with neck weight.

The Axle revolves with the drums and there is no squeaking or grinding.

The Cages holding the anti-friction rollers are the best yet; they're MADE OF MALLEABLE ALL IN ONE PIECE—no twisting or binding of the bearings on the axle of the "Bissell" Roller. The Seat Spring is reinforced and is DOUBLED AT THE HEEL. These good features are not all of the advantages of the "Bissell" Roller. Many more good points are built into them, making a Land Roller that is "built for business," that stands up against lots of hard work.

Ask Dept W for free catalogue.

T. E. BISSELL CO. LTD. ELORA, ONT.

See advertisement also on page 339

Order Now

For shipment when sleighing is good.

Interprovincial Pressed Brick

For the best combination of Quality and Price

RED, BUFF and FIRE FLASHED Colors Colored Catalogue Sheets Sent on Request

INTERPROVINCIAL BRICK CO. OF CANADA, Limited 30 TORONTO ST., - TORONTO Plant—Cheltenham, 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



Someone refused to look the facts in the face.

IN one of the large Canadian cities there is a Captain of Industry. He is the head of a great concern making a useful article and employing thousands of people. He started business without either capital or influence.

One day, in a moment of confidence, he said: "My success dates from the day that I started to look things in the face." Then he said:

"At one time I was in the habit of doing all the pleasant and easy things that came up and putting off the unpleasant things. If I had a customer who was not satisfied—had a kick coming, in other words—I would put off seeing him until to-morrow. If there was something disagreeable to do—something I hated to tackle—I could always find an excuse for putting it off. The first thing I knew I was in a tangle that nearly put me down and out. Then one day I said to myself: "Here, young man, these things must be done. Now do them!" Since that day I have always done the hard and disagreeable things first."



Then this successful man rubbed his chin thoughtfully—"And do you know," he continued, "that there wasn't one of those things half as hard to do as I thought it was going to be!"

All over the land, men and women, yes, and children too, are suffering because Someone was unwilling to face the disagreeable fact that men do not live forever. Families are losing their lands and their homes because Someone was unwilling to acknowledge the fact that he might die, or become old or unable to provide for those dependent upon him.

It is a strange thing that a man will often insure his crops against hail, or his buildings against fire, which may NOT happen, and neglect

to insure his life against death and old age, either one of which is SURE to happen.

You may say, "Life Insurance is all right—but I have other forms of saving." Yes, that may be true. But how long will it take you to save enough to provide for your family—say five or ten thousand dollars? Will it take ten years or fifteen years? Many things can happen to you in that time. Think of the advantages of Life Insurance. Suppose that today you took out a ten-thousand-dollar policy that would guarantee your family that amount of money if you were taken off a week from to-day. You would then have created an estate of ten thousand dollars in one week!



That's what Life Insurance means. Suppose that you live for twenty years, or longer, would it not be a great thing to know that at the end of that time you would receive The Imperial Life Assurance Company's cheque for the proceeds of your savings.

Think of Life Insurance from two standpoints. If you live you collect the money to do with as you like—just when you will need it most—when you are old and want to take things easy. If you should not live, you have done what a good man should do, and that is provide for those who look to you for protection.

Give this matter a lot of thought, Mr. Farmer. Every day people are suffering because Someone refused to look the facts in the face. If you complete and mail to us the coupon in this advertisement we'll send you some interesting information about an Imperial Policy which will fully protect both you and your family

THE IMPERIAL LIFE

ASSURANCE COMPANY, of CANADA

HEAD OFFICE . TORONTO, ONTARIO

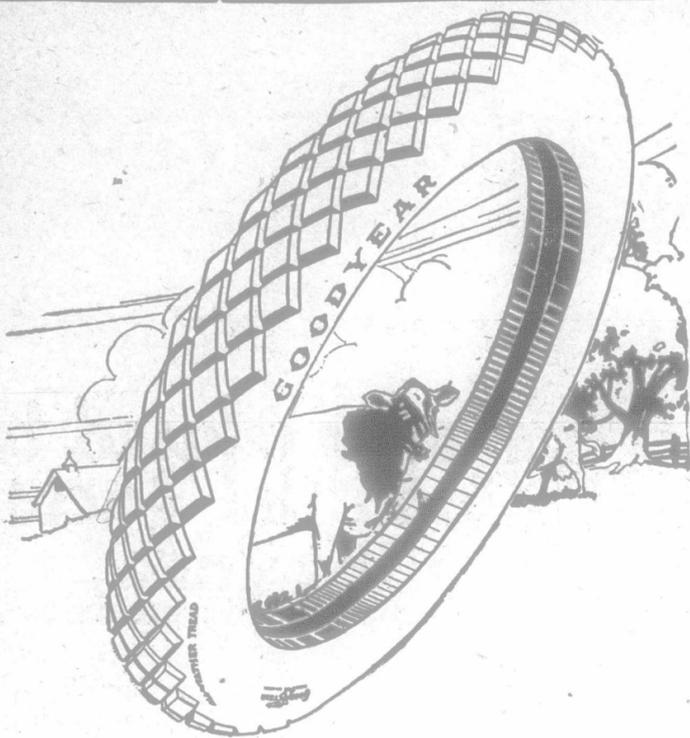
Branches and Agents in all important centres

I will read your booklet if you mail it to me. But it must be understood that this does not commit me to any further action.

I am years of age and could save and invest \$.....each year

Name.....

Address.....



How do You Judge a Holstein?

YOU wouldn't buy a milk-cow at so much a pound. No, you want to know how much milk she will give. A cow at \$200 might be away cheaper than one at \$125—certainly the real producer is the one the prosperous farmer buys.

Now, look on your tires as producers.

Judge them as you judge Holsteins.

You know absolutely that some tires give more miles of service than other tires.

You know that the tires that give the most miles per dollar are the best buy.

Then buy your tires on the cost-per-mile reputation.

Goodyear Tires built their world-wide business because they give that low-cost-per-mile. Don't let the lowest *first-cost* tire warp your good sense of economy and satisfaction. Look up the Goodyear Service Station Dealer and invest in Goodyears.

The Goodyear Tire & Rubber Co. of Canada, Limited

GOODYEAR
MADE IN CANADA



For Good Seed Beds

IF YOU want to be sure of well prepared seed beds, made in the quickest time and with the least trouble, buy **McCormick** disk, peg or spring-tooth harrows, **International** cultivators, and land rollers.

McCormick bumper disk harrows, with or without fore-carriages and weight boxes, are made in 6, 7 and 8-foot widths, with 16-inch disks. They have strong main frames of angle steel. Two handy levers working bowed set lever bars keep the gangs level at all angles. Draft links keep the pull always at right angles to the disk axles. All steel scraper equipment. Tandem attachments for double disking are made for all sizes. Used in combination with **McCormick** peg and spring-tooth harrows, they produce seed beds of the finest quality.

Use **International** No. 2 cultivators for keeping fallow land free from weeds of all kinds. **International** land rollers compact the soil into the best shape for an ideal seed bed and are made in 6, 8, and 9-foot sizes.

See the **McCormick** local dealer, or write the nearest branch house for full information about this good line of tillage tools.

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.

Send for This
Wonderful One-Man Puller

and pull your stumps 30 days FREE. One man alone handles and operates. No horses needed—no extra help required—wonderful leverage principle gives a man giant's power to pull big, little, rotten, low-cut, tap-rooted stumps and brush. Patented cable take-up does away with winding up slack cable. Two speeds—when stump loosens increase the speed and save time. Works in any position. Easily removed on its big broad wheels. Can be reversed under strain.

One Man Alone Pulls Any Stump

Kirstin One-Man Stump-Puller

The Kirstin will clear an acre from one anchor. All-steel construction—unbreakable. Sent anywhere on promise to give puller a fair trial. If satisfied, take a half year to pay, or return at our expense and keep your money. Priced as low as \$49.50. One-man style or HORSE-POWER—all sizes. Three-year guarantee, flavor no flaw.

Big Free Book! Send for most valuable stump puller book—pictures—prices—terms—letters from Kirstin users—also full details of Special proposition. Don't miss it! ALL FREE Write today

A. J. KIRSTIN CANADIAN COMPANY
518 DENNIS ST., SAULT STE. MARIE, ONT.

Pull Stumps Free

Thousands of Kirstins Now in Use!

Send No Money Not even a penny! After 30 days FREE trial you are to be the judge. Your word is final. We don't want you to keep the Kirstin unless you yourself WANT to keep it.

Half Year to Pay Buy on easy payments if you wish. This way the Kirstin pays for itself from the day you use it and you. You don't feel the cost at all. Get the full details. Write today.

"Best-by-Test" FERTILIZERS

This brand of fertilizer is noted for high plant food value and the analyses are guaranteed by us and by Government regulation to be full strength. We have the right Fertilizer for every soil and every crop. Make your farm a good farm; make your yields big on every acre and for every crop. You can do it by judicious use of Best-by-Test Fertilizers. Get your order in early; don't take a chance on a shortage. Farmers should club together and order in car load lots.

Write particulars of your soil and the crop you will plant, and we will give you the best advice we can, as to the kind, quantity and price.

Write For Booklet—FREE

CANADIAN FERTILIZER CO. LIMITED
12 Market Chambers
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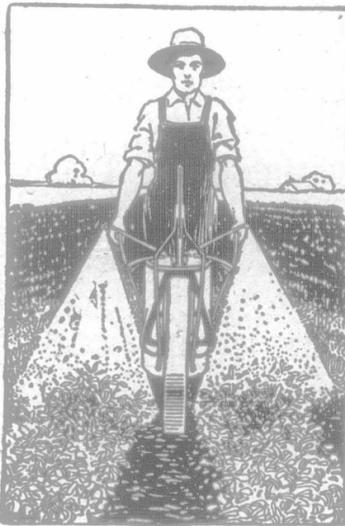
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LONDON, ONTARIO, FEBRUARY 20, 1919.

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EDITORIAL.

Have the sap pails ready; sugar weather will soon be here.

Get the calves away to a good start and then keep them going.

Don't wait for 12-inch ice if you can get it 6 inches thick. The winter is passing.

Watch what is going on at Ottawa when the House is in session. They are transacting your business.

One of the most important sessions of Parliament, in the history of Canada, convenes to-day at Ottawa.

If the seed grain has been through the fanning mill only once, run it through again.—It will pay in the end.

Give the pregnant sow plenty of exercise in the barnyard or outdoor pen. It makes a vast difference in the pigs.

Early-hatched pullets make the best winter layers, so it will soon be time to put down a few hens or start the incubator.

If your community is thinking of obtaining a premium horse for the coming season, it would be well to make a choice soon before the best are spoken for.

The live-stock outlook is what the producers and legislators combine to make it. There is a wonderful opportunity if we take advantage of the circumstances.

Select out a pen of good layers and mate them with a bird that comes from good stock. Don't take the eggs for hatching indiscriminately from the whole flock.

We can trust Foch to keep the German's claws clipped down to a dull point. France has lived in fear of Germany since 1870, and she is now going to enjoy a period of ease.

Daylight Saving is a nuisance and a detriment to one-half the population, and no material good to the other half. Ask your representative to oppose it in the House of Commons.

Use your best judgment when selecting a herd sire this spring. Canada must improve the quality of her product, and you can serve your country and your community by setting a good example.

Press dispatches from Ottawa have been stating that the Government have noticed very little opposition to Daylight Saving. These dispatches may only be feelers sent out by someone interested in the re-enactment of the measure, and they may not bear the official imprimatur. However, there has been opposition and plenty of it. County councils, breed associations, farmers' clubs and farmers' provincial organizations have gone on record against Daylight Saving, and if the Government has not been able to notice much opposition to the Act it is because they are deaf to rural appeals. Some rural constituencies have made their representatives fully acquainted with the opinion which prevails in the ridings, and those members have been asked to oppose a re-enactment of Daylight Saving. We do not need to be guided by what is done in the United States. It has been a case of "Me, too!" long enough. Give your representative to understand that we want no more of Daylight Saving, and ask him to oppose it if it is again introduced.

The Bean Market.

Beans in Canada have been everything but trumps during the last two seasons. Growers, in Ontario particularly, are stocked up with them, and dealers who bought heavily of the 1917 crop, as many of them did, find themselves in very uncomfortable circumstances. Beans are not moving, and they have not been moving to any noticeable extent for over a year. The 1917 crop was not of A-1 quality, and this handicap was accentuated by unfavorable harvesting conditions. However, prompted by the high price of beans and the appeals made for foodstuffs, buyers took a chance and stocked up with this commodity, thinking that the world-wide tendency towards diminished rations was sufficient guarantee. To make a long story short, many of those 1917 beans are still warehoused in this country, and no outlet has yet been provided. Still optimistic regarding the demand and still encouraged to produce for the sake of the Empire and the Cause, growers in bean sections planted extensively, and now they have threshed another crop for which there is no call.

The price at which the 1917 crop was purchased, or partly purchased, raised beans to a high level; so high in fact, that consumption in Canada has been very materially reduced. More than that, Japanese beans of prime quality can be laid down here at a lower figure than farmers have been expecting, and at a lower figure, too, than the dealers who stored beans can afford to accept. These two factors, coupled with no outside demand, are responsible for the present situation. There are only two ways to bring about relief: One is to restore beans to their proper place in the Canadian diet; the other is to move a large quantity of them over to Europe and place them at the disposal of those nations whose cupboards are bare. This latter suggestion requires Government action, and we understand the Federal authorities have already had such a recommendation up for consideration. Beans are a concentrated form of food, and after this period of adjustment is ended no obstacle should be allowed to prevent us exporting enough beans to steady the market and create a reasonable demand for what we have left. The Ontario and Dominion Governments should cooperate and endeavor to find an outlet for these large stores of beans which were produced in good faith and, to a large extent, in response to appeals from the Governments mentioned.

The Live Stock Council.

The Canadian National Live-Stock Council, which lived almost one year, is now disbanded and another organization is being considered. Evidently the next council will come entirely from the Eastern and Western Canada Live Stock Unions, and this makes it imperative that stockmen, both East and West, take these two Unions seriously. While the breeders West of the Great Lakes took exception to the Council as organized last year, they realize that we need a council now and are ready to help bring it about. The Eastern and Western Unions admit breed associations as well as local clubs whose members are interested in commercial breeding stock. Thus through the two Unions it should be possible to build up an organization that will be representative enough to satisfy the producers of live stock generally. On the other hand, the Council must have funds and, at present, there is no source open except breed associations, and they will not be open unless they have representatives enough in the Council to safeguard the spending of their money. One thing is certain, the new Live-Stock Council should not have to depend on Government grants in any way. If that is being considered, even as a temporary measure, the matter had better be dropped until the live-stock industry is ready to do something for its own prosperity. We need a strong live-stock council now as never before, and those who labored in the organization which is now

disbanded have no reason to feel hurt. We need their advice and assistance, and it is their duty to see that the Live-Stock Council, when born again, is composed of the best men available and organized in such a way as to serve the industry in the most effective way.

Cold-Storage Facilities.

Canada has awakened and realized that to develop and expand her live-stock industry she must conduct her trade along modern lines. Australia, New Zealand, South Africa and Argentina are becoming competitors of no second rank, and to meet them on the markets of the world we must handle our product in an approved manner, or, more explicitly, we must ship chilled instead of frozen meats. For this reason the announcement of Hon. T. A. Crerar, Minister of Agriculture, at the recent banquet in Toronto, that almost \$1,000,000 is being set aside for cold-storage facilities will be gladly received. This matter of air-controlled space in cars and steamships, augmented with suitable and adequate cold-storage plants at an ocean port has engaged the attention of stockmen for some months. Last May they began to press for some recognition, and in a general meeting of the Canadian National Live-Stock Council, Robert Miller moved, and J. H. Auld seconded, the following resolution: "That the Government of Canada take immediate steps to establish cold-storage warehouses at an Atlantic port, in order to assist and encourage greater production and facilitate the export of perishable food and live-stock products to Great Britain, and thus encourage the development of live stock and live-stock products in Canada generally."

This was presented to the Minister with the endorsement of the whole Council, and if the organization, which is now undergoing transformation, never did anything more, its existence for the time has been vindicated.

Equipment in this country does not completely solve the problem. We must have an ocean service between Canada and England that will convey our product quickly and in good condition. This is why W. A. Dryden moved, and Andrew Graham seconded, the following resolution in the Council meeting referred to: "That the Honorable, the Minister of Agriculture, attend the Imperial Conference, or if it is impossible for him to attend that he impress upon the representatives who go from Canada the vital interest to Canada in establishing a direct ocean refrigerated service with Great Britain, and urge that they use every effort to secure the assent of the Conference to the proposed undertakings and the decision to at once enter upon the suggested program, it being evident that a permanent export market outlet is essential to any extensive development of the Canadian live-stock industry."

In view of the immediate need of action in order to safeguard the Canadian trade in animal products, and encourage expansion in live-stock production and marketing, the Minister of Agriculture has made a very timely and encouraging statement concerning the policy of his Department.

It was to be expected, however, that any cold-storage plant provided by the Government would be located at Halifax. That harbor is open the year round. Any increased volume of freight to that port would materially assist the Government railways, while an abattoir in conjunction with the proposed cold-storage facilities located there would provide a much needed outlet for live stock and live-stock products in the Maritime Provinces.

At present we are particularly concerned with the move to place Canada on an equal footing with her competitors and stimulate the production of more and better live stock. The best results can only be brought about through co-operation between Government and producers. The farmer must grow the live stock and

The Farmer's Advocate and Home Magazine.

THE LEADING AGRICULTURAL JOURNAL IN THE
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London, Canada.

the Government must keep open the channels of trade. Each must have confidence in the other and confer together in a business-like way just as two departments of a large business harmonize their activities for the good of the whole. We are glad the Government has made a start, and we sincerely hope a program will be mapped out and executed that will give live-stock producers some assurance so we may go forward and produce that \$500,000,000 surplus which the Live Stock Commissioner has suggested. The outlook is just what we make it. The future is in our hands.

Nature's Diary.

BY A. B. KLUGH, M.A.

Nature in Poetry.—(No. 2).

In my analysis of poetry from the standpoint of the naturalist I shall first consider how the poets have dealt with nature as a whole. One of the finest conceptions of the influence of nature upon those who love her is expressed by Longfellow in his poem to Agassiz:

"And he wandered away and away
With nature the dear old nurse,
Who sang to him night and day
The rhymes of the universe.

"And whenever the way seemed long
Or his heart began to fail,
She would sing a more wonderful song
Or tell a more wonderful tale."

Whittier in his well-known "Barefoot Boy" gives us a very fine picture of the multitude of fascinating things to be discovered by one who lives close to nature:

"Of the wild bee's morning chase,
Of the wild flowers time and place,
How the robin feeds her young,
How the oriole's nest is hung,
Of the black wasp's cunning way—
Mason of his walls of clay."

No other poet has treated the fundamental conceptions of nature with the scientific accuracy of Tennyson. He alone seems to have grasped the idea of constant change, and witness how superbly he expresses it in "In Memoriam":

"There rolls the deep where grew the tree,
O earth what changes hast thou seen;
There where the long street roars, hath been
The stillness of the central sea.

"The hills are shadows, and they flow
From form to form and nothing stands,
They melt like mist the solid lands,
Like clouds they shape themselves and go."

Compare this with Bryant's passage in "Thanatopsis":

"The hills, rock-ribbed and ancient as the sun,"

To speak of the hills as being "as ancient as the sun" is, to say the least, a gross mis-statement, since the age of the hills, compared with that of the sun, is as a second compared with an aeon.

The change in the forms of life which have in succession inhabited the earth is also grasped by Tennyson as shown in another passage of "In Memoriam":

"So careful of the type? but no
From scarp'd cliff and quarried stone
She cries 'a thousand types are gone
I care for nothing, all shall go'."

Emerson expresses very beautifully the attitude of the naturalist toward all living things—that all are interesting and beautiful to him of the open eye and open mind. Most of the poets, while they dilate on the beauty of birds and butterflies, refer to worms, spiders and many other animals as if they were abhorrent, but Emerson in "Music" says:

"'Tis not in the high stars alone
Nor in the cup of budding flowers,
Nor in the redbreast's mellow tone,
Nor in the bow that smiles in showers,
But in the mud and scum of things
There always, always something sings"

Coleridge in his "Ancient Mariner" most truly says:

"He prayeth best, who loveth best
All things both great and small."

In "Childe Harold's Pilgrimage" Byron expresses the feelings of the lover of nature:

"There is a pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society where none intrudes."

One of our Canadian poets, J. Cobourg Hodgins, in "Once More" says "That he who lives close to her heart" will

"Find that nature's meanest guise
Is full of wonder and surprise"

Another Canadian, Ethelwyn Wetherals, has in a couple of lines in "Earth's Silences", given us a very fine conception of the spell of the silent places:

"Of silence in deep wilds, where nature broods
In large, serene, uninterrupted moods."

Goethe in "Metamorphosis of Plants" brings out the fact that the more carefully we study plants the more we find out of the meaning behind their form, and of the laws of nature:

"Every plant unto thee proclaimeth the laws
everlasting,
Every floret speaks louder and louder to thee."

Shakespeare in "King John" draws attention to the perfection of nature and the uselessness of attempting to supplement nature with art:

"To paint the lily,
To throw a perfume on the violet
To smooth the ice, or add another hue
Unto the rainbow, or with taper light
To speak the beauteous eye of heaven to garnish
Is wasteful, and ridiculous excess."
(To be continued.)

The Essentials Which Make for Successful Farming.

BY ALLAN MCDIARMID.

Is there anyone among us who has never seen a farmer who was making what is well termed a "fizzle" of his business? I guess not. We all know the species, and there are a few individuals belonging to it in pretty nearly every township. And perhaps more than a few. In fact it may be that there are not many of us that are making such a success of our job in the agricultural line that we can afford to waste much time criticizing the methods of our neighbors and the result of their efforts, or the consequence of their lack of effort.

But, without doing them or ourselves any harm, it might be worth our while to stop and think for a minute on the subject and see if we can discover the reason for their lack of ability to "make things go," as they usually say, themselves.

Generally, a failure in any line of business can be traced to the man on the job, and very seldom to the job itself. There's such a thing as a man getting into the wrong kind of work, the occupation that he is unsuited for, but nine times in ten the next thing this individual tries his hand at is as bad, or worse, than the first.

However, it might not be out of place for us, just at the present time when so many of our returned soldiers, as well as others, are thinking of taking up farming in an effort to make a living for themselves and others, to try and find out what qualities a man should possess if he is to stand a fair chance of escaping failure in the line of work that not every one who has tried it has made a success of.

In the first place it is pretty evident that the farmer should be something of a business man. For, being a business man, he will be a man of vision. This is, he will continually have a picture in his mind of the object towards which he is working, which usually will be a well-cultivated, well-built farm, free of debt and from which he can be sure of an income that will warrant him in providing himself and his family with the reasonable comforts of life.

Again, being a business man, he will be a man of action. There isn't much use in seeing and knowing if it doesn't lead to doing. An intelligent man will get to the starvation point just as quickly as the ignorant man if he doesn't make a practical use of his knowledge. It's always "do or die" with old Mother Nature. Sooner or later she "fires" the loafers.

And finally, the business farmer will be a man of observation. He will take notice of the good and bad methods of his neighbors and is in a position to profit by them and avoid the necessity of always having to go through a similar experience on his own account. Observing also the results of his own labor and experiments he isn't very long in gathering in considerable of a capital, in the way of both knowledge and material property.

Besides being a business man the farmer of this nineteenth year of this Twentieth Century has to be a mechanic. It is one of the unending signs of evolution and progress when man begins to use machinery to accomplish his various objects in life, instead of the original methods which have been well styled "main strength and ignorance." The machines that to-day do the farmer's work for him were invented by men of brains and as a consequence it takes men of at least a little brain power to operate them. Mechanics designed and built them so naturally it takes mechanics to run them. This the farmer has to be. He can't be continually sending to town for an expert when things are not running smoothly. He has to develop the ability to make his own repairs to a considerable extent, and to acquire the knowledge that makes repairs seldom necessary, if he is going to avoid loss. And to the most of men there is no more pleasant experience than comes of having accomplished a task of this nature and made a machine that was "balky" go on working smoothly again.

Apart from his ability as a business man and a mechanic the farmer must also be a naturalist. It is his object to get plants and animals to do their best for him and to achieve this he has to understand them. He has to know what plants can be fed most profitably to the different animals he intends to raise. And he must know something about the breeding of the one as well as the other. Another of "the pleasures of life" that can come to the farmer is the watching the growth and development of his live-stock and his various field crops from the time of birth and planting until maturity. This can be true, of course, only if he be something of the naturalist and has given his crops and his cattle the opportunity that is, generally, all they ask.

The fourth and last thing we shall mention in regard to what the successful farmer has to be is the fact that he must be a laboring man. But, if we are not to disagree with some things that have already been said, he must be a laboring man with a head on his shoulders. With our forefathers an instinctive sleight of the axe, or the scythe, or the pitch-fork was about all that was necessary to get along on the farm. Things have changed, but at the same time the farmer is still a laborer, by necessity if not through choice. Machinery hasn't cut out the work. It has only changed the nature of it. With all his head-work the farmer must still use his hands. Time and again I have heard it said that the farmer is a buiser man to-day than he was fifty years ago, when selfbinders and gas engines were still in the dream stage of existence. The majority of men who are making good on the farm to-day are not afraid to set the pace for their hired help or others that may be working with them. The average farm won't support a "foreman" and there is, usually, a better feeling and understanding between all parties when the owner of the "ranch" undertakes to do his share of the disagreeable part of the work. Like a good officer in the army, the farmer, who has some fellow-feeling, will never ask a man to do what he wouldn't do himself. A certain amount of hand-labor is of positive benefit to a man in several ways. We all know that. And if not carried to an extreme it will not interfere with the "head-work" that we have been talking about. For it's just as well for us to remember that we farmers, as a class, fail oftener through bad management than because of poor crops.

So now, if any of our returned soldiers, or perhaps retired business men, after thinking this matter over, still retain the idea that they have the qualities necessary to the making of a good farmer, we would say "go to it, and good luck!" But if, on the other hand, they don't measure up to the standard, as we have tried to outline it above, they will be a good deal better off in the city, at work in an office or a factory, or cleaning the streets for that matter, where they will be under the direction of a foreman or some one who can direct their efforts and who will enable them to earn a better living than they ever could if they were left to work out their own salvation on a farm.

THE HORSE.

Skin Irritation in Horses.

We receive many enquiries re horses rubbing or scratching themselves, hence a discussion of the subject may be opportune.

The symptoms mentioned, of course, are more or less severe and constant irritation to the skin. This may be caused by vermin. It is not uncommon for a colt, or older animal that has been idle for a few months, probably having spent the summer on pasture, and exhibit no symptoms of anything abnormal when brought to the stable in the late fall, to soon commence to rub against the partitions, stall posts, fences, etc., when outside. This continues and increases in intensity, and a very close examination will reveal the presence of vermin and their nits in large numbers, particularly on the head, neck and back, but if not attended to the whole body will be found affected. We are at a loss to account for the presence of the pests. So far as we know the animal has not been in contact with an infected animal, no other horses in the stable are infected; neither has there ever been a case of the kind in the stable. Under such conditions some people conclude that the vermin have developed spontaneously and are a natural product under certain conditions. This, of course, is a mistake. Insect life will not develop spontaneously. The animal has in some way been in direct contact with either an animal or premises that were infected. Treatment, of course, consists in the use of some insecticide. If the trouble should occur at such a season that it would be safe to clip the animal treatment would be greatly simplified, but it is unsafe to clip in cold weather. A 5-per-cent. solution of one of the coal-tar antiseptics applied warm gives good results, but will not destroy the nits or eggs, hence treatment must be repeated every 10 days or two weeks until fresh lice cease to hatch out, and of course after washing a horse in cold weather it is necessary to keep him well clothed and in comfortable quarters excluded from draft until thoroughly dry. A warm solution of corrosive sublimate 30 grains to a quart of water will destroy both lice and nits, but the too free application of this is dangerous, hence we do not recommend it except to those who thoroughly recognize the necessity of extreme care. In cases where the neck and back are the seat of large numbers of the vermin, even in cold weather, it may be wise to clip 4 to 6 inches on each side of the top of the neck and on each side of the spine, and apply this lotion, being careful not to allow the animal to lick the parts until thoroughly dry. The first-mentioned lotion to be used for other parts of the body if it be necessary. If the weather be such that the owner would rather not use a liquid, fair results can be obtained from a mixture of 1 part white hellebore and 3 or 4 parts cement. It is well to not expose the patient to rain, sleet, etc., for a few days after treatment. In any case the patient should be carefully examined occasionally, to discover whether further treatment is necessary.

Hen lice cause misery. It is doubtful whether these will propagate on a horse, but if the supply be kept up the misery continues, hence the removal of the supply is imperative. The proximity to horses of hens that are infected with lice should not be tolerated. The removal of the supply and one treatment for the destruction of the lice that are present is all that is required.

Mange is a skin disease due to a specific parasite. It is very contagious, and is one of the contagious diseases under government supervision. Hence, where it exists it is the duty of the owner or the veterinarian in attendance, to notify the authorities at once, when a veterinarian in the employ of the Government will be sent to take charge of and quarantine the premises. In the meantime the treatment above mentioned should be observed until the arrival of the inspector.

It is not uncommon to observe horses more or less constantly, or where conditions will permit, rubbing the root of the tail or the mane or both against stall posts, partitions, etc a close examination does not reveal any apparent cause, but it is generally considered to be due to some microscopic parasite, the origin of which is not well understood. When the trouble exists in the tail it is commonly supposed to be due to the presence of worms in the intestines, but this is highly improbable. Probably no treatment for this trouble gives as quick and satisfactory results as rubbing with a warm, strong solution of corrosive sublimate. As the affected area is small the use of this is quite safe. A solution of 20 grains to a pint of water heated to about 110 degrees Fahr., and rubbed well into the skin of the affected areas once daily until itching ceases, and followed by rubbing a slight irritant, as 1 dram cantharides to 2 ozs. vaseline, well into the skin once every 10 to 12 days, to encourage the growth of hair, will give satisfactory results.

If the presence of worms is suspected it is well to treat for them. For this purpose there are many treatments. The following is effective and easily carried out, viz., mix 3 oz. each of powdered sulphate of iron, sulphate of copper and tartar emetic. Make into 24 powders and give a powder in damp food every night and morning. Allow nothing but a little bran to eat for 12 hours after the last has been taken. Then give a purgative of 8 drams aloes and 2 drams ginger for an ordinary-sized horse; very large or quite small animals to be given larger or smaller doses according to size. Nothing but bran should be given until purgation commences, and, of course, the animal must be given rest until the bowels regain their normal condition.

Some horses, especially coarse-limbed fellows of the heavy breeds, are troubled with itchy legs, exhibited by repeatedly kicking the stall floor, rubbing the leg

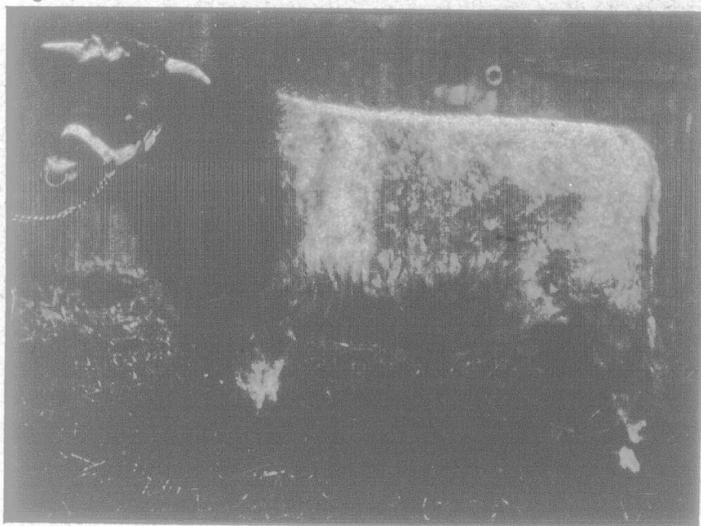
with the shoe of the opposite foot, etc. The lotion above mentioned for itchy tail, used in the same way, generally gives prompt results.

LIVE STOCK.

Rearing A Grand Champion Steer.

Breeding, feeding and showing a champion and grand champion bullock is an act which is acquired by comparatively few. The three phases are closely linked up. A champion is not likely to be developed out of a mongrel-bred calf no matter how carefully it is fed and looked after. It is the animal of aristocratic breeding that has the frame on which to put layer on layer of flesh. Many stockmen have the breeding in their herds but have not the knack of feeding for best results. The animal must be trained for the show ring. This is important. Many good individuals fail to reach the top of the line because their owner had not trained them and did not know how to show them to advantage.

The International Live Stock Exposition held annually at Chicago is the greatest trysting place for the live stock fraternity. It is a show at which champions of state and provincial fairs meet to decide upon the championship for the breed and the grand championship of the continent. Competition is always keen and to win is a coveted honor. The 1918 grand champion bullock was Fyvie Knight 2nd, an Aberdeen-Angus steer bred, raised and shown by Purdue University Farm. The following paragraphs written by J. S. Douglas, Supt. of Farm and Live Stock at Purdue University, tell how Fyvie Knight 2nd was fed and cared for. This grand champion bullock sold by auction at \$2,500 per pound. As he weighed 1,340 pounds the returns were \$3,350. Of course this was a phenomenal price but it is the reward for good breeding and proper feed and care. The pure-bred Angus steer, Fyvie Knight 2nd, was calved on Purdue University Farm, February 20, 1917.



Bilsington Golden Conqueror.

The product of two first prize winners at the Royal.

Judged by present day standards the family which produced the grand champion would probably not be rated as among the most fashionable of the breed. That it has been a good producing family is evident when it is remembered that in addition to Fyvie Knight 2nd it produced Fyvie Knight, grand champion steer at the International of 1908, Fyvie Prince, champion yearling of the 1917 International, and several other good show steers. A number of the females of this family have been retained in the University herd and are among the best individuals and most reliable producers we have. Fyvie Knight 2nd was sired by Blackbird Prince 4th, 151584, by Prince Albert Ito, 84486, by the famous Prince Ito, 50006. His dam was Fancy Queenette, 140859, by Woodlawn Knight 4th, 55205, by Black Woodlawn. It will readily be seen, therefore, that the steer inherited the right to be a good one, even though his family did not happen to belong to the Angus 400.

As a calf Fyvie Knight 2nd ran with his dam and received no special care or feed until after the cows had been turned out to pasture in May. At this time he was three months old and was turned into a lot with an open shed for shelter where he ran all summer with the other calves. His dam is a good milker and the calf never had a nurse cow. The grain ration fed during the first summer consisted of ground oats and cracked or coarsely ground corn, with clover hay for roughage. No bran or oil cake was fed, owing to the extremely high prices of these feeds, though ordinarily we like to use both in our grain ration for young stock. The oats and corn were fed in equal parts by weight.

It had not been our intention to show the calf in 1917, but in order to fill out a trio for the get of sire class, he was included in the entries for the International that year. His dam was now well along in calf and as we did not care to take the risk of shipping her to Chicago the calf was weaned when he was nine months old and had

no milk thereafter. Shown in rather thin condition, Fyvie Knight 2nd got inside the money in a strong class of junior calves at the 1917 show.

After his return from this show, he was put in a roomy box stall with another steer of the same age and the amount of corn fed them was gradually increased until February. When he was a year old the steer was getting cracked corn, two parts; ground oats, one part by weight, in addition to about twelve pounds per day of silage and a little clover hay. He was fed three times a day, the noon feed being a light one and at this time he did not get all the feed he would eat. He was turned out with other steers every day for several hours, and in this way got all the exercise he needed. No change was made in the ration for the next six months excepting that the total amount of grain fed was very gradually increased, care being taken always to keep his appetite keen.

About June 1, the weather being hot, the show steers were turned out at night and kept in during the day and covered with light canvas blankets to protect them from flies. From this time until he was shipped to the International Fyvie Knight 2nd was turned out every night in a large dry lot with other steers. He was never run on pasture at any time. As the weather grew colder, straw was provided for the steers to lie on at night, but they were run out regardless of the weather. About September 1, cooked barley (about four pounds per day in two feeds) was added to the ration, displacing that amount of corn. About two pounds per day of oil cake was also used during the last three months of fitting. Silage was used throughout the entire year and the steer never seemed to tire of it. In the last three months of feeding, silage was fed, but once a day and about five pounds of mangels was mixed in with the grain, taking the place of silage at this feed. From June 1 the proportion of corn in the ration was increased gradually until by September 1 the steer was getting cracked corn three parts and ground oats one part by weight. After September 1, as has been noted above, the corn was partly replaced by barley, and this ration was continued up to the time of the show.

We did not feed to produce rapid gains in weight at any time, as our experience has been that a smoother and firmer quality of flesh is produced where the gains are made gradually and without an excessive amount of corn in the ration.

The weights of the steer at different ages are as follows: He was first weighed when six and a half months old and weighed at this time 570 pounds. When shown as a calf at the 1917 International he weighed 750 pounds. His weight by months in 1918 are as follows: January 1, 750 pounds; February 1, 820 pounds; March 1, 880 pounds; April 1, 930 pounds; May 1, 1,000 pounds; June 1, 1,040 pounds; July 1, 1,110 pounds; August 1, 1,170 pounds; September 1, 1,220 pounds; October 1, 1,270 pounds; November 1, 1,340 pounds. His official weight at Chicago was 1,350 pounds when shown, a gain of 600 pounds in 11 months.

Regarding the cost of producing the steer the figures submitted herewith may be regarded as being fairly accurate though the feed was weighed only at intervals.

	Pounds	Value
Oats fed (80c. per bus.)	2,883	\$ 65.78
Corn fed, (\$1.29 per bus.)	360	113.39
Barley fed, (75c. per bus.)	3,672	5.60
Oil cake (\$60.00 per ton)	180	5.40
Mangels (\$10.00 per ton)	450	2.25
Silage (\$7.50 per ton)	3,456	12.96
Total		\$205.83

The steer when sold, weighed 1,340 pounds and brought the record price of \$2.50 per pound, or \$3,350, which showed a handsome profit for feed consumed. This, of course, was a fancy price paid for a grand champion winner. That it is possible to make even the average run of show steers return a profit is shown by the fact that we sold this year eight steers besides Fyvie Knight 2nd, which average better than thirty-one cents per pound.

It is worthy of note that, with the exception of the small quantity of oil cake, all the feeds used in the fitting of this steer were such as is grown on every farm. No sugar, molasses, or stock feeds of any kind were used.

It might also be mentioned that the steer was fitted by a man who superintends the farming operations on a six hundred-acre farm and was done largely outside of regular working hours. It is but fair to say that the feeding and general treatment of Fyvie Knight 2nd was in no way different from that given the other steers, which were shown along with him.

He was a show steer always, having the short-legged, deep-bodied conformation from the first. His disposition could hardly have been better, and he had the natural style and carriage of a winner. While he could not have been termed a heavy feeder he never missed a

feed and was a most satisfactory steer to handle in every way.

His sire, Blackbird Prince 4th, was selected by Dean Skinner to head the Angus herd at the University in the fall of 1910. This bull has nicked especially well with the females in this herd, having sired practically

all of the Angus steers exhibited by Purdue in the last six years. He was a bull of medium size, weighing in herd condition about 1,900 pounds.

The dam of Fyvie Knight 2nd, Fancy Queenette, is one of the best Angus cows in the University herd. She is not a large cow, weighing only about 1,300 pounds

in breeding condition, but shows excellent Angus type being low down, thick and smooth, and she is a good milker and regular breeder. Her sire, Woodlawn Knight 4th, was also the sire of Fyvie Knight—grand champion of the 1908 show.

Co-operative Marketing of Wool.

The Canadian Co-operative Wool Growers' Association, which recently met in annual convention at Toronto, presented a very favorable report to the shareholders and all interested in Canada's wool clip. The organization sold approximately four and one-half million pounds of wool and was successful in obtaining top price for practically all of it. The Canadian wool market was the best in the world this year, as shown by the Manager's report. Early in the season it seemed as if the manufacturers would succeed in having a lower price struck, but the fight put up by the Executive and Manager of the organization succeeded in securing for Canadian wool growers an open market in Boston. For territorial wool, shipments from the Co-operative got second and third highest appraisals on the continent. The Manager was fortunate in disposing of the bulk of the wool when the market was at its peak. When the Armistice was signed, and a lull in the wool market occurred, the Co-operative Wool Growers had very little wool on hand. This good management benefited all the patrons of the organization. If wool had been held pending a higher market in the spring, it would undoubtedly have to be disposed of at a much lower figure. At the meeting, one of the delegates from Alberta was heard to remark that the financial statement was very creditable, and that the set of accounts presented could not be equalled for a first year's business by any association.

The organization worked on a three and a half per cent. basis and out of this were able to meet all expense entailed, declare a dividend of six per cent. to the shareholders, as of September 30 set aside \$20,000 as a reserve fund, and make a rebate of \$27,922 to local associations and then have a substantial contingent fund. The brokers handling wool, usually work on a five per cent. basis; thus it will be seen that the Co-operative has saved the wool growers, who marketed through it, a large sum of money.

The pioneer work of co-operative marketing and grading has been done in the various provinces, where the work was commenced several years ago. The wool is collected and graded at central points and is then sold on grade by the Canadian Co-operative Wool Growers Limited. A good deal of credit for the success of the central organization must be attributed to the efficient grading done at the various centres in the different provinces. By having a large quantity of wool of one grade, a much better price is obtained than when mixed lots are offered and the dealer does the grading. True, the man with the low grade wool may get a higher price from the dealer than he can from his co-operative association, but he is doing so at the expense of his neighbor with a better grade of wool. In reality the wool producers selling through their organization are receiving the dealer's profit, or in other words, all the wool is worth less the actual cost of handling it. The larger the amount handled, the less the expense per pound. Large as was the amount handled this year, it should be much larger next year. The organization deserves the support of the wool growers; it is to their interest to deal through it. As with every co-operative movement, there has been an organized effort made to undermine it. Dealers and jobbers look upon co-operative movements with a jaundiced eye. However, the Canadian Co-operative Wool Growers, although but one year old, is able to stand upon its feet. It has worked up a good connection by its honesty and straight-forward dealings, and it has the machinery in operation that should make its second, third, and every succeeding year even a greater success.

There have been little differences of opinion; producers in some of the Western Provinces thought they were not being used on an equal basis with the East, owing to their distance from the market. However, when the transactions were fully explained by the Manager, the Western delegates with one accord stood behind the Manager and Executive in what they had done.

The Wool by Province.

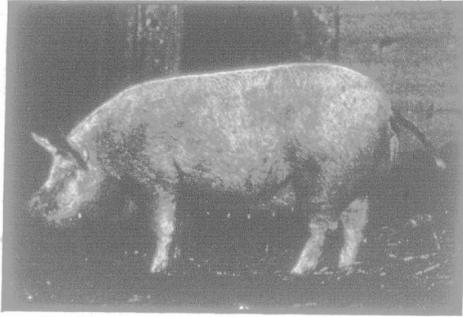
The following table gives the amount of wool marketed by provinces on both the Boston and Canadian markets:

Province	Sold in Canada	Sold in Boston
Alberta	985,535	1,082,027
British Columbia	35,323	61,359
Manitoba	87,375	278,849
New Brunswick	31,750½	
Nova Scotia	79,995½	
Ontario	747,330½	
Prince Edward Island	53,294	
Quebec	215,278½	
Saskatchewan	164,248	392,061

The annual meeting was presided over by Col. Robt. McEwen, the President, who in a comprehensive address explained the work of the year. The value of grading and of standardizing the wool of the Dominion had been clearly demonstrated. It had resulted in great improve-

ment being brought about. With but one exception, the President said the wool had been accepted on the market as graded in Canada. During the year there has been a revival of the woolen manufacturing industry in Canada, and the President believed that this would lead to a greater home market for our wool.

The working of the organization, the obstacles confronted and overcome and the results are clearly defined in the report which T. Reg. Arkell, the capable Manager of the organization, presented to the annual meeting. The frankness with which every move was explained appealed strongly to the delegates present at the meeting, and should appeal to every wool grower. We herewith print the report in part.

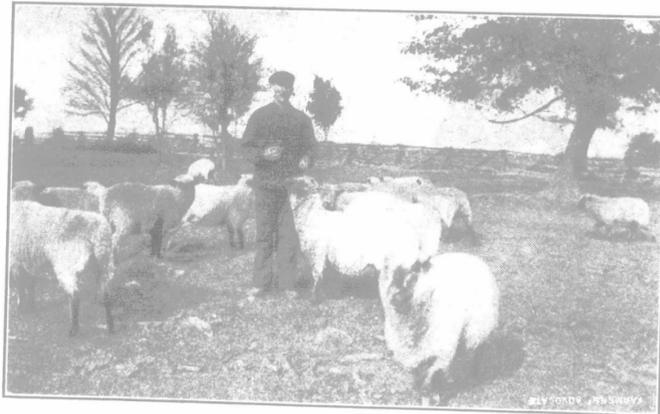


Champion Yorkshire Sow at Guelph Winter Fair. Exhibited by J. K. Featherston, Streetsville, Ont.

Unusual Features of 1918 Wool Market.

"The wool market in 1918" presented many unusual features. In the early spring it was anticipated, as had occurred the previous year, little wool would be retained in Canada and the bulk, if not all, must find an outlet to the United States. This presumption was based on the demand of the manufacturers being satisfied with the Australian and New Zealand wool issued to them, through the Wool Commission by the Imperial Government. The British fixed prices were so much lower than the American, upon which were established the Canadian prices, that it was more natural for the manufacturers to furnish their needs with the British wool than with the domestic product.

"With this in view, every effort was made by the officers of the organization to maintain an open export market to the United States. Following the commandeering of American wool by the United States Government, an import tax was placed against all foreign wools. This represented 5% of the value of the wool, or in other words, the American Government refused



A Farm Flock.

to accept imports except at certain prices fixed by itself, which in the case Canadian wool was five per cent. below the prices established for their own grades. A restriction of this character was viewed with considerable trepidation by the Canadian wool grower, since it appeared to him the only outlet he had for his product, was in the United States.

Manufacturers Suggest Commandeering the Wool.

"In the midst of this the manufacturers fearing a delay in the arrival of the British Government wool or that it might not prove sufficient to supply their requirements, made some efforts to restrict the exportation of Canadian wool. Their proposals in this respect implied that prices should be reduced so that they would correspond with those of the British Government. Further realizing the shortcomings of the industry in this country they issued a suggestion that the Government commandeered the wool, send it to the United States to be

combed in bond and returned here for their subsequent use, which of course, to them working at that time on British Government orders, would have been practicable only upon the supposition that Canadian wool could be purchased upon the Imperial Government price basis. These matters were brought firmly to a head in April, when upon the seventeenth, a meeting was held before the War Trade Board, of the Wool Manufacturers and representatives of this organization. At this conference the growers gained their point, namely, an open market. The War Trade Board even went as far as to go on record that they would do their utmost with the American Government to have the five per cent. price restriction removed so far as Canadian wool was concerned. At the same time the Board desired in fairness to the manufacturers, if they should actually need the wool, to give them an opportunity to purchase it before exportation, by having it presented to them through the Wool Commission, for a period of fifteen days. Further they decreed that the option price shall be the same as fixed by the American Government. This arrangement was considered most fair and satisfactory by the delegates of the growers. An agreeable arrangement was made with the Wool Commission whereby appraisals of the wool should be made jointly by their American referee, A. Livingston, and our own United States representative, A. Akeroyd. This worked strongly to the advantage of the growers in gaining for them not only fair representation but a fair interpretation of the character and quality of the wool for the American market. With reference to the establishment of prices in Canada, many meetings were held between officers at this organization and members of the Wool Commission. Results in this regard are most apparent by a comparison of the Canadian list of prices and the American list to growers. To the latter the organization effected the addition of four per cent. to the price on the presumption that the manufacturer here, as in the United States, was entitled to bear the handling charges, which in view of the large sale ultimately made in Canada gave to the growers here actually higher prices than obtained in the United States. In fact, we are in a position to state that the second and third highest average prices for territory wool in America was gained by this organization for two individual clips sold in Canada. Virtually all wool sold in Canada on this account was disposed of at prices even higher than the best net American prices for similar grades. Accordingly, it will be seen in Canada the organization was able to practice an active influence over price and conditions of sale. As one merchant expressed it "Without your organized fight we would have had your wool at the British list prices and probably worse."

Canadian Wool Market Becomes Active.

"Up until about the tenth of June the market in Canada was very tranquil. A survey of the manufacturers was made but none of them apparently wanted Canadian wool at the prices quoted. Some enquiries were made but nothing to elicit enthusiasm. It looked as if all our wool would have to be shipped to the United States. However, a larger number of American Government contracts for woolen goods were placed in Canada which called for wool similar to our own. It was expected, however, that Australian wool would arrive to be used for this purpose. It was delayed and the Canadian market became very much alive and continued so for six weeks. During this time we were fortunate in disposing of about two million pounds of wool, mostly in comparatively small lots. The reason for the small allotment sale is apparent; manufacturers wanted wool, but except in these specific instances of special contracts, wanted only sufficient to tide them over until the arrival of the Imperial Government wool. Subsequent to the arrival of the latter, a little Canadian wool continued to be sold in competition with it, owing this year to a gross lack of uniformity in the grading of the Australian. In Canada, the bright wools resembling the Australian in lustre, to which the manufacturers are accustomed, sold readily. An entrance of some of the semi-brights was made into the mills through the agency of scouring demonstrations, which for heavy carding purposes a break in the staple or the absence of lustre did not so materially count. This brisk market period was in many sections misinterpreted as a permanent revival of the Canadian market for the domestic product.

Canadian Co-operative Gain by Selling Early.

"During the market in Canada the officers of the organization did their utmost to sell as much wool at

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...ned here for their subsequent work at that time on... would have been practicable... that Canadian wool could... Imperial Government price... brought firmly to a head... seventeenth, a meeting was... Board, of the Woolen Manu... tives of this organization... growers gained their point... The War Trade Board even... ord that they would do their... n Government to have the... on removed so far as Canadian... the same time the Board... manufacturers, if they should... to give them an opportunity... ation, by having it presented... Commission, for a period of... y decreed that the option... ed by the American Govern... was considered most fair... legates of the growers. An... made with the Wool Com... of the wool should be made... referee, A. Livingston, and... representative, A. Akeroyd... advantage of the growers in... representation but a fair... ter and quality of the wool... With reference to the... anada, many meetings were... s organization and members... Results in this regard are... rison of the Canadian list... n list to growers. To the... ed the addition of four per... sumption that the manu... States, was entitled to... hich in view of the large... ada gave to the growers here... n obtained in the United... a position to state that the... verage prices for territory... by this organization for two... anada. Virtually all wool... nt was disposed of at prices... American prices for similar... l be seen in Canada the... ractice an active influence... of sale. As one merchant... rganized fight we would... ish list prices and probably...

Market Becomes Active.

...th of June the market in... was very tranquil. A... of the manufacturers was... none of them apparently... Canadian wool at the prices... Some enquiries were made... ing to elicit enthusiasm. It... if all our wool would have... ope to the United States... a larger number of Ameri... ernment contracts for... oods were placed in Can... h called for wool similar... n. It was expected, how... Australian wool would... be used for this purpose... elayed and the Canadian... became very much alive... nued so for six weeks... is time we were fortunate... ng of about two million... wool, mostly in compar... small lots. The reason... small allotment sale is... manufacturers wanted... except in these specific... of special contracts... ly sufficient to tide them... e Imperial Government... rival of the latter, a... d to be sold in com... ear to a gross lack of... of the Australian. In... assembling the Australian... cturers are accustomed... me of the semi-brights... h the agency of scouring... vy carding purposes a... nce of lustre did not so... market period was in... as a permanent revival... the domestic product...

... by Selling Early.

...ada the officers of the... to sell as much wool at...

its disposal as possible. When the market ceased the organization was placed in an embarrassing position towards its individual consigners. As already explained the bright wools were selected by the manufacturers; semi-bright but not as dark wool, with a tender staple were not considered, providing a bright wool could be obtained anywhere. The Ontario, Quebec and Maritime wools are all bright and strong fibred, and since these came on the market early, were disposed of in Canada. Next to these in this respect came the Lacombe and Edmonton domestic wool and the range wool of Southern Alberta, Southern Saskatchewan and Vermillion, much of which owing to late arrival was offered in sample. Saskatchewan and Calgary had wool closely alike, mostly a semi-bright but not as dark or weak stapled as the Manitoba or Pincher Creek. Both of the latter unfortunately did not scour out an even whiteness, which precluded their use for other than dark colored fabrics where no blending was necessary. Manitoba wool, candidly, has never occupied the premier place in the country's wool; the great difficulty rests with the presence of kemp fibres in the wool, besides being dark, lacking in natural brightness and weak stapled. It would almost appear as though the original Icelander sheep which had been brought into the Province to some degree had left a permanent mark difficult to obliterate. Years of careful breeding and selection are necessary. British Columbia wool this year, although bright, was abnormally greasy which detracted from its sale. Apparently climatic conditions play an important role in determining and influencing the character of wool.

"These dark wools presented a problem which caused the Management and Executive serious difficulties. Every effort was made to create a market for them in Canada. The American appraisers had made it clear what would happen to them should they go to the United States; consequently, it was considered advisable to retain them in Canada until all hope of a sale was abandoned here. It must be understood that purchasers of wool in all instances acted as the arbiters with reference to their selection. Samples of all the different wools were presented to them but the choice of the class which would best suit their purpose naturally was with them.

"At the height of the Canadian market a cartage strike occurred in Toronto which caused a congestion of freight. Cartage prices increased abnormally and to date have not receded. Following the cartage was the postal strike, which held up order bills-of-lading for cars shipped, with the result that bonds of indemnity had to be used in a most wholesale fashion, all of which increased the expense and made added difficulties for the Management.

Wool Sold at Right Time.

"When it was finally realized that no matter what we could do, the market had permanently subsided in Canada for some months at least, although there was still the possibility, if the war continued of some market in the spring, shipment to the United States was essential if early liquidation was desired. It was felt by the Executive that disposition in the United States was preferable to holding on the contingency of a probable market later on in Canada. It was most fortunate that the majority of the associations considered it in the same light, since the signing of the Armistice found the organization with an import license which permitted declaration and shipment of virtually all of its wool, before the American embargo came into force. Shipment to the United States entailed many difficulties which did not exist in normal times. An import license must be obtained from Washington, as well as the export license from Ottawa, following the fifteen-day presentation from the Wool Commission. Then when the wool had passed the customs there ensued declaration to the American Textile Alliance which represented a Government Commission created to receive and record foreign shipments. The wool remained in storage until such time as it was convenient for the Government to arrange for its appraisal. Weighing was done by a Government Representative at the time of allocation to the Quartermaster's Department, which was seldom earlier than two weeks from the time of appraisal. The regular routine was to furnish payment two weeks later. But these arrangements did not always carry through. First, no wool, would be appraised until all of this class had been received in storage; second, the Government refused to value small lots which entailed the necessity of grouping small lots into parcels of as nearly as possible of similar character; and third, the congestion of wool was so great in Boston, the services of a Valuating Committee could not be secured except by appointment fixed some days and not infrequently weeks ahead. In connection with the first feature, the vagaries of railroad transportation of freight caused by many delays on valuations and cancellation of appraisal dates. Cars would leave Toronto or the West simultaneously but it was a most infrequent occurrence where one or two cars did not lag several days behind the others. These delays were sometimes most exasperating and prevented the maintenance of anything resembling a consistent schedule. Had it not been for the energetic and valued services given the organization by Mr. Akeroyd, a greater delay and lower prices would undoubtedly have been incurred.

"In connection with shipments of wool which were received mostly from Ontario subsequent to the sale of the bulk of the wool the Executive decided, since the quantity was so small, a special sale could not be worked up for them and they were sold in such a fashion as would claim the best returns. This also applied to rejects and black wool, sales of which were governed by special demands. The black wool is used at all times in very limited quantity, and mostly for natural mixes in

underwear. Its price normally follows no definite market tendency.

During the year the organization developed a considerable and satisfactory business for shepherd's supplies, handling practically everything necessary to the sheepman.

Outlook for 1919.

The outlook for prices for this year's business in wool is difficult to forecast at the present date of writing. The first auctions early in December, of American Government wool were by no means successful. On Jan. 24 the American War Department announced that for all succeeding auctions the minimum reserve price was permanently fixed for the year on the basis of the British Civil Issue price list. Since the British Government controls all wool within the Empire, except Canada, for a year after the war, which further represents the bulk of the world's wool, it would appear that the British prices will govern wool sales this year. In general a most prosperous year for sheep raisers and the organization has just closed. Exceptionally high prices have prevailed and without the existence of the growers in organized strength, it reasonably appears this plane of prices would not have been maintained or realized. The advantages of co-operative unity in this relation alone are most evident. The development of a home market for more and more classes of our wools is most hopeful. The utilization of combing wools is advancing rapidly. This has been the great drawback in the past to consumption here of the domestic wool. The preparation of a standardized and honest product is meeting with approval and will insure steady trade in both Canada and the United States. The wholesome character of the business done this year cannot help but establish successful progress for the Canadian Co-operative Wool Growers, Limited."

Marketing Wool Co-operatively Pays.

The above report given by the Manager of the Co-operative before the directors explains in detail the work necessitated in marketing the large amount of wool. It shows that the Management used every effort possible to secure the highest possible price for the Canadian wool growers. The reason is also set forth why wool from certain districts was not in as great demand as wool from other districts, which would account for a difference in price. Had it not been for such an organization, Canadian wool growers would undoubtedly have been forced to accept a lower price than what they secured. The organization helped the grower generally, whether he marketed through his association or sold to the dealers. The organization endeavored to secure all they could for the grower, while the dealer as a rule buys as cheaply as he can. Every wool grower should stand behind his local or provincial association, which grade the wool for the co-operative organization to market. That the directors appreciated the work which the Executive and Manager had done the past year was evidenced by their re-election for the ensuing year. The following are the directors from the various provinces: Ontario, Col. R. McEwen; W. A. Dryden, and Geo. L. Telfer; Quebec, J. A. McClary, J. R. McDowell, and M. St. Marie; Manitoba; Geo. Gordon and W. I. Smale; Alberta: J. W. Renton and Levi Harker; Saskatchewan, J. D. Wilson; British Columbia, Geo. Hay; Nova Scotia, S. A. Logan; New Brunswick, T. Hetherington; Prince Edward Island, W. McGregor. The directors elected the following officers: President, Col. R. McEwen; First Vice-President, J. D. Wilson; Second Vice-President, S. A. Logan; Manager, T. Reg. Arkell; Assistant Manager, O. Brien; Executive: Col. R. McEwen, W. A. Dryden, Geo. Telfer, Levi Harker and Geo. Gordon.

Feeding Turnips to Pigs.

EDITOR "THE FARMER'S ADVOCATE":

I have read with interest the articles in the farm papers relating to feeding hogs. The following is the experience I have had this winter. As soon as the young pigs are weaned I feed a little low-grade flour mixed with shorts and made into a thin slop. I also mix shorts and oil-cake meal with pulped turnips. At first the pigs did not take kindly to the turnips, but they gradually began to eat them. When they are eating quite a quantity of turnips, I mix the roots, oil-cake meal and shorts three or four days ahead. This mixture heats considerably and I like to have it this way for feeding. As the pigs grow larger the quantity of roots is increased. It takes considerable time to mix the feed for twenty hogs. I feed as often as I find the trough empty, when around the barn. As the hogs grow older I increase the meal. I seldom get the hogs to take any water in the winter, as there seems to be sufficient moisture in the roots to satisfy them. The hogs seem to have a craving for rotten wood or charcoal, and I keep ashes, lime, salt, etc., before them all the time. Some pigs were marketed this winter which were fed this way, and while it may take a little longer to make pork than if meal was fed alone, it is found to be an economical method of feeding and I am satisfied that cheaper gains are made than when I pushed the pigs with more meal.

Lanark Co., Ontario. J. E. MANSON.

Anyone skeptical in regard to the future of live stock will find that pessimism does not exist amongst those in a position to study the situation closely. At the breeders' meetings, held recently in Toronto, and at the sales of pure-bred stock held that same week there was exhibited nothing but faith in the future.

Elliott's Shorthorns Average \$620.98

The Shorthorn sale, held by J. J. Elliott, of Guelph, on Friday, February 7, was a success and was one of the most largely attended sales of the year. Considering the quality and breeding of the individuals offered, the prices were scarcely what was expected. The offering contained a number of animals which were successful in the show-ring wherever shown. Newton Loyalist, the herd sire, while not an overly large individual has a good deal of quality, and his progeny have proven to be individuals of merit. He was started at a thousand dollars and reached the \$1,500 mark, going to the bid of Wm. Johnson, of Chicago. Rosa Hope 21st, the grand champion of the Canadian show circuit in 1918, and a winner at the International, Chicago, was purchased by T. A. Russell, of Downsview, for the sum of \$1,850. This is a particularly sweet heifer, and many breeders expected that she would have brought a higher figure. Eight head realized \$1,000 or over. The average for the 44 head sold was \$614.77. The 36 females averaged \$620.98, and the 8 males \$586.87. Buyers were present from the Western Provinces and from different States of the Union. While a number of head will cross the line, most of the high-priced individuals remain in Canada. The animals were all sold on a guarantee to pass re-test in sixty days and not later than sixty-five days from date of original test. Each lot was insured by Mr. Elliott for sixty days from the date of sale, the policy to cover full value at price bid and to be made in favor of the purchaser. There are very few sales which give an equal guarantee to that given by Mr. Elliott. C. M. Jones, Capt. T. E. Robson, and "Scottie" Milne handled the sale in their usual amiable manner.

Females.

Irvine Side Emmeline, Geo. Attridge, Muirkirk...	\$ 950
Gay Mistletoe 3rd (Imp.), Jas. Moore, St. Mary's...	825
Princess Patricia, J. G. Barron, Carberry, Man...	1,025
Red Jessie, Jas. Davidson, Myrtle, Man...	425
Graceful Queen, J. J. Merner, Seaforth...	350
Mistletoe Maid 2nd (Imp.), Robinson Bros., St. Mary's...	975
Lily Maid 2nd, M. & J. Schaffner, Erie, Penn...	400
Cecilia Miss, Geo. Amos & Sons, Moffat...	475
Diamond Maid, Chas. E. Elliott, Rockwood...	400
Orange Mysie, Chas. Yule, Carstairs, Alta...	425
Roan Lady, M. & J. Schaffner...	1,550
Rosa Hope 21st, T. A. Russell, Downsview...	1,850
Queen Emmeline, T. A. Russell, Downsview...	750
Emma 62nd, T. A. Russell...	1,400
Augusta of Langbank, Frank Edwards, Tiffin, Ohio...	1,000
Princess Emmeline, M. & J. Schaffner...	600
Orange Maid, Chas. Yule...	325
Brawth Rose 2nd, M. & J. Schaffner...	1,000
Ella, Hastings Bros., Guelph...	425
Beaufort Rosemary 11th, W. H. Crowther, Welland...	925
Beaufort Rosemary 12th, H. B. Pelters, Michigan...	475
Princess Mayflower, E. Robson, Denfield...	250
Mayflower Queen, R. J. Burn, Hamilton...	150
Isabel 54th, W. W. Martin, Hamilton...	210
Isabel 55th, W. W. Martin...	140
Clarinda 17th (Imp.), Pettit Bros., Freeman...	1,200
Rosa Lee 4th, Wm. Waldie, Stratford...	425
Rosebud 30th, G. Bender, Alma...	850
Mayflower Bud, A. Barber, Guelph...	360
Fanny Orange Blossom, A. Barber...	250
Nonpareil of Hillside 26th, Fraser Auld, Rockwood...	500
Patty, A. Barber...	280
Ringleader's Beauty, A. Barber...	205
Roar Mysie, A. Barber...	245
Meadow Lady, A. Barber...	410
Rosalind, A. Barber...	330

Males.

Newton Perfection, Robt. Miller, Stouffville...	750
Conqueror Crown, John Bryden, Milverton...	825
Newton Crystal, R. Atchinson, Harriston...	375
Newton Loyalist, Wm. Johnson, Chicago, Ill...	1,500
Newton Supreme, Mr. Alderson, Hamilton...	525
Newton Fame, Geo. Rigby, Port Elgin...	300
Newton Banner, John Graham, Carberry, Man...	220
General Haig, John Graham...	200

Breeds of Hogs.

A description of many of the recognized breeds of pigs has been given in past issues. There are two of three breeds which have not been mentioned, and which are not common in Canada; in fact, they are scarcely known at all as yet. However, some of them have good qualities and have proven of value as a commercial hog. The Large Black is an English breed of pigs which has been topping the market at the sales of pure-bred stock in England this winter. There are a few herds in Canada and from what we have seen of them they rather appeal to us. They are black, have a strong top and a fairly good depth of body. They are heavy-boned and stand up well on their pasterns. While they are fairly thick they appear as though they would go in first grade as bacon hogs. Breeders have informed us that they are easily kept and a desirable carcass can be made when they are six months old. What we have seen of the breed would lead us to believe that they are docile and good grazers. There has been none shown at Canadian fairs. In England there is a Large Black Pig Society with a large membership, and there is a Herd Book for the breed.

The Mulefoot is another breed, native of the United States, which has not become popular in Canada. On one or two occasions it has been introduced but the

general opinion is that they are rather hard feeders and do not make as economical gains as some of the other breeds. The characteristic of this breed is that the feet are solid instead of being cloven.

The Lincolnshire Curly-coated pig is another recognized breed in England which has a strong association and a herd book. We are unable to give details relative to the characteristics and general qualities of this breed.

Gloucester Old Spots is another breed which is represented by a number of herds in England. As the name indicates, the pigs are profusely spotted black and white. From photographs which we have seen of the breed they appear to be of the fairly thick, fat type. Reports of sales of this breed in England would indicate that there is a fair to good demand for them if the price paid is any criterion.

The Forbes Shorthorn Sale.

The sale of Scotch and Scotch-topped Shorthorns at the farm of A. & G. Forbes, West Montrose, on Saturday, February 8, was a success. The bulls averaged \$251 and the twenty females \$222.50. Lady Laura 32nd topped the sale at \$650. She went to the bid of H. Forbes of Tupperville. Auctioneers Jones and Milne conducted the sale. The following is a list of animals selling for \$100 and over together with name and address of the purchasers:

Females.	
Ida Beauty, Jno Brown, Galt.....	\$230
Lady Grey, Letson, West Montrose.....	140
Mina, A. M. Letson.....	155
Fannie of Maple Hill, N. Snider, Waterloo.....	125
Miss Quality, J. H. Patrick, Ilderton.....	125
Red Star, J. H. Patrick, Ilderton.....	130
Scottish Lady, J. H. Patrick, Ilderton.....	125
Marigold Ruby 11th, H. Forbes, Tupperville.....	600
Marigold Ruby 8th, D. DeKay, Elmira.....	500
Maple Hill Pearl, Lloyd Stoltz, Kitchener.....	225
Roan Countess, M. Weber, West Montrose.....	135
Lady Laura 32nd, H. Forbes, Tupperville.....	650
Princess Pat, N. Prong, Preston.....	200
Buttercup, J. A. Thompson, Bornholm.....	180
Buttercup 3rd, J. H. Patrick.....	125
Roseline, J. A. Thompson.....	230
Daphne Countess, J. H. Patrick.....	120
Princess Pat 2nd, J. C. Bricker, Elmira.....	130
Maple Hill Peggy, O. Marshall, Elora.....	195
Maggie May 3rd, J. C. Bricker.....	130
Bulls.	
Silver Count, A. T. Reed, Orillia.....	300
Secret Major, H. Forbes, Tupperville.....	400
Scotch Laddie, H. H. Jackson, Wallenstein.....	200
White Count, J. Deans, Ayr.....	175
Royal Hero, G. Glennie, West Montrose.....	180

The Peterboro County Shorthorn Sale.

The first annual consignment sale of the Peterboro Shorthorn Breeders' Association held at Peterboro, on January 30, was a success. Quality and breeding of the individuals in the consignment was of the best. The committee barred animals which did not come up to a certain standard. Most of the animals were purchased by local men, and a perusal of the list of buyers will show that it is seldom that so many different men are purchasers at a single sale. These good cattle going into so many herds should have a leavening effect on the cattle industry of the district. Bidding was somewhat draggy. The good animals did not bring their value, and some of the poorer ones commanded more than they were worth. The following is a list of the animals selling for \$100 and over, together with the name and addresses of the purchasers:

Duke, H. L. Seoney, Cavan.....	\$155
Lavender Lord, Stewart Graham, Lindsay.....	185
Roscrip 2nd, Peter Thompson, Keene.....	140
Roseneath Jilt, Thos. Davidson, Birdsall.....	125
Dairyman, Wm. Hatherly, Peterboro.....	165
Beauty's Choice, Fred Warner, Hastings.....	230
Proud Hero, Col. Birdsall, Birdsall.....	135
Marigold Warrior, Garbutt & Sons, Lakefield.....	200
Victoria Chieftain, Whitehead Bros., Rossmount.....	205
Walsh's Roan, A. Deck, Peterboro.....	100
King Vimy, W. J. Porter, Peterboro.....	155
Improver, Thos. Redmond, Millbrook.....	275
Sir Ben, E. H. Brown, Peterboro.....	145
Beauty's Pride, David Sultan, Millbrook.....	185
Hazelwood Best, Thos. McIvor, Peterboro.....	100
Marigold Chief, Ed. Harrington, Ennismore.....	150
Royal Werden, Wm. Bishop, Keene.....	125
Scarlet Velvet, John Haley, Westwood.....	100
Right Sort, J. T. O'Connell, Peterboro.....	150
Modesty Model, Jno. A. Crowe, Lakefield.....	155
Red Star, Wm. McIlroy, S. Monague.....	100
Prince Albert, M. D. Wallace, Keene.....	105
Lancaster Count, J. Stevenson, Peterboro.....	125
Crimson Victor, J. Fitzgerald, Peterboro.....	105
Red Prince, G. Blewett, Lakefield.....	135
Roan Lad, Alex. Sanderson, Peterboro.....	125
Marksman, Geo. Coburn, Peterboro.....	200
Winterfold, Robt. Gray, Keene.....	100
Hawthorne Champion, F. Brady, Lindsay.....	100
War Loan, Wm. Kempt, Keene.....	125
King Gloster, W. H. Kylie, Keene.....	195
Ringmaster, Geo. Garbutt, Lakefield.....	155
Clarence, Frank Crowley, Hastings.....	105
Better Times, Arthur Frank, Peterboro.....	135

Marigold Danby, M. E. Waters, Norwood.....	100
Strawberry Maid, Bat Crowley, Hastings.....	100
Crimson Marigold, F. A. Esson, Keene.....	110
Victoria Marigold, F. A. Esson, Keene.....	100
Lady Eden 2nd, J. Wilkin, Manitoba.....	170
Lucy, J. O. Ball, Peterboro.....	180
Mabel, Whitehead Bros., Rossmount.....	150
Rosebud, F. A. Esson, Keene.....	100
Silver Lady, F. A. Esson, Keene.....	135
Choice Maid, Jos Redmond, Peterboro.....	150

THE FARM.

Lambton County's Winter Fair.

Petrolia was the scene of several interesting events recently when the Lambton County Live-Stock Breeders' Association staged their third annual sale; when the annual corn show was in session and where the poultrymen had together one of the best displays of fancy and utility birds in the history of the county. The Lambton County Corn Growers' Association has pressed on through good years and bad years until the organization is now in a position to stage a very commendable show, which they did this month. A striking feature of the exhibition was the uniformity in the exhibits, which is evidence that the growers throughout the county have come to recognize the most suitable type for their climate and conditions. In the Boys' Judging Competition, Dale Wright, Petrolia, came first; Fred Saunders, Wanstead, was second; F. J. Wilson, Camlachie, was third, and Melvin Welsh, Mooretown, fourth. There were 34 entries in the Germination Test, where Stewart MacDonald, Port Lambton, came first. This test was a very instructive and interesting feature of the exhibition. Stewart MacDonald also won the Hanna Trophy for the best bushel of corn taken from one of the fields entered in the competition. Harry Sheller, Port Lambton, had the best bushel of Dent corn, and John Welsh, Mooretown, the best display. B. W. Fancher, Florence, carried off the sweepstakes in fall wheat, and Keith Hillier, Sarnia, won similar honors in the oat sections. One thing was evident in connection with the events at Petrolia, and that is the great need of a building or more suitable accommodation to house the splendid exhibits and bring them together under one roof. The people of Lambton County are public spirited and always ready to do anything that will make for progress and development, so it is altogether likely that next year will find the County's Winter Fair staged under more favorable circumstances.

C. F. Bailey Returns From England.

Readers will remember that Mr. C. F. Bailey, Assistant Deputy Minister of Agriculture for Ontario, left for England early in December to look into the matter of soldiers' land settlement for the Dominion Government. Because of the nature of his visit Mr. Bailey was not able to spend a great deal of time studying the agricultural situation in Europe, but on his return to Toronto on Tuesday, February 4, he stated to a representative of "The Farmer's Advocate" that he was much surprised to find that, contrary to a somewhat prevalent belief in Canada, Great Britain has held her own in the matter of live stock during the war. She has just as much stock now as in pre-war days. "True," said Mr. Bailey, "there is a shortage of milk, but this does not always indicate, nor does it in this case indicate, a shortage of cattle. There is a shortage of concentrates in England, and it is well known that English farmers have been forced to break up millions of acres of grass land, with the result that pastures are scarce and milch cows, therefore, not nearly so productive as when grain feed and pasture was plentiful."

In France there is an estimated 20 per cent. decrease since the war began, but Mr. Bailey is inclined to think that there is a still greater decrease than this. During the past year, in the German drive of 1918, immense territories were occupied by the enemy, and when they were forced to retire again later in the year they apparently exercised every precaution to sweep the country clean of live stock, even to the poultry. Italy is reported to show a 40 per cent. decrease in live stock, but this is not nearly so important for the reason that Italy was never a factor of any considerable importance in the world's live-stock trade. "It seems quite apparent," said Mr. Bailey, "that the Germans intended to colonize Belgium, and that they intended just as systematically to devastate France; at least I understand that near the French and Belgium border the French farmers were cleaned of live stock, even to the chickens, but that little or no live stock was taken from the Belgians on the other side of the border. It seems quite unreasonable to expect that Canada or North America can do any large business in pure-bred live stock with European countries. The people are very poor since the war and must economize, so that it is my expectation that they will gradually build up what remains of the old herds. There may be some opportunity to supply good grade stock. Besides, I do not expect that our meat market will be in proportion to the depletion of live stock. People will be poorer and, therefore, they will consume cheaper foods, turning more easily to cereals. On the other hand, if they rely on the gradual building up of their former herds the time when we may expect normal conditions to be again resumed must be farther off than if they imported animals from other countries."

The English farmer apparently does not like the present scheme of farming and, in the opinion of Mr.

Bailey, just as soon as the Government will let him alone and give him a chance to farm his own land in the way he likes best, he will immediately show a tendency to go back to the pre-war type of agriculture. It must be said, however, that although the British farmer has been forced to change his system of farming he has made money by so doing. But the point is that he is not happy in the new system.

"I was interested in noting," said Mr. Bailey, "that the British Government had a very interesting experience with farm tractors. They had about 3,000 tractors in operation in England, and charged the farmer about five dollars per acre to plow the land. They had as many tractors in each county in England as the Ontario Government had in all of Ontario. Moreover, they were enabled to standardize to two or three makes; these makes being much the same as the popular makes in the Province of Ontario. They could also keep close supervision and establish big repair stations, yet they lost between two and three dollars per acre for every acre that was plowed. These tractors were under the direction and supervision of the Board of Agriculture and Fisheries, but were a losing game, because of the same difficulties that have been experienced in Ontario, namely, wet weather, engine trouble, delay for repairs, etc."

Land Settlement for Soldiers.

In connection with his work on the question of land settlement, Mr. Bailey said that conditions have so changed, due to the armistice, that plans which were under contemplation previous to it had been changed. Now that there seems a definite prospect of peace, military authorities are not so steadily engrossed in actual methods of warfare and are becoming keen on the work of the Khaki University. They welcome the chance to keep the men interested, and realize that it is essential to occupy and improve the mind of the soldier, especially between the periods of armistice and actual peace. It has been arranged in England to establish one camp devoted to study. This will provide a continuity previously lacking.

One of the things which the Dominion Government had considered doing, if many inexperienced men were wanting to farm, was to secure land and put on practical courses in agriculture. This plan was designed to relieve the agricultural colleges in Canada, because these could only handle a matter of 1,700 men every three months. However, only two per cent. of the men taking agriculture in the Khaki University throughout the various camps in England are inexperienced. Most of them are farmers' sons and former farm laborers, or men who having been brought up on the farm are now tired of the city and want to get back. It was further considered inadvisable to establish farms and practical courses because of the constant movement of troops, so that the courses now being taught in England and France are very similar to the four-weeks' short courses put on by the Agricultural Representatives in the various counties in the Province of Ontario.

It was important, therefore, that all the officers understand the scheme of land settlement outlined at Ottawa, and 100,000 pamphlets were made ready for distribution for the soldiers. The former questionnaire, wherein it was reported that 105,000 soldiers were going back to the land, was declared to be inaccurate by Mr. Bailey, and another one is being circulated by the Land Settlement Board for voluntary action by each soldier who is interested. These forms will be collected by division and forwarded to the Soldiers' Land Settlement Board at Ottawa, so that within six or eight weeks it should be known what men mean to go on the land and where they want to go. During the course of his visit to England and France, Mr. Bailey motored from Boulogne through France and Belgium, all the way to the Rhine and back, visiting nearly every brigade in the Canadian Army Corps, lecturing to the Commanding Officers and explaining the scheme of the Land Settlement Board. The officers seemed quite keen, and said that it was the first concrete plan put up to them which showed that the Government really intended to do anything for the soldiers. Mr. Bailey said he was interested in learning that there are a number of groups of men whose friendship has been cemented by the war and who plan to go back to the land together, settling in groups where they will be able to offer each other mutual assistance, and at the same time assist in overcoming the monotony of country life.

The details of the scheme of land settlement are in part as follows: A Board known as the Soldier Settlement Board was established in accordance with the Soldier Settlement Act of 1917. This Board is composed of the following three members: W. J. Black, B.S.A., Chairman; Major E. J. Ashton, D.S.O., Commissioner; S. Maber, Commissioner and Secretary; who are in charge of all matters of administration pertaining to the settlement of the soldiers on the land, and are responsible to the Hon. Arthur Meighen, Minister of the Interior. The head office of the Soldier Settlement Board is at Ottawa. A temporary overseas office has been opened in London at 11 Charing Cross, S. W. I.

As it is neither in the interest of the soldier nor the State to place on the land men who are unlikely to make a success of farming, Qualification Committees are being formed in every province. These Committees will include: An official of the Provincial Department of Agriculture, one or more successful farmers, a member of the Provincial Loan Advisory Board, and a medical practitioner. The Secretary of these committees will be the Provincial Supervisor in charge of the branch office of the Soldier Settlement Board.

All men desiring to farm under Soldier Settlement Legislation will be examined by this Board, which will decide their fitness or otherwise, dividing the men into

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three classes: 1. Men not requiring further experience before commencing farming operations. 2. Those likely to become successful farmers, but needing further training. 3. Those through physical disability or otherwise are unfitted for farming.

In order to see that the soldier is suitably placed on land of good value, Loan Advisory Boards have been formed in every province of the Dominion. These Boards are composed of prominent financial men of wide experience in the purchase and handling of land. They pass on the value of all land acquired and definitely decide the method of disbursement of loans, in this way safeguarding the interest of the soldier settler.

Land for soldier settlement may be divided into four classes, namely, 1, Federal Crown lands; 2, Provincially owned Crown lands; 3, Lands alienated from the Crown, but unoccupied and non-producing; 4, Farms now in operation which may be acquired by purchase. With regard to the first class a free grant of 160 acres, under settlement conditions, may be obtained by the Soldier Settler from the Dominion Government in addition to his civilian right of 160 acres if he has not already homesteaded. If he has been approved by the Qualification Committee he may be granted a loan based on the security value of his land up to a maximum of \$2,500 to assist him in financing his undertaking. In the case of provisionally owned land, provided arrangements are made by the Province for the Dominion Government to receive first mortgage security, similar treatment will be accorded the settler to that outlined in the case of Dominion Crown lands. Lands alienated from the Crown and non-producing may be acquired by the Soldier Settlement Board by expropriation or otherwise, either directly or through the Province in which they are situated. The soldier's allotment of land is to be limited by value and not by acreage. The proposed limit to be advanced by the Federal Government for the purchase of land is \$5,000. The soldier will be required to pay a minimum of one-tenth of the purchase price down. Under very special circumstances the Board may relieve a part or the whole of this requirement. Further financial assistance in this connection is outlined under the heading loans. Provisions similar to those outlined in the case of alienated lands apply to the cases where men settle on purchased lands.

Soldier settlers who have been approved by the Qualification Committees may be assisted under the Soldier Settlement Act of 1917 by a loan based on the security value of their land up to a maximum of \$2,500. No assistance will be given to men to settle on Crown lands which, in the judgment of the Loan Advisory Boards, do not afford a reasonable chance for success. Loans will bear interest at 5 per cent., and will be repayable on an amortization plan of payment spread over a period of twenty years, with the privilege of deferring the first two payments if deemed advisable. Soldier settlers who have been approved by the Qualification Committees may be assisted to settle on the above-mentioned classes of land in the following manner, provided the value of such land is approved by the Loan Advisory Board. A loan to purchase land up to a proposed maximum of \$5,000 at 5 per cent. interest and repayable on an amortization plan spread over twenty or more years may be granted, but the soldier settler must provide 10 per cent. of purchase price. A loan for the purpose of erecting buildings, purchase of stock, equipment, etc., may be granted up to a maximum of \$1,500. This amount to bear no interest for two years, and to be repaid during a period approximating the life of such equipment, live stock, etc. In addition to this, if the soldier improves his land he may be made further advances against such improvements up to a maximum of \$1,000, repayable on amortization plan at 5 per cent. Payments for land will be made by warrant payable to vendors. Where a saving to the settler can be effected by the Board in the purchase of stock, implements, etc., same will be purchased by the Board and the settler charged actual cost. Expenditures will be made under the supervision of the Board and paid for by warrant.

Agriculture in Normal Schools.

EDITOR "THE FARMER'S ADVOCATE":

The teaching of agriculture in the normal schools is rapidly becoming established as one of the regular features of Normal school work. Owing to the large classes in these schools and also to the fact that when the schools themselves were established, very little thought, if any, was given towards making provision for the teaching of agriculture. The difficulties arising out of this lack of special provision for the teaching of this subject are being met by making use of neighboring farms, stock barns, and such institutions as may be found in the city, for demonstrating certain farm operations.

In nearly all the normal schools larger grounds have been, or soon will be, secured for demonstrations in vegetable gardening and also for experimental work in connection with field husbandry. In the illustration here given of a portion of the garden, of the Hamilton Normal School, intercropping and other garden problems are being worked out.

Laboratories are also being equipped for certain phases of agricultural work. A considerable portion of such work may be done in the ordinary science laboratory if provided with suitable simple equipment. The illustration showing a class at work on soil may serve to show how such a laboratory may be used for work in agriculture. Such work is, of course, closely related to other subjects,—notably physics, chemistry and geology; and practice in this character of work often gives vitality, and interest to the ordinary high school physics and chemistry.

When the high schools of the province will have provided an obligatory course of study in both the lower and middle schools, especially for those who expect to attend the Normal schools and become teachers, less elementary work will then be needed, and consequently more time can be devoted to methods of management. In the meantime a good deal can be done under the conditions in which we are now placed as may be shown from the following statement by Mr. McMillan, teacher of agriculture in the Hamilton Normal School:

"During the session of 1917-18 two hundred and thirty teachers-in-training received the regular normal school course in agriculture and horticulture at Hamilton. As very few of the teachers-in-training have received a school course in agriculture before entering the normal school it has been necessary to treat each topic first in an academic way, and then discuss it from the standpoint of method. Throughout the session the course in agriculture and horticulture was closely correlated with the work in nature study and elementary science.

"The expenditure of \$276.00 for permanent agricultural equipment facilitated the work immensely. Students were enabled to experiment individually. Each teacher-in-training made the Babcock test for butter fat in milk. By use of lactometers they detected watering and skimming of milk and by aid of the O. A. C. dairy bulletins calculated approximately the extent of each. Through the kindness of a local manager, we were permitted to spend two Saturday forenoons in a dairy plant. Nearly all the students availed themselves of the opportunity and saw the milk delivered from the farms, examined, weighed, clarified, pasteurized, cooled, bottled and placed in cold storage ready for delivery. Other interesting features were the pasteurization of cream, the process of washing bottles, the artificial cold-storage plant, ice-cream manufactured, and the bacteriological department.

"For candling eggs, each desk in the laboratory was equipped with two egg-candles. Each consisted of an oak stand carrying an electric light globe above and covered with card-board case supplied by the Poultry Branch, Department of Agriculture, Ottawa. These were used by the students in candling fresh and stale eggs and in testing eggs from our incubator for fertility. One coal-oil lamp was equipped and used similarly to demonstrate a method for rural schools. The lantern slides supplied by the Department of Education, and class work on varieties of poultry were supplemented by a visit after school to the Hamilton Poultry Show, where a large variety of birds were seen. By special arrangement approximately 130 students attended in a body under the children's admission fee.

"In the study of farm animals, use was made of the lantern slides supplied by a local manufacturing firm, and of others, the property of the school. One Saturday forenoon was spent at the Asylum barns where valuable assistance was given by Mr. Grey, farm superintendent. Here we saw a root-cellar, a silo and many features of a good dairy barn. After the good points of a dairy cow had been demonstrated, an animal was taken into the yard, and the students judged it by the use of score cards. The characteristics of light and heavy draft horses were also pointed out.

"The weed seeds collected on excursions in the autumn were examined, drawn and described by the students in class.

"Considerable equipment for soil studies was secured during the year and the laboratory course on soils was applied in garden work in the spring term.

"Early in March, cabbages, tomatoes, celery, etc., were started in flats indoors. These were later transferred to hot beds prepared and cared for largely by the students. The students also prepared cold frames into which many seedlings were transplanted when crowded. In this way were produced all the young plants required by both the students and Strathcona school pupils in our school gardens.

"In our school garden the system of intercropping was followed to a great extent and has proved very successful.

"In the garden work the students gain experience in certain operations in their own plots. Each then assists one or more public school pupils with the same work in the children's garden. In this way the teachers-in-training get experience that may help them later in their own schools.

"To carry out this scheme successfully each of the five classes of teachers-in-training should be given charge of a public school class for the garden work of the spring term. This would demand a large amount of garden space. Last session one hundred and sixty public school pupils received individual garden plots under direction of the Normal School students. The total garden area approximated forty-eight square rods. There remained perhaps one-sixth of an acre for students' plots and for demonstration work. The addition of another city lot to our garden this year will assist materially. But if satisfactory work is to be done in horticulture and floriculture, permanent provision should be made for fruit trees, small fruits, and a greenhouse."

The last statement given by Mr. McMillan touches a very important feature of the accommodation—a greenhouse. Every Normal School should be provided with a greenhouse, not so much for ornamental plants as for a sort of laboratory in which agricultural and horticultural problems can be worked out.

Toronto. J. B. DANDENO,
Inspector of Agriculture Classes.

The U. F. O. Explained.

EDITOR "THE FARMER'S ADVOCATE":

"In your editorial entitled 'The Attitude of the Farmer's Advocate,' in the issue of February 6, you give what has become timely, a clear statement of your policy with regard to farmer's organizations in general, and the United Farmers of Ontario in particular. Without entering at all into your statement of defence or justification, would you outline what method you would adopt to have 'big men lead the organizations' or 'get in the big men representative of fruit growing, dairying, etc.' If you refer to the Constitution of the U. F. O. you find no mention is made of small or big men, but membership is described as 'any person directly interested in farming may join the central or any branch association, by being introduced by any member and paying the annual membership fee,' so that nothing now prevents any number of 'big men' interested in farming, from becoming members, and also being eligible for election to leadership. If, however, you consider that these 'big men' should become members *en bloc* or because of their present connection with other organizations, and that they should unite to speak for the agricultural industry of Canada, how would



Intercropping in the School Garden.



A Class at Work in the Study of Soils.

you expect they would have the temerity to speak to Governments either in an advisory or mandatory capacity, when their organizations look to these same Governments for financial assistance. This objection probably holds good with regard to Agricultural Representatives, who are Government employees and must carry out the policy of their employers. A closer study of this question would show you that big men would probably be welcomed in the U. F. O. if they bring independence with them.

Huron Co., Ont.

J. N. K.

Note.—If J. N. K. will read the editorial in question a second time, he will notice that no fault has been found with the constitution of the U. F. O. After all, it is not the constitution which makes an organization; success depends more upon the attitude and policy adopted by the officers and directors. Our correspondent has asked us to outline a plan to get the big men into the U. F. O. In our editorial, in the issue of February 6, we enumerated a few of the factors which keep a large number of the big men out, and when those suggestions, which are fundamental, are heeded the problem will be to a large extent solved. J. N. K. refers to the following sentence in our editorial: "More than once we have suggested through these columns that the U. F. O. endeavor to get in the big men representative of fruit growing, dairying, the live-stock interests, and the various branches of the industry." No mention is made of affiliations, neither was the same considered by us. We would like to see these men who are scattered over the country become active in the local clubs, and through those media lend assistance and strength to the Central. A few of such men are already members of the U. F. O., and valuable members too. It is quite apparent that any Government assistance other organizations to which they belong might have received has not degraded them; they are still men and a force in the movement. J. N. K.'s opinion of the stockmen is not based on experience. If he would attend some of the breed association meetings he would find there a refreshing air of independence that would, no doubt, surprise him. The reference to agricultural representatives in J. N. K.'s contribution is answered by R. W. E. Burnaby, in his letter which appears in these columns.—Editor.

The Truth About the U. F. O.

EDITOR "THE FARMER'S ADVOCATE":

I have read with considerable interest your editorial on the U. F. O. in the February 6th issue of your paper. Friendly criticisms often lead to improvements and reforms. It is difficult indeed to find an organization, or an individual, even an editor, that does not make some mistakes and therefore open to criticism.

The writer has been closely identified with this great farmer's movement for some time and it is a source of gratification to know that a magazine of the reputation of "The Farmer's Advocate" is friendly towards the work a few of us are striving faithfully to carry on. We have made mistakes and will probably continue to do so. We have undoubtedly done a great deal of good and one cannot but feel that a word of encouragement now and then in your columns would go well with your criticisms. This I do know that every officer and employee of the U. F. O. has his heart in his work and is doing his best to make the organization a great power for good. We may not always be right, and I suppose the same can be said of "The Farmer's Advocate", but "There is so much good in the worst of us and so much bad in the best of us that it ill behooves any of us to find fault with the rest of us."

I am convinced that you would not knowingly do the U. F. O. an injustice, therefore I must assume that you have been misinformed as to our attitude toward the Agricultural Representatives. As a matter of fact you give the impression that we consider them all our enemies. The real truth of the matter is, and I can speak from experience, with but few exceptions, yes very few, they are most friendly toward the U. F. O., and can assure you their co-operation is much appreciated. Nothing is further from our thoughts than to carry on a campaign against them as you suggest. Many of these men are not only assisting us in organizing U. F. O. clubs but are themselves shareholders in our Co-operative Company. There are, however, a few, less than half a dozen, who are undoubtedly our most bitter enemies and I feel sure that if you knew of some of their tactics you would be the first to condemn them.

I note what you say re my motion to close nominations in connection with the election of the U. F. O. President at our last convention. I am prepared to admit that on the face of it your criticism is just but I do want to say that my motive is not open to criticism. My desire was to show the press and our competitors our confidence and unity in the choice of our president, and the fact that there was no amendment to the motion and only three votes against it is ample proof that my judgment was not far wrong. I agree with you, that now as I look back upon the way it was done it might look as though it were a pre-arranged affair, but I wish to assure you and your readers that such was not the case. No one knew or had any thought of such a move. I acted purely on the impulse of the moment.

In reference to what you say about the association of the fruit, live stock and wool interests with the U. F. O. I can only say that these interests and the big men connected with them would be welcomed into our organization with open arms, provided they are prepared to come unaccompanied by any government or political party control.

We all feel that what the U. F. O. needs now to make it a power such as the United Grain Growers of the West is *Big Men* and I feel that the support and good

will of a paper of such influence and reputation as "The Farmer's Advocate" will go a long way towards interesting these men in the movement.

R. W. E. BURNABY.

NOTE.—We can assure Mr. Burnaby that we have always endeavored to make our criticisms constructive so they would do the U. F. O. good, rather than harm, and nothing would afford us greater pleasure than to be able to lend a hand to the organization and help to make it a powerful exponent of the farmer's interests in the Province of Ontario. We like the open-minded way in which Mr. Burnaby approaches this subject, and if the U. F. O. will go forward in the spirit to which he has given expression they will have many strong supporters.—EDITOR.

More Mangels Should be Grown.

EDITOR "THE FARMER'S ADVOCATE":

As the mangel crop requires a great deal of labor and patience, and as the hoeing and harvesting of the same, to many people, seems a monotonous task, the acreage sown to this valuable crop has in the past years been reduced to a minimum. No doubt the shortage of help and the silo have contributed to the result. Truly, the silo was a great boon, and it offered a splendid means of preserving green feed for the winter, but with the best silage, a few roots can be fed to good advantage; and I don't think anything grown on the farm will equal mangels as an appetizer and conditioner not only for cattle, but also for horses, sheep, swine and poultry. I believe an acre or two could be grown on any farm without hiring extra help, provided the most practical way is used to handle the crop. Up to recent years it had been the custom to sow them on ridges, with a beet drill, which gave fairly satisfactory results, but experience has taught us that by sowing them on the flat not only valuable time can be saved but also a greater yield may be expected. The plants will get more moisture when grown on the flat than those on ridges where the water will run off. This is especially true in a dry season, but the writer has had excellent results in extremely wet seasons. However, it must be remembered that it was on good, naturally-drained soil. Some farmers object to this idea, claiming it would be a hard job to clean them the first time, but by following my method not much difficulty should be experienced in that regard. Preparations for this crop should begin the previous fall. I prefer to follow the oat crop. As soon as the oats are harvested the land should be given a shallow cultivation, either with a stiff-tooth cultivator or the disk harrow. This will not take up much time but will conserve moisture, and in the meantime thousands of weeds will germinate which would otherwise make trouble the coming season. A week or two later, well-rotted manure should be hauled on at the rate of ten to fifteen tons per acre, according to the state of fertility. It should then be plowed about four inches deep and frequently harrowed until late in the fall, when it should be plowed again deeply. No more cultivation should be given till the following spring when it ought to be cultivated and harrowed as soon as the land is fit to work. It may then remain untouched till after the seeding of the cereal crops. By this time many weeds will come up which can be killed by shallow plowing. The disk, harrow and roller should then prepare the field, and the common grain drill will answer the purpose of sowing. I cannot tell just how to set the drill, as there are not many drills that sow alike, but would advise everybody to sweep the barn floor, put the drill in gear, and set it so the seed will be dropped an inch and a half to two inches apart. They should not be covered more than an inch; this can easily be done if rolled just before seeding. The time of sowing depends on the weather; the second week in May seems about right in average years. Occasionally there may be a year when it would be no harm to sow earlier, but it must be remembered that the mangel seed takes a long time to germinate, and if a cool, wet spell follows after they are sown, then the weeds will get the best start. A good plan is to sow a few peas along with the mangel seed. This will not only save seed, but they will grow more rapidly than the mangels, which will enable one to follow the rows sooner. If the seed is of good quality, about three and a half pounds of mangel seed mixed with one-half gallon of peas should be enough for one acre, but more will do no harm. The cultivator should be used as soon as the rows can be followed. With a steady team and shields attached to the cultivator, one man can make a good job, finishing but one row at a time. I prefer to have the rows thirty-five inches apart so the corn cultivator can be used. They should then be thinned to twelve inches apart and cultivated at least once a week until August. If kept perfectly clean this crop will be as beneficial to the land as a summer-fallow, and at the same time produce a crop with which no other—with the exception of corn—can compare. In harvesting, we top them with a sharp hoe and harrow them out the same as turnips. Some farmers are afraid this will injure them and cause them to rot, but I don't think so. Harvesting them in unfavorable weather, and keeping the root cellar poorly ventilated, will make them rot and probably too early harvesting, may cause them to decay. In harvesting, as in sowing, no exact date can be given, but a slight frost will not injure them. They will keep fairly well till April if they are dry when hauled in, and the cellar kept properly ventilated.

Waterloo Co., Ont.

B. B. S.

Ominous Fiddlesticks.

EDITOR "THE FARMER'S ADVOCATE":

Recently I read an editorial in one of the daily newspapers under the caption "An Ominous Announcement," and predicting ruin and dissension as a result of the internationalization of the German colonies under a proposed League of Nations.

After citing the facts that the British Dominion of South Africa had saved the situation in Africa against German intrigue and sedition, that Australia and New Zealand had policed the Pacific and performed other stunts for the Allies, that Canada had sacrificed much for the war and the welfare of her sister Dominions, the writer complains that because these captured colonies presumably are not to be given into the full control of the British Dominions lying nearest, that "the Dominions are to be utilized to the utmost in war and cheerfully sacrificed in peace (I presume he means in final settlement of war claims) to foreign whims and schemes," and "all that the Dominions desired, to be placidly sacrificed and the Dominions left to their losses and burdens of debt without hope of adequate compensation."

There is more than one unfortunate result of such narrow provincialism as breathes in the editorial.

As an educator of public opinion and sentiment the editor of a widely distributed paper occupies one of the most responsible positions in his country, and it would seem to me that his aim should be to obtain the broadest view possible of public questions before he places his ideas before his reading public. The writer of this editorial, and he is not alone in his views, seems to me to be on a par as to breadth of vision with a farmer who last summer threatened to resist payment of his road tax because the money was not specifically spent on the road in front of his residence, and on a par with numberless people in this small world of ours who will not help a good cause unless they can reap direct benefit therefrom to the extent of the value they gave.

When we consider that the Peace Conference is composed of the wisest, most far-seeing, best-trained and most-experienced statesmen that the world can produce, christian men who fear God and whose highest aim is the settlement of the problems that come before them with a view to unprejudiced justice to each nation and greatest general good and lasting benefit to the whole world, it seems ridiculous that men of comparatively small calibre should indulge in childish criticism and, still worse, when they are able to spread dissension and popular discontent through the columns of their paper and arouse a public sentiment that is as narrow as it is false.

I think we can be sure that public opinion is unanimous in the belief that the personnel of the Peace Conference is above reproach and could scarcely be improved upon. And it is pretty evident that these men, insofar as they can be reached, are besieged with numberless opinions, suggestions and objections which make their Herculean task all the more difficult if they give any heed. Then what is the use of wasting time and arousing unnecessary public feeling at a time when irritation of all kinds needs allaying. These men are experts at weighing both sides of any question, foreseeing consequences and dealing broadly and justly. Don't criticize them. Then, again, dealing with the question of compensation, why did the colonies enter the war? Were their repeated and never-ending protestations of loyalty just so much camouflage to hide the selfish reason of expected reward? I do not think so. True patriotism, anxiety to put down wrong and injustice, desire for a lasting world peace based on international freedom and good will and the greatest good to all, these were the expressed reasons, and I believe they were the real reasons for the taking up arms by the different Dominions and nations.

If it were a question of giving these colonies back to Germany to be used again possibly, for strategic purposes, we might be alarmed, but since they will be administered under a League of Nations by those colonies which most naturally do so, it would seem to be a very Hunnish policy or desire to want absolute ownership, especially since it is very evident that the expenses of the war will be paid, as far as possible, by the nations that have been responsible for it.

If there is to be a stronger relationship between the nations of the earth, the mere quarreling over the acquisition of territory would seem to defeat rather than develop the object in view.

There is a possibility also that our conception of the duties and objects of a League of Nations may be too narrow. It is to be hoped that, if at first the scope will be limited to the settlement of international disputes, control of armaments, policing of the different nations and support of international laws, etc., its jurisdiction may ultimately be extended to control industries, trade, revenue-raising objects, and all questions in which nations may be benefited by improved social or industrial relations. Then this question of personal national ownership would sink into insignificance in the light of an international control which had as its object the giving each nation its due and the maximum of prosperity to all nations. In the meantime it would be as well to allow Woodrow, Dayid and Co. to settle these matters without too much criticism.

Annapolis Co., N.S.

R. J. MESSENGER.

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CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

Public Speaking and Debating.

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

Part VII. Criticism.

The position of the critic at debates or literary evenings is often somewhat difficult. He comes at the end of the evening when people are thinking of going home. After an enjoyable program of speeches, recitations and music, he appears in solemn guise, reminding people that life is a stern business after all. To most of the audience he seems merely a necessary evil. Thus it happens that many critics, feeling the awkwardness of their position, limit themselves to patting the performers on the back, making a joke or two, and figuratively dismissing the audience with a blessing.

If the members of a debating club really mean business they should insist upon a thorough criticism of their efforts. Even a merciless critic, who tears everything to pieces, is better than one who softens his remarks with large doses of soothing syrup. There is bound to be a basis of truth in his strictures, and the speakers may take what is true and discard the rest. Following are a few suggestions on the kind of criticisms which have proved most helpful in our classes.

Since debates are usually judged under the two main headings, Material and Delivery, the criticism falls naturally into these two parts. The preceding remarks in this paper will prepare the critic for what may be expected. In discussing material, he should note whether this is clearly and logically arranged, whether the matter appears to be original, whether the argument is sound, etc. Under Delivery, he should pay particular attention to clearness. If the speaker is hard to follow he should try to trace this defect to its source. Exaggerated gestures and frothy declamation should be discouraged at once, as young students often confuse stump-oratory and public speaking. Similarly the opposite extreme, a dull solemnity without spirit or action should come in for immediate censure. Above all, the critic should try to show the necessity of guiding action and delivery by the subject matter. "Suit the action to the word, the word to the action." Obvious mistakes in grammar and pronunciation ought to be pointed out with emphasis. But preserve us from the self-satisfied pedant who hangs, vulture-like, to pounce on the slightest fault. He will probably be kept busy enough, for there are few men who do not, in the heat of the moment, make some errors in construction. Such trifling mistakes can be safely overlooked. There are, however, certain violations of grammar and pronunciation which are common and, therefore, dangerous. One of these is the use of "for" before the infinitive. "I do not intend for to do this." Modern usage has decreed that this word is unnecessary and, therefore, like many other old-fashioned constructions it has been confined to the illiterate. Kipling makes the meditative Tommy Atkins employ it:

"For to admire and for to see,
For to be'old this world so wide,
It never done no good to me
But I can't drop it if I tried."

Other very common mistakes are: the use of "due to" where "owing to" is required, of singular verbs with plural subjects and so on. One single mistake which can be detected at once by the majority of the audience detracts very much from the speaker's effort; it immediately places him on a lower level than himself, and their attitude becomes indulgent rather than attentive. For this reason the critic, without being pedantic, should call attention to all obvious mistakes in grammar and pronunciation.

A schedule is here suggested for the use of critics and judges. Debates at the O. A. C. are judged on the basis of Matter, (60 per cent.); Delivery, (40.) The following schedule is for the private use of the judge or critic:

Material:		
Arrangement.....	20	
Argumentation.....	15	60
Originality of views and illustrations.....	15	
Choice of words.....	10	
Delivery:		
Clearness.....	15	40
Force.....	10	
Language (freedom from errors).....	7	
Attitude and gestures.....	8	

It is sometimes difficult to get people to act as critics. Having asked the minister and the teacher and the postmaster to act once in that capacity the supply of qualified critics begins to run short. This need not discourage anybody. The members of a class, or of a debating club, can criticize each other with great mutual benefit. A critic can be nominated by the chairman or by any other member. A method used in our classes with good results is as follows: The chairman, at the beginning of the meeting announces that he will call upon a critic from the audience after the speeches are over, but that he will reserve the name of that critic to the end. Any member may be the one chosen, so we have the unusual spectacle of an entire audience hanging upon the words of the speaker, and making written comments upon the good and bad points of his speech. In this way everyone can derive benefit by

observing the mistakes of others or their good points. It is good practice for one's own speaking to be forced to analyze that of another. Of course, this suggestion would apply only to small gatherings, where the members are all anxious to improve themselves.

A word on this last point. It is decidedly worth while for anybody to practice speaking in public. Nothing gives a man greater power and influence among his fellows than the ability to speak clearly and convincingly. No kind of education is more practical than this, for it trains us in an every-day occupation. Finally no branch of study brings quicker returns in proportion to the time invested. The principles of clear speaking being founded on simplicity and common sense, no arduous course of study is required.

AUTOMOBILES, FARM MOTORS AND FARM MACHINERY.

Experience With A Tractor.

EDITOR "THE FARMER'S ADVOCATE":

Last spring we purchased an 8-16 horse-power tractor and a 3-bottomed 10-inch plow, intending to do our spring plowing by motor power. The agent informed us that it would plow 6 acres per day on one gallon of coal-oil per acre, and that operating the tractor was very simple. He gave us the impression that all we had to do was to go to the field in the morning, pull a lever and the machine would go as long as we wanted it to. We took some of his statements with a grain of salt, but, as we had inspected several different makes of tractors, we believed that the make he was trying to sell suited our conditions. Some of our reasons for buying a tractor were that the fields in our farm were large and level, but the soil was of stiff clay. Owing to the high price of horses and the scarcity of help and the increasing demands for greater production, we believed that a tractor would help very much to solve the labor problem and would permit us to get along with fewer horses. We already had a threshing machine, a straw cutter and a grain grinder, but no power to run them. We thought a tractor which could be used for cultivating would be handy for furnishing power about the buildings, and would be cheaper than a steam engine.

After securing the tractor we discovered that it would not do all the agent said it would, but possibly on account of the tenacity of the soil more fuel was required than would be the case on lighter land. During the spring and early summer we plowed about 60 acres with the tractor, and it gave very good satisfaction throughout the entire season. It used from two to three gallons of coal-oil to the acre and a gallon and a half of cylinder oil per week when plowing from four to five acres per day. It takes a good deal of practice to become an expert plowman, but by being careful and paying attention to the work in hand a person can make a good job with a tractor. During the fall we threshed, cut corn and straw with the power furnished by our tractor. We also did all our fall plowing with it. During the winter we are having it thoroughly cleaned and repaired for the next season's work.

Our repairs during the past season were three sets of spark plugs, one glass bottle and a breaker box for the magneto. Farmers in Ontario are using tractors more than ever, and I believe the majority of them would be benefited by securing more practical information regarding the handling of them. I for one would like to see more about farm tractors in "The Farmer's Advocate." I do not believe that a tractor would be profitable with more than two farmers owning it cooperatively, as all would be wanting it at the same time during the busy season, but I do believe that two farmers can buy a tractor between them and use it advantageously and be able to get more work done at the right time than where horses are depended on entirely.

Grey Co., Ont.

A READER.

NOTE.—We would be pleased to receive letters from subscribers who are operating tractors, setting forth the work which they are able to accomplish, the cost of operation, what success they have in using the power at the belt, and what are the chief difficulties that are contended with in the operation of the tractor.—Editor.

Two-Day Courses in Farm Power.

In conversation with C. L. Holliday, in charge of the Farm Power Short Courses being conducted in each county of Ontario, by the Ontario Department of Agriculture, a representative of "The Farmer's Advocate" learned that these two-day county courses are proceeding with satisfaction. Fifteen such courses had been held up to last week, and the remainder are scheduled to run until March 18. The courses are well attended, and matters taken up are more or less as follows: Principles of gasoline engines, ignition, carburetion, cross section of engines, care and operation of gas engines, engine trouble. Very little consideration is given actually to tractor operation.

It is pointed out to the students at these courses that the cost of operating a gasoline engine is approximately two and a half cents per horse-power per hour, and that a one-horse-power pump will do as much work in an hour as eight men, effecting a saving on this basis amounting to nearly two dollars on one hour's work. This statement, of course, was designed to make the students aware to a greater extent of the possibilities for more efficient farm power, and along this same line

is the following information secured from Mr. Holliday. From the latest figures available where horse-power is used on the farm, the cost per horse-power per year to the farmer is \$640, for what is actually about three-quarters of a horse-power according to the rating of a gasoline engine. The manufacturers get their power at an annual cost of about \$200 per horse-power, giving them an advantage in this cost of \$400 per horse-power per year.

THE DAIRY.

Cows need from one to three ounces of salt daily.

If you would like your son to remain in the dairy business—and he is needed there—get him interested in good cows.

All cows are not alike temperamentally. Study the individuals of your herd and you are sure to treat some of them differently.

If there is one thing in dairying about which there is not the slightest particle of doubt, it is with regard to the advantage of pure-bred sires.

A little acquaintance with the brush and comb wouldn't hurt most cows and it would pay too. It has been figured out that 30 seconds spent on each cow occasionally, is time well spent.

Some one has said "Know thyself" but a good motto for dairymen would be, "Know thy herd." You can be introduced at feeding time but the way of the milk scales and fat test is the only road to real acquaintance.

Apparently it is very easy to overwork the "specializing" game on dairy farms. We could adapt the old maximum to the circumstances of the dairyman and say "Don't try to get all your revenue from the cows."

Do you know what it costs you to produce a can of 100 lbs. of milk? If you lived in Oxford County, Ontario, during 1917, A. Leitch, O. A. C., Guelph, says it would have cost you and your neighbors an average of \$2.17 per 100 lbs.

Give the cow all the roughage she wants, but see that it is good. Just remember that if the bread is not well baked, you do not eat as much of it as usual. The quantities of feed consumed by the cow and the amount of her milk flow are relative factors.

One would hardly think that because A has 100 acres and B only 30, that it costs B nearly a dollar more to produce a hundred lbs. of milk than it does A. It seems, however, that generally speaking, there is nearly this difference in Oxford County, Ontario.

A five-year experiment run during the winter at the Cap Rouge Experiment Station, Quebec, on the question of unlimited versus limited meal for dairy cattle has given the following results: The cows used in this experiment were practically all spring-calvers and were chosen of nearly the same weight and production, all receiving the same quantities of hay, straw, silage and roots. Since very accurate records were kept for twenty-seven cows, the figures given below are thought to be fairly conclusive. The average for five years shows that each cow in the lot receiving as much meal as would be eaten, which was one pound per 2.18 pounds of milk, gave a profit over feed of \$15.26 in 147 days. Each cow of the lot receiving one pound of meal per 4 pounds of milk gave a profit of \$14.22, and each cow of the lot receiving one pound of meal per 8 pounds of milk gave a profit of \$14.19. The valuations were as follows: Hay, \$7; roots and silage \$2 per ton; meal, 1½ cents per pound; butter 28 cents per pound, and skim-milk 20 cents per 100 pounds. These valuations were used in 1913 when the experiment started and it was deemed wise to continue them.

Whey Butter.

According to F. Hens, Secretary of the Dairy-men's Association of Western Ontario, whey-butter plants are becoming popular. 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.

In this connection it is urged by Mr. Hens that every precaution be taken to insure a good quality of whey cream by skimming a rich cream, pasteurizing if possible and cooling immediately to a low temperature. The cream should not be held too long before shipping or churning.

All piping and utensils with which the whey comes in contact must be kept strictly sanitary. Care must also be taken that only a normal loss of fat in the whey occurs in the cheese-making process.

Pasteurizing or heating the whey to 155 degrees is necessary whether or not skimming is practiced, if yeasts and many other objectionable flavors which are transmitted through the whey are to be eliminated. Pasteurization of the whey is all the more necessary when considered from the standpoint of precautionary measures against the transmission of disease such as tuberculosis to calves and pigs to which the whey may be fed.

Riddlesticks.

ADVOCATE":

itorial in one of the daily on "An Ominous Announce- and dissension as a result of the German colonies Nations.

at the British Dominion of situation in Africa against on that Australia and New Pacific and performed other Canada had sacrificed much re of her sister Dominions, cause these captured colonies given into the full control of nearest, that "the Dominions most in war and cheerfully ne he means in final settle- reign whims and schemes," ons desired, to be placidly ns left to their losses and pe of adequate compensa-

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R. J. MESSENGER.

Dairy Cow Returns.

The accompanying table is taken from the report of the Dominion Animal Husbandman, Central Experimental Farm, Ottawa, for the year ending March 31, 1918. In introducing this table the report says: "Although the table shows a lower production and profit over feed per cow, yet this is scarcely a fair basis for judging the status of the herd, as many of the best cows of all breeds had not completed their lactation periods during the year and of those which did finish, a large number were heifers. Again, feed prices were so very high that the relative profits were lower in spite of increased values of milk and butter."

Profit Over Cost of Feed.						
Breed	No. of head	Age	Average days in milk	Average pounds milk Produced	Average per cent. fat in milk	Average profit over cost of feed between calvings. Labor, manure and calf, etc., not included
All breeds and grade.	55	5	325	8,065	4.10	\$ 95.18
Ayrshires	5 best	8	306	8,940	5.01	109.30
	Total herd (14)	6	312	7,324	3.83	82.42
Canadians	5 best	6	316	7,738	4.78	110.33
	Total herd (5)	6	316	7,738	4.78	110.33
Holsteins	5 best	6	383	13,103	3.61	140.75
	Total herd (15)	5	345	9,857	3.68	110.97
Jerseys	5 best	3	343	6,618	5.34	110.57
	Total herd (9)	3	305	5,374	5.28	86.22
Grade	4 best	6	332	5,590	4.15	78.73
Ayrshires	Total herd (4)	6	332	5,590	4.15	78.73
Grade	5 best	7	343	10,892	3.88	131.44
Holsteins	Total herd (8)	5	348	9,773	3.86	113.25

An Educational Butter-Scoring Contest.

EDITOR "THE FARMER'S ADVOCATE":

Apart from the ever-present necessity of improving the general quality of the butter, there are two things which are of great importance to the Canadian butter-making industry at the present time, namely, uniformity of standards and grading, and keeping quality in the butter.

Canadian butter-makers as a class are at a disadvantage in trying to reach uniform standards by being so widely separated. It would appear to be a proper function of the Dominion Dairy Branch to assist, as far as possible, in co-ordinating the educational efforts in the various provinces and to give the butter-makers an opportunity for comparing their work with that of others on every possible occasion.

With that end in view it is proposed to conduct, during the season of 1919, an educational butter-scoring contest in which the different provinces are invited to participate, through the provincial dairy officials. The contest will be conducted according to the following rules:

- Four 14-lb. boxes of butter, each from a different creamery, to be forwarded from all the provinces participating, to arrive at Montreal between the 5th and 10th of each month, April to October inclusive.
- Full details as to the handling of the cream and manufacture of the butter to be given on forms provided for that purpose by the Dairy Commissioner, Ottawa.
- The butter will be scored on its arrival at Montreal and then placed in cold storage for re-scoring, by the same judges, once a month throughout the season.
- The percentage of salt and moisture will be determined in each sample, and a test made with the Storch Test.
- Reports of the scorings, re-scorings and other tests will be sent to all participants every month.
- The Dominion Dairy Branch will pay for the butter at market prices, on receipt of proper invoices, and will also pay the express and storage charges.

It is hoped that all the provinces in the Dominion will participate in this contest, and thus reap the benefit that may be derived from it. The detailed information as to the methods followed in handling the cream and in making the butter, together with the results of the monthly scorings, should be of great educational value to butter-makers and dairy instructors throughout Canada, and should assist materially in securing uniformity of quality and character, and also in standardizing the methods and practices followed in the butter-making industry.

The samples will be used during the following winter for demonstration purposes at the dairy conventions, for educational work in the dairy schools, and for conferences of graders from the different provinces.

J. A. REDDICK,
Dairy and Cold Storage Commissioner, Ottawa.

Oxford County Holstein Breeders' Club.

The Oxford County Holstein Breeders' Club recently held its annual meeting. Reports indicate that the organization is in a flourishing condition, and it was the general opinion that the Club was proving to be of benefit to the members. Rules governing the sales were discussed and some new rules adopted. Considerable discussion took place relative to whether or not the Eastern and Western Ontario Dairymen's Associations, as at present constituted, was in the interest of the breeders. Many of the members contended that they

were associations of cheese and butter-makers. A motion was adopted to the effect that these organizations should be taken control of by dairy farmers assisted by those engaged in the manufacture and sale of dairy products, and that at the exhibitions held in connection with these association annual meetings not only dairy products be shown, but that there be an exhibit of dairy cattle with dairy tests. It was generally believed that the present Dairymen's Association had come to be a convention almost solely for cheese and butter-makers. Fred Lee suggested that a convention might be held in connection with the Provincial Winter Fair each year, as producers were usually assembled there in large numbers. M. H. Haley, of Springford,

still very large markets for whole milk from Peterboro to Montreal. It is, however, necessary for the Association to provide facilities for organization purposes, and this work must be very carefully planned. Reference was made to the National Dairy Council, and its objects and organization were outlined by the President. Mr. Stonehouse pointed out very emphatically that it was desired to keep the Council entirely independent of Government support. The matter of express rates has been taken up by the Council, said Mr. Stonehouse, and a lawyer engaged to plead the case of the dairy interests before the Board of Railway Commissioners. The oleo problem will also be in need of careful attention by dairymen shortly.

One point mentioned by the President was to the effect that although conditions have, for a few years, been favorable to securing increased prices of milk, it seems evident that the prices for whole milk and milk products will tend to decline. It, therefore, becomes necessary for milk producers to see that the decline shall not be sufficient to bring prices below the cost of production plus a reasonable profit. This may easily happen unless a very firm and decided stand is taken in the matter of milk prices. In this regard the producer has practically the whole matter in his own hands through the medium of effective organization. Ontario has the honor of having initiated the movement for closer organization for adequate prices. "Our whole defence," said Mr. Stonehouse in conclusion, "lies in continuing and perfecting this organization."

In the discussion which followed, the matter of organization was discussed thoroughly, some delegates expressing the thought that every farmer on whose farm milk is produced for sale should be brought into the provincial association. That this was advantageous was readily granted and local branches federated into county organizations were emphasized as the most desirable scheme. At present, 18 local associations are affiliated with the provincial organization, and membership appears easy to secure if local executives merely ask for it. Some locals have as high as 250 members. More that one delegate expressed his sense of the immediate and direct results to be secured through organization as milk producers. Direct benefit through increased revenue from milk counts most, and in one instance organization meant over ten dollars per dairy contract gallon to each member during the year. In some places "Fair Price Boards" and local city politics have had to be combatted in the matter of city milk, because of the fact that whole milk is a universal part of the human diet. It was pointed out also by a Lincoln County delegate that with the present lack of good organization, dealers who are differing with producers of one section as to price, can bring in milk from other sections and thus use one group of producers against another.

Over 90 per cent. of the milk produced in New York State was said by Manning W. Doherty to be sold through the state milk producers' association, and it was suggested that some such result was to be hoped for in Ontario. One direct benefit to be derived from the association was pointed out by Mr. Doherty in connection with the testing of cream to protect shippers who do not get paid for as much butter-fat as an accurate cream test will show. An initial 7 tests made in response to complaints showed a variation of 3 per cent. to the disadvantage of the shipper. After another 47 tests had shown the same variation the Provincial Government was approached for assistance in checking cream tests. A grant of \$500 was secured, and another 240 tests have since been made showing a variation of from 1 to 5 per cent. Legislation will be presented at the next session of the Provincial House which will provide for adequate inspection and simple methods of prosecution. Mr. Doherty stated the yearly loss which has been going on for years in this matter to amount to \$500,000 to the shippers.

The whole question of milk prices and its many ramifications was perhaps the point of keenest interest in the whole meeting. It was pointed out by several delegates that the cost of production is of fundamental importance in this connection. The "Warren" formula was suggested as a basis upon which to work, and the figures recently compiled from the Oxford County Survey were referred to frequently as something of the nature of an eye-opener. The relation between the question of milk prices and the export market factor in the cheese and butter industries was clearly pointed out and was recognized as an important consideration in the matter of prices for Ontario milk. Important also is the loyalty of the members in adherence to any price thought fair by the Association. Several delegates encouraged the idea of monthly or quarterly reports from the central association to each of the branches, showing the prices being paid by each of the others, so that each branch would be in a position to conduct its own affairs in accordance with those of the other branches. The whole matter of cost of production and kindred consideration was left to the new Executive.

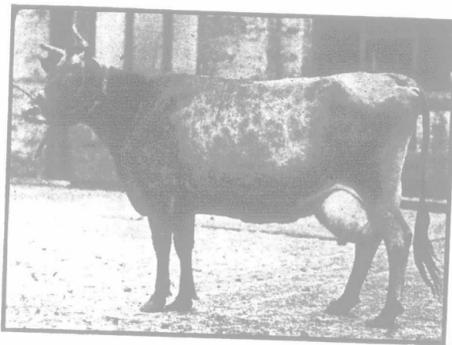
The Treasurer's report showed some payments of the capitation tax from local associations to be in arrears, and also showed a balance on hand of \$350.40. It was suggested that a fixed date be established for the payment of the capitation tax.

Only three new directors were required to be elected this year because of the fact that of the 9 directors only 3 are elected each year. Those elected for 1919 are: G. J. Cook, Beachville; H. G. Rice, Welland; G. Nichol, London. The Executive will be elected at the first meeting of the directors, which will be held at the earliest possible date.

was elected President; A. Dunn, Ingersoll, Vice-President, and W. E. Thompson, Woodstock, Secretary-Treasurer.

Ayrshire Breeders' Club Holds Its Annual Meeting.

The Southern Counties Ayrshire Breeders' Club held their seventh annual meeting the last of January, in the city of Woodstock. Breeders were present from the adjoining counties of Brant, Middlesex and Elgin. During the past year about \$15,000 worth of Ayrshires have been sold by public auction at the Club's two consignment sales. The members reported a strong demand for Ayrshires, and it was considered inadvisable to hold a sale this spring. The annual picnic and demonstration will, however, be held, and the date is set for June 10, at the farm of W. W. Ballantyne, Stratford. An endeavor will be made to secure Prof. Barton, of Macdonald College, and Prof. Toole, of Guelph, for the occasion. The meeting went on record as protesting against the re-enactment of the so-called Daylight Saving Act, as it was considered exceedingly detrimental to the interests of dairy farming. It was decided to petition the Ontario Government to put in force the Dairy Standards Act, which was suspended during the war. F. H. Harris, of Mt. Elgin, was elected President; J. L. Stancell, Stratfordville, Vice-President. John McKee was again elected Secretary-Treasurer.



Fañny of Edgeley.

Highest testing Jersey at the Dairy Test, Guelph, 1918. Exhibited by Alfred Bagg, Edgeley, Ont.

Ontario Milk Producers Meet.

The second annual meeting of the Ontario Milk and Cream Producers' Association took place in the Carls-Rite Hotel, Toronto, on Tuesday, February 11, with President E. H. Stonehouse presiding and about thirty delegates representative of local branches throughout the province present. The presidential address called attention to the organization that has been effected in new territory during the year. Many other districts are still waiting to be organized, and it seems to be easier to organize milk producers than producers in most other lines of agriculture. East of Toronto not much has yet been done but these counties are rousing themselves. Although the cheese industry predominates in this section of the province there are

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Improving the Dairy Herd.

This question is an important one at this time, particularly that aspect of it relating to the sire and the elimination of the scrub bull. The following presentation of the question was made by Geo. H. Barr, Chief of the Dairy Division, Department of Agriculture, Ottawa, at the recent convention of the Dairymen's Association of Western Ontario in London.

"Some splendid work has been done during the past twenty years in improving the milking qualities of Canadian dairy cows. For example, some twenty odd years ago, I was invited to speak at a convention of students and dairymen at the Western Dairy School, Strathroy. I was then making cheese and butter at Ballantyne's Black Creek Factory, near Sebringville, and I took occasion to state at the convention that one of the Black Creek patrons had that year sent to the factory slightly over 50,000 pounds of milk from a herd of ten cows. At that time, this was considered an exceptionally high average for a herd of ten cows, and some of the farmers at that convention could scarcely credit the truth of the statement.

"Have dairymen been paying enough attention to the dairy sire question? I don't believe they have, and the result is that we still have many herds of dairy cows giving comparatively small quantities of milk and also milk extremely low in butter-fat, because the sires that have been used were bred from no better and sometimes poorer milk-producing stock than the cows.

"Suppose a herd of cows average 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? How many patrons of cheese factories and creameries in Canada can tell how much milk and fat the dam of the dairy sire they are using gave yearly? They will tell you he is pure-bred, but further than that they know very little. If a breeder of horses wants to increase the size of his horses he will use big, heavy sires. If he wants to raise a colt that will trot faster than its dam, he will take out his watch and see how fast the sire can trot, but when it comes to raising dairy heifers, it often looks as if dairymen paid little or no attention to any particular qualifications in the sires.

"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. How can we be reasonably certain to get heifers that will produce larger quantities of milk and fat than their dams? There is only one plan that will give anything like certainty; always be sure the female ancestors of the sire gave larger quantities of milk and higher testing milk than your own cows are giving. When one thinks of the dairy sires that are scattered over this country, both grades and pure-bred, for which there is no record of the milk or fat-producing qualities of their ancestors, it is simply astonishing. 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. They may have pedigrees a mile long, but that does not mean that their female offspring will be any better milk producers than their dams. I take it that the business of a dairy herd is to produce milk economically. If the head of the herd is bred from a strain of cattle that produces milk and fat economically, does it not follow that his offspring will have the same characteristics? Increased production can only come from two sources; better feeding and better breeding. Any improvement from breeding must come through the sire.

"It is absolutely necessary to know the history of the sire's ancestors, and we should place before the dairy farmers of this country more forcibly than ever the necessity and value of getting records of the milk and fat produced by the ancestors of dairy sires. When I say milk records, I do not mean a 3-day or a 7-day record; I mean a record for the full milking period. If the purchasers of pure-bred dairy stock demand this information before buying, they will get it, for the breeders cannot afford to have it advertised that they are not in a position to provide such records.

"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 as they should be.

"In closing, allow me to make a suggestion in regard to judging dairy cattle at our exhibitions. I will admit that beauty of form and type are important, but I believe the time has come when a judge of dairy cattle should have something more to guide him in placing the prizes than form and type. Of what value is a dairy cow if she is not an economical producer of milk? Of what value is a dairy sire unless he is bred from cattle that are economical producers of milk? I am inclined to think that a cow with a beautiful form without the qualifications to produce milk economically is one of the worst snares we could possibly have in the dairy business, and I know that a dairy sire no matter how true he is to type and conformation, if he has not behind him ancestors that are economical producers of milk, will be a hindrance instead of a benefit to the community in which he is placed. I would, therefore, suggest that in judging dairy cattle the milk records of the cows and the milk records of the immediate female ancestors of the bulls be produced, and that these records be given an important place in awarding the prizes. If this were done, it would place a premium on cow efficiency and a check on the spread of what one may term "fancy" but mighty poor mortgage-lifting stock, from the ordinary dairyman's standpoint.

THE APIARY.

Annual Meeting of Ontario Beekeepers.

Beekeepers had a prosperous season during 1918 and the annual convention of the Ontario Beekeepers' Association, held in the Parliament Buildings, on Feb. 4th, 5th and 6th, was a good index of the interest taken in this phase of agriculture in Ontario. Accommodation had been secured for about 200 beekeepers, and the Convention Room was filled to overflowing by the gathering.

The various speakers were quite optimistic in their contributions. The President, Mr. Jas. Armstrong, pointed out that the season of 1918 did not appear to give much promise of a crop at first because of the severe winter and the cold, backward spring and summer

that State, and is studying the Ontario problem closely at the present time. He firmly advocates the policy of selecting badly-diseased territories for attention, and placing a strict quarantine on all apiaries in which disease has been discovered. In his illustrated address Dr. Gates contrasted pre-war European and American beekeeping. The primitive methods of Europe made it impossible to secure the crops which American producers secure. Slides were also shown illustrating the wax foundation manufacturing process.

The motion pictures of the Ontario Motion Bureau consisted of three interesting reels. "The Modern Hive," "The Handling of Bees," and "The Wintering of Bees," were all fully illustrated. The reel on the "Handling of Bees" was particularly good, showing the methods of opening the hive, handling the frames, finding the queen, examining the brood in all its stages.

The Hon. Geo. S. Henry spoke briefly, admitting freely that he knew nothing about beekeeping. He realized, however, the growing importance of this branch of agriculture, and invited the beekeepers to bring their needs before the notice of the Department of Agriculture as they developed. He assured them that everything will be done to assist the beekeepers that is within the power of the Department, and that can be demonstrated as necessary.

The technical beekeeping problems dealt with at the convention were many and varied. The question drawer drew forth a volume of enquiries touching on all phases of beekeeping. Mr. R. G. Houghton, in his analysis of the Beekeeping and Farming Combination, was inclined to favor the combination, providing the beekeeping was made the dominant consideration. He pointed out that the danger of a poor year was hard on the specialist, and that it was very difficult to get sufficient efficient labor to handle a large number of colonies. A large number of colonies must be managed by a specialist. The farm crops do not all fail where mixed farming is practiced, and until sufficient capital has been acquired to enable the beekeeper-farmer to stand a failure in honey crop, he is wise to operate a farm as well as the apiary.

"The motor car is a necessity for the beekeeping specialist," said Mr. E. T. Barnard, of Lambeth, Ont. He gave some very interesting experience with the motor car, and advocated the use of a four-wheel trailer in preference to the two-wheel trailer.

The question of securing earlier crop reports and keeping the beekeeper posted on the market conditions was brought up by Dr. B. N. Gates in his address on Thursday forenoon. He strongly advocated the establishment of telegraphic crop reporting, such as that already enjoyed by beekeepers in the United States. Much interest was taken in this suggestion.

The scope of the Association activities is constantly widening, and the necessity for an advance in the fee became quite apparent after a brief explanation by the Assistant Secretary-Treasurer, Wm. A. Weir. The securing of Italian queens and packages of Italian bees at cost from reputable breeders has been added to the benefits given to members. Emergency help as in the securing of sugar was also part of its work, and the cost of the official journal and supplies had increased considerably. The county associations which are affiliated with the provincial organization also needed more financial assistance to carry on necessary local work, and the convention decided to raise the annual fee from \$1.00 to \$1.50.

The work of the county associations was placed in detail before the members by Mr. R. C. Fritz, and his experience of several years as secretary made his comments valuable. The local associations are able to treat with purely local beekeeping problems and organize field meets in the summer months with a program which will appeal to the local beekeeper and his needs. "Locality" is a big factor in beekeeping problems, and no two counties have exactly the same difficulties in making beekeeping profitable. Honey flows vary, soils vary, markets vary, roads and transportation facilities vary, and can be best dealt with by the local organization.

The sugar situation, which caused so much concern during 1918 and demanded a great deal of attention at the Department of Apiculture, O.A.C., Guelph, Ont., has, with the return of peace, practically solved itself. Mr. Wier traced the history of the Department's efforts and its co-operation with the Canada Food Board. Permits amounting to 2,232 were issued permitting the beekeeper to secure up to one-half his normal requirements; altogether 882,000 lbs. were distributed to beekeepers. "Nothing has served to bring the importance of the beekeeping industry before the Ontario public as this experience," said Mr. Weir, "the honey production of Ontario is in the neighborhood of 2,500,000 lbs. at least."

The social feature of the convention found its greatest expression in the banquet held in the Parliament Buildings on Wednesday evening. Arrangements for 90 members had been made, and every seat was occupied.

Business Methods Applied to Beekeeping.

EDITOR "THE FARMER'S ADVOCATE":

The fact that the price of honey has more nearly approached that of other foods of equal value during the last season has stimulated interest in beekeeping above the average. A favorable season should see increased production all along the line. This will be obtained by the specialist or by the one who gives the apiary the status due its importance on the farm.

The management of an apiary is comparatively simple when swarms can be watched for and taken care of as they occur. This natural method automatically



An Abundance of Roadside Pasture.

conditions, but the alsike and White Dutch clover bloom was delayed sufficiently to give colonies a chance to build up, and a fairly good crop averaging 62.5 lbs. per colony was harvested. The high prices prevailing last season made it a very profitable crop to the beekeeper. With the return of peace conditions the price of honey is expected to drop in sympathy with the price of all other farm produce. "The clovers have gone into the winter in splendid condition," said Mr. R. E. L. Harkness, "and it will depend upon the effect of winter on these crops as to whether a good season in 1919 may be expected." The price of bee supplies and labor must drop in order to bring about a drop in honey prices and leave a profit to the beekeeper.

Foul brood, the chief disease of bees in Ontario, came in for a good share of discussion. One of the chief speakers on the programme, Mr. Chas. Stewart, came from New York State as the guest of the Association to give ideas on this subject. Mr. Stewart has charge of the inspection of bees carried on by the Government in that State. Requeening with Northern Bred Italian Stock was strongly recommended by Mr. Stewart in the treatment for European foul brood. The European type of fowl brood has spread over the whole State, but was readily controlled by using the hardy, northern-bred Italian stock and keeping the colonies strong. Mr. Jas. Armstrong, who is the Senior Inspector of foul brood in Ontario, declared that the European type of disease was not spreading so rapidly in Ontario as in former years, owing to the practice of keeping good Italian stock. The report of Wm. A. Weir, Acting Provincial Apiarist during 1918, indicates that progress is being made, and that the beekeeping industry is in urgent need of more funds to make its work effective.

Dr. B. N. Gates, the new Provincial Apiarist, was introduced to the Association members on Tuesday evening, and he took an active part in the program. Dr. Gates comes from Amherst, Mass., where he was in charge of the Apiculture Dept. of the State College and the inspection work of the State. He has been very successful in securing control of the disease in

requeens the parent hives, and allows a sorting down to the best colonies for winter. Except where a boy or girl whose time is of low value has a financial interest, the "natural method" raises the cost of production very high, and is only a stepping-stone to management by swarm-control. When the latter is learned the apiary may take its place with the rest of the farm system; rotation of crops, seed-time and harvest, seasonal and daily care of animals, etc. Why the most profitable department of the farm is so often given last consideration is beyond comprehension.

The first consideration in beekeeping is to understand something of bee nature: how to approach a hive and handle its combs without being seriously stung. The child in the apiary learns this just as he becomes familiar with the animals. He must also learn how they build their comb, store their honey, rear their young, prepare to swarm, and so on. The adult who has missed this in childhood is in the apiary like the city-bred person learning to farm. With this knowledge methods come easy, without it they are as Greek.

Methods should be simple but systematic. The weekly examination is the foundation on which to build all others. With increased experience the term "weekly" may be broadened to mean a visit to the apiary once in eight, nine or ten days. On this periodic visit each colony may require some attention, although in many cases it may be slight. Swarm prevention means prevention of the natural method of requeening, an event which is of the utmost importance to the colony's future wellbeing. Brood diseases sometimes occur and make considerable headway, whereas detected at the start they could be cured without great loss. The filling of supers does not always progress uniformly. These are only a few of the many affairs of individual colonies which receive attention promptly on the weekly visits.

Beekeeping has the reputation of being pottering work, which the man accustomed to such large things as Clydesdales or Holsteins is inclined to despise. It surely is a different type of work from that which either of these involves, and for that reason is rightly omitted from most farms. The successful beekeeper has paid the price in his own peculiar way as the successful horseman or dairyman has in his. It takes courage and perseverance to risk the investment and the time waiting for the crop and the profitable sale. It takes forethought and patience and toil to have everything ready for that crop and to care for it when it does come. The eggs are pretty much all in one basket, but when the average of a series of years is struck the rewards compare very favorably with those of any other branch of agriculture.

Halton Co.

MORLEY PETTIT.

HORTICULTURE.

Review of U. S. Fruit Conditions

Fruit growers in Canada, as pointed out in our issue of December 12, are facing the after-the-war period with generally speaking, a feeling of optimism. As pointed out previously there have been very many cases where neglect has materially lessened the efficiency of the orchard as a revenue producer, but the larger growers particularly have carried on with commendable persistence. The condition of orcharding in the United States, as might naturally be expected, is somewhat better than in Canada for the reason largely that the period of disturbance due to the war has not been so long, and for the additional reason that only a very small percentage of the apples grown in the United States are exported. We have gathered together information from a number of the fruit producing States of the Union, and give it here in as brief a form as it may be reproduced.

Maine.

The apple crop of 1918 was somewhat heavier than in 1917, and the quality and grade will probably be better also. Some neglect has occurred, especially during 1918, because of the scarcity of labor, more orchards having been left in sod or given a grass mulch. The prevailing prices have been high, returning from four to five dollars a barrel for No. 1 fruit of the average variety, and about six dollars a barrel for the varieties such as McIntosh Red. There appears to be no uneasiness over the present crop prices. The winter of 1917-18 caused many trees to be killed or badly frozen. In young orchards especially, the trees were sometimes a half or two-thirds depleted. New plantings probably keep pace with orchards that are being taken out for various reasons.

Massachusetts.

The war had no serious effect on orcharding in Massachusetts. Some neglect occurred in the matter of pruning and spraying, but many leading growers kept up their orchard practices in all orchard operations. There is no difficulty whatever in disposing of the crop at good figures, McIntosh selling at ten dollars a barrel in some cases, and Baldwins at seven dollars for No. 1, with plenty of buyers. There is very little competition with apples in this State, except from Nova Scotia growers who normally send a considerable amount of apples into Boston. There is of course some competition to meet with bananas and fruit of this type. Very little new planting is going on, and this has been the case for some time, the bulk of the newer plantings having been set out from six to ten years ago. Baldwins were particularly hard hit by the severe winter of last year, and this was true all the way from Maine to Pennsylvania. One Maine authority estimates that a million bearing apple trees were killed outright in that state alone, and many other sections were almost as badly hit.

Massachusetts growers believe this factor will be an important one in eliminating any possibility of over production.

New York.

There appear to be few changes taking place in the fruit industry of this State. The severe weather during 1917-18 caused very heavy losses of trees in outlying territory. The principal peach counties escaped fairly well and the industry will continue. Adjoining peach counties suffered heavily, however, and some growers may go out of the peach business. In the northern and central territory of the state the loss of Baldwins, Ben Davis, Rhode Island Greenings and McIntosh was very heavy, and because of war conditions, scarcity of labor and a heavy demand for field crops, there has been a marked slowing up in new planting, which may continue for some time. This, however, is taken to mean a period of increasing prosperity for growers who now have orchards coming into bearing. Generally speaking, a fair crop and very satisfactory returns characterize the season of 1918 in the principal sections of the state. Little or no attention is paid to the export market, the fruit usually being sold to the buyers or shipped to large markets such as New York, Boston, Philadelphia, Pittsburg and Cincinnati.

Michigan.

Labor appears to be the principal problem at the present time in the state of Michigan. Little trouble is experienced in disposing of the crop at very good prices, but heavy crops have been prevented by the weather conditions of the past few years. Many peach orchards in this and neighboring states were killed by the winter of 1917-18 and were consequently pulled out. New plantings have been very few during the last few years, while plantings which were set out about eight or ten years ago, and this area is quite considerable, have in no cases been very well taken care of. Short labor and poor crop prospects brought about considerable neglect recently in many of these orchards. Many growers, however, feel that prospects were never better, and geographical location is such as to place large markets within convenient reach at cheap rates, the increased freight rate having been comparatively more favorable for growers in the state of Michigan than in more distant states. New plantings are expected now that the war is over, but not to such a popular extent as was characterized by the boom of a few years ago.



A Type of Fruit Warehouse Common in Nova Scotia.

They appear at frequent intervals along the railroad, and are practically frost proof in the first story and basement.

Vermont.

The trend of apple culture in Vermont seems to be toward a more general use of grass mulch or sod as a substitute for clean cultivation. In many orchards growers are making more than their expenses by growing beans or Hubbard squash in the young orchards. Local markets are expected to take care of the supply for some time to come. No one is skeptical about the future, but enthusiasm has been somewhat dampened by the severe winter injury of last winter. It is felt that the scarcity of fruit in other places combined with traffic problems will create a heavy demand for fruit, especially the apple. The apple is fast being regarded as a staple fruit and not a delicacy.

Pennsylvania.

Fully four-fifths of the commercial fruit growing of Pennsylvania is for supplying local markets, and only one-fifth is wholesale or general market. Nearly six and a half million of the eight million people in Pennsylvania are in towns of five thousand or over; the export market therefore is not a problem. Munition and other war industries in the state during the past two seasons have created a shortage of labor, but prices for fruit have been high and have more than compensated for the additional cost of labor and supplies. Heavy plantings of apples and peaches have been made during the past five years and these are developing satisfactorily. Instead of a depression in Pennsylvania fruit growing the opposite has been the case. Competition in the general markets comes from Western New York, Michigan and Virginia.

Illinois.

Labor is a serious drawback and, although high prices are prevalent, the increased cost of labor, packages

and transportation has kept pace with higher prices for fruit. A healthy growth in the number of new orchards planted is noticeable and Illinois growers are considerably encouraged with the returns of the last two years. Although the export situation need not cause immediate concern to American growers, some far-seeing growers and dealers recognize in the export market a safety valve for seasons of heavy production. They do not find the outlook in this direction encouraging after the war.

West Virginia.

The war has probably had less effect on fruit growing in West Virginia than in Canada, but labor trouble has nevertheless been experienced throughout both the growing and harvesting periods. A certain amount of neglect has necessarily followed and many dusting outfits were purchased to overcome the labor shortage at spraying time. Growers feel that the export market situation will improve with the close of the war, but the German market for dried apples is an uncertain factor with, however, less effect on this section than that of New York State. Little planting is being done and young orchards set out during the boom of 1910-12 are being given fairly good attention.

Idaho.

No material change in cultural methods has occurred during the last few years. Generally speaking, a cover crop is grown between the tree rows for two or three years, followed by clean cultivation for one or two years. Pruning is done so as to keep the trees shapely, crossing limbs thinned out and some terminals shortened back so as to enable the tree to hold up its fruit. Frost practically wiped out the 1918 fruit crop in South Idaho, leaving an output of only about six hundred cars, as compared with two thousand carloads in 1917. Naturally many growers have been quite badly discouraged, especially since there has been considerable trouble in the marketing of fruit during the past few years. This trouble should be largely eliminated, however, as soon as the North West growers are able to work out a marketing system.

Washington.

The war has not made much impression upon the fruit industry in the state of Washington. Marketing and crop conditions have been quite favorable and the general condition of the orchards appears to be quite good. Many orchards are being taken out in districts where plantings were unwisely made in the first place,

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paid upon delivery. Canneries have paid unusually good prices for all soft fruits, berries and vegetables. We understand that the selling system in vogue allows the grower to meet the very greatly increased cost of orchard operations and spray materials, while the labor problem is being materially assisted by the use of women and machinery such as orchard tractors, spray guns, etc. Considerable increase in the planting of prunes and berries has taken place, but very few apples, although two or three years more such as the past two may see a revival in apple planting. The decrease in fruit trees the world over, especially in Belgium, France and the Balkans presages, in all probability, a very strong demand for fruit and this will probably be true, especially in England, Germany, France and the Scandinavian countries, yet it is being done at a profit and, in spite of the embargo upon foreign shipments, fruit has been selling at unusual prices. Generally speaking, the Pacific Coast fruit growers are turning their attention more and more to greater diversification in fruit growing, giving additional attention to prunes, cherries, nuts, pears and berries, for which there seems to be an ever increasing market.

Export Fruit Notes.

Recent reports from Ottawa contain some notes on the export fruit situation that we give herewith. A table is also given showing the amounts of apples still in storage on January 29. These figures may be expected to have lessened considerably by this time particularly in those sections from which export shipments are made.

Export Notes. In connection with the recent reduction of ocean export freight rates from \$5 per barrel and \$2 per box, to \$3 per barrel and 85 cents per box, we are to-day in receipt of a cable to the effect that this lowering in freight rates will probably result in a decrease of the fixed maximum prices in Great Britain, at an early date.

On account of the difficulty of weighing large numbers of barrels individually, London importers have agreed to consider Nova Scotian barrels at 120 pounds net, Ontario barrels 140 pounds net, and boxes 40 pounds net, which, at six pence per pound, will mean a maximum price of 60s., 70s., and 20s., respectively. Liverpool buyers insist on an adherence to the former schedule of 6 1/4 pence per pound for barrels, but have agreed to sell boxes at 6 pence per pound actual net weight of each package.

Apples in Storage.

Place	Barrels	Boxes
Nova Scotia.....	40,000	—
Halifax.....	600	—
Quebec, P.Q.....	4,948	7,080
Montreal, P. Q.....	10,340	17,380
Ottawa, Ont.....	3,500	2,250
Brighton, Ont.....	500	—
Colborne, Ont.....	1,500	—
Belleville, Ont.....	350	—
Toronto, Ont.....	3,800	15,925
St. John, N. B.....	1,100	1,500
Winnipeg, Man.....	5,650	31,961
Calgary, Alta.....	—	9,800
Edmonton, Alta.....	—	5,200
Nelson District, B. C.....	—	8,990
Vancouver, B. C.....	—	19,216
Victoria, B.C.....	—	5,840

Okanagan Valley, British Columbia, apples all shipped.

Make Ready for the Garden.

EDITOR "THE FARMER'S ADVOCATE":

The "Seed Catalogues" are beginning to arrive. They come arrayed in all sorts of bright covers that are as cheerful and as welcome as the spring sunshine. We are reminded that it is time to begin to plan our home garden, be it large or small. There is a liberal education for every gardener, in a collection of catalogues sent out by reliable seedsmen. Now in our favorite corner, near the fireplace, with seed catalogue, notebook and pencil, we can spend a good many pleasant and profitable hours planning our garden on paper, choosing seeds, etc.

Charts or diagrams for gardens of all sizes come with most seed catalogues. These we can use for a guide, while we make them over to suit our own pet hobbies, and the size of our own garden plot. Then we can choose our seeds and, in order to avoid disappointment, order our seeds at our earliest convenience. Many of us have several varieties of home-grown seeds. These must be tested for germination. The same may be done with seeds we may have had left over from last year. In making out our list of seeds care must be taken to select just what we want. In the case of tomatoes, cauliflowers, beets, etc., there are many varieties; some mature early while others are late. Most of us need at least two kinds of beets, cabbage, cauliflower, etc., as well as early and late peas, beans and corn. It is usually best to beware of specialties with "high-sounding names."

If possible have a hot-bed, it will repay many times for the trouble of making it. Any one can make a hot-bed. The Farmer's Advocate gives full directions how to make and care for a hot-bed. If no hot-bed is available much can be done with window boxes or flats. Boxes about four inches deep to fit the window give the best results. Place in the bottom of the box an inch or more of pebbles, charcoal and broken crockery. Cover this with a layer of coarse sand. Then fill the box with a mixture of rich soil, leaf mold and fine sand. When planting seeds do not cover too deeply; follow carefully directions given on the seed package.

After you have got your plants started in your window boxes do not keep them too warm. Give them all the sunshine possible and some fresh air every day; but avoid giving them a chill. Care must be taken not to water the seedlings too freely or they may get a disease called "damping off."

If we find our little seedlings sick, drooping and weary looking some morning, we must not drench them with water; rather transplant the strongest-looking ones into fresh soil. For if the soil has become sour seedlings will never thrive, no matter how much care we may give them. It is best not to set your window boxes firmly on the window sill, but raised a few inches on pieces of wood so the air can circulate under the box and prevent mould. Our plants must be thinned out so they will grow strong and sturdy. When tomato plants are two inches high each plant must be transplanted into a separate box. Strawberry baskets suit the purpose nicely.

I prepare my boxes and plant my seeds in February. Have had the best results with home-grown tomato seed. Most people who grow tomatoes have their own favorites, but many of us can recommend "Alacrity," "Earliana" and "Bonny Best."

As I glance out of the window and see the snow everywhere this letter seems premature. Nevertheless, spring is coming and it will do us all good to think of that sometimes.

Compton Co., Quebec.

E. L. K.

POULTRY.

The Poultry Breeding Pen.

EDITOR "THE FARMER'S ADVOCATE":

The production of eggs is the chief purpose for which hens are kept on the farm. It is surprising, however, to find what a large percentage of farmers there are who give little or no attention to the careful, systematic breeding of the birds. Good feed and comfortable houses will assist greatly in the production of eggs, but they will not do all. The fact that John Smith's hens are the same breed as Sam Brown's does not signify that John Smith's hens will lay as well as Sam Brown's. There is as wide a difference in the laying qualities of different strains or families of a breed as there is between two different breeds. In order to lay well, the birds must be bred for that particular purpose. To develop this high laying quality requires rigid selection of the birds which go into the breeding pen.

Constitutional Vigor is the first consideration in the selection of birds for the breeding pen, and is of particular importance where breeding for high egg production. A bird which shows fair width of head, rather a short, stout beak, and a full, clear, bright, alert eye, with plenty of bone and a good, strong blood circulation, as indicated by the red color in the side of the shanks, should be selected. Avoid those birds with long, slim, crow-like heads, with eyes which are sunken and dull. Those birds showing extreme width of head which tends to project over and partially hide the eyes are not desirable as they seldom develop into good layers or breeders.

It is an established fact that where breeding for increased egg production the male bird is largely the controlling factor. Unless the male to be used comes from good laying stock little improvement need be expected. The season is, however, too far advanced to make much selection of males for this year, so that it will be necessary to use such males as are on hand.

While it is true that the high producing qualities of the pullets are inherited from the sire, we should not neglect to use the best females available to breed from. Those hens which, from observation, are known to have laid well during the fall and winter months should be selected. If, due to large numbers in the flock or lack of observation, the winter layers are not known, then an examination of the birds themselves will reveal the fact.

There are certain body changes which take place in the laying hen by which it is possible to pick out the layers from the non-layers, especially towards spring. In the laying hen the back part of the abdomen becomes deeper and more open between the pelvic bones, and between the pelvic bones and keel bone. The abdomen is quite soft and flexible at this point. The poor layer does not develop the same depth of body, nor does she show the soft, flexible condition of the abdomen. The hen which is inclined to lay on fat rather than produce eggs will show the depth of body of the good layer, but instead of being soft and flexible, as in the good layer, she will be full and hard between the pelvic and keel bones.

Those breeds which have yellow colored shanks and beak tend to lose this color as laying proceeds, the color disappearing first from those sections of the body which are most profusely supplied with blood vessels. Hence, we find that the vent and eyelid, which also carry the yellow color or pigment, are the first to lose that color. Two or three weeks of laying are necessary to take the color out of these parts, the eyelid taking a slightly longer period of laying than the vent, before color is completely gone. The white ear-lobe, which is present in some breeds, is the next point from which the color disappears, requiring from three to four weeks of laying for complete loss of yellow or creamy color. The color leaves the beak and shanks more slowly. The beak loses its color first from near the head of the bird and last from the point. It leaves the lower part of beak more quickly than the upper, but requires from five to seven weeks of continuous laying before the color is gone completely. The yellow color leaves the front of the shanks first, but to take all the color from the

shank so that it is faded out white, requires fairly heavy production for from fifteen to twenty weeks.

The plumage in the heavy layers presents a worn, faded appearance which becomes more marked as laying proceeds. The toe-nails become worn off short. The laying hen is a worker, and her habits and appearance clearly indicate this to be the case. She is the first bird off the roost in the morning and the last one at night.

When mating up the breeding pen for this spring why not select a few of the best hens from the flock, sufficient to produce what eggs are required for hatching, mate them to your best male or males and use only eggs from these birds for hatching chickens? One male to from fifteen to twenty hens is sufficient, and mating the pen two weeks before eggs are required for setting will insure good fertility. Follow this practice of breeding only from the best, year after year, and marked improvement in the producing qualities of the birds is sure to result. Set a standard to breed to and then select and breed to that standard, but be sure that the standard is set high enough.

F. M. MARCELLUS.

Poultry Dept., Ont. Agr. College, Guelph.

When Bidy Collects the Eggs.

Once in a while something that is written comes back at the writer and surprises him. The following letter from a reader explains itself in this case but we are not quite sure whether he is laughing at us or with us. At any rate it is worth a laugh to think how ridiculously different the omission of a small punctuation mark may make a statement appear. We can in our wildest flights of unfettered imagination, see a well trained Bidy, about 4 o'clock on a February afternoon, painstakingly making the rounds of the nests in the henhouses and tucking each egg as she finds it up under her wing, finally scamper off, cackling loudly, to the farmhouse kitchen to surrender her day's collection for safe keeping. Our imagination is of the best, however. Here is the letter. We hope that our correspondent, Louis Gavet, Wentworth County, will find his experience satisfactory and that if he cannot realize on the first part of the paragraph referred to, the prediction in the last sentence may prove warranted.

"Sitting down last evening for a little rest and quiet after the labors of the week, I turned, after glancing over the evening newspaper, to "The Farmer's Advocate", for more substantial reading. And almost the first thing that caught my eye was the paragraph which I have enclosed.

"Educate the hen. Teach her to keep healthy, to work industriously, to eat all she wants and then collect the eggs regularly. While you are trying to develop intelligence in Bidy, you may learn a few things yourself."

"Now this paragraph has given me material for quite a bit of pleasant reflection, and I wish to thank you, first of all, for the pleasure that you have given me, on crediting the hen with such an excellent rating of intelligence. I, too, have a high opinion of the hen, who is more often misunderstood, and it is with great satisfaction that I find my views held by so eminent an authority as your esteemed paper.

I am a great lover of animals, with perhaps a special leaning or weakness for chickens, so in me your plea to educate the hen meets with instant sympathy and I can support your statement that it pays.

As an example, it has been amply demonstrated that the hen rewards kindness and gentleness with a greater egg yield, and this evidence of a sense of gratitude is also a proof of high intelligence.

I can remember years ago, hearing the expression "as stupid as a hen" but as I said before, I believe that the hen is only misunderstood, and is really entitled to a very high place in our esteem. Whether or not she could be taught to collect the eggs, even I would almost doubt. Perhaps she could grasp the idea, understand what was expected of her, and having naturally a willing and unselfish disposition she would try earnestly to comply with such a request only to fail through physical limitations, although now, as I think of it, I had when a lad, a picture of a very motherly old hen, going to market with a sunbonnet on her head and a fine basket of eggs on her wing.

At any rate, my dear sir, as my faith in your judgment is as firm as my good will and friendly regard, I shall take up this matter of gathering eggs with my hens, and I will report to you later on, if I meet with any measure of success.

FARM BULLETIN.

David Lloyd-George.

BY JOHN M. GUNN.

What time the skies grew black and hearts were sore—
Trembling with dread of some new-bursting fate—
While Hunnish legions thundered at the gate,
And land and sea ran red with human gore,
Thy spirit, touched with Celtic fires of yore,
Uprose triumphant o'er that hell of hate,
And, battling bravely, brought our stricken state
Thro' all the appalling holocaust of war.

Now skies are clear again and hearts are light;
New vistas ope to eyes long drenched with pain;
And as the boom of cannon finds surcease,
We pray that God may gird thee for the fight
To trample War itself among the slain,
Thou great protagonist of a world at peace!

The Ontario Corn Show to Expand.

The quality of corn exhibited at the 1919 show in Chatham, the week of February 10, was superior to previous shows. The result of careful selection and breeding was clearly demonstrated. In the open classes there were 535 entries. This number has never been equalled in the past. The uniformity of type, length, size, etc., of the ears was marked. Due to the efforts of the men working with corn, various types and varieties which had appeared heretofore at the Corn Show are disappearing. There were 32 entries in the bushel lots for Dents. Professor L. C. Burnett, of the Iowa State College of Agriculture, Ames, who judged the corn, said that in the northern section of Iowa the winning lot would take the money. It was a particularly choice entry; there were eighty cobs, and we do not believe there was a quarter of an inch difference in the lengths of the lot. The butts and tips were particularly well filled; the rows of kernels were straight, and the kernels deep and broad. This bushel was shown by B. R. Cohoe, of Woodslee, and he must have spent a good deal of time in selecting such a uniform lot for the exhibit. The bushel was of the Silver King type, from which variety the present Wisconsin No. 7 was selected. The White Cap Dent has come prominently to the front, and there were 47 entries in the ten-ear lots competing for eight prizes. The quality throughout was excellent. In the Yellow Dent varieties, the Bailey was outstanding. B. R. Cohoe had the best ten ears of corn in the county class, but did not get a placing in the open class for ten ears. The open class was won by Frank Weaver, a comparatively new exhibitor who is making a special study of the business and its meeting with a degree of success. A. Gilbert, of Norfolk County, won in the open class for flints. In judging, production, maturity, type and finish are considered in the order named, or at least should be. Professor Burnett believed that finish was too often considered ahead of the other three. As with all crops, production must be considered; that is what crops are grown for. Maturity counts, especially in seed-corn districts, but the aim should be to get heavy production along with maturity, the variety type, and the show-ring finish. Good breeding increases production, and uniformity must be taken into consideration. The corn growers have a standard to go by, and it is well for the different growers to keep this in mind, and for the judges to be familiar with this standard when placing the various entries.

Professor Burnett gave a very practical address in St. Andrew's Hall in the afternoon of February 12. He gave the growers many points of value. His demonstration in judging was followed with intense interest. Dr. Creelman congratulated the growers on the success of their present show. His address was listened to with interest. In the afternoon of February 13, Prof. Toole, of the Ontario Agricultural College, addressed a large gathering. The rural communities were referred to as having a steady influence in the country and were advised to be moderate in their demands, and not go to too great extremes. Hard work was mentioned as a valuable thing for young men, and as being necessary for the building up of a strong, virile race. "In order to make a success at any business a man must be happy in his work," said the Professor, "and take time to get around to see what other people are doing. Too much hard work is not conducive to the highest efficiency. The head must be used as well as the hands. A man must also be fit for the business in which he is engaged." Shows, farmers' meetings, etc., were mentioned as factors which tend to make and keep a farmer more fit for his work. Knowledge of the work and a sense of success were also mentioned as factors tending towards real success.

In referring to live stock, the speaker contended that it could not advisedly be used to any unlimited extent on the high-priced land of Southwestern Ontario, but what stock is kept could be improved. There is no better way of building up the soil than by keeping live stock, which is a factor in bringing about better field crops. Special conditions exist in the Southern part of Ontario. The successful growing of high-priced crops, as seed corn, tobacco, sugar beets, vegetables and fruit, has greatly increased the value of the land.

Prof. Toole is optimistic regarding the outlook for live stock. He believes that live stock and live-stock products will sell high, as compared with other products of the farm. He did not claim that the price would not lower, as every period of high prices is usually followed by a lower price, but it is believed that some of the other farm products will drop to a lower level than will live stock. More really high-class sires are needed in all classes of stock, said the speaker, and breeders were advised not to be satisfied with just a pure-bred and the piece of paper which goes along with it. One must have the conformation and type to back up the breeding. Referring to the bacon hog, it was mentioned that as Great Britain was our principal market for hog products it was necessary to cater to the demands of that market. In order to hold the trade which has been built up during the war, Canadian bacon must be of high quality and supplied in quantity. Prof. Toole discussed the feeding value of corn

for various classes of animals. While it is pre-eminently a fattening feed, it can be used to advantage in conjunction with other cereals for growing stock. Red clover and corn silage, or stover, go well together in the ration. When hogging down corn, which practice is followed to a limited extent in the corn district, the speaker mentioned the sowing of rye or rape at the last cultivation of the corn as a good practice in order to get the most economical gains with the hogs.

Pasture Crops for Ontario.

Dr. C. A. Zavits, who was unable to be present at the Corn Show, prepared a paper on "Crop Production to Meet the Present Needs." W. A. Mason, of the Field Husbandry Department of the College, read the paper to a large audience and ably answered numerous questions which were asked regarding the various crop mixtures. The results of numerous and extensive experiments on pasture and hay mixtures have been conducted at the College, and a summary of the results was given. Where there is evidence in the spring of a deficiency in the pasture crop, the annual pasture mixture containing fifty-one pounds of oats, thirty pounds of Early Amber sugar cane and seven pounds of red clover to the acre was mentioned as giving satisfaction. If sown in the spring it would be ready for feed in June. Oats make a good pasture crop. The sugar cane comes on later, and a good catch of clover is usually secured when the seed is sown with the above crops. The tramping of the cattle does not appear to cause any injury either to the plants or the soil. One and a half animals per acre have been run on this pasture and an average gain of two pounds per day has been made. Sowing the red clover from the grass-seed box so that the seed would drop in front of the hoes of the drill was strongly recommended. From experiments carried on this practice gave a better catch than where the seed was sown behind. The conclusion arrived at was that the small seed was not buried so deeply. For a permanent pasture, alfalfa four pounds, White Dutch clover one pound, timothy four pounds, orchard grass eight pounds, and meadow fescue eight pounds, was a mixture which was recommended. If the land was low or comparatively wet, red top, blue grass and alsike could be used in the permanent pasture mixture to advantage. Tall oat grass and meadow foxtail has also been used in a permanent pasture crop. Growers were advised not to sow the nurse crop too thickly if best results were to be obtained. Of the grasses, Western rye has given the largest total yield of hay per acre over an average of six years. Of the clovers, alfalfa heads the list, with the Mammoth Red in second place. The speaker mentioned the fact that alfalfa does not do well on all soils, and that it does not reach its full development until the third year. Alfalfa should never be pastured during the first year, and seldom if ever afterwards as it tends to destroy the plants. Besides the grasses and clovers commonly used for hay, a mixture of two bushels of oats and one-half bushels of peas was mentioned as giving satisfactory results as a green fodder or for the production of hay.

L. H. Newman, Secretary of the Canadian Seed Growers' Association, discussed the seed corn question for a few minutes, and referred to the fact that Eastern Ontario looks to Western Ontario for seed corn. He emphasized the necessity of good quality seed being sent. Western Ontario corn growers had lost some of the trade which they otherwise would have had through the shipping of inferior corn to the eastern part of the province. Systematic work in selection, breeding and in conducting a seed plot was necessary for the improvement of the crop, said the speaker.

At the annual meeting President L. L. Gregory was in the chair. During the course of his remarks he contended that there was no reason why the Corn Show should not grow and expand to be the best seed show of the Dominion. The Treasurer's report showed a balance of \$282 on hand. Under new business the standard of Wisconsin No. 7 was discussed, and the meeting decided to reduce the length by one-half inch, and also to slightly reduce the circumference. It was difficult to get this variety to mature at the old standard size. It appears that American corn is being imported and then re-shipped to different parts of the Province without being labelled as to where it was grown. It was felt that the corn should be labelled Canadian or American grown, so that the farmer would know where his seed was coming from. A motion was passed to the effect that the Executive take action to bring this matter before the proper authorities. Mr. Maynard brought up the matter of extending the Show to include poultry and live stock. He believed that this would be an added attraction and would be of benefit to the farmers of the district. Men from the East would bring their stock to the show and would be able to see the quality of corn being grown. It might give the farmers of Southwestern Ontario an opportunity of securing good breeding stock, and the men of the East a chance to get the best seed corn. It was also believed that there should be an experimental station in the Corn Belt. After considerable discussion by the various members present, the Executive were recommended to look into the matter of extending the fair to include poultry and live stock, and to report at the next meeting. The meeting voted unanimously against having the so-called Daylight Voting Act put into force this coming summer, and the Secretary was advised that a resolution be forwarded to the Government.

The officers of last year were re-elected. They are

as follows: President, L. L. Gregory, Chatham; First Vice-Pres., W. Anderson, Amherstburg; Second Vice-Pres., S. McDonald, Pt. Lambton; Treasurer, J. H. Coatsworth, Kingsville; Secretary, P. L. Fancher, Chatham. F. I. Ure, of Maidstone, was appointed Superintendent of the exhibition to fill the place of Harry Smith, of Ruthven, who has resigned the position after ten years' service.

The grain-and-small-seed exhibit at the fair was superior to that of past years. Some excellent quality seed was to be seen, and competition was close in many classes. Following are the awards in the general classes for corn:

Ten Ears (Bailey): 1, Walter Anderson, Amherstburg; 2, J. W. Coatsworth & Son, Kingsville; 3, John Gould, Essex; 4, Alvin Ouellette, Walkerville; 5, W. W. Everitt, Chatham; 6, A. L. Arner, Arner; 7, Geo. Buchanan, Comber; 8, A. Smith, Woodslee. Golden Glow: 1, Arthur Mitchell, South Woodslee; 2, R. B. Cummings, Turnerville; 3, Wm. Mitchell, Woodslee; 4, Geo. E. Newman, Cottam; 5, B. R. Cohoe, Woodslee; 6, Thos. Heatherington, Wheatley. Leaming or Essex No. 1: 1, J. H. Coatsworth, Kingsville; 2, Jim Martin, Amherstburg; 3, Thos. G. Breen, Comber; 4, R. W. Knister, Blenheim; 5, Wm. Lane, Kingsville; 6, A. L. Fulmer, Kingsville; 7, Geo. Chinnick, Chatham; 8, Wm. Mitchell, Woodslee. Any other variety Dent: 1, Geo. Newman, Cottam; 2, Thos. Skipper, Tilbury; 3, Arthur Mitchell, Woodslee; 4, John Gould, Essex; 5, Tom Breen, Comber; 6, S. McDonald, Pt. Lambton; 7, T. P. Pegg, Blenheim; 8, W. J. Sellars, Amherstburg. White Cap Yellow Dent: 1, T. J. Ouellette, Walkerville; 2, Geo. E. Newman, Cottam; 3, E. J. Lappan, Jackson's Corner; 4, Darcy E. Bondy, Arner; 5, Albert J. Farough, Maidstone; 6, Stephen Farough, Maidstone; 7, Ellis C. Jones, Merlin; 8, C. R. White, Kingsville. Wisconsin No. 7: 1, Frank Weaver, Turnerville; 2, J. P. Estabrook, Merlin; 3, A. Smith, Woodslee; 4, H. Smith, Woodslee; 5, Jno. Parks, Amherstburg; 6, H. F. Sheller, Pt. Lambton; 7, B. R. Cohoe, Woodslee; 8, R. J. Wilson, Charing Cross. Salzer's N. Dakota: 1, A. S. Campbell & Son, Blenheim; 2, R. J. Johnston, Chatham No. 3; 3, Stewart Campbell, Blenheim No. 2; 4, A. S. Maynard, Chatham No. 3; 5, T. Smith, Chatham; 6, Jas. Brisley, Thamesville No. 4; 7, W. W. Weaver, Turnerville. Longfellow: 1, Albert Hilbert, Simcoe; 2, R. J. Johnston, Chatham No. 3; 3, Stewart L. Pierce, Wallacetown; 4, A. S. Maynard, Chatham No. 3; 5, Henry Thompson, Strathroy; 6, F. A. Smith, Pt. Burwell; 7, Peter Clark, Highgate; 8, D. Campbell, Blenheim. Any other variety Flint: 1, H. M. Messener, Rodney; 2, R. Snoblen, Chatham; 3, John C. Kyle, Dresden; 4, F. A. Smith, Pt. Burwell; 5, J. B. Smith, Blenheim; 6, John Rhodes, Chatham; 7, W. A. McCutcheon, Glencoe; 8, John Brisley, Thamesville No. 4. Sweet Corn, Early Evergreen, etc.: 1, F. A. Smith, Pt. Burwell; 2, W. W. Everitt, Chatham; 3, T. E. Pegg, Blenheim; 4, R. J. Johnston, Chatham; 5, Fred Mickle, Amherstburg. Table Corn: 1, A. S. Maynard, Chatham No. 3; 2, B. R. Cohoe, Woodslee; 3, A. Dunn, Kingsville; 4, R. Winters, Chatham; 5, F. A. Smith, Pt. Burwell; 6, A. E. Bragg, Chatham; 7, A. Smith, Woodslee; 8, F. Mickle, Amherstburg. White Pop Corn: 1, Geo. Newman, Cottam; 2, R. J. Johnston, Chatham; 3, J. E. Hambley, Cedar Springs; 4, S. Wyatt, Cottam. Pop Corn, Yellow: 1, F. A. Smith, Pt. Burwell. Pop Corn, Red: 1, J. E. Hambley, Cedar Springs; 2, R. J. Johnston, Chatham; 3, Jas. Brisley, Thamesville No. 4; 4, S. Wyatt, Cottam; 5, J. E. Trothen, Wallacetown. Single Ear Yellow Dent Corn: 1, S. Wyatt, Cottam; 2, R. W. Knister, Blenheim; 3, J. W. Coatsworth & Son, Kingsville; 4, Alvin Ouellette, Walkerville; 5, Wm. C. Woodbridge, Kingsville; 6, P. Wigle, Kingsville; 7, O. D. Gagnier, Haycroft. White Cap Yellow Dent: 1, R. B. Cumming, Thamesville No. 4; 2, John McCrae, Pt. Lambton; 3, Henry Mosay, Blenheim No. 3; 4, W. A. McCutcheon, Glencoe; 5, Thornton Whittle, Kingsville; 6, Darcy E. Bondy, Arner; 7, Arthur Mitchell, South Woodslee. Wisconsin No. 7: 1, John Parks, Amherstburg; 2, S. Wyatt, Cottam; 3, Russell Rogers, Kingsville; 4, A. Smith, Woodslee; 5, Frank Weaver, Tupperville; 6, B. R. Cohoe, Woodslee; 7, Ernest Darel, Charing Cross. Salzer's North Dakota Flint Corn: 1, Stewart Campbell, Blenheim; 2, Tom Smith, Chatham; 3, Wm. Weaver, Turnerville; 4, R. J. Johnston, Chatham; 5, A. S. Campbell & Son, Blenheim; 6, Jas. Brisley, Thamesville; 7, Jas. Walker, Wardsville. Longfellow Flint Corn: 1, R. J. Johnston, Chatham; 2, Albert Gilbert, Simcoe; 3, Harry Thompson, Strathroy; 4, Peter Clark, Highgate; 5, Jos. Walker, Wardsville; 6, Stewart L. Pierce, Wallacetown. 7, Dougal Campbell, Blenheim. Any other variety Flint Corn: 1, H. M. Messener, Rodney; 2, F. A. Smith, Pt. Burwell; 3, Roy Manley, Staples; 4, W. W. Weaver, Turnerville; 5, S. Snoblen, Chatham; 6, Jas. Brisley, Thamesville; 7, J. B. Snoblen, Blenheim. One Bushel Dent Corn: 1, B. R. Cohoe, Woodslee; 2, A. L. Arner, Arner; 3, Darcy E. Bondy, Arner; 4, G. J. Ouellette, Walkerville; 5, John McCrae, Pt. Lambton; 6, R. J. Wilson, Charing Cross; 7, Wm. Finlin, Merlin. One Bushel Flint Corn: 1, R. J. Johnston, Chatham No. 3; 2, A. S. Maynard, Chatham No. 3; 3, Stewart L. Pierce, Wallacetown; 4, H. N. Hessener, Rodney; 5, Isaac Beck, Chatham; 6, S. Snoblen, Chatham; 7, R. B. Cohoe, Woodslee. Best Single Ear Dent Corn in Show: S. Wyatt, Cottam. Best Single Ear of Flint: R. J. Johnston, Chatham. Best Ten Ears Dent Corn in Show: B. R. Cohoe, Woodslee. Best Five Ears in Junior Classes: Bruce Cohoe, Woodslee.

Lively Discussion at the Fairs and Exhibitions Convention.

Every year a body of men from all parts of the Province of Ontario meet together to the number of several hundred for the purpose of telling each other how best to conduct their respective Fall Fairs which are conducted to the number of over 300 in the Province. These men meet as delegates to the Annual Convention of the Ontario Association of Fairs and Exhibitions and on Thursday and Friday of last week, February 13 and 14, they met again and session after session, relegated to the past their Eighteenth Annual Convention. The President, Wm. Scarf, Durham, presided and opening the first afternoon session with the presidential address spoke in part as follows:

"Soon after our last convention a leading Agricultural Journal in the Province accused us of not doing enough good work and also that we were trying to profit by having the school fairs, whenever it could be arranged, held conjointly with the Agricultural Society's Exhibition, but under their own management in a separate building and wholly conducted by the school children and the school children to be allowed on the grounds free of charge if accompanied by the teachers. Generally speaking, we believe that this plan would be a benefit to all concerned, but there may be special cases where it might work better to have the school fair held at a different time and place. It will be readily understood that there would be great economy of both time and money in holding the joint Fairs' System. At one show in Eastern Ontario I saw it first tried some years ago and I assure you it was an immense success. Ten times as many saw the exhibit as would have had it been shown at a school fair. Surely it is worth trying. If it proves a failure, then you could go back to the separate system.

"One matter of very great importance which will be dealt with and which I consider very urgent is that some shows which receive a Government Grant make their shows local, that is anyone living outside of the township cannot exhibit there. This is in my judgment a short-sighted policy and should not be continued. A show in an agricultural district should be open to any one wishing to exhibit, particularly in grain, roots and all farm live stock.

As usual, J. Lockie Wilson, the genial and well-known Superintendent was right on the job with a report of progress and many words of wisdom and inspiration. Mr. Wilson's report led to a prolonged discussion which nearly rounded out the remainder of that session, all of this discussion being spirited, not to say sharp and argumentative. We are convinced that delegates to this association should be taken as bright and shining examples by the "sleeping members" of Parliament who bury themselves in the oblivion of silence when the house convenes and sink deeper and deeper as the session progresses. Fairs association delegates seem, however, bound to fight this sleeping sickness and the president, as speaker of the assembly, many times finds it difficult to determine which of four or five men whom he saw rise at the same time, really got squared away first. This done, four delegates sit down until the fifth gets tired, or, if he looks weak or short of breath, remain standing. The discussion is good, if somewhat chaotic and reminds one of ideas being poured out like warm milk into a separator bowl, except that to separate the cream from the skim milk in this case, requires more than turning of handle. However, let us to Mr. Wilson's report which, if deserving of the above preface, gains this "distinction" through the healthy discussion which it provoked; extracts follow:

"What the world requires most is efficient leadership, and that idea of qualified leadership applies with particular force at this time of reconstruction to the officers of our central association and our branches throughout the province. At your annual meetings you are called upon to elect your leaders. These are honorable positions that you have to fill, but those who would be willing to accept for the honor alone should not be considered. With a splendid membership of 250,000 one can readily understand the necessity of outstanding leadership.

"In the earlier stages of the history of our societies one of the lines of work which received their attention was encouraging the better cultivation of the soil by the holding of plowing matches, township, county and provincial. This educational work for many years has been neglected by the societies. In has now been taken up by an active and enthusiastic organization called the Ontario Plowmen's Association, and I would strongly recommend members of the agricultural societies to become interested in the branches of that association wherever they are formed.

"The Field Crop Competitions are becoming more popular among the farmers each succeeding year and the benefits accruing therefrom are becoming more appreciated. In 1918, notwithstanding strenuous war conditions 7,500 farmers entered. The time has arrived when we should move forward in connection with these competitions and limit the number of varieties of grain and potatoes to such as are selected as standard ones, and each farmer be required to sow only these approved varieties. The following are the ones recommended by the committee you appointed last year to deal with this very important matter:

FALL WHEAT, Dawson's Golden (chaff white); Imperial Amber (red). SPRING WHEAT, Marquis, Red Fife, Wild Goose. OATS, O. A. C. 72; Banner, BARLEY, O. A. C. 21; Mandsehuri. PEAS, Golden Vine, Canadian Beauty (White Marrowfat), Arthur. BEANS, Pea CORN (DENT), Wisconsin No. 7; White Cap Yellow Dent, Bailey, Golden Glow. CORN (FLINT), North Dakota, Longfellow, Quebec Yellow. POTATOES, Green

Mountain (Delaware); Carman No. 1, Gold Coin; Davies Warrior, Dooley, Irish Cobbler (Ertxa early Eureka); Early Ohio.

This committee further recommended, "That, commencing in 1919, judges of Standing Field Crops of grain and potatoes exhibited at fairs and exhibitions be instructed to deduct from one to two points from the total score of competitors who enter for competition varieties which are not on the list approved of at this meeting." Would it not be advisable to apply this proposed ruling to the scoring of the grain in the fields as well?

"A point which should receive the attention of Societies is to select one variety of grain, potatoes or roots and sow or plant, as early as possible and advise the competitors to arrange to have such sowing or planting done within the same week if conditions permit. By doing this, the crops would be practically in the same stage of ripening when the judge scored them. It will be readily seen that, when the judging is being done, if one crop is dead ripe and another in the green stage, the latter would be considerably handicapped.

"For several years we have allowed competitions in turnips, mangels, sugar beets and silage corn. In a letter just received from the Dominion Seed Commissioner, Geo. H. Clark, a definite statement is made that no subvention will be given for field roots, garden vegetables and silage corn, none of which are utilized for seed purposes. Therefore, I am obliged in future, to eliminate the above named crops from our competitions. The prizes for spring wheat, which were increased in 1918 will this year be the same as for other crops. The following are those in which entry can be made: Spring and fall wheat, oats, barley, rye, peas, flint corn, dent corn, potatoes, alsike and red clover, alfalfa and beans.

"As you are doubtless aware, the main object of the Standing Field Crop Competitions is to improve the quality of seed grain in the province and, in recent years, many so-called new varieties have been placed on the market. One particular case I might mention is that of a so-called new variety of oats named by the grower "Elmhurst". The owner of this grain had a stand at the Canadian National, and Guelph and Ottawa Winter Fairs, and has been selling his product at \$5 per bushel. This grain was entered in competition at Guelph and Ottawa Winter Fairs in the general class and was only awarded third prize at each of these exhibitions by different judges. The time, I am of opinion, has arrived when Governments should take up this matter, and before new varieties are placed on the market, they should be submitted to the grain specialists at the Central Experimental Farm, Ottawa, and the Ontario Agricultural College, Guelph, where they should be carefully tested before receiving the stamp of their approval. This is the only method by which the farmers can be protected. At a meeting of the Grain Growers at the Guelph Winter Fair, I brought this question up and the following resolution was carried unanimously—"That no new variety of seed grain be placed on the market and sold for seed in Ontario before being listed and reported on by experts at the O. A. C. and Central Experimental Farm, Ottawa and that a copy of this resolution be sent to the Hon. T. A. Crerar and Hon. Geo. S. Henry, Ministers of Agriculture and that they be asked to have legislation passed along the line requested."

"While speaking on the standardization of farm crops, it might not be out of place to refer briefly to a proposition made by me at the Fairs Association held in Winnipeg last February re the standardization of farm machinery, which received the unanimous endorsement and approval of the farmers of Manitoba. My suggestion in brief was that the breakable and and wearable parts of farm machinery should be standardized. The United States is the largest farm implement manufacturing country in the world and it has at last wakened up to the fact that there are too many implements of similar design being placed upon the market and the following despatch from Washington shows the steps that are being taken along the line of standardization: "The United States Commercial Economy Board in co-operation with the implement industry recommended that nearly two thousand of the various styles-and sizes of plows, tillage instruments, grain drills, seeders and farm elevators be eliminated from manufacture, in order to conserve materials, labor, capital and manufacturing facilities." All other organizations are looking after their particular industry as affected by standardization, and, indeed, to a certain extent they are seeing that standardization is being applied to the farmers' industry for instance to wheat, potatoes, milk, cream, butter, cheese and fruit. Wheat is graded and sold according to standard and all other products of the farm in the same way. The weights and measures used by the farmer are all standardized. Therefore, I do not think it is too much to demand that the Federal Government take prompt action to have, particularly the breakable and wearable, parts of all farm machinery standardized, that is, that the breakable and wearable parts of any farm implement manufactured and placed on the market in Canada should be interchangeable on a similar type of machine made by any other company.

Discussion on Secretary's Report.

Space prohibits us from reporting in full the discussion following the Superintendent's address. Some of the members raised objections to the standardization of varieties of grain, etc., for the reason that varieties grown almost exclusively in certain districts were not

among those recommended by the committee, and the argument was that this might result in discrimination against certain districts. White Fife wheat was mentioned as being equally as good as Marquis in the Ottawa Valley, where spring wheat is entirely grown. It was, however, pointed out that the Committee recommended a deduction of only two points for varieties not on the recommended list, so that if everyone grew varieties not on the list in any one competition the handicap would, therefore, be removed because each would suffer a loss of two points and, therefore would be equal. The matter of a representative on the Board of the Canadian National Exhibition was very favorably received, and one of the directors of the Western Fair at London made the suggestion that a representative be also appointed for the fair at London. There was considerable complaint as to judges not being fully proficient, and it was pointed out by several delegates that the importance of good judging at the local fairs is very great, for the reason that a great many people cannot go to the larger fairs and there benefit from the educational value of properly-executed judging. Other delegates referred to the tendency on the part of many fair boards to lose sight of this educational value, with the result that stock was allowed to be brought in for judging at eleven or twelve o'clock and taken away again at three or four o'clock in the afternoon, so that those who might be benefited by looking over the stock and studying the work of the judge had little or no opportunity to do so.

The matter of compelling prize winners in the Standing Field Crop Competition to exhibit sheaves and grain at the local fairs, under penalty of withholding all prize money, was the subject of a very animated discussion. The directors recommended that only the exhibiting of a sheaf be made compulsory, for the reason that at the time fall fairs would be held in many parts of the country, threshing would not be all done, and it would be only at the expense of much time and trouble that successful competitors could exhibit grain. Some societies appeared very much in favor of compelling grain exhibits, because of the beneficial effect an array of prize-winning grain would have on the community. One director present reported an experience in which six out of seven competitors exhibited grain, after which the directors decided to withhold the prize money from the seventh man, moving up the eighth prize winner. Apparently this was not satisfactory to the seventh man, who sued the Board of Directors and they paid the prize in addition to the costs. A great many delegates thought that matters of this kind should be left optional with the local directors and that a central association should not compel all directors from many different parts of the country to subscribe to arbitrary rules of this nature. It was finally carried unanimously that a sheaf of grain from every prize-winning field in the Standing Field Crop Competitions must be exhibited at the local fair, under penalty of losing the prize money won in the competition. Some of the delegates reported having held successful spring seed fairs, where the grain itself was exhibited, and the educational value of such exhibits retained to the community.

A resolution was presented by Manning W. Doherty protesting against the removal from the Standing Field Crop Competition of fodder corn and roots. The speaker pointed out the very great importance which must be attached in future to the live-stock industry and the significant part which these crops played in the successful feeding of live stock; particularly the importance of fodder corn in the ration of a dairy cow. A motion was unanimously passed that in view of the fact that the Dominion Government, which had hitherto provided the prize money for these crops had withdrawn the appropriation, the Association memorialize the Provincial Government for special prizes for these crops, and that a committee be sent to place this matter before the proper authorities. The matter of the sale of grain from prize-winning fields as pure seed was brought up by one delegate. The same matter was brought up also in connection with potatoes; one delegate, in particular, from Northern Ontario claiming that potatoes should not be sold as pure seed unless they were known to be pure even though they might have come from a prize-winning field in the Standing Field Crop Competition. It was thought that some protection should be arranged for the prospective purchaser who might be laboring under the impression that every field devoted to Standing Field Crop Competitions would yield a pure product.

Standardization of Implement Repairs.

Mr. Wilson's extended reference to the matter of standardization, particularly with regard to the standardizing of breakable and repair parts of agricultural machinery, received a very favorable reception indeed. One delegate referred to the advisability of standardizing the gauges for wagons and sleighs, and thought a considerable saving could be effected with greater convenience to all users if this were done. Instance after instance was recounted of the exceeding disadvantage under which farmers frequently find themselves when a binder, a mower, or some other implement breaks in the rush of the season. A motion was passed unanimously recommending that the Dominion Government take steps to standardize the breakable and wearable parts of farm implements, and that a copy of the resolution be forwarded to the Acting Premier and the Minister of Agriculture for the Dominion.

R. B. Henry, Orangeville, brought up the matter of localizing the fall fair, which is a practice in some parts of the province through a policy on the part of some

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and.
L. Gregory, Chatham; First Amherstburg; Second Vice-Lambton; Treasurer, J. H. Secretary, P. L. Fancher, Maidstone, was appointed exhibition to fill the place of who has resigned the position
exhibit at the fair was years. Some excellent quality competition was close in many the awards in the general

Walter Anderson, Amherstburg; 3, John Ouellette, Walkerville; 6, A. L. Arner, Arner; 7, A. Smith, Woodlee; Mitchell, South Woodlee; 2, Wm. Mitchell, Woodlee; Cottam; 5, B. R. Cohoe, Wingham, Wheatley. Learning Coatsworth, Kingsville; 2, Thos. G. Breen, Comber; 5, Wm. Lane, Kingsville; 7, Geo. Chinnick, Chatham; Any other variety Dent; 2, Thos. Skipper, Tilbury; 4, John Gould, Essex; S. McDonald, Pt. Lambton; W. J. Sellars, Amherstburg; T. J. Ouellette, Walkerville; 3, E. J. Lappan, Jackson's Arner; 5, Albert J. Farough, rough, Maidstone; 7, Ellis C. White, Kingsville. Wisconsin Turnerville; 2, J. P. Estabrook, Woodlee; 4, H. Smith, Woodlee; 6, H. F. Sheller, Pt. Lambton; 8, R. J. Wilson, Charing; 1, A. S. Campbell & Son, Chatham No. 3; 3, Stewart 4, A. S. Maynard, Chatham; 6, Jas. Brisley, Thames-er, Turnerville. Longfellow; 2, R. J. Johnston, Chatham; 3, Wallace town; 4, A. S. 5, Henry Thompson, Strath-urwell; 7, Peter Clark, High-enheim. Any other variety; Rodney; 2, R. Snoblen, Dresden; 4, F. A. Smith, Blenheim; 6, John Rhodes, Cutcheon, Glencoe; 8, John Sweet Corn, Early Ever-Pt. Burwell; 2, W. W. Everit, Blenheim; 4, R. J. Johnston, Amherstburg. Table Corn: am No. 3; 2, B. R. Cohoe, Kingsville; 4, R. Winters, Pt. Burwell; 6, A. E. Bragg, Woodlee; 8, F. Mickle, Amherst-1, Geo. Newman, Cottam; 3, J. E. Hambley, Cedar am. Pop Corn, Yellow: 1, R. J. Johnston, Chatham; No. 4; 4, S. Wyatt, Cottam; etown. Single Ear Yellow Cottam; 2, R. W. Knister, worth & Son, Kingsville; 4, e; 5, Wm. C. Woodbridge, Kingsville; 7, O. D. Gagnier, ow Dent: 1, R. B. Cumming, hn McCrae, Pt. Lambton; No. 3; 4, W. A. McCutcheon, tle, Kingsville; 6, Darcy E. Mitchell, South Woodlee. Parks, Amherstburg; 2, S. Rogers, Kingsville; 4, A. k Weaver, Tupperville; 6, Ernest Darel, Charing Cross. Corh: 1, Stewart Campbell, Chatham; 3, Wm. Weaver, nston, Chatham; 5, A. S. 6, Jas. Brisley, Thamesville; e. Longfellow Flint Corn: 2, Albert Gilbert, Simcoe; oy; 4, Peter Clark, Highgate; Stewart L. Pierce, Wallace-ell, Blenheim. Any other Hessener, Rodney; 2, F. A. Manley, Staples; 4, W. W. Snoblen, Chatham; 6, Jas. B. Snoblen, Blenheim. B. R. Cohoe, Woodlee; Darcy E. Bondy, Arner; 4, le; 5, John McCrae, Pt. Charing Cross; 7, Wm. Flint Corn: 1, R. J. Johns-A. S. Maynard, Chatham e, Wallace town; 4, H. N. c Beck, Chatham; 6, S. Cohoe, Woodlee. Best Show: S. Wyatt, Cottam. R. J. Johnson, Chatham. Show: B. R. Cohoe, Woods-ior Classes: Bruce Cohoe,

directors to restrict competition to entries from the township or specified locality. Mr. Henry presented a motion which was carried after a considerable discussion, whereby the directors of the Provincial Association were instructed to prepare and send out a circular letter to each local secretary whose fair has previously not been open to the province, urging the Board of Directors to open all entries to the whole province. President Scarf thought that especially in stock, grain and roots competition should be open to everyone because of the very great educational value of these sections of the show. He thought, however, that in certain districts, owing to the actions of professional exhibitors in ladies' work and domestic science, that there was some justification for occasionally restricting competition in this class of material.

Miss M. V. Powell discussed the "necessity for revision of the fine art and domestic science sections of prize-lists." The speaker regaled those present with an extended exposition of the ideals of the finer arts, which she said had such an important influence upon the development of the finer sensibilities of mankind. She discussed historically for a few moments the transition from one type of art to another, and made a very earnest plea for greater consideration of the fine arts and domestic science section of our fall fairs by the local boards of directors. The speaker urged that the classification be culled most carefully year after year in order that the fullest educational value of this part of the fair might not be lost.

The Question Drawer.

The Question Drawer added materially to the discussion, and one of the matters most keenly discussed was that of holding fall and rural school fairs jointly. A delegate from east of Toronto reported great success in the holding of joint fairs, and stated that it was their custom to offer a silver cup to the school capturing the greatest number of prizes for three years in succession. It was pointed out that school fairs held independently are usually held on the school ground, that the exhibits are covered by tents, and that in case of wet weather the fair cannot be brought off nearly so successfully as if they were given a section of the agricultural society's buildings and a special children's day. In some cases it would probably not be desirable, or conducive to the greatest good of the community, if fairs were jointly held and the President explained, in answer to a question of one delegate, that there is no disposition on the part of the provincial association to make joint fairs compulsory, but that it was intended to encourage them wherever it was possible to combine them successfully. A question as to why prominent live-stock men do not exhibit at local fairs was answered to the effect that wherever there is any inducement for them to do so they do, generally speaking. It was decided after some discussion that grants by the local directors from the funds of the society for various charitable purposes are not permissible, for the reason that the money is provincial money and is held in trust by the local board, who, if the cause seemed worthy, might call a meeting of the membership of the society and leave the matter to the judgment of this meeting. The Provincial Government was asked to give grants for school fair work, and the Dominion Government is to be asked to institute the grading of potatoes. A difference of opinion prevailed when the question as to whether any one exhibitor should be allowed to sweep the board of prizes was asked. This certainly was not favored by the Association, except the prizes were won in fair competition, or with deserving animals; but it was pointed out by one or two delegates that if a breeder took the trouble to bring a reputable exhibit from a distance and on his arrival found no competition, he should not be deprived of second and third prizes, although the judge might be justified in awarding only two prizes. It was also pointed out that this was a matter for local regulation, and that the rules and regulations of each prize-list should govern this matter.

Increased Fund Necessary.

A. R. G. Smith, New Hamburg, discussed the question as to whether federal and provincial grants to agricultural societies be increased. The following remarks are quoted from his address:

"No better system of securing a continuous return from the soil is better than to market the crops of the top six inches of soil, through the medium of live stock, with the by-products returned to the land. Our Department of Agriculture has been quite alive to the importance of the live-stock situation, and have been very active in having live-stock-judging courses for our young men all over the province. The District Representatives (and there is no class of young men more carefully selected, nor has any body of public men been more appreciated by rural Ontario) have done their best to interest us in good live stock, and I would like to see the financial situations of our agricultural societies so improved that we could do what we would like to do in offering more and larger prizes for good live stock, at our annual fall fairs. Large prizes and more of them are the best stimulus that I know of.

"I have great respect for the work of large fairs, but I believe the work of the smaller township fairs is really more important than the large ones, as it develops in every community a live interest in agricultural matters. We should have good live stock in every community where the smaller breeder who cannot stand up against the large and wealthier exhibitors will have a chance to do good work and exhibit his live stock. I believe that the Department of Agriculture will not turn a deaf ear to our appeal, and I believe that our present Minister, Hon. Geo. S. Henry, will be only too glad to render us assistance.

"Our own Society has made some progress and we

hope we have done some good work. Fortunately for us we have a very active body of twelve (12) directors who cannot be duplicated in this province. I am not one, I am the 13th. As the result of their work we have been fortunate in getting financial assistance outside the Government grants. Three gentlemen have given us \$740.00 during the past few years. This has put us on our feet, and we happen to be one of the societies that have received increased grants for every year.

"We live in a progressive community, and I might mention one example: we have a co-operative cheese and butter manufacturing company. Our financial statement of 1917 shows a production of \$17,000.00. Last year within a radius of five miles we produced and marketed 103,200 dollars worth of butter and cheese.

"There are many other features of our fall shows that need financial stimulation. The agricultural societies have a great field for work that cannot be entered successfully unless we get more Government support. Rural boys and girls should have opportunity to show more of their handiwork. We set aside over 200 dollars last year for the competitions for our 20 township schools. Might I also recommend that this year the agricultural societies of every county assist the work of this Association and, with information and arguments that could be furnished by the officers of the Fairs' Association, send deputations to our county councils, asking for larger grants? Much more would be granted, I am sure if they had the information regarding our objects. Waterloo County has always responded and last year the Finance Committee recommended the doubling of our grants."

Judging Live Stock at Fairs.

Professor Wade Toole, O.A.C., Guelph, discussed the "judging of live stock at fairs and exhibitions." "The first value of an exhibit is its educational value," said Prof. Toole. "We must play up the educational features of our exhibitions, and give live stock just as prominent a place as we give the ring-throwing and other midway performances. Recreational provisions must, of course, be made, but it is easy to over-emphasize these to the detriment of the educational value of the fair. A wide prize-list likewise adds to the chance of winning by an amateur." Prof. Toole thought that there should be more young men on the directorates of local fairs, and that sometimes it would be a benefit to the community if three or four of the "measly" little fairs that are occasionally met with in certain districts could be amalgamated. Care must be exercised in appointing good judges, said Prof. Toole, and they should not be asked to judge all classes and all breeds of stock on the same day. The speaker thought that the best judge a local fair could get is a successful breeder, and that where possible it is advisable to get a judge from a distance. It was suggested that fairs could well make a rule that every animal in the cattle and horse departments, except the very young calves and colts, should be halter broken, in good condition, and exhibited before the judge in a proper manner before a prize would be considered. The man who will not break or condition his horses or cattle does not deserve to be encouraged to show his stock. Further, the speaker argued that if a man is in a position to sweep the prize-list because of lack of competition, he should not be discriminated against, but should be encouraged to show all the good animals he could show, so long as they were in good condition and represented good quality. If such were not the case, prize money should only go to worthy animals. The speaker thought that mature cows of the beef breeds should be shown with calves at foot, because only in this way could the judge be really sure that the animal is a useful one and a breeder. Judges should always make sure that animals are pure-bred in pure-bred classes. The papers should be asked for if it is thought necessary, and strong rules should be enforced against exhibitors borrowing animals from other breeders. The speaker would also favor a rule that where exhibitors dispute the decision of the judge, and where the directors have been careful to select a reliable judge, that such exhibitor be barred from exhibiting at that fair for one or more years.

The different breeds should be judged separately, and the speaker was very strong on this point. There should also be classes for the right kind of finished lambs, judged by a competent drover. Bacon hogs also should be encouraged, in which classes the speaker made his only exception to the mixing of breeds. In some sections such as Kent and Essex, hogs of the fat type may be preferred. Directors should make it very easy for those present to see the judging done. A suitable judging-ring with a moderate seating capacity is a good thing, especially if the judge is instructed to tell the public, in one or more classes during the course of his work, why the animals were placed as they were. Classifications in the prize-list should be educational, with the draft horse predominating in the horse sections. In beef cattle the beef type should be strictly adhered to, with a decided preference for that low, thick-set, straight-lined animal, showing plenty of meat on expensive cuts. About thirty per cent. of the total value is given for the udder, in judging dairy cattle. There are a million more sheep in Canada now than before the war. Wool has advanced from fourteen cents a pound in 1914 to sixty-eight cents in 1918, and sheep should be given encouragement at our fairs. Both fleece and mutton are important, but especially should we emphasize the mutton type.

Judging sheep exhibits was discussed in a very interesting manner by Robert Miller, Stouffville, who emphasized very strongly the necessity of fixing the type of our pure-bred animals in order to educate both the exhibitor and the spectator. The speaker stated that the judge should look first for breed type, and

then he should see that the animal that looks the best is a really useful animal. The finer points of breed type are fads, said the speaker, and must not be unduly emphasized. Sheep of all breeds must have weight and short legs. Muscular development from the neck to the tail-head is very important, and it was pointed out how buyers on the English market could place their hands on the neck, back and tail-head of a dozen sheep and estimate their market value so as not to vary more than sixpence from the next expert buyer who might examine the lot. Sheep should be brought out in good condition. They have been called scavengers too long and deserve more attention than they have been getting. Strength and constitution are most important, and horns in rams of black-faced sheep should not be tolerated. The mixing of breeds is not desirable wherever it can be avoided. Mr. Miller closed with a final appeal to the delegates present that the directorate of each local fair use their influence to the end that farmers use better animals and raise better live stock in this country.

Farm Labor.

John Farrell, Forest, discussed "the securing and placing of farm labor in co-operation with agricultural societies." The resources of Canada must pay Canada's national debts, said Mr. Farrell, and the major portion of this debt must come from agriculture. The soldier has been referred to as a source of much farm labor, but the speaker thought the returned soldier is not yet fit to shoulder the same responsibilities in civilian life that he bore before the war. Farming, if any one profession will do it, will be the means of bringing the the soldier back to his accustomed vigor. The point in the speaker's address was brought out in the decision of the agricultural societies of Lambton County to undertake to place in good homes, with good farmers, one hundred returned soldiers, with the understanding that the farmer need not pay the full wage which this soldier is entitled to receive. Other societies could do the same thing, thought the speaker, and assist very much in the work of repatriating returned soldiers.

Fraternal greetings were brought from the Manitoba Fairs and Exhibitions by A. D. McConnell, Winnipeg. There are 46,623 farmers in Manitoba, and of sixty-eight agricultural societies, sixty-seven held a fair last summer, thirty-four have standing field crop competitions, thirty-four summer-fallow competitions, one-third held plowing matches, and forty-six would have held seed grain and poultry shows if it had not been for the "Flu" epidemic. Each society in Manitoba to draw its Government grant must engage in three out of seven activities prescribed by the Government. The members of the agricultural societies include 8,840 farmers, and the boys and girls' club movement, which commands a great deal of interest in the province, now has a membership of 25,000.

Good Seed Necessary.

L. H. Newman discussed the educational value of good seed at our fairs and exhibitions, and pointed out that there is an annual demand for good seed, which in the last twelve years has never been met in full. We require each year in Canada 40,000,000 bushels of grain of all kinds for spring sowing. This year there is an unusually good demand for seed oats, and the Dominion Government is planning to buy over one million bushels of seed oats in the Province of Ontario, but are now short about forty cars and are trying to get it in the Maritime Provinces. Why is it that in the Province of Ontario with 700 agricultural societies, 350 of which hold standing field crop competitions, we must go to the Eastern Provinces for good seed? Useless varieties should be eliminated and members of agricultural societies and competitors in standing field crop competitions should be encouraged to join the Canadian Seed Growers' Association and grow registered seed. The seed corn condition is improving in Ontario, particularly with regard to the low vitality of Ontario seed which has always been a disadvantage.

William Hickson, Bobcaygeon, discussed the preparing of sheaves and grain for the larger exhibitions, illustrating his remarks with a cardboard replica of a device which he has used for years for preparing sheaves for Toronto Exhibition. Mr. Hickson discussed the subject in a very interesting manner, stating that it was necessary to cut about six sheaves from the field to make one eight-inch sheaf for exhibition purposes. The sheaf is made by first making a smaller sheaf about four inches in diameter, then putting two one-inch layers around it. Boxes for shipping sheaves to the exhibition should be made sixteen inches by sixteen inches by six feet, for wheat, and eighteen inches by eighteen inches by six feet, for oats.

Officers.

The Treasurer's report shows receipts amounting to \$366.06, of which membership fees amounted to \$297.50. The balance on hand has increased from \$52.56 to \$84.15. Officers and directors for the year 1919 were elected as follows: President, L. J. C. Bull, Brampton; First Vice-Pres., W. J. Connelly, Cobden; Second Vice-Pres., John Farrell, Forest; Secretary and Editor, J. Lockie Wilson, Toronto; Treasurer, J. E. Peart, Hamilton; Auditor, G. de W. Green, Toronto. Representative to Canadian National Exhibition, Wm. Scarf, Durham; Representative to Western Fair, London, David Evans, Strathroy. Directors: J. E. Montgomery, S. Mountain, J. L. F. Sproule, Westbrook; W. J. Mill, Madoc; Chas. Reilly, Norwood; Jos. Wright, Beeton; R. J. Lister, Beamsville; John McElhone, Lasalette; R. W. Scarfe, Glencoe; H. C. Reach, Wheatley; Wm. Halliday, Chesley; Rowland Hill, Huntsville; E. F. Stephenson, New Liskeard; Wm. Vincer, Mindemoya; Jas. Tonkin, Fort William.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending February 13

Receipts and Market Tops

Dominion Department of Agriculture Live Stock Branch, Markets Intelligence, Division

	CATTLE						CALVES					
	Receipts			Top Price Good Steers (1,000-1,200)			Receipts			Top Price Good Calves		
	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6
Toronto (Union Stock Yards)	8,654	2,864	5,246	\$16.50	\$11.75	\$15.00	405	597	537	\$17.00	\$17.00	\$17.25
Montreal (Pt. St. Charles)	761	402	376	12.40	11.25		383	257	298	16.00	16.00	15.50
Montreal (East End)	485	397	612	12.40	11.25		290	163	134	16.00	16.00	15.50
Winnipeg	2,564	1,721	3,282	15.00	12.00	14.75	55	41	132	11.00	12.50	11.00
Calgary	2,263	1,250	2,200	16.00	11.00	15.00						
Edmonton	1,445	566	1,276	13.50	11.00	13.00	70	34	50	11.00		

	HOGS						SHEEP					
	Receipts			Top Price Selects			Receipts			Top Price Good Lambs		
	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6	Week Ending Feb. 13	Same Week 1918	Week Ending Feb. 6
Toronto (Union Stock Yards)	5,761	7,702	5,652	\$17.75	\$19.00	\$17.00	2,123	855	1,633	\$16.25	\$19.00	\$16.25
Montreal (Pt. St. Charles)	1,360	603	1,655	17.25	19.75	16.75	239	112	210	17.25	17.00	14.00
Montreal (East End)	471	670	526	17.25	19.75	16.75	204	34	297	17.25	17.00	14.00
Winnipeg	9,550	6,417	9,149	17.00	18.75	15.75	75	19	122	15.25	16.50	15.25
Calgary	3,048	2,658	2,486	17.15	19.00	15.25	44	100		13.50		13.00
Edmonton	995	859	1,192	15.25	18.50	14.25	115			13.00		13.00

Market Comments

Toronto (Union Stock Yards)

Heavy receipts and high prices featured the week's trading in cattle, almost nine thousand head being weighed up and sales, excepting a few toward the end of the week, being made at the record prices of the previous week. There seems to be at present, an inclination on the part of farmers and drovers to flood the market with medium and common grades of stock, and as a consequence there has been a reaction in the market for those grades resulting in a slow demand and lower prices. Buyers for the American trade continue to operate and most of the best cattle are being bought for United States abattoirs, over thirty-six hundred head being shipped off the yards to the State of New Jersey, Lancaster, Pennsylvania, and Buffalo, New York during the past week. Consequently, local prices are governed entirely by the United States demand and market prices, and for the time being quotations may be expected to move in sympathy with those at Buffalo and Chicago. Unfortunately the local outlet for dressed meats is away below normal, and with no overseas trade at present, local abattoirs are forced to limit their killings to less than fifty per cent of their weekly average. However, while the dressed meat trade remains very slow, Ontario farmers who wisely stocked up with feeders last autumn are now reaping the benefits of the high prices prevailing. A few loads of heavy cattle were on sale during the week; of these, six steers of twelve hundred and thirty pounds each sold at \$17.25 per hundred, eight head of twelve hundred and fifty pounds were weighed up at \$16.50 per hundred, and a straight load moved at \$16 per hundred. Steers of ten hundred to twelve hundred pounds sold exceptionally well, sixteen steers of eleven hundred and sixty pounds each being weighed up at \$17.50 per hundred, other small lots realizing up to \$16.50, and a straight load of eleven hundred and eighty pounds selling at \$16. Twenty-four steers of ten hundred pounds sold at a similar price, while numerous other loads of about equal weight and quality moved from \$15.25 to \$16 per hundred. While heifers are selling scarcely as high as steers a few very good sales were made during the week, three loads of heifers averaging ten hundred pounds selling at \$13.50, and a load averaging nine hundred and ninety pounds, at \$13. Handy-weight steers of choice quality were in good demand, and of that grade, twenty-five head averaging nine hundred and sixty pounds sold at \$15, twenty-three head averaging nine hundred and fifty pounds at a similar price, twenty-four head averaging nine hundred and fifty pounds at \$14.75, while numerous sales of those of choice quality were made from \$13.50 to \$14.25 per hundred. Medium and common cattle were in slow demand toward the end of the week and prices declined fully fifty cents per hundred. The market for cows and bulls was about steady, and sales were made up to \$11 for good stock, and up to \$11.50 for a stock of really choice quality. Canners and cutters held steady. There is no local demand for stockers and feeders at the prevailing high prices. Calves were steady, really choice veal selling

CLASSIFICATION	No.	TORONTO (Union Stock Yards)		Top Price	MONTREAL (Pt. St. Charles)		Top Price	
		Avg. Price	Price Range Bulk Sales		No.	Avg. Price		Price Range Bulk Sales
STEERS								
heavy finished	162	15.71	15.00-16.25	17.50				
good	880	14.60	14.00-15.25	16.50	10	12.25	12.00-12.40	12.40
1,000-1,200 common	106	12.57	11.75-14.00	14.00				
STEERS								
good	2,087	12.80	12.00-14.00	15.00	125	11.75	10.50-12.40	12.40
700-1,000 common	582	10.35	9.50-12.00	12.50	77	10.00	8.50-10.50	10.50
HEIFERS								
good	1,273	12.75	12.00-13.25	13.50	12	10.25	10.00-11.00	11.00
fair	353	11.10	10.25-11.50	11.50	16	9.00	8.50-10.00	10.00
common	50	9.49	8.75-10.00	10.00	82	7.75	7.00-8.50	8.50
COWS								
good	619	9.78	9.00-10.50	11.00	34	9.75	9.00-10.50	11.00
common	807	7.72	7.00-8.50	8.75	75	8.00	6.50-8.75	9.00
BULLS								
good	123	9.94	9.00-10.50	11.00	11	9.25	9.00-	10.00
common	93	8.14	7.00-9.00	9.75	90	7.25	6.00-8.50	9.00
CANNERS & CUTTERS	224	5.92	5.50-6.25	6.50	196	5.00	4.75-5.50	6.00
OXEN					4			
CALVES								
veal	400	15.00	14.00-16.50	17.50	352	14.25	13.00-15.00	16.00
grass	5	7.00		8.00	31	6.50	6.00-7.00	7.00
STOCKERS								
good	485	9.78	9.50-10.50	10.50				
450-800 fair	311	8.36	7.75-9.50	10.00				
FEEDERS								
good	371	11.63	10.75-13.00	13.00				
800-1,000 fair	128	10.63	10.00-11.50	11.50				
HOGS								
selects	5,389	17.13	16.75-17.75	17.75	1,216	17.15	17.00-17.25	17.25
heavies	211	16.46	15.75-17.50	17.50	27	16.15	16.00-16.25	16.25
lights	186	15.21	15.00-16.00	16.00	90	15.15	15.00-15.25	15.25
(fed and watered) sows	153	14.10	14.00-15.00	15.00	23	14.15	14.00-14.25	14.25
stags	9	12.11	12.00-12.50	12.50	4			
LAMBS								
good	1,691	15.75	15.25-16.00	16.25	99	14.00	14.00-	14.00
common	231	13.18	12.00-14.00	15.00	108	13.25	13.00-13.50	13.50
SHEEP								
heavy	65	8.53	8.00-9.50	9.50	16	10.00	10.00-	10.00
light	105	9.96	9.50-10.50	10.50	16	9.00	8.50-9.50	9.50
common	33	6.00	5.00-7.00	7.00				

up to \$17.50 per hundred. Most of the calves moved from \$15 to \$16.50 per hundred.

There was little change in the sheep department. Prices held fairly steady, the ordinary run of lambs including those of heavy weights selling from \$15.25 to \$15.75 per hundred, although a few selected lots were sold at \$16.25 and one extra good lot was weighed up at \$16.50 per hundred.

Following an advance on the American market, local hog prices advanced during the week. Selling at \$17 fed and watered on Monday, select hogs sold on Wednesday at \$16.50 and on Thursday from \$17.50 to \$17.75. Considerable numbers of Ontario hogs are being shipped from country points to the Buffalo market, where they are selling from \$18.50 to \$18.75 per hundred. This is having a considerable influence in stiffening local prices along with the contributing factor of a feeling that the overseas trade will shortly be open for further tonnage of Canadian hog products.

Of the disposition from the Yards for the week ending February 6, Canadian packing houses purchased 260 calves, 2,143 butcher cattle and 1,080 lambs. Local butchers purchased 208 calves, 325 butcher cattle, 347 hogs and 400 lambs. Canadian shipments were made up of

18 calves, 74 milch cows, 39 stockers, 24 feeders and 40 sheep. Shipments to United States points consisted of 11 calves, 2,948 butcher cattle, 33 stockers, 113 hogs and 23 lambs.

The total receipts from January 1 to February 6, inclusive, were: 32,194 cattle, 3,008 calves, 38,320 hogs and 16,510 sheep; compared with 24,265 cattle, 2,987 calves, 50,434 hogs and 7,454 sheep, received during the corresponding period of 1918.

Montreal.

Prices for all classes of butcher cattle were higher compared with those of the previous week, but as the quality of the offerings was very poor the increase in price was not apparent. A representative top sale of the week was that of a load of twenty-two head averaging slightly less than ten hundred pounds which moved an \$12.40 per hundred. A small lot of eighting an average of eight hundred and fifty head made up of steers and heifers weighed pounds sold at \$11 per hundred. Two cars of mixed stock weighing around nine hundred and fifty pounds, lacking in finish, were sold at \$10.50. Very common light steers sold from \$7.75 to \$8.50 per hundred. The best cows sold as \$11 per hundred, while common butcher cows realized from \$7.50 to \$9. Canning stock sold at slightly lower prices at this

class is not in demand. Most of the canner cows sold at \$4.75 and at \$5. It should be noted that much of the stock formerly selling as cutters is now being included in lots of stock sold to the butcher trade. Receipts of veal calves are increasing and prices continue firm.

Sheep and lambs were few in number. The best sheep sold at \$10 per hundred and lambs around \$14. Most of the stock offered was in very poor flesh.

An increase in price of 25 to 50 cents per hundred was made in the market for hogs, selects selling on the closing market of the week at \$17.50 per hundred, off car weights. Extra heavy hogs are now subject to a cut of \$2 per hundred, heavy hogs, (those weighing over 250 pounds) are cut \$1, and sows are reduced by \$3 from the price of selects.

PT. ST. CHARLES.—Of the disposition from the Yards for the week ending February 6, Canadian packing houses and local butchers purchased 114 canners and cutters, 37 bulls, 221 butcher cattle, 1,358 hogs and 210 lambs. No shipments were made to United States points during the week.

The total receipts from January 1 to February 6, inclusive, were: 4,796 cattle, 1,296 calves, 6,225 hogs and 4,249 sheep; compared with 3,852 cattle, 860 calves, 5,890 hogs, and 4,379 sheep,

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received during the corresponding period of 1918.

EAST END.—Of the disposition from the Yards for the week ending February 6, Canadian packing houses and local butchers purchased 137 calves, 487 butcher cattle, 526 hogs and 97 lambs. Shipments to United States' points consisted of 125 butcher cattle, and 200 lambs.

The total receipts from January 1 to February 6, inclusive, were: 5,930 cattle, 833 calves, 3,894 hogs and 4,517 sheep; compared with, 4,696 cattle, 997 calves, 4,448 hogs and 4,344 sheep, received during the corresponding period of 1918.

Buffalo.

Cattle.—A flood of Canadian cattle last week, including for the most part steers, had the effect of lowering prices during the last half of the week a full dollar a hundred and more, as compared with the week's opening, which showed values about like the week before. Prices have been ruling especially high on Canadians, light kinds—averaging around 900 to 1,000 lbs.—selling from \$15.75 to \$16, with the best weighty kinds up to \$17. Delivering entirely too many after the week's opening, along with soft, unfavorable weather for the dressed beef trade, placed killers in position to apply the knife, which they did heavily. There were in the neighborhood of two hundred cars of Canadians on the market during the week, the largest run out of the Dominion for several weeks past. Butchering cattle generally sold lower all during the week, fat cows and heifers being given a liberal take-off. Stocker and feeder trade remained steady and no change was noted on milk cows and springers, best of which sold readily. Offerings for the week totaled 7,375 head, as against 5,500 head for the previous week, and as compared with 3,450 head for the corresponding week a year ago. Quotations:

Shipping Steers, Natives.—Choice to prime, \$17 to \$18.50; fair to good, \$15.50 to \$16; plain and medium, \$11.50 to \$12.50; coarse and common, \$10.50 to \$11.

Shipping Steers, Canadians.—Best heavy, \$15.50 to \$16; fair to good, \$13.50 to \$15; medium weight, \$14.50 to \$15.50; common and plain, \$10.75 to \$11.

Butchering Steers.—Fair to good, \$14 to \$15; best handy, \$15.50 to \$16; fair to good, \$13.50 to \$14.50; light and common, \$10 to \$11.50; yearlings, choice to prime, \$16 to \$17.50; medium to good, \$13 to \$14.50.

Cows and Heifers.—Best heavy heifers, \$11.50 to \$12.50; good butchering heifers, \$11.50 to \$12; choice heavy, \$16 to \$16.50; fair butchering heifers, \$9.50 to \$10.50; light common, \$8 to \$9; very fancy fat cows, \$11 to \$11.50; best heavy fat cows, \$9 to \$10; good butchering cows, \$8.25 to \$8.50; medium to fair, \$7.50 to \$8.00 cutters, \$6.50 to \$6.75; canners, \$5.25 to \$5.75.

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

Stocker 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.

Hogs.—Buffalo had a good market all

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last week. Monday the general price for good hogs, both natives and Canadians, was \$18.50, and the bulk of the underweights went at \$18.25. Tuesday prices on the best grades showed a sharp advance, top being \$19.00, with bulk selling at \$18.75 and \$18.85, and Wednesday the general market for better weight grades was \$18.90. Thursday the majority went at \$19, and Friday the bulk of the good native hogs moved at \$18.90, while Canadians ranged from \$18.65 to \$18.80. After Monday the trade on underweights was slow, these ranging from \$17.50 to \$18.25, according to weight. Good throwout roughs brought from \$15.50 to \$16, and stags ranged from \$11 to \$13. Receipts for the past week were 24,800 head, as compared with 21,382 head for the week before, and as compared with 24,900 head for the same week a year ago.

Sheep and Lambs.—Notwithstanding that receipts were liberal last week, the demand was good and market was quite active all week, a good clearance being made from day to day. Monday top lambs sold generally at \$17.50; Tuesday, Wednesday and Thursday the best brought \$17.75 and \$17.85, and Friday the bulk went at \$17.75. Best cull lambs moved at \$16 to \$16.25; yearlings sold up to \$16, top for wether sheep was \$13, and ewes ranged from \$11.50 down. For the past week receipts totaled 28,900 head, as against 26,781 head for the week preceding, and 15,100 head for the same week a year ago.

Calves.—Market was quite active the first four days of last week, and Friday the trade was slow. On the opening day the best lots sold at \$20, and Tuesday the range on tops was from \$19.50 to \$20. Wednesday and Thursday the tops sold at \$20 and \$20.50, and Friday the market opened at \$20 and closed at \$19.50. Cull grades the fore part of the week sold up to \$17, and Friday they went largely from \$16 down. The past week's receipts were 3,900 head, as compared with 2,825 head for the week before, and 3,000 head for the same period a year ago.

Toronto Produce.

Live-stock receipts at the Union Stock Yards, West Toronto, on Monday, February 17, numbered 226 cars, 4,310 cattle, 207 calves, 1,456 hogs, and 738 sheep. It was a slow market. Steers and heifers were 35 cents to 50 cents lower. Cows were steady, and the top was \$12. Bulls were steady with a \$12 top. Milch cows and springers were slow and sold \$10 lower each; lambs were slow, and 25 cents lower, the top being 16 cents, but the bulk sold at 15 cents. Sheep and calves were steady. Hogs, \$18 per cwt., fed and watered.

The Live Stock Division of the United Farmers' Co-operative Company, Limited, opened business at the Union Stock Yards, Toronto, on Monday last, selling 71 cattle and 47 lambs; in all they made 25 transactions, besides the purchase of one or two cars for farmers. The U. F. O. business got away to a good start, and a favorable attitude existed in the Yards. They sold 9 lambs weighing 1,010 lbs. at 16 cents; also 38 lambs weighing 3,450 lbs. at 15 cents. Other receipts were steers, cows and heifers.

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, 57c. to 60c.; No. 3 white, 56c. to 59c. Manitoba (in store, Fort William)—No. 2 C. W., 68¼c.; No. 3 C. W., 61¼c.; extra No. 1 feed, 63¼c.; No. 1 feed, 59¼c.

Corn.—American, (track, Toronto, Jan. shipment), No. 3 yellow, \$1.50; No. 4 yellow, \$1.47.

Peas (according to freights outside)—No. 2, \$1.75 to \$1.80.

Barley (according to freights, outside)—Malting, 73c. to 78c., nominal.

Buckwheat (according to freights outside)—No. 2, \$1, nominal.

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

Flour.—Manitoba (Toronto)—War quality, \$11.35. Ontario (prompt shipment)—War quality, \$10, 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, \$22 to \$23; mixed, per ton, \$20 to \$21.

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

Hides and Wool.

Prices delivered in Toronto.
City Hides.—City Butcher hides, green, flats, 18c.; calf skins, 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; horse hair, 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.

There was no change in butter during the week; creamery, fresh-made pound squares selling at 56c. to 57c. per lb. Creamery cut solids, at 54c. to 55c. Dairy butter at 45c. to 52c.

Oleomargarine, 32c. to 34c.
Eggs, new-laid, 53c. to 56c.; cold-storage eggs are without a market, dealers trying to get 50c. per dozen, but the best offers they receive are around 25c. per dozen.

Cheese.—New, per lb., 28c. to 29c.; new twins, 28¼c. to 29¼c. per lb.

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

Poultry.—Live-weight prices being paid to producer: Chickens, 22c. to 25c. per lb.; roosters, 20c.; fowl, under 4 lbs., 20c.; fowl, 4 to 5 lbs., 24c.; fowl, over 5 lbs., 30c. per lb.; ducks, 32c. per lb.

Wholesale Fruits and Vegetables.
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In fact, they are about the only thing that is moving in quantities. There is at present a big demand for export to Great Britain. They are selling at \$3.50 to \$8 per bbl., and \$3.75 to \$4.25 for Western boxed.

Bananas were firm at 7c. per lb.
 Cranberries, \$20 per bbl.
 Grapes.—Spanish Malagas, \$12 to \$16 per keg.

Grapefruit.—Florida, \$5 to \$6 per case.
 Cuban, \$5 to \$5.50 per case.

Lemons.—California, \$4 to \$5.50 per case.

Rhubarb.—Hot-house, \$1 to \$1.50 per dozen bunches.

Tomatoes.—Hothouse, No. 1, 40c. to 45c.; No. 2, 20c. to 25c. per lb.

Beans.—Prime white, dried, \$2.75 to \$3.25 per bushel; hand-picked, \$3.50 per bushel.

Beets, 90c. to \$1 per bag.
 Cabbage, \$1.50 to \$2.25 per bbl.

Carrots, 75c. to 85c. per bag.
 Cauliflower.—California, \$2.50 to \$3.25 per pony crate; \$5.50 to \$6 per large crate.

Celery.—California, \$8 to \$13 per crate.
 Lettuce.—Florida, head, \$6.50 per hamper; home-grown, leaf, 35c. to 60c. per dozen bunches.

Onions, \$1.50 to \$2 per 100-lb. sack; \$1. to \$1.25 per 75-lb. sack; green, 30c. to 35c. per dozen.

Potatoes.—Ontarios, \$1.10 to \$1.25 per bag; New Brunswick Delawares, \$1.50 to \$1.75 per bag.

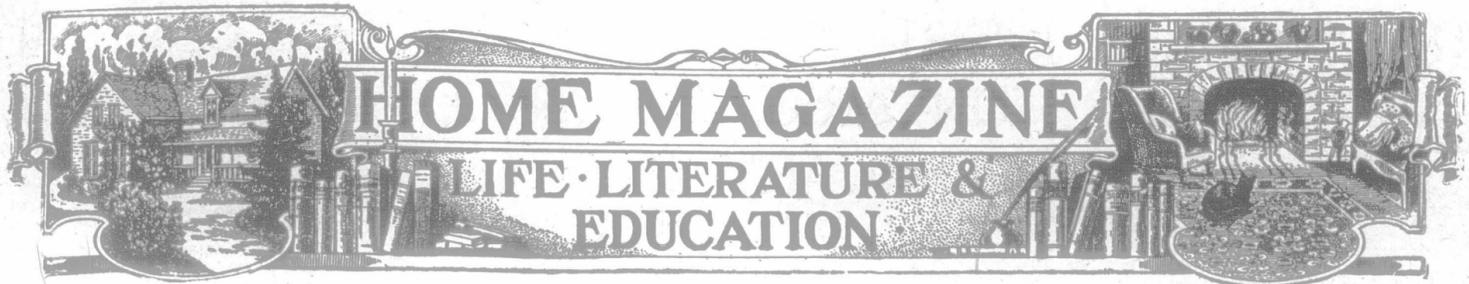
Chicago.

Hogs.—Butchers, \$17.65 to \$17.95; lights, \$17 to \$17.75; packing, \$16.75 to \$17.60; throwouts, \$16.25 to \$16.75; pigs, good to choice, \$15 to \$17.80.

Cattle.—Compared with a week ago beef steers and butcher cattle, 25c. to 50c. lower; canners mostly 25c. higher; veal calves, 25c. lower; best stockers and feeding cattle, steady to 25c. higher; common, light stockers unevenly lower.

Sheep.—Compared with a week ago fat lambs 15c. to 25c. higher; yearlings mostly 25c. higher; sheep strong to 25c. higher; feeding lambs, 50c. higher.

Continued on page 326.



THE CONSTITUTION OF THE LEAGUE OF NATIONS.

Following are the articles of the Constitution for the League of Nations which President Wilson read and explained to a plenary session of the Peace Conference on February 14 and to which the delegates unanimously subscribed:

Convenant.

Preamble: In order to promote international co-operation and to secure international peace and security by the acceptance of obligations not to resort to war, by the prescription of open, just and honorable relations between nations, by the firm establishment of the understandings of international law as the actual rule of conduct among Governments, and by the maintenance of justice and a scrupulous respect for all treaty obligations in the dealings of organized people with one another, the powers signatory to this convenant adopt this constitution of the League of Nations:

Article I.

The action of the high contracting parties under the terms of this convenant shall be effected through the instrumentality of a meeting of a body of delegates representing the high contracting parties, of meetings at more frequent intervals of an executive council and of a permanent international secretariat to be established at the seat of the league.

Article II.

Meetings of the body of delegates shall be held at stated intervals and from time to time as occasion may require for the purpose of dealing with matters within the sphere of action of the league. Meetings of the body of delegates shall be held at the seat of the league or at such other place as may be found convenient, and shall consist of representatives of the high contracting parties. Each of the high contracting parties shall have one vote, but may have not more than three representatives.

Article III.

The executive council shall consist of representatives of the United States of America, the British Empire, France, Italy and Japan, together with representatives of four other States, members of the league. The selection of these four States shall be made by the body of delegates on such principles and in such manner as they think fit. Pending the appointment of these representatives of the other States, representatives of (blank left for names) shall be members of the executive council. Meetings of the council shall be held from time to time as occasion may require, and at least once a year at whatever place may be decided on, or failing any such decision at the seat of the league, and any matter within the sphere of action of the league or affecting the peace of the world may be dealt with at such meetings. Invitations shall be sent to any power to attend a meeting of the council at which such matters directly affecting its interests are to be discussed and no decision taken at any meeting will be binding on such powers unless so invited.

Article IV.

All matters of procedure at meetings of the body of delegates or the Executive Council, including the appointment of committees to investigate particular matters, shall be regulated by the body of delegates or the Executive Council, and may be decided by a majority of the States represented at that meeting. The first meeting of the body of delegates and of the Executive Council shall be summoned by the President of the United States of America.

Article V.

The permanent secretariat of the league shall be established at —, which shall constitute the seat of the league. The secretariat shall comprise such secretaries and staff as may be required, under the general direction and control of a secretary-general of the league, shall be chosen by the Executive Council; the secretariat shall be appointed by the secretary-general subject to confirmation by the Executive Council. The secretary-general shall act in that capacity at all meetings of the body of delegates or of the Executive Council. The expenses of the secretariat shall be borne by the States' members of the league in accordance with the apportionment of the expenses of the International Bureau of the Universal Postal Union.

Article VI.

Representatives of the high contracting parties and officials of the league when engaged in the business of the league shall enjoy diplomatic privileges and immunity, and the buildings occupied by the league or its officials or by representatives attending its meetings shall enjoy the benefits of extra-territoriality.

Article VII.

Admission to the league of States not signatories to the convenant and not named in the protocol hereto as States to be invited to adhere to the convenant requires the assent of not less than two-thirds of the States represented in the body of delegates, and shall be limited to fully self-governing countries, including Dominions and colonies. No State shall be admitted to the league unless it is able to give effective guarantee of its sincere intention to observe its international obligations, and unless it shall conform to such principles as may be prescribed by the league in regard to its naval and military forces and armaments.

Article VIII.

The high contracting parties recognize the principle that the maintenance of peace will require the reduction of national armaments to the lowest point consistent with national safety and the enforcement by common action of international obligation, having special regard to the geographical situation and circumstances of each State; and the Executive Council shall formulate plans for effecting such reduction. The Executive Council shall also determine for the consideration and action of the several Governments what military equipment and armament is fair and reasonable in proportion to the scale of forces laid down in the programme of disarmament; and these limits, when adopted, shall not be exceeded without the permission of the Executive Council. The high contracting parties agree that the manufacture by private enterprise of munitions and implements of war lends itself to grave objections, and direct the Executive Council to advise how the evil effects attendant upon such manufacture can be prevented, due regard being paid to the necessities of those countries which are not able to manufacture for themselves the munitions and implements of war necessary for their safety. The high contracting parties undertake in no way to conceal from each other the conditions of such of their industries as are capable of being adapted to warlike purposes or the scale of their armaments, and agree that there shall be full and frank interchange of information as to their military and naval programmes.

Article IX.

A permanent commission shall be constituted to advise the league or the executive of the provisions of Article VIII., and on military and naval questions generally.

Article X.

The high contracting parties shall undertake to respect and preserve as against external aggression the territorial integrity and existing political independence of all States' members of the league. In case of any such aggression or in case of any threat or danger of such aggression the Executive Council shall advise upon the means by which the obligation shall be fulfilled.

Article XI.

Any war or threat of war, whether immediately affecting any of the high contracting parties or not, is hereby declared a matter of concern to the league, and the high contracting parties reserve the right to take any action that may be deemed wise and effectual to safeguard the peace of nations. It is hereby also declared and agreed to by the friendly right of each of the high contracting parties to draw the attention of the body of delegates or of the Executive Council to any circumstance affecting international intercourse which threatens to disturb international peace or the good understanding between nations upon which peace depends.

Article XII.

The high contracting parties agree that should disputes arise between them which cannot be adjusted by the ordinary processes of diplomacy they will in no case resort to war without previously submitting the questions and matters involved either to arbitration or to enquiry by the Executive Council and until three months after the award by the arbitrators or a recommendation by the Executive Council; and that they will not even then resort to war as against a member of the league which complies with the award of the arbitrators or the recommendation of the Executive Council. In any case under this article the award of the arbitrators shall be made within a reasonable time and the recommendation of the Executive Council shall be made within six months after the submission of the disputes.

Article XIII.

The high contracting parties that agree whenever any dispute or difference shall arise between them which they recognize to be suitable for submission to arbitration, and which cannot be satisfactorily settled by diplomacy, they will submit the whole matter to arbitration. For this purpose the court of arbitration to which the case is referred shall be the court agreed on by the parties or stipulated in any covenant existing between them. The high contracting parties agree that they will carry out in full good faith any award that may be rendered. In the event of any failure to carry out the award the Executive Council shall propose what steps can be best taken to give effect thereto.

Article XIV.

The Executive Council shall formulate plans for the establishment of a permanent court of international justice and this party shall, when established be competent to hear and determine any matter which the parties recognize as suitable for submission to it for arbitration under the foregoing article.

Article XV.

If there should arise between States members of the league, any dispute likely to lead to rupture, which is not submitted to arbitration as above, the high contracting parties agree that they will refer the matter to the Executive Council; either party to the dispute may give notice of the existence of the dispute to the secretary general, who will make all necessary arrangements for a full investigation and consideration thereof. For this purpose the parties agree to communicate to the secretary general, as promptly as possible, statements of their case with all the relevant facts and papers, and the Executive Council may forthwith direct the publication thereof. Where the efforts of the council lead to the settlement of the dispute, a statement shall be published indicating the nature of the dispute and the terms of settlement, together with such explanations as may be appropriate. If the dispute has not been settled, a report by the council shall be published, setting forth with all necessary facts and explanations the recommendation which the council think just and proper for the settlement of the dispute. If the report is unanimously agreed to by the members of the council other than the parties to the dispute, the high contracting parties agree that they will not go to war with any party which complies with the recommendations, and that if any party shall refuse so to comply the council shall propose measures necessary to give effect to the recommendations. If no such unanimous report can be made it shall be the duty of the majority and the privilege of the minority to issue statements indicating what they believe to be the facts and containing the reason which they consider to be just and proper. The Executive Council may in any case under this article refer the dispute to the body of delegates. The dispute shall be so referred at the request of either party to the dispute, provided that such request must be made within fourteen days after the submission of the dispute. In case referred to the body of delegates all the provisions of this article and of Article XII, relating to the action and powers of the Executive Council shall apply to the action and powers of the body of delegates.

Article XVI.

Should any of the high contracting parties break or disregard its covenants under Article XII, it shall thereby, ipso facto be deemed to have committed an act of war against all the other members of the league, which hereby, undertake immediately to subject it to the severance of all trade or financial relations, the prohibition of all intercourse between their nationals and the nationals of the covenant-breaking State, and the prevention of all financial, commercial, or personal intercourse between the nationals of the covenant-breaking State and the nationals of any other State, whether a member of the league or not. It shall be the duty of the Executive Council in such case to recommend what effective military or naval force of the league shall severally contribute to the armed forces to be used to protect the covenants of the league. The high contracting parties agree, further, that they will mutually support one another in the financial and economic measures which may be taken under this article in order to minimize the loss and inconvenience resulting from the above measures, and that they will mutually support one another in resisting any special measures aimed at one of their number by the covenant-breaking State,

Continued on page 323.

Steady Savings Bring Wealth

Savings Account, divided to, even if by small amounts, gives increased happiness to oneself and family and adds real wealth to one's country.

Decide to-day to let Bank of Nova Scotia help you to save opening a Savings Account here. Interest compounded half-yearly.

Capital \$ 6,500,000
Reserve Fund 12,000,000
Assets 130,000,000

THE BANK OF NOVA SCOTIA

Invite your account. Special facilities for banking by mail, and hundred and ninety branches. General Office, Toronto.



are about the only thing in quantities. There is big demand for export to —. They are selling at \$3.50, and \$3.75 to \$4.25 for —.

are firm at 7c. per lb. Spanish Malagas, \$12 to \$16

—Florida, \$5 to \$6 per case. \$5.50 per case.

California, \$4 to \$5.50 per

Hot-house, \$1 to \$1.50 per

Hot-house, No. 1, 40c. to 50c. to 25c. per lb.

—white, dried, \$2.75 to \$3.50 per cwt.; hand-picked, \$3.50 per

to \$1 per bag. \$1.50 to \$2.25 per bbl. to 85c. per bag.

—California, \$2.50 to \$3.25 per cwt.; \$5.50 to \$6 per large

California, \$8 to \$13 per crate. Florida, head, \$6.50 per

grown, leaf, 35c. to 60c. per

to \$2 per 100-lb. sack; 75-lb. sack; green, 30c. per

entrios, \$1.10 to \$1.25 per

swick Delawares, \$1.50 to

Chicago. —, \$17.65 to \$17.95; —, \$17.75; packing, \$16.75 to

outs, \$16.25 to \$16.75; —, \$15 to \$17.80.

pared with a week ago —, 25c. to 30c. higher; —, 25c. lower; best stockers

—, steady to 25c. higher; —, 25c. higher; yearlings

—, 25c. higher; sheep strong to 25c. higher; —, 50c. higher.

Continued on page 326.

THE WOMEN'S INSTITUTE CONVENTION FOR CENTRAL ONTARIO, TORONTO, FEBRUARY 4th to 6th.

Dr. Pidgeon's Address.

Dr. Pidgeon, a returned chaplain and pastor of one of the churches in Toronto, found the inspiration for the first part of his address in the wounded and crippled heroes who contributed the music and recitations for the programme.

These men, he said, symbolize the splendid and unlimited capacity for sacrifice, which is a nation's greatest asset. Overseas the men learned the great spirit of comradeship. They were brothers all, and the interests of one section were the interests of every section. This spirit they have brought back with them, and it will make itself felt in better conditions. When shall we, too, who did not go to the front, learn that we are all one, that we cannot live alone, nor keep our goodness to ourselves? If the men have brought to us this spirit of brotherhood they will have carried out their greatest service.

Dr. Pidgeon was very insistent that we exert ourselves to improve the world. "We do not need to suffer age-old conditions," he said, "wrong can be swept away at a stroke; we can take hold of things and overthrow. The world is weary of waiting; will it never be time to strike? . . . The boys have shown us how to strike, and we have taken advantage of the lesson they have given."

Passing to the War, the speaker said we have laid emphasis on the "atrocities" almost to the exclusion of the fact that War itself is an atrocity—"the greatest crime ever perpetrated, and it is up to the world to see that those who caused it answer for what they have done." For all war is a Thing launched by certain men. In the establishment of justice the first obligation that rests on human society is to see that all such "criminals of history" can never again work such harm to the world.

Morning Meeting, Feb. 5th.

In the absence of Mrs. James Pearson Schomberg, Miss Sutherland presided. After singing two verses of "O Canada," the report of the Thedford Branch was read. This branch has a "rest room" in a business part of the town, for which it pays \$5.00 per month, and has an annual picnic at Port Huron.

At Christmas every year this branch presents \$2.00 each to several old ladies. Penny banks have been established in several of the schools in the surrounding county. A novel way of raising money was an auction sale of handkerchiefs, left during meetings, the owners buying back their own handkerchiefs, \$4.00 being realized in this way. In answer to a question the reader of report said the "rest room" was kept open all summer, and for meetings only in the winter on account of heating problem.

The room was taken care of by voluntary workers. Money had been raised by collection of papers, and when asked if the amount realized was worth while for the time spent collecting, the speaker said it was if the time of collection was well selected and everything in connection well organized. One branch delegate said \$80.00 had been realized from collection made in one day.

Demonstration Lecture Courses.

These were then taken up:
(a) Domestic Science.
(b) Home Nursing.
(c) Sewing.

Miss Sutherland made the remark that no junior branch should be without Demonstration Lecture Courses.

Mrs. Star, of Newmarket, gave a talk on their value. . . . Mrs. Nettleton, of Penetang, spoke of the value of Medical Health Inspection. Dr. Sears had inspected between eight and nine hundred pupils in that district. A French Catholic school gave all assistance possible, and trained and undergraduate nurses gave services where necessary. Mothers at first objected and attendance was bad, but in the end results were very satisfactory, the parents meeting Dr. Sears and becoming very much interested and anxious to have defects treated.

Mrs. Murphy, of Morrisburg, gave a report on Home Nursing; said it had been a revelation to many.

Dr. McKenzie Smith gave a Home Nursing demonstration.

The bed was changed with a patient in it who was not in any way exposed.

She also demonstrated the giving of a hot foot bath while the patient was in bed; this is considered specially good for delirious patients, bringing the blood away from the head.

The Doctor also spoke of the importance of being able to take temperatures and pulses, also of learning to keep a chart. Some bandaging was done by pupils from the classes.

Miss Sutherland informed her audience that Home Nursing Courses followed sewing classes if instructor could be secured and arrangements could be made. Dresses were then displayed made by sewing class at Dundas last week.

Miss Pirie spoke on sewing classes, saying that Miss McKay, the teacher, taught them to draft the patterns and cut out. No mistakes could be made and there was no doubt of results if one was patient and followed instructions even if one did not understand what they meant at the time.

In the Domestic Science Lectures, besides giving demonstrations of canning, cooking and drying, there were also lessons on table-setting, care of house and house decoration.

The class from Thistleton, which started with forty, now consisted of eighty-three. Some of the class who were present gave the class call.

Discussion of District Work.

- (a) An extension of work, East Simcoe and Oxford.
- (b) District annual meetings, Prince Edward, East York.
- (c) Duties and responsibilities of district officers.

Mrs. Shocking said thoughts presented a living germ in the Institute the germ

Presidents wait for an invitation to visit branches.

Some presidents did wait and others did not; one president made it a rule to visit each branch once a year, and afterwards when called on for advice. Hospital work had been the main work in one district, the funds being supplied from the branches and a rummage sale.

Mrs. Bernard, of South Oxford, said the abstract views had now been presented, and she wanted to give some of the concrete ones. Before the war there were seven branches doing ordinary work. Mount Elgin built a section of pavement; Tillsonburg conducted a sewing class in the school, and Burgessville a library branch; another branch had a "rest room."

Since the war their work had broadened and there are now ten branches, each branch a hive of industry. Last year they raised \$5,000 in cash and gave as much more in goods; they did not intend to let work languish. The district officers must cultivate the fraternal spirit. The speaker said they were expecting an influx of soldiers' wives, and there was a great work for the Institute in welcoming and assisting them.

Someone then asked if it would be possible to get the Government to give a grant to District officers for expenses in visiting branches, and a suggestion was made that they try.

Girls' Work.

Miss K. F. McIntosh then gave an interesting talk on Girls' Work in Peel County. She said we must begin with our girls and get them away from petty things; let them see that service is the highest thing.



Some of the Delegates.

Left to right:—Mrs. Lowry, Thedford; Mrs. Reid, Islington; Miss Barratt, Islington; Mrs. Norsworthy, Lancaster; Mrs. Evans, Binbrook; Mrs. Green, Mimico; Mrs. Crosken, Toronto; Mrs. Ross, Palmerston; Miss Haycraft, Bowmanville.

of service, to spread as leaven, by personal contract. The District President should make herself a link between the branches and the main Department in Toronto, by visiting her branches and getting in touch with them.

There is always time for the thing we really wish to do. Encourage the branches to avail themselves of the courses, and also to have good business methods. Never lead by knocking; constructive criticism is always best.

Foster co-operation between Farmers' Clubs and the Institute.

South Brant has a committee meeting in October of Presidents and Secretaries, and then let branches run their own show.

West Kent has a programme printed for the year and handed to the President.

The question was asked, should District

Let them bring their music and joy of life to the older women

The call for home and their dreams have been largely taken away by the War; only in service can the healing balm be found.

If they cannot be individually mothers, there is a universal motherhood which is greater still. . . . Home Demonstration Work in Peel County has five junior classes and an organized Girls' Club. They practiced for seven weeks with instructor and held a competition at county fair. The girls were enthusiastic and it spread to the women.

There were mother classes and patterns supplied from the Provincial Board of Health. Layettees were made by the girls from these patterns. They came to understand that the child is our greatest asset, and there is a big work to be done

in looking after its health. . . . The Home Economic Class chose as its motto "Carry On." Miss McIntosh then quoted these beautiful lines from the Sankrit:

"For yesterday is but a dream,
And tomorrow is only a vision;
To-day alone is ours,
But each to-day would live.
Make every yesterday a dream of happiness,
And every tomorrow a vision of hope.
Live well this day,
Such is the salutation of the dawn."

Housing Problem.

Prof. C. B. Sissons, Secretary of the Housing Commission of Toronto, then spoke on the Housing Problem, confining his remarks to problems of rural houses.

He said there was quite a distinction between houses and homes, and he was less interested in houses than homes. It was important to make homes and have the proper healthful conditions. Houses merely shelter or are workshops; homes mean more, are for both work and leisure. Home is the place for pleasant work, but there must be facilities for leisure.

In approaching the rural housing problem the speaker had first found it necessary to have other views on the subject, and had asked for light from the Women's Institute. They had sent out to District Representatives to get information as to the advantage or disadvantage of having cottages for the hired help. There were many interesting replies. The District Representative made a survey and found that only 159 farms out of 826 had second houses for help. He would like to discover why some counties had so many while others had few.

Prof. Sissons read extracts from letters received. One man was glad an effort was being made to solve the problem; he had found that the man with the house could easily secure help, the single man is hard to get.

The average farmer finds he must work too hard himself if he can't get help, so the farmer's wife is willing to assist by boarding help; this often destroys the home atmosphere.

Prof. Sissons had sent letters to farmers who had cottages asking:

- 1. Effect on securing satisfactory labor if house on farm.
- 2. Attitude of farmer's wife.

All were definite on the point that having comfortable cottages made it easier to secure help, and the attitude of farmer's wife was always decidedly for the separate cottage.

There was a difference of opinion as to the number of rooms necessary, but cottages should not be large. Most farm houses are too large for the comfort and convenience of the women working in them, and the cottages should be small, five or six rooms being plenty.

In regard to modern conveniences, some found them not practicable in farm houses, but he could see no reason why they should not be installed in all farm houses in time.

To the question as to whether the cottage should be on the farm or at the cross roads or village, all said on the farm except one man who mentioned that there were often domestic reasons why the cottage should be in either of the other places.

The fifth question asked was, "What size of farm can afford to keep a hired man all the year around? Is a one-hundred acre farm large enough to build a cottage on?" The Professor was surprised at the number of men who thought the hundred-acre farm was large enough to build a cottage on.

Prof. Sissons thought the farm house could be made more of a home by building smaller houses, installing modern conveniences and getting rid of the hired help in the home wherever possible.

"Face the problem squarely," said he. "Make a little less money and have a little more comfort by building the cottage for help."

The question was asked whether the supplying of a cottage preceded the hiring of necessary help. Prof. Sissons instanced a man who built one cottage and had now two and no trouble in securing help.

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The branch reports from Port Credit

after its health. . . The Economic Class chose as its motto "n." Miss McIntosh then these beautiful lines from the

Friday is but a dream, Tomorrow is only a vision; One is ours, One is yours, To-day would live, Yesterday a dream of happiness, Tomorrow a vision of hope. This day, The salutation of the dawn."

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was now given by Mrs. Hobberlin, who spoke on financing the Institute.

1. With Federal Help.
2. Provincial.
3. District.
4. Branch.

They found they were without means for continuation of work and started to raise funds by holding a Garden Fete. They assembled all district officers and roused their zeal and organization began. One important point is to find suitable heads.

Publicity they carried out by attractive posters, and motor cards, also notices in papers and on streamers. Selling tickets is also important and having a printed programme of events. The men were generous with time and energy. The total raised was three thousand dollars.

Afternoon Session Feb. 5th.

Mrs. G. T. Wood, Grandview, presided. Mrs. Wood brought the Institute greeting from North Brant and said there was one thought she would like to leave with her hearers to take back with them, just two words, "Be kind." The qualities of daily life which count are love and labor till your goal is won.

Two things stand like stone, "kindness in another's trouble, courage in your own." The delegate from Prince Edward Co. then gave her hearers pointers on how to run District annual meetings. Early in April each year mail notices asking each officer of branches to attend. Have two sessions; try to be prompt. Prince Edward had all rules evolved from handbook, and a lecture by a lawyer on business methods.

East York Board of Directors meet a few months before district meeting, formulate plans and leave details to be worked out by branches; the district secretary notifies all branches. The social side came out at a luncheon which was quite a feature, many good ideas coming from timid members who would not otherwise have spoken.

There was then a question from North Oxford in reference to transportation of delegates, supposing a district to be over thirty miles, making it difficult to get the executive together.

The speaker had planned to visit branches but found it impossible, she

thought that someone in town should take Presidency.

In reply one lady said she had been a District officer both as a farmer's wife and in town and had visited every branch, was very much welcomed and had helped with advice. She found that to get away from home sometimes lift the burdens of household life, especially seeing that others had difficulties.

Three new branches had been started in South Grey district, and forty miles covered in another district by other delegates.

Miss Una Saunders, of the Y. W. C. A., then spoke for a few minutes, bringing greetings from that body. She had two points she wished to emphasize.

1. Thanks of the "Y" for help given by the Institute in housing thirty-eight camps, and also for kindness of farmers' wives and daughters.

2. She was interested to hear of the deeply felt importance of girls' work. She asked them to turn to the "Y.W.C.A." when help was needed.

The last three or four years had given the "Y" a great opportunity; they were planning to bring before the country the same standard as the boys had, and calling this part of the work "Girls in Training." The standard was four-fold, Physical, Intellectual, Religious and Service, and these were again divided into many parts. Pamphlets and cards can be had on these subjects by applying to Dominion Council "Y. W. C. A.," Bloor and Spadina, Toronto. The Y. W. C. A. have a number of secretaries travelling through the country, and are willing to arrange to speak to girls if Miss Saunders is notified.

Physical Development.

Dr. Margaret Patterson now gave a talk on Physical Development: "The health of the nation is in the hands of its women," said she, "it has taken this war to teach us the value of life."

We need a better "health campaign." While talking of conservation of food we are still wasteful of health. One million people were killed by the War, but more by tuberculosis. War is only for a time, but tuberculosis goes on and on. Enough boy babies died in England to give her three million men more.

The economic loss in the United States was one billion dollars.

Disease is spread by germs, and the handkerchief is one of the worst sources for the spreading of germs. They should be prohibited in schools. One school in the U. S. has soft paper instead, which is put in bags and burned.

It is absolutely unnecessary to use handkerchiefs during sickness.

When we get a better estimate of the value of each citizen we will have better care of health by Government and free courses on hygiene. There will be universal health inspection, suppression of vice diseases and other things.

This War was fought for the baby; no one can estimate the value of the baby.

We must fight disease as our boys fought for us, and teach our boys and girls care of their health.

Thousands of babies die from lack of care, and flies kill more babies than German submarines. See that source of milk is safe and sanitary; the Government is indifferent because the people are. When people learn to play together they will work together.

She advised everyone to send to the Department of Health for papers on diseases and know for themselves. "Say to yourself, 'These diseases shall not exist if I can help,' and send to the Medical Health Dept. for Baby Clinic."

Dr. Helen McMurphy added a few words to Dr. Patterson's plea by saying that this was the era of reconstruction, and we can only lay the foundation by bringing up a generation fit and strong. The estimate in infant mortality was twenty thousand for one year.

The men who died gave the unborn with their own lives; the baby is the only way we can make good that loss and, therefore, the baby must be our greatest care.

Dr. McMurphy here announced that Mr. Justice Hodgins had been appointed to look into the subject of venereal diseases and the care of feeble-minded. He was to hold a meeting in the parliament buildings at 4.30 o'clock Friday afternoon, and a committee must be appointed to meet him.

Greetings From National Council of Women.

Mrs. Sandford, of Hamilton, brought

greetings from National Council. Mrs. Sandford said she had always had the greatest respect and affection for the Woman's Institute, and admired their attitude towards difficulties and problems. They had always given her help and inspiration. "We now ask you to give us your help, come to our cities and towns and give us of your riches of vision."

Now we have before us the problems of reconstruction. The foundation of reconstruction is consecration, the personal touch. Let us each say, "Make me equal to the task." Let us have the Christ spirit in each one of us. The secret of victory and peace is absolute unselfishness.

"Is there preparation in our homes for our boys, to keep the look that looked into the face of the White Comrade? I hope there is."

Mrs. Buchanan thanked Mrs. Sandford for her message, and suggested that they stand for a few minutes in silent prayer. This was done.

Canning Centres.

This subject was taken up first by Mr. Putnam. He said the Institutes had done much to increase production and conservation. The first centre established was Parkhill. He was glad the plans for centres had not been interfered with by peace, but that community centres are still to be of use.

Mr. Culverhouse, of Vinelands, then gave a talk on the placing and running of canning centres.

He divided his subject into two facts, Organization and equipment. Canning centres up to the present time had been for purely patriotic or hospital purposes, but in the future must be turned into community centres. The reorganization was being given careful study and details worked out; he hopes to see the institution grow until it is spread all over the province. In equipment, the first necessity, is to provide a centrally located plant; if a surplus is produced it can be sold at a price covering cost.

There are two methods of canning, first by direct heat, and the other by generating steam.

Steam boils water in wooden vats, and one hundred cans can be finished in



The Women's Institute Convention, Technical School Auditorium, Toronto.

forty-five minutes. It also enables cooking at a high temperature.

Much debate was raised as to whether tin cans or glass jars should be used, and Mr. Culverhouse had found great enthusiasm about tin cans; of course, a sealing machine had to be provided.

Cull apples could be taken to a canning centre, boiled and drained without pressure, giving a small percentage of juice but a high quality of jelly. Another method was to press the apples and make apple butter.

In the matter of building he advised two-inch floors, and a place for storing, then good ventilation and a proper place to receive incoming produce; also a room for the preparers to work away from steam and heat.

Mrs. Crowe spoke on what the canning centre did for Guelph.

They had community days on which they canned fruit for hospitals, children's shelter and Elliot Home. During the "flu" epidemic the canning centre had been turned into a soup kitchen. The Board of Health said they had saved half the lives in the city.

The city and country women worked well together, learning much from each other, and bringing out more character in each.

The lady remarked that there was lots of nonsense written about the sanctity of homework, but there was also lots of drudgery, and we should strive to lighten the work of the mother in the home so that she would have more time to devote to her children.

Miss McTavish, of Parkhill, asked her audience to look at samples in outer hall and see their values in "tons, lbs., dollars, cents, cans and quarts." Workers had come to their centre who had never been appealed to, some from eighteen miles south and thirteen miles north. There was one large kitchen to clean instead of a number and fifty cans to take home.

Mrs. Blewett from the canning centre of Mapleton, said a splendid spirit had been manifested by the ladies. They were differently situated, being in the butter room of a cheese factory. Community work was done after hours under difficulties. A dear old lady over eighty years of age walked miles to help when short of workers.

When the men co-operated with threshing machines and got their work done before others, why should not the women? A local committee could work it out; community work can be done.

Medical Inspection of Schools.

Dr McKenzie Smith said that in her own work in the schools she had found that the school-house itself was the most important. Last year fourteen thousand pupils had been inspected, she had inspected eight thousand herself. In the High School in Brampton out of thirty-six, seven needed glasses, two could not see at ten feet. In all inspection only three and a half per cent. needed glasses through hereditary trouble, nineteen to twenty per cent. through wrongly-lighted and badly-decorated schools. Shiny blackboards are another source of eye trouble, and forty per cent. of the children are in the shadow. The Doctor gave many examples of badly-decorated schools. In the Township of Oliver out of five schools three were perfect, having warm cloak rooms and furnaces. In the other schools without furnaces warm cloak rooms or places for the children to dry their feet, and with rough and dusty floors, out of twenty children eighteen needed their tonsils out.

If a child sits with cold feet the tonsils will soon need attention. Cold cloak rooms, cold lunches and dirty floors are also a source of disease. Sometimes the floors are only cleaned once, twice, or three times a year. Would anyone want children to live in a home kept in that condition? The seating was also bad, causing stooped shoulders.

There is not a county that has not asked for inspection. One hundred and fifty-seven children have been operated on in a few months. In Rainy River seventy-five per cent. of those operated on have better health. The Women's Institute must carry on the work.

The Doctor recommended that the decorations be of green grey for southern exposures and buff for northern, but really preferred buff for either. For keeping dust down she recommended

oiling with raw oils and using dustbane when sweeping.

Lincoln County had been interested in school inspection for five years before they got it. Queenston and St. Davids came in and then the rest of the district. They co-operated with the county council and made the men see that what they proposed doing was for the good of the country, and received two hundred dollars from them. The thirteen institutes divided up all the schools near them and fifty-one out of sixty-nine were inspected. The branch institutes looked after the transportation of nurse and doctor.

Mrs. Kerr, of the St. George Institute, said the branch had been working on the subject of Medical Inspection for two years. Dr. Smith had examined in the school for two years and found about forty needing treatment. They sent slips to the parents and emphasized that they would assist in having operations performed. A specialist was engaged and the operations done on wholesale plan.

The Institute paid the hospital dues where patients could not afford to. The second year the parents saw the advantage and were willing. If parents will not have their children attended to, it is up to the branch to push it.

Miss Graydon, Streetsville, then spoke on "follow-up" work, saying we are all creatures of habit, and if we are to have better health we must educate the children. On her first trip to visit rural schools in May, 1918, she took tooth brushes and a porcelain basin. She talked along lines of health, the necessity of cleanliness to hands and mouth and the benefits of fresh air and sunshine; also mentioned the extra work put on heart through jumping upstairs two at a time. For demonstration along lines of first aid with cuts, bruises and broken collar bones, every school should have an emergency kit.

On the second trip the children were keen and ready to answer questions. At noon the matter of eating lunches properly was gone into. In the afternoon she met the mothers, but found it more satisfactory to visit the homes.

She visited for two days and found they were not co-operating with the trustees. The men rather objected to coming to platform at first, but at the second meeting they were willing to speak. At one school a luncheon was served at noon.

The question was asked, "Who pays for inspection in schools?" The speaker said they were not attempting to carry on all over the province, but in a few days a plan would be formulated.

Mrs. Drinkwater then spoke on the clinics held in Streetsville. The first dental clinic in a rural district was in that town. Then they secured the manse which happened to be vacant, had sixteen cots and a specialist from Toronto, also two graduate nurses. The local doctors gave the anesthetic. Forty-four children had tonsils and adenoids removed.

After the medical clinic the dental one came, thanks to Mr. Stark. Mr. Putnam sent out the dentist. Out of one hundred and forty children ninety per cent. needed attention.

Evening, Feb. 5th.

Mr. Talpin spoke in the evening on our "degenerate feet." The foot as we now have it is not normal; one had only to look at a normal foot and compare it with the foot of to-day for further confirmation. Our children are growing with the idea that high heels and narrow toes are the right thing.

Figures in *Scientific American* say eleven thousand women per annum are killed through wearing high-heeled shoes. One in every three has fallen arches. As yet the feet of our children are slighted yet the child's foot is second to hardly anything in importance. Badly-fitting shoes make a slouching attitude in walking, and in children a faulty posture lowers resistance to disease. Mr. Talpin then gave an exhibition of pictures of normal and deformed feet.

Dr. Backus now took the meeting, presiding instead of Dr. Creelman. She remarked that this was one of the few occasions when she could show her feet; she felt as if she were among old friends. She said we were martyrs of fashion in regard to our shoes, hats and dresses, and

it was not all our fault as men made the fashions. "Are we ever going to get backbone enough to wear what is comfortable?"

Sergeant-Major Holmes then sang very acceptably, "There's a Land, a Dear Land," and Miss Smith gave a recitation.

The report from Rainy River and Kenora was read by Mrs. Allen.

This is the most westerly part of the province where Institute work is carried on. It comprises a country in itself of undeveloped resources, and the women of the Institute feel that they need the co-operation of the older parts of the Province. They owe a great deal to the splendid lectures sent to them. There are two distinct types in the community, the prosperous farmer and the people in the pioneer stage. The Institute is all the women have, and you need to get into the pioneering district to find what the W. I. can do. They are looking after the roads, the burying grounds and the Canadizing of foreigners. One university graduate settled forty miles from town, where there were only bad roads, and had to educate her own children. To attend the Institute she first rode on a load of saw logs, then walked some miles to take the train.

The women had done splendid war work, giving husbands, sons and time, one old lady walking fourteen miles over rough roads to work for the Red Cross.

The school problem was serious. One township with no school had forty English-speaking children; on the other side there were thirty children. A home for the feeble-minded was very much needed. The jail was the only place where the insane could be taken, and in one cell, fourteen by sixteen, the only one for women, four insane women, one feeble-minded and two prisoners had been confined at one time.

Mrs. Allen was now informed that her time was up, much to the disappointment of her audience, who were much interested in her paper.

Reconstruction and Education.

The Rev. Dr. Cody, Minister of Education, gave a very interesting address on these subjects. The Department would be glad to have any schoolless districts reported. The W. I. must be eyes, hands and feet for the Department. Besides gratitude for what the women are going to do, the Department wished to show appreciation for what it had done for the Red Cross.

Thanks to the men at the front and the navy, it was a beaten army that requested an armistice. Foch had them bottled up, and rather than sacrifice more men was willing to forego further military glory. Now that the war is over we have the problems of reconstruction. As the war went on the spirit of sacrifice and service grew. Why shouldn't we now have a better world? Reconstruction meant getting a better world.

Things are not just where they were and never can go back; aiming to get a better world has become the general idea. We must not be astounded if a period of reaction sets in. Every war has had this, but we hope this will be a shorter period. We will possibly be amazed to see how quickly France and Belgium will be reconstructed. Perhaps there will be a period of despondency, but what we have done in the past will be done in the future, and the good God will not forsake us if we go abreast forward to meet the future.

"I saw written on a wall after Germans had driven the Allies back," he said, "Pessimists will be shot on sight." Don't yield to pessimism.

Reconstruction means national unity; all parts, creeds and sections of the country must work together. No class is served by the loss of another class. You can't build up the West if you bankrupt the East, and vice versa.

The greatest instrument in reconstruction is Education; the whole world is being swept by a fresh sense of the value of Education. Britain had not given enough thought to the value of technical education.

Mr. Fisher had set himself to evolve a system like that of our own province. Ontario takes rank in this with the greatest states of the world. There is no excuse for people who look for defects and see no good. There is an almost universal desire for every advantage to boys and girls.

So far as Ontario is concerned there are

just one or two factors. Many educational difficulties can be solved by money. For Education it is worth while to spend money. The Department is attacked for being too highly centralized and in the next breath asked to take on more functions.

"I beg of you," he said, to do all in your power to create an active public opinion to make a large investment."

We must now construe education on a broad basis; all want a substructure. Don't allow anyone to stampee you to forget the structure—a defective body means a defective mind.

Our Government is making every possible opportunity to deal with this; we will get marvellous results from the care of the child. Our Department has provided the necessary resources for making a survey of the rural schools. They are making a partnership with Mr. Putnam and the Women's Institute. In March a thorough survey of rural schools will begin with subsequent inspection, which will continue until the whole of the province is covered.

The second matter was the announcement authorized by the Prime Minister of Ontario that a bill is in preparation which is described as "An Act" to render farmers' wives and daughters eligible as members of the school board." At present they can act in that capacity only if on the assessment roll; the bill will give eligibility to the wife or daughter of any farmer on the assessment roll, provided she resides on the farm.

Someone asked why it should be confined to farmers' wives and daughters, explaining that many women, who would make good trustees, resided in unincorporated villages. Dr. Cody promised to bring that matter before the Committee.

In the long run, he said, no possible changes can be made except when backed up by public opinion. We speak of Democracy, but it must be an educated Democracy. We cannot overestimate the value of the teacher, and the problem of education. Grouping of schools will make them a centre of social life.

1919 ushers in a new era in the whole world, and there is no country better than Canada.

Dr. Cody closed by wishing his hearers every possible success in their splendid work.

Dr. Backus thanked Dr. Cody for his splendid speech, and took up the matter of consolidated schools. The first steps to be taken in organizing is to take the matter up with the inspector and make application to the Department of Education.

Thursday Morning, Feb. 6th.

Mrs. Geo. Smith, Delhi, presiding. Dr. Backus gave the report for Western Ontario. The programmes of Rodney and West Kent had been excellent.

Any report of to-day was the work of the past; we should now turn to reconstruction; the aftermath of the great war.

All the branches are interested in medical inspection; prejudice is gradually being broken down, entirely through the Women's Institute. People are learning that it is not something being put over them, but the same privilege that the towns and cities have.

Dr. Backus declared that the two black flies in the amber were two letters introducing party politics. What benefit will the vote be if all we can do is fall into party lines? The vote is a power; let us use it as a power and lift our representatives out of the slimy atmosphere of party politics to the beautiful atmosphere of ideals. Let us keep politics out of the W. I.

A short report was then read from Rainy River. The people were poor and the roads bad, but nevertheless they succeeded in having medical inspection of six hundred children. Dr. McKenzie Smith rode for miles over corduroy roads to do her work. This district was the first to have clinics, and one hundred and forty-seven cases were attended to.

This district had grown from thirteen branches to sixteen. In 1917-18 they had raised \$1,650.80 and done their full share in the patriotic and marine drive. The most progressive branch wants Demonstration Lectures. They also need a hospital, and when asked to help with a movement for soldiers, replied that if the movement take the form of a hospital they will co-operate.

Hot Lunches in Schools.

The Hot Lunch for Rural Schools was the subject taken by Mr. Leake, Director of Domestic Science in the Department of Education. Mr. Leake said Canada is passing through a critical period, and on the work done in the next five years depends the future of the race. The work of the W. I. has to do with education. Rural schools are a most important part of the educational system; forty-four per cent. of the children attend them.

In his pleas for hot lunches Mr. Leake said he had been in one school where Domestic Science was taught at noon. Each child set his and her dish as a dining table and a bowl of hot soup made by the pupils was served, or a cup of hot cocoa. In another school the teacher was eating a sandwich while writing on the board. In the first school the boys carried the water and helped to wash and dry the dishes. Another school had a large table from which the children ate their lunches in orderly fashion.

The advantages of hot lunches are improved work and better spirits. Trustees do not like new-fangled ideas, but give a new idea a trial, and if no good throw it out. Much depends on the teacher, and there are too many "suit-case" teachers. However, they are not altogether to blame, as the section is often not made attractive for them.

The Department of Education is experimenting with equipment. A three-burner oil-stove and a cupboard that can be put in a corner of the school room, cost \$40.00 or \$50.00.

Children all ask to be taught sewing also. Two and one-half hours a week could be spent in sewing, and one hour in cooking.

The Department has a manual on Household Science which contains twenty lessons in cooking, twenty on sewing and twenty on care of the home. There is also a chapter on school lunches, with recipes.

There is a grant for every school which teaches Domestic Science, a grant for every teacher, and \$10.00 extra if she serves a hot lunch; but the pay is not in dollars and cents so much as in improved work and spirits. All school lunches should be supervised. One rural school teacher said there was more moral and physical harm done in the usual lunch hour than in any other way.

Another said she found the school board as dead as a doornail, but was not discouraged, requested a meeting and persuaded them that it was for the good of the children.

A book called "Household Science in Rural Schools," is published by the Wm. Briggs Co., and costs forty cents.

When asked who furnished the food for lunches, the speaker said provisions were brought by the children. Then a grant of \$20.00 came from the Government after the \$40.00 had been paid for equipment.

Vote of Appreciation of Mr. Putnam.

A special resolution was then brought in by Miss Watson, endorsed by the Eastern and Western delegates.

As it is now three years since we have had the opportunity of meeting together as a whole and representing as we do thirty thousand women, we consider it a fitting occasion to show our appreciation of the able and untiring leadership of our Superintendent Mr. Geo. Putnam, and express the hope that he may long continue as our head and leader, and that a copy of this resolution be sent to the Minister of Agriculture.

Resolutions Committee Report.

Mrs. Todd, of Orillia, then brought in the report of the resolutions committee, as follows:

Resolutions Committee.—Mrs. William Todd, Orillia, Chairman; Dr. Margaret Patterson, Toronto; Mrs. L. C. Burns, Caledonia; Mrs. Jas. Patterson, Gadshill; Miss M. E. Pearson, Merrickville.

Met in the office of the Superintendent, at 10 o'clock, in the morning of the 4th of February, 1919. The following resolutions were dealt with:

1. We, the members of the Lobo Women's Institute believe that compulsory military training was the chief cause of the great European War.

In view of the impending peace, the object of which is to remove militarism from the world and the establishment of a League of Nations we wish to place ourselves on record as being opposed to the continuance of military training in our schools and colleges, and we would

request that it be eradicated from the school curriculum and in its place additional prominence be given to physical culture.—(This was laid over until there is full assurance that further training is not necessary.)

2. THAT the Resolution from the O'Connor Women's Institute asking that free homes for the Insane be provided, and also that the Resolution from Kenora, Thunder Bay and Rainy River districts asking for adequate provision for the Insane and Feeble-Minded be endorsed by this Convention, and forwarded at once to Dr. Gordon Bates, Secretary of the Provincial Organization for the care of the Feeble-Minded.—(Endorsed and forwarded to Dr. Gordon Bates.)

3. THAT the anonymous Resolution received.

"RESOLVED that all bachelors be taxed and that a smaller tax be imposed on married people who have no children, and that the income from such taxes be applied to the education of children who have no one to provide educational advantages for them." be thrown out.—(Thrown out.)

4. THAT we endorse the protest of the Wilson Road—Maidstone Branch against the importation of poppy seed into Canada as it is believed to be a noxious weed and that such protest be forwarded at once to the Horticultural Societies Convention now in session.—(Endorsed.)

5. THAT the request of North Oxford for representation on a special committee which may be named to deal with transportation entertainment, etc., of delegates be laid over for open discussion under district work.—(Laid over for discussion.)

6. THAT the Resolution of the Central Dumfries Women's Institute asking this Convention to petition the Government to grant universal Suffrage to women before the next election be laid aside as not coming within one jurisdiction.—(Action deferred.)

7. THAT the Carleton Place Women's Institute resolutions be adopted: BE IT RESOLVED that in the opinion of the members of the Women's Institute of Carleton Place, the Public School Act should be so amended that women whose husband's names appear on the assessment roll as ratepayers should be eligible to the office of School Trustee.—(Already granted.)

8. THAT with regard to resolutions from Central Dumfries and Halton County upon Daylight Saving, we ask careful consideration by our Federal Government as to whether the advantages of this measure outweigh its disadvantages, and if its continuance be found to serve the best interests of the Dominion THAT this Act be so amended as to make it more acceptable to the rural people.—(Carried.)

9. THAT in respect to the Resolution from North Essex asking that action be taken to stamp out the manufacture, sale and importation of cigarettes, we urge our members to interest themselves in the study of the increased use and the injurious effects of cigarettes upon the children with a view to arousing public opinion as to the necessity of such action being taken.—(Carried.)

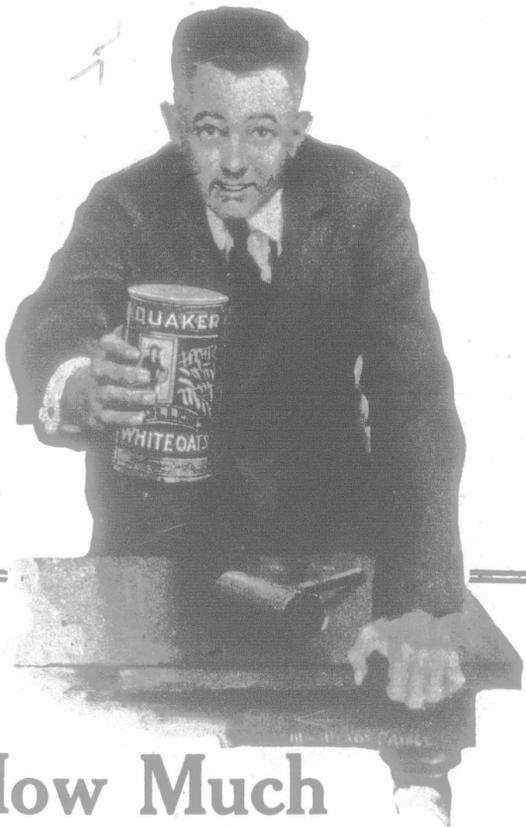
10. THAT the South Lanark Resolution strongly condemning the Senate for voting the Bill for Amendment of the Criminal laws as passed by the Commons be endorsed, and that we express the hope that in the light of further consideration these amendments will be passed at the coming session.—(Carried.)

11. THAT the Resolution of South Lanark asking that a woman (or women) be appointed on the Board of Censors for Moving Picture Films, be adopted, with the addition that we ask for a Dominion Board of Censors, to standardize pictures so presented.—(Carried.)

12. THAT the Resolution asking that lectures on "Laws Relating to Women and Children" and on "Citizenship" be included in our Summer Series of subjects, be adopted.—(Carried.)

13. THAT the Branches be advised to bring matters of official interest to their Annual meetings and from there send in their suggestions, recommendations or resolutions for the agenda of the convention, and have some person appointed to open the discussion.—(Carried.)

14. With a view to the extension of the work, this committee recommends THAT the Government be petitioned to give a larger grant to the districts.—(Carried.)



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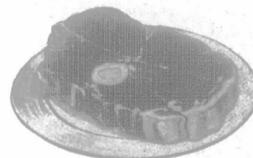
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At this writing, that same energy value costs in other foods as follows:

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In Round Steak	2.56
In Veal Cutlets	3.56
In Hens' Eggs	4.25
In Halibut	3.31
In Salt Codfish	4.67
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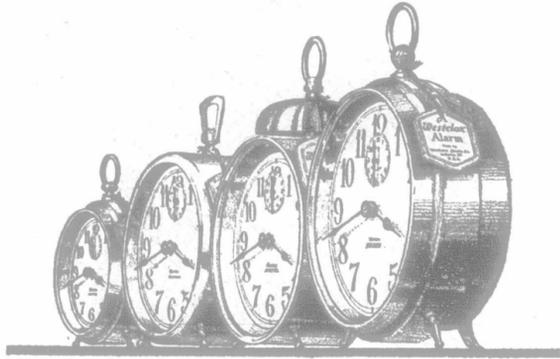
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15. After careful consideration, of the two plans submitted for Provincial organization copied of which have been distributed, we recommend THAT plan A be adopted, with the addition that the seventeen representatives have power to add to their number. We feel that this plan is necessary that we may be in a position to send delegates to the Dominion Organization again to be held shortly in Winnipeg.—(Adopted, as temporary.)

16. THAT the following Resolution from Thunder Bay District be adopted: as in the best interests of that section of the province.

"WHEREAS at the present time there is great need in the district of Thunder Bay for a woman representative to assist and instruct the wives of the farmers and pioneers along agricultural lines, and so as to insure the greatest possible production, thrift and economy in the management of the farms and homesteads in this district.

THEREFORE the Women's Institute of the District of Thunder Bay, petition the premier and the Minister of Agriculture for the appointment of such woman representative preferably a woman from this part of the province who is well versed in these subjects—such representative to act among the women in a similar capacity to that of the present district representatives of the Department of Agriculture.—(Carried.)

17. AND FINALLY THAT the committee wishes, on behalf of all members of the Women's Institutes of the Province of Ontario to most heartily endorse the words of appreciation expressed in a resolution from the Thunder Bay district of the work accomplished under the able leadership of our superintendent, Mr. Geo. A. Putnam, and considering the extent and importance of the work done by Mr. Putnam, and in considering the great problems of Reconstruction, the women of the Institutes now assembled, petition the Government to make such increase to the salary of our Superintendent as shall assure us of his continued leadership of the Ontario Women's Institutes—the phenomenal growth of which has been largely due to his untiring efforts and his executive ability.—(Carried by standing vote.)

The convention then sang "For He's a Jolly Good Fellow."

An additional resolution was brought in asking that a system of pensions be granted to needy mothers. Also one wishing to put on record one regret that we no longer have the able services of Miss Susie Campbell. And one sending greetings to Miss Guest, our representative in England.

It was then moved by Mrs. Fowler, seconded by Mrs. Brethour: That the committee be empowered to nominate two delegates to represent us at the Manitoba Convention to be held in Winnipeg.—(Carried.)

A Resolution passed that Principal McKay and all others concerned be given thanks for kind and courteous treatment during convention.

The Needs of 1919.

BY DR. RIDDELL, DIRECTOR OF LABOR BUREAU, TORONTO.

Dr. Riddell said that in wondering what he would talk about to women he decided to talk about "women." Will the farmer need the farmerette during the coming year? What effect will unemployment have on the farmerette? Will she be needed? Undoubtedly the farmer is in a better position to hire labor and 1919 will see more labor than any other year.

Women were especially good at picking small fruits and the demand would be as great as last year.

"We believe we can get a large number to go on fruit farms if the wages are better," said the Doctor "and would like to see fifty per cent. more earn ten dollars per week."

The Government could as yet see no possible way of solving the domestic problem in the country.

A charwoman in the city gets more than a policeman. The unskilled average wage in county is twelve to fifteen dollars per month, half of the average wage in the city.

Labor, like capital, goes where interests are best and wages are high. A man must have the prospect of a farm of his own or be able to at least rent a home of his own. Dr. Riddell would like to see the W. I. take advantage of the money offered by the Government and build cottages on farms.

The Hon. Mr. Henry, Minister of Agriculture, then made a short speech of welcome. He was at the present meeting just to express his sympathy with all their movements. It is on the branches of the W. I. we depend for rural improvements.

It is always a problem to retain people on farm, and we must supply the incentive to keep the youths. Don't let the smart boys and girls leave the farm.

He wished to accentuate what Doctor Riddell said that we must have cottages for hired help on farms, he knew this from experience; there should be a cottage on every one-hundred acre farm. Ontario's share of the twenty-five million dollars from the Dominion for housing, was from ten to twelve millions, and he was anxious for legislation on the situation.

Afternoon Session, Feb. 6.

Mrs. Powell presiding.

Mrs. Todd presented her report of nomination committee for officers of Provincial Organization, seventeen names in all.

Use of the Vote.

Mrs. L. A. Hamilton then gave a talk on this subject.

Now that we have the vote we are faced with the problem of how to use it. We are born into party politics and a great many men were party politicians because their fathers were. Are we going to allow our independence to be taken from us? We run the risk of weakening the power given us if we drift into party politics.

Politics really mean the Science of Government. What women want always has something to do with child welfare or care of feeble-minded.

Most things have a legislative side and when we know we have the franchise we know we have power. We must focus on things we need.

Many of us will be camouflaged when we don't know it; we must keep ourselves independent. Our electoral power is great. For fifteen years women have been trying to get the "red light district" abatement. We have the power now if we will keep together. Also on the prohibition issue, we must stick together.

Miss Becker of the Ontario Woman's Citizenship Association, then spoke mentioning four books written by Ontario women on the subject, "Our Government", by Mrs. Stevenson, Guelph; a book by Miss Blanch Reed Johnston, Barrie; "Handy Guide to the Laws of Ontario," by Mrs. Laing; and "Manual for Conduct of Meetings," by Mrs. Parsons.

Mrs. Griffith Thomas then spoke on McCaul Mission to France. She wished that different branches of W. I. could become interested and help in the adoption of children and other ways. Many pathetic stories of refugees were told by Mrs. Thomas.

Mrs. Snell then introduced the War Thrift Stamps with a message from the Government on the war saving plan.

Major Bailey Officer Commanding the College St. Hospital for Nervous Diseases gave an address on the use of Occupational Therapy in nervous diseases. He showed specimens of work done by men who were apparently helpless when received in hospital. Some of the men have completely lost their memory but by gradually putting their minds to work on small things the power comes back. The Major emphasized the thought not to sympathize with them; they do not like that, but should be helped tactfully.

Institute for the Blind.

Mr. Swift of the Institute for the Blind now spoke on that institute.

Talking of partners in the work he told the ladies that their Supt., Mr. Putnam, is their representative on the board of directors.

The work includes (1) A library department which has seventy thousand volumes and supplies of games and amusements. (2) Pearson Hall has been opened and supplements Occupational Therapy. (3) A broom shop has been opened on King St. West, and employs eighteen blind men. On Adelaide St. there was an industrial shop for blind women where fourteen are employed. The men get \$7 a week and the women \$6, while learning to work.

The Home Teaching Department sends its agents to visit people all over Ontario.

The speaker, W. I. Institute

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oon Session, Feb. 6.
residing.
presented her report of
ommittee for officers of
nization, seventeen names

of the Vote.
Hamilton then gave a talk

we have the vote we are
problem of how to use it.
nto party politics and a
en were party politicians
fathers were. Are we
our independence to be
We run the risk of weak-
er given us if we drift

mean the Science of
What women want
ething to do with child
of feeble-minded.

have a legislative side
now we have the franchise
have power. We must
we need.

will be camouflaged when
t; we must keep ourselves
Our electoral power is
een years women have
et the "red light district"
e have the power now if
together. Also on the
e, we must stick together.

of the Ontario Woman's
ociation, then spoke men-
oks written by Ontario
subject, "Our Govern-
rs. Stevenson, Guelph;
Blanch Reed Johnston,
Guide to the Laws of
rs. Laing; and "Manual
f Meetings," by Mrs.

Thomas then spoke on
to France. She wished
anches of W. I. could
ed and help in the ad-
ren and other ways.
stories of refugees were
omas.

en introduced the War
with a message from the
the war saving plan.

y Officer Commanding
Hospital for Nervous
address on the use of
efaphy in nervous dis-
ed specimens of work
who were apparently
ceived in hospital. Some
e completely lost their
gradually putting their
small things the power
the Major emphasized
sympathize with them;
e that, but should be

for the Blind.

the Institute for the
on that institute.
rtners in the work he
that their Supt., Mr.
representative on the

s. (1) A library de-
has seventy thousand
opies of games and
Pearson Hall has been
lements Occupational
A broom shop has been
St. West, and employ-
men. On Adelaide St.
ustrial shop for blind
urteen are employed.
week and the women \$6,
work.
ching Department sends
people all over Ontario.

The speaker wanted all the women of the
W. I. to be missionaries for the Canadian
Institute for the Blind.

Mrs. Bailey, of Rodney, now gave
a good report. Items were that the town
library had been taken over and a bed
of geraniums put in front of the municipal
building and that the cemetery committee
were keeping the grass and flowers
watered.

Mr. Putnam now answered a few
questions. The address of the gentle-
man who gave the talk on feet was
310 Yonge St.

A copy of the complete plan for Pro-
vincial Convention would be sent to
each delegate who had registered.

Mr. Leake is "in love with W. I. and will
devote the whole of June to visiting them.
So if you want him send in your name."
The Provincial Organization was started
to co-operate with district organizations
and will meet next fall to form a perman-
ent organization. He wanted the as-
sistance of the committee of seventeen
at an early date to formulate plans for
medical inspection and general health
campaign.

Several lines of work had been suggest-
ed to Mr. Putnam and he wanted to
emphasize some of them, among these
aggressive campaign for extending the
provincial power of institute. Every
school section should have an institute.

Girls work and instruction with re-
gard to it.

Mr. Putnam expressed his appreciation
of resolution passed by his audience that
morning in regard to his work among
them.

The report of the committee on
election of officers for the provincial
organization was then read: President,
Mrs. Todd, Orillia; 1st Vice-Pres., Mrs.
Read, Renfrew; 2nd Vice-Pres., Mrs. J.
Patterson, Gadshill; Secretary, Mrs. O. D.
Allen, Port Arthur; Directors, Miss
Pearson, Merrickville; Dr. Backus,
Aylmer; Miss Beardmore, Port Credit;
Miss Mackay, Beaverton; Mrs. John
Clark, Englehart. Delegates to Winnipeg
—Mrs. Todd, Orillia; Mrs. Patterson,
Gadshill; Alternate, Mrs. Allen, Port
Arthur.

The following committee was appointed
to wait on Judge Hodgins.

Mrs. Todd, Dr. McKenzie Smith,
Mrs. Allen.

It was moved and seconded that Mr.
Putnam be made Hon. Secretary of the
Provincial Organization.

The audience were then informed
by Dr. Margaret Patterson that they
had a vote in municipal elections if a
British subject and resident for one year.

In provincial elections, if British subject
twenty-one years of age and resident in
province for one year.

In dominion elections if name is on
provincial voters list.

Voters lists were posted in certain
lawful places, generally the post office.
If not on take case to the Court of
Revision.

It was moved and seconded that no
politics be discussed in Woman's Institute.

The convention was asked to put
itself on record as asking that women be
put in places of justice when women and
children are up on trial.

Mrs. Patterson, Gadshill, now gave
a very thoughtful and interesting paper
on "What Farm Women are Doing."
She went back twenty-five years and
told of work done by women in the last
quarter of a century, the real farm work.

Comparison was made between then
and now; machinery and the incubator
had worked wonders as had the cream
separator. The evening was now spent
with Farmer's Magazine or "The Farm-
er's Advocate."

Mrs. Patterson wanted to know if her
hearers had a vision of reconstruction
and said "Are we ready every woman
of us? Are we going to help the foreigner
to be a good citizen of our country?"

For Home and Country is our motto
are we going to measure up?

The convention closed with the singing
of "God Save the King."

Musical Mysticism.—"What is that
tune you were playing on the piano?"
"That isn't a tude. That is a sonata."
"What's the difference?"
"Well, with a sonata it's hard for the
average listener to detect mistakes. With
a tune you've got to know pretty well
what you are about."—Boston Tran-
script.

A Valuable Book about Barns



MANY a Farmer has told us that he first got the right idea about his barn requirements from a reading of our big Barn Book.

It is full of practical information—and explains our method of supplying Barns ready to erect—at prices which represent a big saving.

We manufacture on a large scale and buy our materials in immense quantities—that's why we are able to deliver you a barn big enough for a 100 acre Farm for the low price of \$1813.00.

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The Metal Shingle & Siding Company, Limited,
Preston 120 Guelph St. Toronto 40 Abell St. Montreal 86 De Lorimier Ave.

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Registered O.A.C. No. 72 Oats—These oats took first prize in Field Crop Competition in 1917 and 1918; are grown from hand-selected heads, inspected by the Government before leaving my granary. Price, \$1.30 per bus. Bags free. Liberal discount to Farmers' Clubs.
W. B. FERGUSON, R. R. No. 2, Strathroy, Ont.

Wish I Could Knit Dollars You Can—and right in your own home, too. War time pay rates guaranteed for three years knitting socks with



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Also winner of two firsts at Ottawa Winter Fair, Prize winning O.A.C. No. 21 Barley at Guelph and Ottawa. Both grown from registered seed under rules of C.S.G.A. Also a small amount of Marquis Wheat, common White Pea Beans (Early Maturing) and Alsike. Samples and price on request.
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- S-W Dry Powdered Arsenate of Lead**
Can be kept from year to year. Will not freeze or evaporate. 1-lb. does the work of 2-lbs. of paste.
- S-W New Process Arsenate of Lead (in paste)**
Neutral—will not burn or hurt even the tenderest foliage.
- Berger's Pure Paris Green**
Sure death to potato bugs. The Standard Paris Green for years—up to Government standard in every way
- S-W Calpoiso-Arsenate of Lime**
A Dry Powder. The best to mix with Lime Sulphur or Bordeaux Mixture.
- S-W Dry Lime Sulfur**
A Powder to be mixed with water. Lasts for years. No freight to pay on water as is the case with solutions.
- S-W Insecto**
Arsenate of Lead combined with Bordeaux Mixture to spray garden and orchard.
- S-W Tuber-Tonic**
Kills bugs and fungus on potatoes. In dry form.

Write us for our spraying guide. Also for any further information regarding the above material.

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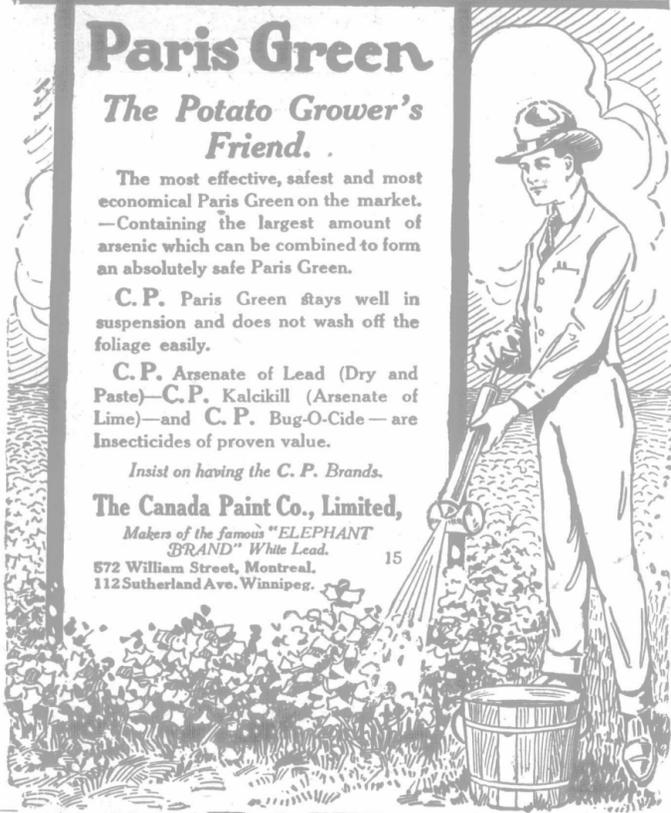
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Hope's Quiet Hour.

With Christ in Service.

I saw a Saint.—How canst thou tell that he
Thou sawest was a Saint?—
I saw one like to Christ so luminously
By patient deeds of love, his mortal taint
Seemed made his ground work for
humility.
—CHRISTINA ROSSETTI.

You will find my text for to-day in the first part of S. John 13. There we see our Master and Lord, conscious of His high position as Head of the Church and Ruler of all the universe, deliberately choosing to do the lowly work of a slave. In a few hours He will set the great copy of unflinching endurance of shame and suffering—a copy which men and women try hard to imitate, but they can never read the beauty of its selfless patience. Now, in the midst of the Apostles, He gives an object lesson of willing service, which it must be our daily business to copy. Patient endurance of suffering may not be our business to-day, but we are always called to be with Christ in service. The "shut-in" can render the highest possible service—helping their comrades silently and splendidly by self-forgetting intercession.

Look at that amazing picture, drawn by St. John in the 13th chapter of His Gospel. The little band of disciples had gathered around their Master in an upper room in Jerusalem to keep the Passover. Their feet were dusty and hot, but there was no slave present to perform the customary duty of washing the feet of the guests. Of course none of the Apostles volunteered to stoop down and wash the dirty feet of his comrades. Probably no one even thought of doing it. A fisherman, priding himself on his sturdy independence, would scorn to stoop like a servant before a publican. Perhaps they might have been willing to wash the feet of their loved Master—they were willing to own their inferiority to Him—but to serve each other! No.

Did you ever think that when the feet of those twelve Apostles were tenderly and carefully cleansed there was One among them who had no one to serve Him? Did the Master, in the midst of His servants, wash His own feet? Perhaps St. John, eager to carry out the command: "If I then, your Lord and Master, have washed your feet ye also ought to wash one another's feet. For I have given you an example, that ye should do as I have done to you"—perhaps the beloved disciple had the joy and privilege of bathing those feet which were so soon to be pierced. If any of the other Apostles had offered I think he would have mentioned it—I feel sure that he who tells the story so beautifully was thrilled himself with the beauty of the Master's act of service.

Because our Master gladly served His own servants we cannot feel any lowly duty beneath us, for we are inspired to serve with Him and under Him.

The attraction of Christ is strongly felt in the world to-day. A chaplain at the front said that for years the trench ran through a ruined village. Then was nothing left but a crucifix. His words seen more like a parable of life than a fact of the war.

"The figure of Christ is looking across the waste of No-Man's Land. Under His right arm and under His left are British soldiers holding the line. Two 'dud' shells lie at the foot; one is even touching the wood. . . . When our men awake and 'stand to' at dawn, the first sight they see is the cross; and when at night they lie down in the side of the trench or turn into their dug-outs, their last sight is the cross. . . . For three years, night and day, Christ has been standing there in the midst of our soldiers, with arms outstretched in blessing. What must have been the thoughts of the sentries in the listening-posts as all night long they have gazed at the cross. . . . Deep thoughts, I imagine—much too deep for words of theirs or mine."

Nearly a hundred years ago an infuriated mob in Paris, bent on wrecking the Tuileries, broke into the chapel and were stopped suddenly—stopped by what? It was only a picture that hushed those angry men into silence—but it was the picture of Christ. The crowd knelt

down in instinctive reverence, while the picture was carried out. Then they went on with their work of destruction—the work they did not dare to do before those painted eyes. Would they have dared to do it if they had realised the truth that He, Whose eyes are as a flame of fire, was invisibly in their midst?

Men may talk as if Christianity had lost its grip on men and women to-day. Christendom may be split into hundreds of sects, warring fiercely with each other over doctrines and theories. There are many—too many!—conflicting opinions about Christianity, but there is only one Christ. We all agree about the splendor of His beautiful Life and victorious Death. Each Christian—no matter what name he may give to his particular communion—claims Christ as his Master and Lord.

"If Jesus Christ is a man,—
And only a man,—I say
That of all mankind I cleave to Him,
And to Him will I cleave always.
If Jesus Christ is a God,—
And the only God,—I swear
I will follow Him through heaven and hell,
The earth, the sea, and the air."

Many, who refuse to own Him as God, yet are inspired by His example and are whole-heartedly trying to follow His ideal of service. It is from Him that the passion for social service has come. Many people are more Christian than they think, spending their lives in the service of their fellows and never dreaming that each self-forgetting act of kindness done by them is treasured by the Master Who is working with them and through them. How amazed they will be when the King calls them to His right hand and says: "I was an hungered, and ye gave Me meat. . . . Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me."

Perhaps many who did not call Him "Master" are doing as He did, while we who profess to be His servants stand on our dignity, when there is some work to be done which we feel too grand to touch. This afternoon I was at a meeting where the subject of "Christian Unity" was eagerly discussed. Organic unity may be beyond our reach—I don't believe it would be a benefit to the Christian Church if all Christians thought alike about everything—but at least we can all be one in loyalty to our Master and in our determination to spend our lives in service. In the Great War there were many nations united in loyalty to one great Cause. They were both willing and able to work together harmoniously under the leadership of one general. That did not make the "Allies" one nation—but it resulted in victory.

We belong to a Grand Army, under the Leadership of a victorious Captain. Let us see to it that we are loyal to Him and also to each other. How can we win the world for our King if we spend our time and strength in picking quarrels with His other soldiers?

Someone has said that "it is always easier to feel that you love your neighbor across the ocean than to show you love the one across the street." Those words were written before the war, when neighbors across the ocean were only strangers, not foes. However, we can try to follow our Master by kindness shown to those who live near us or in the house with us. Such work may not seem as romantic as a foreign "mission"—until we remember that in it we are given the high privilege of kneeling beside Christ and helping to wash the feet of those who are very dear to Him.

To-day I was calling on a sick child, and the poor mother told me that everyone who came in brought him something. Just kindly neighbors!—poor in worldly goods, but rich in Christlikeness. You may not have earthly treasures to give to the King—the King who so often meets us, as He appeared to the wise men from the east, in the likeness of a poor little child—but money is not needed for the washing of a disciple's feet.

I know a glad-hearted woman who finds time in the midst of her busy day—a day that begins at five o'clock both summer and winter—finds time to slip into a neighbor's house and "bath" one of the babies, or bring home some children's clothes to wash (giving a lift to the tired mother) She lives in the city—it is not only country people who are neighborly. It is the little acts of kindness—the things "public-spirited people" feel don't amount to anything—that seem most like our Lord's washing of His disciple's

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feet. Perhaps you are feeling discouraged because you can't do anything of world-wide importance in this day of big enterprises. You can always find a chance to do some kindly deeds which great philanthropists have no time to do, or which they overlook as beneath their dignity. If no one else notices or remembers, the Master cares. As you kneel on the floor to wash the feet of a disciple (or, it may be, to scrub the floor) He is kneeling beside you, as He did long ago in Jerusalem. Or—it may be your privilege to wash His feet, in the person of one of His brethren.

"The God who proved us knows the place For which we're best adapted. He'll soon confer His great 'Well done!' On work we deem contracted."

DORA FARNCOMB.

For the Sick and Needy.

My thanks go out to kind readers for various gifts for the "shut-in"—scrap-books and S. S. papers. "Another Well-Wisher" sent two dollars "in memory of her mother—for some needy old lady. One of the scrap-books has gone to a crippled child and the other things will soon be passed on.

DORA FARNCOMB, 6 West Ave., Toronto.

Life, Literature and Education.

The Constitution of the League of Nations.

Continued from page 315.

and that they will afford passage through their territory to the forces of any of the high contracting parties who are co-operating to protect the covenants of the league.

Article XVII.

In the event of dispute between one State member of the league and another State which is not a member of the league, or between States not members of the league, the high contracting parties agree that the State or States not members of the league shall be invited to accept the obligations of membership in the league for the purposes of such dispute upon such conditions as the Executive Council may deem just, and upon acceptance of any such invitation, the above provisions shall be applied, with such modifications as may be deemed necessary by the league. Upon such invitation being given the Executive Council shall immediately institute an enquiry into the circumstances and merits of the dispute and recommend such action as may seem best and most effectual in the circumstances. In the event of a power so invited refusing to accept the obligations of membership in the league for the purpose of the league which in the case of a State member of the league would constitute a breach of Article XII, the provisions of Article XVI shall be applicable as against the State taking such action. If both parties to the dispute when so invited refuse to accept the obligations of membership in the league for the purpose of such dispute, the Executive Council may take such action and make such recommendations as will prevent hostilities and will result in the settlement of the dispute.

Article XVIII.

The high contracting parties agree that the league shall be entrusted with general supervision of the trade in arms and ammunition with the countries in which the control of this traffic is necessary in the common interest.

Article XIX.

To those colonies and territories which, as a consequence of the late war have ceased to be under the sovereignty of the States which formerly governed them, and which are inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world, there should be applied the principle that the well-being and development of such peoples form a sacred trust of civilization and that securities for the performance of this trust should be embodied in the

constitution of the league. The best method of giving practical effect to this principle is that the tutelage of such peoples should be entrusted to advanced nations who by reason of their resources, their experience or their geographical position can best undertake this responsibility, and that this tutelage should be exercised by them as mandatories on behalf of the league. The character of the mandate must differ according to the stage of the development of the people, the geographical situation of the territory, its economic conditions and other similar circumstances. Certain communities formerly belonging to the Turkish Empire have reached a stage of development where their existence as independent nations can be provisionally recognized, subject to the rendering of administrative advice and assistance by a mandatory power until such time as they are able to stand alone. The wishes of these communities must be a principal consideration in the selection of the mandatory power. Other peoples, especially those of Central Africa, are at such a stage that the mandatory must be responsible for the administration of the territory subject to conditions which will guarantee freedom of conscience or religion, subject only to the maintenance of public order and morals, the prohibition of abuses such as slave trade, the arms traffic, and the liquor traffic, and the prevention of the establishment of fortifications or military and naval bases and of military training of the natives for other than police purposes and the defence of territory, and will also secure equal opportunities for the trade and commerce of other members of the league. There are territories, such as South-West Africa and certain of the South Pacific isles which, owing to the sparseness of their population, or their small size, or their remoteness from the centres of civilization, or their geographical continuity to the mandatory States, and other circumstances, can be best administered under the laws of the mandatory States as integral portions thereof, subject to the safeguards above mentioned in the interests of the indigenous population. In every case of mandate the mandatory State shall render to the league an annual report in reference to the territory committed to its charge. The degree of authority, control, or administration to be exercised by the mandatory State shall if not previously agreed upon by the high contracting parties in each case be explicitly defined by the Executive Council in a Special Act or charter. The high contracting parties further agree to establish at the seat of the league a mandatory commission to receive and examine the annual reports of the mandatory powers, and to assist the league in ensuring the observance of the terms of all mandates.

Article XX.

The high contracting parties will endeavor to secure and maintain fair and humane conditions of labor for men, women and children both in their own countries and in all countries to which their commercial and industrial relations extend; and to that end agree to establish as part of the organization of the league a permanent bureau of labor.

Article XXI.

The high contracting parties agree that provision shall be made through the instrumentality of the league to secure and maintain freedom of transit and equitable treatment for the commerce of all States members of the league, having in mind, among other things, special arrangements which regard to the necessities of the region devastated during the war of 1914-1919.

Article XXII.

The high contracting parties agree to place under the control of the league all international bureaux already established by general treaties if the parties to such treaties consent. Furthermore, they agree that all such international bureaux to be constituted in future shall be placed under control of the league.

Article XXIII.

The high contracting parties agree that every treaty or international engagement entered into hereafter by any State member of the league shall be forthwith registered with the Secretary-General and as soon as possible published by him, and that no such treaties or international



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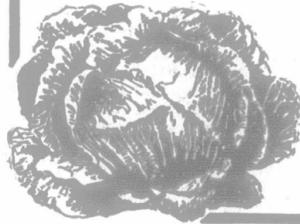
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Danish Giant or Dry Weather	pkt. 25c.	40s. \$2.25

Write for Catalogue
KENNETH McDONALD & SONS Limited, 2 Market Square, Ottawa

VALUABLE PURE-BRED STOCK

FOR SALE:

Shorthorn Bull (nine month) Crown Prince = 126259 = price \$125. Sire, Village Master 121375, Dam, Sunray, **Clydesdale Filly** rising two years Cedar Vale Lady [40510] price \$150. Sire, Promotor, Dam, Fancy Lady 30587. **Yorkshires**: one sow 20 months, Lakeview Lena 4th (bred by John Duck) about 250 lbs. at 20c. a lb. Five registered Yorkshire sows ready to breed; dam bred by John Duck, price 25c. a lb. F.O.B. Thirty registered Yorkshire suckers to ship 1st and 10th of March at 35c. a lb. F.O.B. Dams bred by John Duck. O. A. C. strain bred-to-lay Barred Rocks—eggs at \$1.00 for 13.

Wanted: Shorthorn females one and two years old. State price, age and number.
CEDAR VALE FARM UNIONVILLE, ONT.

SEEDS

A quantity of No. 2 Alsike Clover Seed, grown in Haldimand County. An attractive price will be quoted to intending purchasers.
Parkinson Bros. R. R. 5. Hagersville, Ont.

SEED CORN

A quantity of select Winconsin No. 7, from home-grown seed. Nail dried, germination guaranteed. Price on application.
T. H. Lovell - Alvinston, Ont.

Spread AGRI-LIME

GOVERNMENT surveys have disclosed the fact that the use of agricultural limestone is necessary in many districts throughout Canada.

In many cases the soil examined by the government experts was in immediate need of lime—in order to neutralize the acid condition. In some instances the soil was found to be of a naturally "sour" type—in other districts it was a case of "over-cultivation", the decay of vegetable matter having reduced the productive value of the soil. In either case the simple

remedy is to spread on such soil a liberal quantity of Agri-lime—the new agricultural limestone.

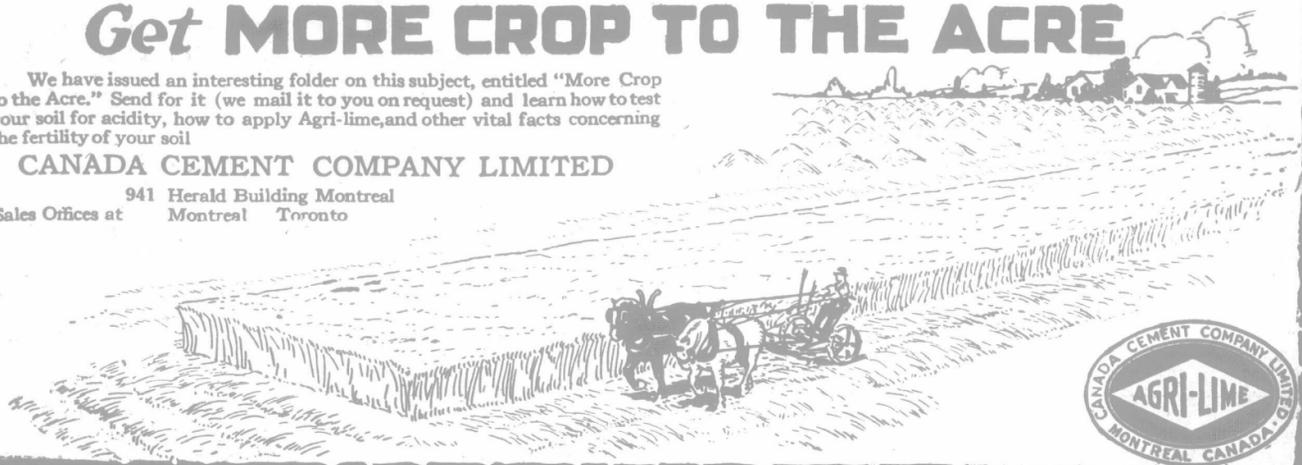
This new product fills a need that has long existed in Canada—it is a fine pulverized limestone, which will positively neutralize acidity in any soil. It will do for any Canadian land just what similar use of agricultural lime has done for the wonderful farms of France and Belgium, where they use it, in conjunction with other fertilizers, to correct acidity and restore the productivity of the land.

Get MORE CROP TO THE ACRE

We have issued an interesting folder on this subject, entitled "More Crop to the Acre." Send for it (we mail it to you on request) and learn how to test your soil for acidity, how to apply Agri-lime, and other vital facts concerning the fertility of your soil

CANADA CEMENT COMPANY LIMITED

941 Herald Building Montreal
Sales Offices at Montreal Toronto



engagement shall be binding until so registered.

Article XXIV.

It shall be the right of the body of delegates from time to time to advise the reconstruction of States members of the league, of treaties which have become inapplicable, and of international conditions of which the continuance may endanger the peace of the world.

Article XXV.

The high contracting parties severally agree that the present covenant is accepted as abrogating all obligations and interests which are inconsistent with the terms thereof, and solemnly engage that they will not hereafter enter into any engagement inconsistent with the terms thereof. In case any of the powers signatory hereto or subsequently admitted to the league shall, before becoming a party to this covenant have undertaken any obligations which are inconsistent with the terms of this covenant, it shall be the duty of such power to take immediate steps to procure its release from such obligations.

Article XXVI.

Amendments to this covenant will take effect when ratified by States whose representatives compose the Executive Council and by three-fourths of the States whose representatives compose the body of the delegates.

Two men, thrown together at a horse show, were discussing their adventures with the equine tribe.

"A horse ran away with me once, and I wasn't out for two months," remarked the man with the Trilby hat.

"That's nothing!" replied the man with the bowler. "I ran away with a horse once, and I wasn't out for two years!"

Campbell's Sale of REAL CATTLE

DAIRY COWS STOCK STEERS HOGS, etc.

At "HILLVIEW FARM," KOMOKA, at one o'clock, on

Wednesday, February 26th, 1919

SALE STORM OR FINE

Sixteen choice dairy cows, new milkers or springers. Several choice young calves. Thirty-three choice Durham stock steers, two years old. One registered Holstein bull, coming one year old. One good brood sow, bred. Seven shoats, weighing about 80 lbs. each. The above cows are an exceptionally fine lot, young, well-bred and in prime condition. The stock steers have to be seen to be appreciated. Parties wanting choice stock should not fail to attend this sale.

Terms and conditions: Eight months' credit on furnishing approved joint notes or bankable paper. Six per cent. per annum discount for cash.

All animals at purchaser's risk as soon as sold, but will be cared for a reasonable time. All stock for shipment, F.O.B. cars C.P.R. or G.T.R., Komoka.

T. F. HAWKEN, Auctioneer
A. E. McKAY, Clerk.

DAN. CAMPBELL, Proprietor

Current Events

As this paper goes to press, Monday, February 17, the news has arrived that Sir Wilfrid Laurier, who was stricken with paralysis yesterday, is dead.

Philip Gibbs, the most famous war correspondent in the world is in the United States, and will visit Canada before returning to England.

An insurrection is in progress in Roumania which will likely result in the establishment of a Republic. The father of Queen Marie, wife of King Ferdinand, was the Duke of Connaught, son of Queen Victoria.

Premier Ebert has been chosen as first President of the German Empire, and the National Assembly at Weimar has unanimously adopted the Government's draft for a constitution.

He Knew Him.

Sandy had been photographed, and as he was looking intently at his "pictur" Tam McPherson came along. "What's that ye hiv thee?" he asked. "My photygraph," replied Sandy, showing it proudly. "Whit d'ye think o' it?" "Mon, it's fine," exclaimed Tam in great admiration. "It's just like ye, too. An' what might the like o' they cost?" "I dinna ken," replied Sandy. "I hinna peyd yet." "Mon," said Tam, more firmly than ever, "it's awful like ye!"

The Dollar Chain

Exclusively for maimed and blind Canadian soldiers unless otherwise requested.

Contributions from Jan. 31 to Feb. 14: "Toronto", \$2.00; "Glanford Station" (for Belgian Relief) \$2.00; Herbert Smith, Blenheim, Ont., 50 cents; J. W. Campbell, R. 4, Rockwood, Ont., \$3.50; A Friend, Shetland, Ont., \$3.50.

Previously acknowledged.....\$5,820.00

Total to Feb. 14.....\$5,831.50

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

For the Salvation Army Rescue Home and Orphanage.

Contribution from Mrs. S. Carson, Miss C. Travis, and Miss A. Weaver, \$15.

Total to Feb. 14.....\$54.75

One of Her Own.

"Well, Mary," said the minister kindly "you didn't come to our little gathering last night after all. How was that?" "Please, sir, I had a little gathering of my own that prevented me." "Oh! And where was that?" "On the back of my neck."

How Fast Sound Travels.

Sound travels at the rate of 400 yards a second, but there are some exceptions to the rule: Scandal—1000 yards a second. Flattery—500 yards. Truth—2½ yards. An alarm clock—barely 1 foot.

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Candy Without Sugar

BY LILIAN D. MILNER.

To make clear toffee, a favorite with the children and the boys Overseas, to each cupful of corn syrup add a table-spoonful of vinegar and a teaspoonful of unmelted butter. Boil till it becomes very hard and brittle when dropped into cold water. Pour into buttered tins. When quite cold break with small hammer and if sending Overseas pack in tin canisters to keep dry. Corn syrup tins washed and thoroughly dried are splendid for packing candy in for Overseas. Hard toffee is much more easily digested than soft, creamy candy.

To make horehound candy, use the same recipe. Steep one ounce of dried horehound, which can be procured at any drug store, in one and a half cupfuls of water over night. Strain and add the liquid to three cupfuls of syrup. Boil with vinegar and butter as for plain, clear toffee.

The prohibition on the importation of nuts will mean a further, soaring upwards in their cost. People with butter-nut trees can count themselves fortunate. For other nut-candy lovers puffed rice will prove a good substitute for nuts. This same recipe is the one I use for puffed rice candy, which is splendid for children as it is so economical and much more easily digested than candy containing nuts. I make this candy in a deep dish, using just enough of the toffee syrup to stick the grains together. It is hardly suitable for Overseas as it is so light but any soldier with a weakness for peanut brittle would appreciate a ball or bar of this candy wrapped in oiled paper, stowed in a corner of his box. While soft break off large pieces, form into bars or balls and wrap in oiled paper. Popped corn candy is made in exactly the same way.

A delicious caramel candy, similar to that imported by Canada from England, large quantities of which were sent to the troops in South Africa during the war, is made by adding half a cup of milk, and a piece of butter the size of a walnut to three cups of corn syrup. Boil till it forms a ball in cold water. Beat as for fudge until waxy and pour into buttered tins. No flavoring need be added unless especially desired as corn syrup has a pleasing flavor of its own. Let stand in tins till quite cold—break with hammer.

This candy can be cut into small squares while soft and wrapped in oiled paper for caramels. By adding chocolate to the mixture while cooking, or nuts or puffed rice before pouring into buttered tins. A number of different kinds of caramels can be made, or the caramels can be dipped in melted unsweetened chocolate, of which Canada has no scarcity as, yet.

Molasses candy is always a favorite with the children. Boil molasses with a little butter until it becomes very brittle in cold water, being careful not to let it burn. Pour into buttered pie plates and when cool enough to handle, pull till it is light colored and quite stiff. Break off into three inch lengths and wrap in oiled paper.

For delicious fudge boil one cupful of maple sugar with one cupful of water until it forms a ball when dropped in cold water. Remove from stove and stir until it becomes creamy. Pour into buttered plate, and cut into squares while cooling or form into little balls and put nut meats on each side.

To make stuffed dates open and remove stone after washing. Dry in a slow oven. When dry insert nut meat and dip into melted chocolate (unsweetened). Melt the chocolate in a double boiler and keep it just warm enough to prevent it from solidifying. Use a silver fork for dipping and when dates are thoroughly coated place on oiled paper to harden.

Delicious candy is made by putting half a cupful each of dates, washed figs, and nut meats through the meat chopper. Add one tablespoonful of orange juice, and a little of the grated rind, together with one square of unsweetened chocolate melted. Form into balls or press with weight until firm and cut into squares—roll in chopped nuts.

A Knockout

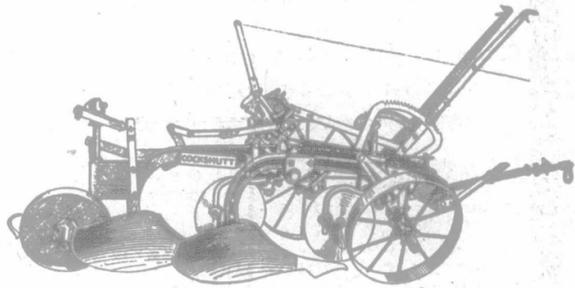
The tramp rang the doctor's bell, and asked the pretty young woman who opened the door if she would be so kind as to ask the doctor if he had a pair of old trousers he would kindly give away. "I'm the doctor," said the smiling young woman, and the tramp fainted.

COCKSHUTT TRACTOR PLOWS

The longer it is in use the more enthusiastic its owners become. Its a Cockshutt habit to give just a little more value than we claim. Remember, when going in for power plowing—it is the Plow that actually works your land. Be influenced by successful farmers and get a Cockshutt.

Cockshutt 2-Furrow Tractor Plow

A super-strong, well designed, yet light draft, Plow that does splendid work in any soil. Can be quickly turned into a 3-furrow when desirable. A single pull on a cord works automatic power lift, raising bottoms out of soil, and another pull lowers them. Hitch adjustable to suit any tractor.

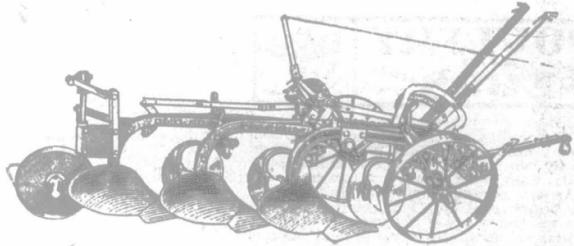


"Horseless Plowing the Cockshutt Way"

Is the name of an interesting booklet that you should read if you are interested in this very important subject. Write to our nearest Branch to-day for a copy.

Cockshutt 3-Furrow Tractor Plow

If you could see the many enthusiastic letters we have from users, you would follow the path of success and buy one of these Plows. Easily turned into a 2-furrow plow if necessary. Easily-worked levers placed for varying depth of cut. Years of hard service without repair-shop delays are built into it.



COCKSHUTT PLOW CO. LIMITED
Brantford, Ont

Sold in Eastern Ontario,
Quebec and Maritime
Provinces by

THE FROST & WOOD CO. LIMITED
Montreal, SMITH'S FALLS, St. John

Canuck Spraying Outfits

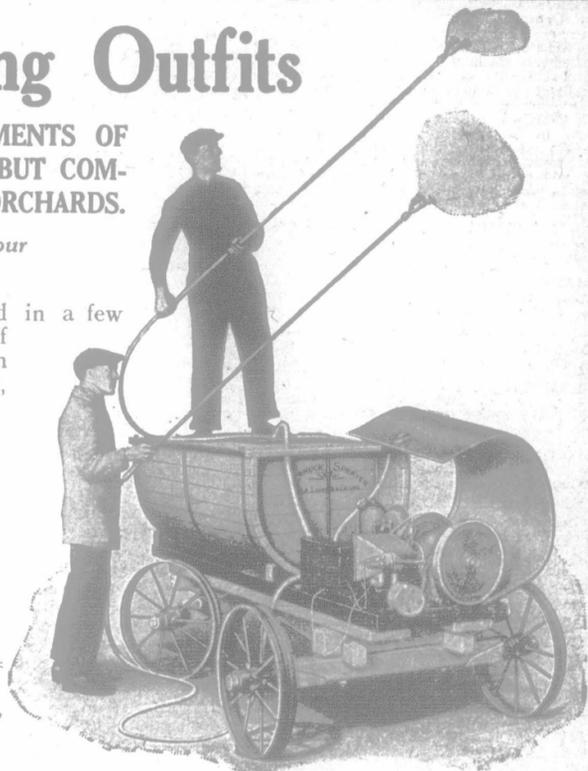
DESIGNED TO MEET THE REQUIREMENTS OF THE AVERAGE FARM OR ORCHARD BUT COMMONLY USED EVEN IN LARGEST ORCHARDS.

Write for descriptive circular and our Special Spring Offer

The engine on this outfit can be detached in a few minutes when it is available for a score of uses around the farm—driving the Cream Separator, Churn, Washing Machine, Sawing, Pumping, etc.

Get the Lister 1919 Catalogues on
**Lister Engines and Grinders,
Lister Silos and Silo Fillers,
Lister Milking Machines,
Mellotte Cream Separators,
Avery Tractors.**

R. A. Lister & Co., (Canada) Ltd.
DEPT. G. TORONTO



About three miles from his place of business lives Mr. Jones, and he goes back and forth every day in his automobile. Now, Mr. Jones has a kind, generous heart, and when he sees a pedestrian trudging his way he will often offer the man a "lift."

One morning, shortly after leaving home, he saw a large Irishwoman struggling along with a huge bundle. He stopped his car and said politely:

"Mayn't I give you a lift, madam?"

"In that thing?" she said. "I never rode in one in all my life."

"Well, jump in", he said; and when she had climbed in and deposited the

bundle on the seat beside her, they started on.

After he had covered a mile, Mr. Jones became a little uneasy; but he kept on for nearly another mile, and then turned and said, "Where do you want to go, madam?"

She gave him a broad smile and a gracious nod of the head, and replied "Anywhere you wish; it makes no difference to me."

"But where were you going when I took you in?" asked Mr. Jones.

"Oh," she said, "only to the next house!"

And kind Mr. Jones had to turn back and take her two miles to the "next house."

FOR SALE

5-10 h. p. Avery Tractor with extras.
G. K. WHITE - Downsview, Ont.
R. R. No. 1

SEED CORN

Kiln dried improved White Cap Yellow Dent. Government test eight-five per cent in four days, one hundred per cent in ten days. Write for Bondy's Seed Annual dated Feb. 12th, 1919.
Darcy E. Bondy - Arner, Ont.

"Young Gabber made quite a long speech at the club forum last night."

"What was he talking about?"

"He didn't say."—Judge.

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Orphanage.**

from Mrs. S. Carson,
and Miss A. Weaver, \$15-

14 \$54.75

of Her Own.

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—barely 1 foot.



WHAT AILS YOUR HORSE?

If your horse has a rough staring coat, low spirits, poor appetite (though sometimes eating ravenously), often scours, and shows any other signs of mysterious lack of condition, it is likely to be worms—what he needs is

Dr. A. C. Daniels' Worm Killer

This remedy is compounded especially to combat and destroy the dangerous worms, such as the stomach worm, the pin worm and the tape worm—that are the worst of the 30 or more worms that infest horses.

Even an ordinary horse is worth too much money to let the worms pull him down. This remedy costs only 60 cents, with 8 cents for postage.

Guaranteed satisfaction or money refunded. Big Book Free on request.

Send us your dealer's name, and we will prepay postage on your order.

DR. A. C. DANIELS' CO., LIMITED
Knowlton, P. Q.



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.

BRED-TO-SHOW LAYING STRAIN BARRED Rock eggs for hatching. Write for catalogue. Chas. Barnard, Leamington, Ont.

BRONZE TURKEYS;—A FEW GOOD TOMS, for sale, also Pekin Drakes. J. H. Rutherford, Albion, Ontario.

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

BABY CHICKS FOR SALE FROM THE BEST flocks in Canada in S.-C. White Leghorns, White Wyandottes, Barred Rocks and Reds, \$30 per hundred. Small deposit books your order for when you want them. Guaranteed 98% safe arrival in shipment. Fred J. Hind, Baby Chick specialist, 1,378 Queen St. East, Toronto, Ont.

FOR SALE—BARRED ROCK COCKERELS— bred-to-lay strain, 3 and 5 dollars each. Wm. R. Goff, Route 1, Glencoe.

MAMMOTH BRONZE GOBBLERS, WHITE Orpington, White Leghorn and Ancona cockerels. Embden Gander. Menno Shantz, Ayr, Ont.

MAMMOTH BRONZE TURKEYS, W. H. Beattie, R.R. No. 1, Wilton Grove, Ontario.

OFFERING GOOD BARRED ROCK PULLETS at two fifty each. White Wyandotte males \$3. each. Pekin ducks (females) \$3. each. Leslie Kerns, Freeman, Ont.

ROSE-COMB BROWN LEGHORN BRED-TO- lay cockerels—extra large and very vigorous, \$3.00 and \$5.00. Also a limited number of pullets. Wm English, Box A, Ingersoll, Ont.

SINGLE COMB WHITE LEGHORN BABY chicks from our celebrated laying strain, for sale. Utility Poultry Farm, G. O. Aldridge, Mgr., Lt. Col. T. G. Delamere, Prop., Stratford, Ont.

THREE PURE-BRED WHITE WYANDOTTE cockerels. Rye flour was \$10.50 to \$10.60 in new cotton bags. Rye flour was \$10.50 per barrel, in bags, in broken lots, delivered to the trade, and white corn flour was \$9.60 to \$9.80.

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

WHITE ROCK COCKERELS—EXTRA choice birds from first prize and sweepstakes cock at big fair. Prices \$5.00 up. John Templin & Son, Fergus, Ont.

WANTED—SIX CHOICE BARRED ROCK utility cockerels; must have a good record. Write, describing strains and pedigrees. Box 62, Clarkson, Ont.

WHITE LEGHORN COCKERELS (PEDI- GREED), from trap-nested stock, trapped by myself, from heavy producers; to improve your flock nothing else would do you. Write to-day. Bradley Linscott, Brantford.

WHITE LEGHORN COCKERELS \$2.50 EACH. Bred from prizewinning stock. Esra Stock, Woodstock, Ont.

WANTED—BUFF ORPINGTON COCKEREL Send price and particulars to E. V. Wilson, Shanty Bay, Ont.

Poultry Wanted

We require large quantities of heavy live hens. Also well fattened cockerels live or dressed. It will pay you to sell to C. A. Mann & Co., 78 King St., London, Ont. Canada Food Board License 7-078.

Markets

Continued from page 314.

Montreal.

Horses.—This market has been very dull for some time past and shows but little sign of improvement. Prices were unchanged as follows: Heavy draft horses, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, 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.—Little enough change took place in the market for dressed hogs during the week. Supplies were in increased demand, and country dressed stock sold at 21c. to 23c. for light weights, and medium weights, while abattoir fresh-killed stock held at 24c. per lb. These prices were slightly higher than for the previous week.

Poultry.—No change took place in the price of poultry. Choice turkeys still continued to bring as high as 45c. per lb., and from this prices ranged down to 40c. for common stock. Chickens ranged from 35c. for ordinary up to as high as 40c. for milk-fed. Fowls were 28c. to 32c.; ducks, 33c. to 38c., according to quality; and geese, 27c. to 30c.

Potatoes.—The market for potatoes continued remarkably steady. Green Mountains were quoted at \$1.65 per 90 lbs. car lots, ex-track; while Quebec white potatoes were \$1.50. In smaller lots, ex-store, sales took place at 25c. more. Quebec turnips were \$1.25 and red onions at \$1.50 per bag of 70 lbs., ex-store.

Eggs.—This is the one consistently weak market. Purchases of American eggs have been made here on a basis of about 46c. to 47c. delivered, and it is understood that some Chinese eggs are on their way to Montreal. The weather has been slightly colder lately which has caused a somewhat firmer feeling at country points, but a fair price for strictly new-laid eggs seemed to be about 55c. per dozen. Cold storage ranged from 47c. to 50c., according to quality.

Butter.—The tone of the market for creamery was fairly steady, but quotations were heard at slightly lower prices than previously, though it is doubtful if this actually means that the market was easier. Finest creamery was quoted at 51½c. to 52c. per lb., while fine was 51c. to 51½c. Dairies ranged from 42c. to 44c. per lb.

Cheese.—The Commission still quoted 25c. for No. 1; 24½c. for No. 2, and 24c. for No. 3.

Grain.—Cars of No. 2 Canadian Western oats were quoted at 83c.; No. 3 at 75½c.; extra No. 1 feed, 76½c.; No. 1 feed, 74c.; No. 2 feed, 69c.; Ontario No. 2 white, 71½c.; No. 3 white, 69½c. per bushel, ex-store. Ontario barley sold at 96c. for extra No. 3; and 95c. for No. 3, while Manitoba sample grades sold at 89c. per bushel, ex-store. American No. 4 yellow corn, \$1.48.

Flour.—Manitoba spring wheat, Government standard flour was quoted at \$11.15 per barrel, in bags, Montreal freights, for shipment to country points, and delivery to city bakers, plus cartage, with 10c. off for spot cash. Ontario winter wheat flour was \$10.50 to \$10.60 in new cotton bags. Rye flour was \$10.50 per barrel, in bags, in broken lots, delivered to the trade, and white corn flour was \$9.60 to \$9.80.

Millfeed.—Car lots of bran were quoted at \$37.25, while shorts were \$42.25 per ton, ex-track, less 25c. for spot cash. Pure grain mouille was quoted at \$64; pure oat mouille, \$60 to \$62; pure barley feed, \$50 to \$52; mixed grain mouille, \$47; and dairy feed, \$42. Baled Hay.—No. 1 timothy was quoted at \$25; No. 1 light clover mixture at \$24; No. 2 timothy at \$24; No. 2 clover mixed, \$23; No. 3 timothy, \$22 per ton, ex-track.

Hides.—Prices were unchanged with veal skins at 45c. per lb. for veals, and grasses and kips 20c.; beef hides 17c. for cows, 15c. for bulls, 21c. for steers flat; lamb skins, \$2 each; horse hides, \$5 to \$6.50. Rough tallow 31c. per lb.; abattoir fat, 8c., and rendered, 15c. to 16½c.

Cheese Markets.

New York, specials, 30c. to 30½c.; average run, 28½c. to 29½c.; Montreal, finest easterns, 24c. to 25c.

Gossip.

Sale Dates.

Feb. 20, 1919.—T. J. Spaulding, Aurora, Ont.—Jerseys.

Feb. 26, 1919.—N. Dymont & Sons, Brantford, Ont.—Ayrshires.

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.

March 5, 1919.—Elsworth Plant, Burford, Ont.—Holsteins.

March 6, 1919.—Bruce County Breeders' Club, Walkerton, Ont.—Shorthorns.—N. C. McKay, Secretary.

March 12, 1919.—Irwin McMahon, Hawkstone, Ont.—Shorthorns.

March 6, 1919.—Caledonia Shorthorn Breeders' Consignment Sale.—Shorthorns. H. A. Scott, Secretary.

March 6, 1919.—Geo. E. Morden, Oakville, Ont.—Shorthorns.

March 12, 1919.—Perth District Holstein Breeders' Club, Stratford, Ont.—A. C. Park, Secretary.

March 13, 1919.—London District Holstein Breeders', London, Ont.

March 13, 1919.—Wm. T. McCormick, R. R. No. 1, Paris, Ont.—Shorthorns, Horses, etc.

March 14, 1919.—H. B. Taylor, Mount Elgin, Ont.—Holsteins.

March 18, 1919.—A. Hughes & Son, Sarnia, Ont.—Jerseys.

March 19, 1919.—John Eder, Hensall, Ont.—Shorthorns.

March 20, 1919.—W. B. Poole and A. Groves, R. R. No. 5, Ingersoll, Ont.—Holsteins.

March 19, 1919.—Oxford Holstein Breeders' Club, Woodstock, Ont.—W. E. Thomson, Sec.-Treas.

March 26, 1919.—Brant County Holstein Breeders' Brantford, Ont.—N. P. Sager, Sec., St. George, Ont.

March 26, 1919.—Elgin Holstein Breeders' Club Sale, St. Thomas, Ont.—E. C. Gilbert, Sec.

April 3 and 4, 1919.—Western Canada Shorthorn Show and Sale, Brandon, Man.

Hickory Hill Ayrshire Females.

In another column of this issue will be found a mention of the sires which have been identified with the Hickory Hill herd of Ayrshires owned by N. Dymont & Sons whose sale will be staged at Brantford on February 26. On this occasion we desire only to draw attention to some of the females for which Hickory Hill is noted. Four of the cows to be offered have freshened since the last of January and they are doing well. Two of these, namely, Blossom of Hickory Hill and Milkmaid of Hickory Hill have reached over 50 lbs. of milk daily and still gaining. "Blossom", which is a half-sister to Pearl of Balquido has a 3-year record of 10285 lbs. milk and 383 lbs. fat. Her half-sister Lassie of Hickory Hill has been milking since November and has a 2-year record of 9193 lbs. milk with 378 lbs. fat. Snowdrop of Hickory Hill 2nd, as a 2 year old, gave 10933 lbs. milk and 449 lbs. fat, and won a silver cup given by the Association. She is due to freshen March 28 to the service of the senior herd sire, Dairyman of Orkney. Her dam, Snowdrop of Hickory Hill, a Dairy Test Winner will be included in the sale; also her bull calf about 6 months old. In addition to the females mentioned there will be other good cows with high records sold on the 26th, such as Nellie Grey 2nd of Hickory Hill, Lady Diamond, Trixie of Hickory Hill, Dairymaid of Hickory Hill 3rd and others with their offspring. For full particulars write Messrs. Dymont and mention this paper.

A great business success must have honesty for its keystone.

A dishonest business never develops. There's no hope for the business of Grocer Boggs.

"What ye been doin' down the cellar so long?" snarled Grocer Boggs at his new boy.

"Been cleanin' out the quart molasses measure, sir," the boy answered, lightly. "It was so clogged up it only held about a pint."

"Say, you're fired," growled the grocer. "You go home and tell yer father to edicate ye for the ministry."

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PREPARE FOR AN EARLY SPRING
Make up your seed order now. We pay freight on orders of \$25.00 or more in Ontario and Quebec.

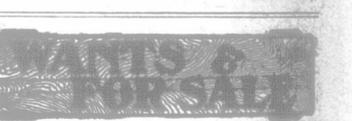
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(Gov't Standard) Per Bus.
No. 1—Red Clover "Sun" \$30.00
No. 1—Red Clover "Special" 28.00
No. 1—Timothy 7.75
Extra No. 1 for purity) 7.25
No. 2—Timothy (Extra No. 1 for purity) 7.00
No. 1 for purity) 21.00
No. 2—Alfalfa—Ontario Variegated (Almost No. 1 for purity) 27.00
Sweet Clover—White Blossom—(Blend) hulled seed. 13.50
Cotton Bags for Clover and Timothy, 65c. each.

MANGEL SEEDS
Prizetaker, Gaint half sugar, Yellow Intermediate, Yellow Lanthan, Mammoth Long Red, A 1 Seed. Germination 112 to 160%. Price 60c. per lb., Post Paid 65c. per lb.

CORN ON COB Per Bus 70 lbs.
Longfellow \$4.50
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Specially priced for early shipment, carefully selected, strong, vigorous seed. Recent tests show 95 to 98 per cent. germination.
If you order 25 Bushels of Corn or more we will allow a reduction of 25c. per bushel.
Write at once for our new 1919 illustrated catalogue and compare our prices with others. We sell direct to farmers. No Middleman's profits.

BARGAIN IN BAGS
Second hand, sound, first quality cotton bags, unpatched \$7.00 per dozen. Strongly patched by machinery \$6.00 per dozen. Cotton, second quality, \$5.00 per do; third quality \$3.50. Jute sugar bags, \$1.65 per dozen. Jute four bags, \$2.00 per do. ea.

GEO. KEITH & SONS
124 KING ST. E. TORONTO



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.

FOR SALE—SPLENDID STOCK FARM OF 200 acres and suitable buildings, in Township of Beverley, six miles from Galt, Ont. This valuable property can be purchased reasonable, and smaller farm in vicinity of London may be considered as part payment. If interested, enquire for further particulars at Box 652, London Post Office.

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

FOR SALE—FIFTY ACRE FARM, 10 MILES east of London, good location, natural gas, creek on farm, near railway station. Apply Post Office Box 672, London.

FARM SALE—DESIRABLE THREE HUN- DRED acre Homestead. Rich, heavy producing grain stock farm. Splendid district. Large modern basement barns, silo, water service, stables, brick house, furnace, close to railways, county town. April. Investigate Frank Quantz, Bartlett, Ont.

WANTED—A MAN EXPERIENCED IN ALL farm work and good milker, single man preferred. Apply Dr. Wallace, No. 2, College Street, Toronto.

WANTED—A MAID TO ASSIST IN GENERAL housework on farm, age between twenty-five and forty-five preferred. State wages. Mrs. W. B. Roberts, Sparta, Ont.

WANTED—BY *MARRIED MAN AGE 26+ position as herdsman with breeder of Shorthorns. Apply Box 21, Farmer's Advocate, London, Ont.

WANTED—MAN EXPERIENCED IN ALL lines of farm work and in handling stock, a good milker and capable of feeding and caring for cows on record work. Apply box 25, Farmer's Advocate, London, Ont.

WANTED—THOROUGHLY UP-TO-DATE Farmer for farm run in connection with large manufacturing establishment located in town in one of the most beautiful districts in Ontario. House with hard-wood floors, electric lights, modern bathroom, hot and cold water, rent, light and heat free. Good opportunity for right man who must be a good worker, and particularly a good milker. Applicant must state full particulars of experience, age, etc., and must be prepared to arrange personal interview if required. Apply Box No. 23, Farmer's Advocate, London, Ont.

Que

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SEEDS

PREPARE FOR AN EARLY SPRING

Put your seed order now. Free freight on orders of \$25.00 in Ontario and Quebec.

CLOVER

Standard Per Bus. \$30.00
 Red Clover "Sun" 28.00
 "Special" 7.75
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 Extra No. 1 for purity 7.00
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 Alsike—Ontario Variegated (No. 1 for purity) 27.00
 Clover—White Blossom—(a) hulled seed 13.50
 Bags for Clover and Timothy.

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Large, Gaint half sugar, Intermediate, Yellow Leaf, Mammoth Long Red, A1, Termination 112 to 160%, per lb., Post Paid 65c.

CORN ON COB Per Bus. 70 lbs. Bags Free

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 100 ST. E. TORONTO

Farms Wanted for Soldier Settlers

Powers are proposed to be granted at the approaching session of Parliament to The Soldier Settlement Board of Canada to purchase lands to be resold to qualified returned soldiers settling on land. In the case of undeveloped lands the Board will be granted powers of forced purchase at prices judicially determined.

To enable soldiers to locate in any district in Ontario that they wish, the Advisory Board for the Province of Ontario desire to have filed with them a full description and lowest cash prices on a small number of select farms in each district of the Province, available for purchase.

The public are hereby informed that this land is for returned soldiers, and no tenders to sell are requested except for land of good quality and location, and reasonable value, making possible the success of the soldier as a farmer. The purchase price in all cases will be fixed by the Board after the land has been inspected and valued.

The information received will be treated as confidential. No commission will be charged or paid. No offer to sell will be binding on the person offering unless a sale is effected, and no obligation will be on the Board to accept any offer.

If application from a returned soldier be received for a farm listed with the Board, a valuation for such farm may be at once made by the Board and, if approved, negotiations may be entered into for the purchase and sale thereof. An approved list is desired for each district of Ontario.

Address all Communications to

W. M. Jones
 Provincial Supervisor,

The Soldier Settlement Board

32 Adelaide Street East Toronto, Ontario

N.B.—Advertisement approved—Ontario Loan Advisory Board

H. C. SCHOLFIELD, Chairman

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.

Material for Wall.

1. How much cement and gravel will be required to put a foundation under a building 30½ feet long by 18½ feet wide and 2 feet high, the wall to be 10 inches thick, mixed in the proportion of five of gravel to one of cement? How much would it take for a floor 4 inches thick?
2. How much cement and gravel would it take to build a wall 10 inches

thick, 3½ feet high, under a building 24 by 28 feet?

3. How much will it take for an 8-inch wall 2 feet high under a building 18 by 24 feet?

4. How much will it take for an 8-inch wall 2 feet high under a building 10 by 18 feet?

5. How much will it take to put a 6-inch wall 2 feet high under a building 8 by 12 feet? I purpose mixing the materials in the proportion of four to one.

Ans.—1. It would require 7 cubic yards of gravel and 8 barrels of cement. For the floor, 9 cubic yards of gravel and 11 barrels of cement would be required.

2. It would require 11 cubic yards of gravel and 19 barrels of cement.

3. Four and a half yards of gravel and 7 barrels of cement.

Planet Jr. users get the biggest crops

They do their cultivation quicker, better and with less labor, for Planet Jrs. are scientific garden tools that work easily, rapidly and with thoroughness. Used by successful farmers and gardeners for over forty-five years. Planet Jrs. last a lifetime and are fully guaranteed.

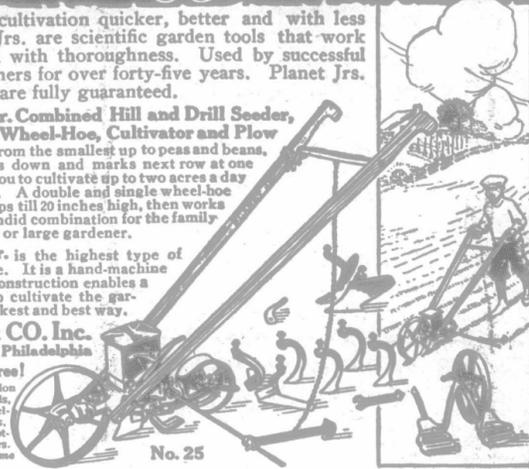
No. 25 Planet Jr. Combined Hill and Drill Seeder, Double and Single Wheel-Hoe, Cultivator and Plow sows all garden seeds from the smallest up to peas and beans, in hills or in drills, rolls down and marks next row at one passage, and enables you to cultivate up to two acres a day all through the season. A double and single wheel-hoe in one. Straddles crops till 20 inches high, then works between them. A splendid combination for the family garden, onion grower, or large gardener.

No. 17 Planet Jr. is the highest type of single-wheel hoe made. It is a hand-machine whose light durable construction enables a man, woman, or boy to cultivate the garden in the easiest, quickest and best way.

S. L. ALLEN & CO. Inc.
 Box 1108F Philadelphia

New 72-pg. Catalog, free!

Illustrates Planet Jrs. in action and describes over 55 tools, including Seeders, Wheel-Hoes, Horse-Hoes, Harrows, Orchard, Beet and Pivot-Wheel Riding Cultivators. Write for it today, also name of nearest agency.



Buy an Irrigated Farm IN SUNNY ALBERTA AND GET A CROP EVERY YEAR

The most important fact in the growth of large crops in Western Canada is moisture. Given plenty of moisture at the right time big crops are assured. This is what the farmer on irrigated land can have every year. In Southern Alberta such varied crops as wheat, oats, flax, barley, rye, alfalfa, timothy, brome grass and all kinds of fodder, tomatoes, beets, potatoes, roots, vegetables are grown profitably on irrigated land. Ideal mixed farming proposition. First class land \$50 acre, including water rights. Easy terms, only one tenth cash and twenty years to pay. \$2,000 loan for buildings, etc. A splendid chance to become independent.

READ WHAT F. J. MEECH DID

"This year—1918—owing to the war I grew a considerable acreage of wheat and my crop on this eighty acres of land was about 1,500 bushels of wheat; 250 bushels of oats; 6 tons of oat hay; 25 tons of potatoes, and from a track about one acre set aside for garden and small produce I have sold about \$75.00 worth of vegetables in addition to having sufficient for my own use till my next crop comes."

"I have also commenced a small dairy, having five cows which are yielding at the rate of \$90 per month."

"My land is in a district where alfalfa is an established crop, and two or three cuttings can be taken off in a season."

Mr. Meech purchased eighty acres of irrigable land near Lethbridge, Alberta, from the C.P.R. towards the end of 1916.

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ALLAN CAMERON 993 1st St. East
 General Superintendent of Lands, C. P. R. CALGARY

A. LA DUE NORWOOD, C.P.R. Land Agent, Windsor Station, Montreal, Que.

4. Three cubic yards of gravel and 4½ barrels of cement.
5. One and a half cubic yards of gravel and 2½ barrels of cement.

Percentage That Stock Dresses Out.

1. I have a calf that weighed 102 lbs. when it was born. I have left it with its dam and it gained 3½ lbs. per day. Is that supposed to be good gaining for a calf two weeks of age? When the calf weighs about 200 lbs. I intend to sell it to the butcher. What percentage should it dress out?
2. How much does a mature beast dress out to the hundred; also a pig?
3. Does a farmer need to secure a licence for killing and marketing his own stock?
4. How much alsike seed should I sow per acre on clay loam soil? I wish to grow it for seed.

Ans.—1. Three and a third pounds per day is a particularly good gain for a calf. It depends on the condition of the calf; a real fat one may dress between 55 and 60 per cent.

2. It is a pretty good animal that dresses out fifty-five per cent. A pig will dress out about seventy-five per cent.

3. Not that we are aware of.

4. When growing it for seed, about five or six pounds per acre.

Amount of Lumber in a Log.

How do you calculate the number of feet of lumber in logs? T. W.

Ans.—We understand that one rule is to take the diameter in inches minus 4, divide this by 4 and then square it; multiply the results by the length of the log in order to find the board measurement.

Elora Agricultural Lime

is absolutely guaranteed to sweeten your soil, make it work up better, and release valuable plant foods to your crops, especially if it is heavy clay soil.

We have tested it on our own farms at Caledonia. The results were all we expected.

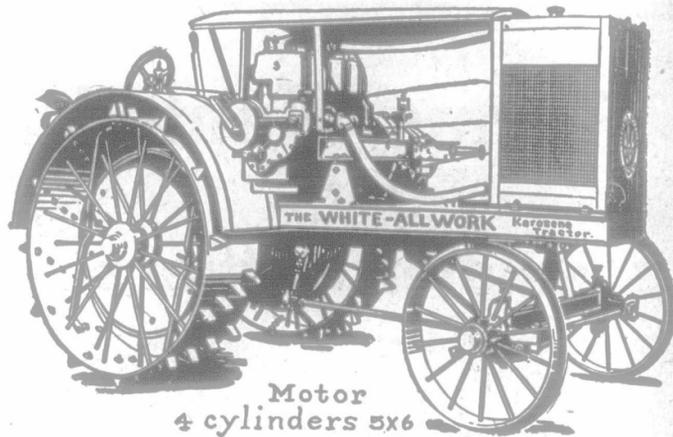
The soil is heavy clay. It had been cropped for many years without proper fertilizing—it was very hard, and difficult to work.

In the fall of 1917 we applied a dressing of one ton of lime to the acre, with a light dressing of manure. When we disced last spring the land worked up splendidly, and the subsequent harvest of oats ran 75 bushels to the acre, just double the best previous crop.

When we plowed in the stubble last fall, the soil was very loose and workable.

If you are in doubt as to the condition of your soil, consult us, we will be pleased to advise you. We will analyze your soil for you. Write for our booklet.

The Alabastine Company, Limited
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Motor
4 cylinders 5x6

The White-Allwork Kerosene Tractor

Sensible Every-Season Tractor

When you buy a tractor you want an all-weather, all-work power plant. The White-Allwork has power for every farm job. It is light enough to work on wet land or a soft seed-bed. Yet it has enough power for heavy field work. It runs on four wheels, and works well on rough land. Turns in 12-ft. radius.

It carries the largest engine we know of on any 3-plow tractor. The engine is set crosswise on

the frame so that the belt pulley is in a direct line with the crank shaft. There are no bevel gears. It will run a 16-inch ensilage cutter or a 28-inch separator.

It will pull an 8-foot road grader.

The White-Allwork is a compact, sturdy, and easily handled tractor, well worth a place in "The First Quality Line."

How You Can Use It
We will gladly tell you what this practical tractor will do. You can then figure out how you can use it to save money. Write for descriptive catalogue.

The Geo. White & Sons Co., Ltd.,
Moose Jaw, Sask. LONDON, ONT. Brandon, Man.

Don't forget we are recognized leaders in Steam Tractors and Threshers
"THE FIRST QUALITY LINE"

Questions and Answers. Veterinary.

Absence of Oestrus.

Eight-year-old cow in good condition has not shown oestrus since freshening last April. W. F.

Ans.—Such conditions, in many cases, cannot be accounted for. When nature fails to act in such cases the administration of medicines are often ineffective. The administration of 2 drams nux vomica 3 times daily appears to have the desired effect in some cases. V.

Unthrifty Horse.

Thirteen-year-old horse has been failing and dull for some time. I purged him but he is no better. His bowels are very loose all the time, and when being worked he purges. When idle his sheath swells badly. There are two whitish tumors inside the sheath, matter with a very foetid odor forms. His penis is also covered with sores. He is not able to work. I live 25 miles from a town and remedies are hard to get. H. E.

Ans.—We are sorry to have to say that medicinal treatment will not be effective. The services of a veterinarian are necessary. The diarrhoea is doubtless due to imperfectly masticated food. His teeth require dressing. An operation on his sheath and possibly also on the penis is necessary. The tumors must be removed by an operation. Local applications will not be effective, and the present conditions will continue so long as the tumors are present. It is probable that he also requires tonics, but these will do little or no good until after his teeth are attended to, and the veterinarian who operates will provide the necessary after treatment. V.

Sydney Basic Slag

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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.

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So get your order in now for early sleighing.

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Fatality in Pig.

I have a litter of pigs four weeks old. One died a day ago, and others look as if they will die. They lie in the nest, will not nurse or eat out of the trough and when they get up they cough terribly. Those that are well seem to be fine. S. A. R.

Ans.—The sick ones are evidently suffering from lung trouble. This may have been caused by too warm quarters and poor ventilation, by inhaling steam from cooking food, cold, damp quarters, sleeping on cement floors, etc., or from lung worms. It is not possible to say what the cause is without inspecting the premises. A careful post mortem would reveal the condition. It will be wise to remove the unaffected pigs to comfortable, sanitary quarters, feed on milk, middlings and raw roots and see that they get plenty of exercise. It is not probable that anything can be done to save those that are diseased. V.

Foul in Feet—Crooked Legs.

1. Last spring the hoofs of two cows became loose and the cows went lame. There was a foul odor. They recovered when on grass. I now have 3 heifers with the same trouble.

2. Lamb when born had very crooked legs. It progresses on its knees, the legs below that being turned inwards on the floor. C. L. M.

Ans.—1. This is foul in the feet. Cleanse the feet thoroughly, stand on absolutely clean and dry wooden floor. Remove all partially detached horn. Keep poultices of warm linseed meal to the feet until the acute soreness disappears, then dress all raw surfaces 3 times daily until healed with 1 part carbolic acid to 30 parts sweet oil.

2. This is a deformity. A veterinarian might be able to operate successfully, but it is not probable. V.

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HERE is a new lithographed syrup can in red, black and gold of handsome design. The attractive appearance of this can will sell your syrup in the best markets at best prices. The design is lithographed right on the tin, doing away with the cost of labels, the trouble of pasting, musing and rusting of cans, etc.

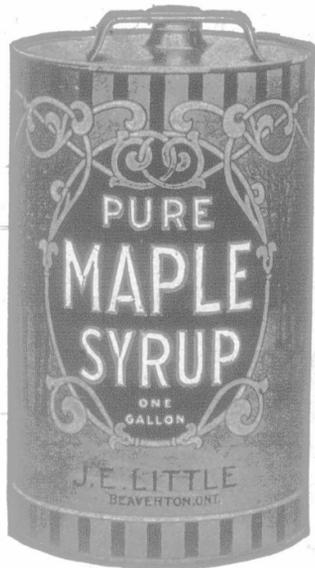
This can (imprinted with your name free in lots of 100 or more) will be a standing advertisement for YOU wherever shown. Made in Imperial Gallon size only, round screw tops.

MACDONALD Syrup Cans, Pails, Etc.

are standard ware for farmers throughout Canada. We make plain syrup cans, round or square, Imperial gallons, half-gallons and quarts, non-rusting sap spouts, complete with hooks, plain and lithographed honey pails, sap pails in every style and size, and a complete line of plain, japanned and lithographed tinware.

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The Best is the Cheapest Always USE LIVINGSTON BRAND OLD PROCESS OIL CAKE MEAL

the purest and best.

Thoroughly Digestible Tones the System
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Pea Size or Coarse Ground for Sheep.

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Wash Day Made Easy for \$2.00



Don't miss this chance to get our wonderful Compress and Vacuum Clothes Washer—best, strongest and most complete Vacuum Washer. Will wash a tub of white or colored clothes in three minutes—will wash anything from the finest laces to the heaviest blankets without chance of injury. Used for rinsing, blueing or dry cleaning with gasoline.

Abolishes labor of wash days—saves rubbing and wearing out of the clothes, saves tired backs. A child can use it. Women discard \$30.00 machines for it. Get the best. Don't buy a cheap washer. Satisfaction guaranteed or money refunded.

To prove to every woman that this is the best Vacuum Washer, we will send it complete with long handle and exhaust protectors, postpaid, for only \$2.00. Order one to-day. Don't wait.

Agents wanted to sell these washers and other high-class articles

GRANT & McMILLAN CO., Dept. AL12, 387 Clinton St., Toronto, Ontario

Questions and Answers. Veterinary.

The Dose of Nux Vomica.

What amount of nux vomica should I use to make a cow show oestrus?

G. T. O.

Ans.—Nux vomica does not necessarily "make a cow show oestrus." In some cases it appears to have the desired effect, in others no results are noticed. For an ordinary-sized cow 2 drams 3 times daily is the dose.

Irregular Thirst.

Cow calved two weeks ago and ate the afterbirth. Some days she refuses water, and shivers. She appears pretty well.

Sub.

Ans.—While the consumption of the afterbirth is liable to cause different complications, we do not think it is responsible for irregular thirst. It will be wise to remove the chill from the water and not allow her very large quantities of even that at once. Offer her water at least three times daily and keep in comfortable quarters. On account of the afterbirth possibly causing a form of blood poisoning, it will be well to give her 40 to 50 drops of carbolic acid in a pint of cold water as a drench 3 times daily for a couple of weeks.

Scrotal Hernia.

Eight-year-old horse has an enlargement in his scrotum. Sometimes this disappears for a time and then reappears. During the last two months he has taken sick every time he has been hitched up and become warm. He stamps, lies down, gets up, works at his flanks, etc., and the enlargement mentioned becomes hard.

J. H.

Ans.—He has scrotal hernia, that is a portion of his intestine passes down into the scrotum. Some faecal matter becomes lodged in the hernia and causes pain. If the hernia becomes strangulated, as it probably will during some attack, it will cause death unless an operation be performed promptly. The only means of prevention is an operation by a veterinarian. It consists in casting

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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.

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Write to-day.
Address giving number as below.

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RAW FURS
John Hallam Limited
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SIMMERS' SEEDS MEAN SUCCESS

Faith in your seeds means faith in your seedsman. Our 64 years of unbroken success speaks for itself

J.A. SIMMERS LIMITED, TORONTO.

Bulbs • Plants • SEEDS

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

the animal, returning the intestine and then applying a clam, or suturing the opening. It will be better to operate when he is not showing symptoms of illness.

Miscellaneous.

Where to Buy a Bird.

Could you advise me where to secure a gobbler?

J. D. F.

Ans.—Breeders of turkeys frequently advertise in these columns; in fact, at the present time a number are advertising male birds. You might get in touch with some of these advertisers.

Selling Straw.

A sold his farm to B but nothing was said in the writings about the straw. Can A sell the straw to be taken off the place?

A. S.

Ans.—If nothing was said to the contrary in the agreement, he can do so. In the case of renting it is different; a tenant is supposed to leave the straw on the place.

Corn for the Silo.

Whis is preferable for silo corn, the flint or dent varieties? I am a new hand at growing corn for silage and would appreciate a little information.

A. M. C.

Ans.—The dent varieties are generally used for silage purposes. As a rule, they give a little larger bulk of feed. However, in the variety test which we conducted years ago, we found that the flint, especially the Longfellow, compared favorably with the dent. However, for the silo we prefer a dent which gives a large proportion of leaf to the stalk and which matures fairly early. On our farm we have found that the White Cap, Wisconsin, Bailey, Learning and Golden Glow have all given us good results. If we were growing corn to feed as stover, we would be inclined to favor the flints, as they are scarcely as coarse in the stalk, and there is less waste when the stalks are fed without being run through the cutting-box.

The United Farmers' Co-Operative Company, Limited

LIVE STOCK COMMISSION DEPARTMENT

We take pleasure in announcing that our office at the Union Stock Yards, West Toronto, will be opened February, 15th, 1919.

The handling of co-operative shipments of farmers' own stock will be specialized. We have an organization of expert operators in this line, and can assure the best possible service.

An open competitive market is recognized as

the best possible means in the disposal of live stock, and we are in a position to handle your shipments on this basis, whether you are interested in one or one hundred head:

We are issuing circulars containing shipping instructions and all information in connection with the handling of stock. Any further data will be forwarded on request.

Live Stock Commission Department

THE UNITED FARMERS'
CO-OPERATIVE CO., LIMITED

130 King St., E.

TORONTO

Questions and Answers. Miscellaneous.

Misrepresentation.

A had a farm in Manitoba which he exchanged with B for a farm in Alberta. B misrepresented the amount of principal of a mortgage there was on the place. He also misrepresented the amount of summer-fallowing that was done. On this ground could the contract be broken and A get back his original farm? What action should be taken? A. M.

Ans.—We do not think that B could succeed in an action for recession of the contract; he might in an action for damages for the misrepresentations. He should instruct a solicitor promptly for the necessary legal proceedings.

Handling a Bull.

Q.—I have an old bull which is cross and hard to handle. I want to ship him on the train. What is the best way to get him to the car?

2. I have a young bull that I am afraid is going to be cross. What is a good method of keeping him quiet and safe to handle? J. S.

Ans.—1. A cross bull is rather a dangerous animal to handle. With some animals blindfolding will keep them quiet, but in other cases it tends to make them worse. If leading him, it is well to have two persons along and to have a strong staff to lead him by. A humbug might be put in his nose, to which another lead rope is attached. One person walking on either side would prevent him from doing much harm.

2. The herdsman should show the bull who is boss. It is well to have a stout stick with him when going into the pen, and if the animal feels the weight of this a time or two it will tend to quiet him. Do not allow anyone to tease the bull, and be firm with him at all times. Dehorning when about a year and a half old will very often quiet an animal.



Come to Detroit
The Automobile Center and

LEARN AUTO AND TRACTOR BUSINESS

The automobile and tractor industries offer you greater opportunities than ever before. Now that the war is over, the factories are again building autos, trucks and tractors. It is reported that the Ford Motor Company alone has orders ahead for 250,000 to 300,000 cars, not including trucks. It is said that Dodge, Buick, Cadillac, Packard and many others have enough unfilled orders on hand to keep going at full speed day and night for months. Tractor factories are also behind on orders. Thousands of trained auto and tractor men are needed. Get ready to enter a successful and profitable life work.

EARN \$100 TO \$400 A MONTH

Hold down a good job or go into business for yourself. We can teach you in a few short weeks to handle any auto or tractor proposition. Our garage repair and come every day. In our block test department alone, we have twenty-five different types of motors. We have absolutely the best equipment obtainable.

Factories Endorse Our School. The leading automobile factories in Detroit and other cities endorse our school, our equipment and our methods of teaching. Read some of their endorsements on this page. These were written in reply to letters from different parts of the country asking about us.

Tractor Course Included in Auto Course With the co-operation of the International Harvester Co. and our complete tractor equipment, every man who takes the complete Auto Course is thoroughly equipped to handle every Tractor problem. Tractor instructions are included with the Auto course at the same tuition.

Aeroplane Course Included in Auto Course. We are including the complete Aeroplane Mechanics Course with the Automobile Course at no additional cost. We have Curtiss equipment for instructions.

Courses Also in Brazing, Welding, Tire Repairing. In addition to our general automobile course, we give separate and complete courses in Brazing and Welding and Tire Repairing. With over five million cars in use and four or five tires per car, there is a lot of money in repairing tires. Brazers and Welders are getting \$8.00 to \$10.00 per day. Factories and garages are always looking for these men too.

Earn While You Learn. If necessary we can secure work for you to help pay expenses while you are taking our courses.

Detroit is Place to Learn, You Can Start Any Time. Detroit trained men get preference and get jobs quickly. More than 184 large auto and accessories factories. Think what it means to learn in the Michigan State Auto School. 71% of autos School open all the year. Enter classes any time, any day. Three classes daily, morning, afternoon, evening.

FREE—New 176-Page Catalogue. Fill in the coupon; get the "Auto School News" and New 176-Page illustrated Catalogue showing 133 illustrations, letters from graduates and big factories. All absolutely free. Or better still, jump on the train, as hundreds have done, and come to the "Heart of the Automobile Industry" and learn right.

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DETROIT
THE HEART OF THE AUTO INDUSTRY

In Other Service.

At a negro Methodist revival the minister asked all who belonged to the army of the Lord to stand up. A stranger on the front bench rose.

The minister went up to him and said: "Brudder, do you belong to de army ob de Lord?"

"Yes, sah," said the stranger. "I belongs to the Baptist army."

"Oh, pshaw, nigger!" said the minister. "You don't belong to de army, you belongs to de navy!"

A Question of Speed.

"Now, boss, I's ready to go anywhere dey wants to send me," said a dusky citizen in a Southern city on Registration Day, after performing his patriotic duty. "Boss, jes' anywhere! But I ask jes' one thing and at' is don't put me in NO cavalry."

"Why do you draw the line on the cavalry?" asked the registrar.

"It's jes' like dis. When I's told to retreat, I don't want to be bothered with NO hoss."

A Great Sight.

General Pershing tells a story about a young American soldier. "On the voyage over," said the general, "he talked a lot of the sightseeing he would do when on leave,

"Don't miss Notre Dame cathedral in Paris," said a Frenchman.

"You bet I won't," said he.

"Don't miss Westminster Abbey in London," said a Scot.

"No, sir-ree; but say, fellows, the young soldier declared, 'the thing I'm craziest of all to see is the Church of England.'"

Not Enough.

"Say, are you de photographer?"

"Yes, sir."

"Do you take children's pictures?"

"Yes, sir."

"How much do you charge?"

"Three dollars a dozen."

"Well, I'll have to see you again. I've only got eleven yet."

The Geography of the Ocean.

If world peace engenders international trade and international trade demands expanded shipping, expanded shipping in its turn will call for a closer knowledge of the sea.

To begin with, the area of the sea is about three times as large as that of the land, and although as long ago as 1904 the Governments of the civilized world had gotten together as many as twenty-five million observations of every kind and sort from the logs of merchantmen, warships, and government vessels, and although the results of a single expedition have filled over fifty massive quarto volumes, what we know about the sea is but the primer of the things it has to reveal.

Imagine men in airships cruising over a strange country, flying above miles of clouds, and once in a while dropping a sounding line down to earth and now and again letting down a dredge or a trawl; and suppose that country were the war zone in Europe. Do you think that under such conditions they would learn much about what was happening down below?

They might happen to sink their sounding tube into blood-sodden earth, or their dredge might chance to dig up a piece of shrapnel or a dead rat, while their trawl might catch a butterfly or capture a bumblebee; but certainly the specimens would not give a picture of the geology of the land, nor the things brought up by dredge and trawl afford an insight into what is going on at the bottom of the ocean of air, or of what inhabits the floor of that ocean.

Little wonder, then, that we marvel at how much has been learned about the sea, the while we realize that what we know is much less than the proverbial drop in the bucket as compared with what remains a mystery.

The most impressive thing about the sea is its shallowness as compared with the size of the earth, and its depth as compared with the height of the land. If you were to take a globe six feet in diameter and excavate the deepest trench of the ocean thereon, it would be a bare pin-scratch deep—about one-twentieth of an inch.

And yet so profound are the depths of the sea that the bulk of the water in it is fifteen times as great as the bulk of the land that rises above its waves. In its deepest trench the tallest mountain on the face of the globe could be buried and ships could still pass over the spot with a half mile of water under them.

The average depth of the ocean is more than two miles—about 12,480 feet, the oceanographers estimate. On the other hand, the average height of the land is less than half a mile—about 2,250 feet. How much further beneath the waves the sea bottom lies than the land crest above them is shown by the fact that while only one per cent of the land rises to an altitude of 12,000 feet, 46 per cent of the ocean's floor lies under more than 12,000 feet of water.

The relative height of the land surface and the sea bottom is about in keeping with their relative areas, there being 71 acres occupied by the sea for every 29 held by the land. If it were possible to drain off the upper 10,000 feet of the waters of the sea and to lay bare the floor that lies under it, the territory thus recovered, added to the land now above the sea, would give only a fifty-fifty division between land and water.

The oceans as we know them are larger than the true ocean basin. As a monument is always planted on a base, so the continents have broad under-sea bases upon which to rest. To the oceanographers there is a line known as the 100-fathom line, which largely parallels the shore-line but which is sometimes as much as several hundred miles out to sea. When that line is reached the bottom suddenly begins to slope down toward the abyssal depths.

The floor lying landward from this line is known as the continental shelf, and it is upon this broad shelf, with an aggregate area three times as large as that of the United States, that the continents are planted. By overflowing this vast area of slightly submerged territory, the oceans gather unto themselves ten

Bigger Crops—Less Labor

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They are compounded by expert chemists who have complete, up-to-date knowledge of every Canadian soil and crop requirement.

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Prices will be firm this season, but with early shipping discounts they are lower to-day than later on. We suggest you avoid delivery disappointment and write to-day for prices and booklet.

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Write for our large, photo illustrated Catalogue No. 7—It's free to you. The Adams Furniture Co., Ltd. Toronto - Ontario

Seed Corn—A quantity of Select Early Leaning, Longfellow, Wisconsin No. 7 and White Cap Yellow Dent. A card will bring full particulars. GEO. B. LANGFORD, Kent Bridge, Kent Co.

SARNIA FENCE

UNTIL APRIL 1st, 1919. (Keep This Ad. for Reference as It Will Not Appear Again)

TO make sure that you get your fencing when you want it this Spring, we advise, yes, urge you to place your order now or at the earliest possible date. We can make prompt shipments now. We are reasonably certain that the demand this Spring will far exceed our capacity, in fact, the capacity of any factory in Canada. Don't be one of those belated farmers who places his order at the eleventh hour when the rush season is on, because no human agency can overcome possible transportation delays, shipping congestion and other interruptions that follow the breaking up of Spring when the fence building season is on. It is to your advantage to have your fencing in hand for use the first available "fence day" that comes along. Better be safe than sorry. Place your order now. Our prices quoted mean Government standard gauge wire, prompt shipments, best quality, lowest prices, only two profits—yours and ours—a direct shipment from the factory on our prepaid freight plan, fencing fresh from the loom, new and bright, no better fencing made anywhere. Ask the man who uses Sarnia Fence. He knows.

Buy Now and Save Time and Money on Your Spring Requirements Take Advantage of Our Low Prices and Prompt Delivery

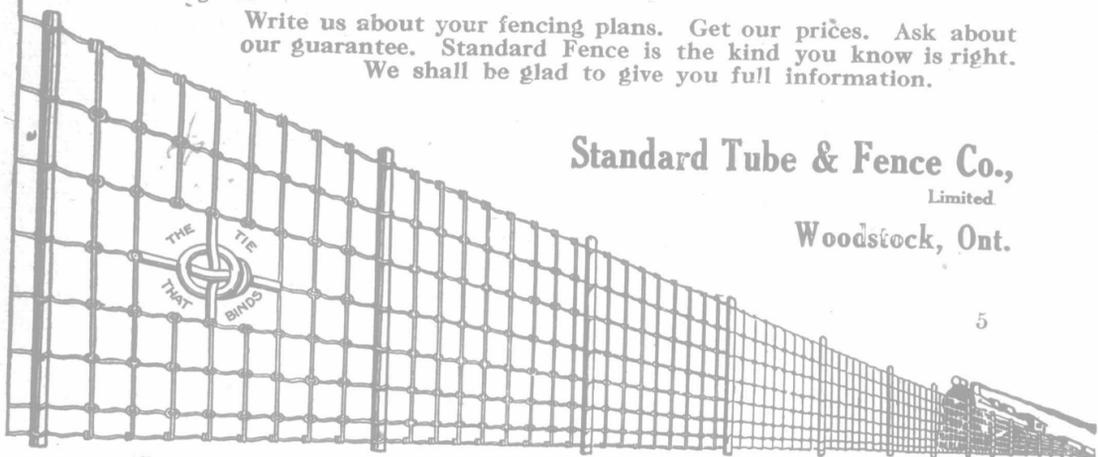
Table listing various fencing styles (HEAVY WEIGHT, MEDIUM WEIGHT, POULTRY FENCES) with specifications like wire gauge, height, and price per rod.

Sarnia Fence Co. advertisement including company address (Sarnia, Ontario), a circular logo with 'FARMERS FRIEND FENCING FROM FACTORY TO FARM', and a form for ordering with fields for name and address.

it takes a few years

to find out how good a fence is.
 You can see some points of difference between fences when they are new.
 But if two fences look about the same, time only will show which is the best.
 You know that.
 Then, when you buy a fence you are depending to a great extent on the men who sell it to you.
 If you don't know who they are, you don't know your fence either. You're taking a gamble. And a big one.
 Fencing costs money.
 Labor costs money.
 Your time is worth money.
 You risk it all if you buy fence that has not earned a high reputation.
 In 14 years of dealing with farmers we have never sold a poor fence. We started out to show the farmers that we could be trusted. The result is that Standard Fence has won a great name for quality.
 And that name has built up a great fence institution.
 Our whole output is entirely in highgrade fence. Naturally on account of our big sales, we can make that fence at a fair price—we believe lower than many a fence not as good.

Write us about your fencing plans. Get our prices. Ask about our guarantee. Standard Fence is the kind you know is right. We shall be glad to give you full information.



Standard Tube & Fence Co.,
 Limited
 Woodstock, Ont.

STANDARD FENCE

million square miles of territory that in elevation belongs more to the land than to the sea.

As a matter of fact, the continental shelf, lies in part under water and in part above, the part above being the alluvial plains are broad, the shelf usually is broad, and where they are narrow the shelf is usually narrow. For instance, the plain on our Atlantic coast is broad, and there is a corresponding breadth to the continental shelf. On the Pacific coast the alluvial plain is very narrow, and the 100-fathom line is correspondingly close to shore.

From a practical standpoint, the part of the sea of most immediate interest to man is that which rests upon the continental shelf. Here are situated all the seaboard cities. Wherever the ocean lanes may meander up and down the briny deep they begin on the continental shelf and end there. But for that shelf there would be no bays or gulfs, no harbors and no havens, for the boundaries of the true ocean basins are infinitely more regular and less indented than the shore-lines. Ocean-bound commerce would be vastly inconvenienced if it had to dispense with all the advantages that the continental shelf brings to it.

On the other hand, that shelf is a source of much difficulty to shipping and of much inconvenience to humanity. Upon the ten million square miles of territory upon which the sea has such a shallow

Canada's Opportunity On the Highway of Success—What has that to do with GATES? Everything!

PEERLESS LONG SPAN GATES

The gate pictured below is a companion to the Peerless Perfection farm fencing, strong, durable, with heavy tubular brace, which stiffens it like a steel bridge. It swings true and rigid as an oak door hung by a master mechanic. Lateral and upright wires securely clasped at all intersections and stretched upon a strong rigid frame of tubular steel electrically welded into one solid piece.

For Looks, Wear and Service In appearance a Peerless Gate says: "I am open hearth steel wire, galvanized and can't rust at any point. For service it is put together to last a lifetime, and is the cheapest best gate made. You will be interested in our Catalog. Write Today for literature describing all our many styles of Gates, all kinds of Farm and Poultry Fencing for farm, ranch, residence, park, etc. It will pay you well to get acquainted with Peerless Perfection standard of construction. Write nearest office today. Do it now."

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

lien a population equal to that of Europe and America might live. Aye, more than that—it is all practically level, the recipient of uncounted ages of rich contributions of fertility brought down by the rivers from the land, and it might support a population as dense as was that of Belgium before the hob-nailed boot of Hun warfare was set upon that smiling and teeming land.

Count the hundred of millions of dollars that the nations of the earth spend on harbor dredging and coast-water surveying; figure up the tremendous losses of shipping tossed upon submerged rocks by raging seas; consider the losses involved in the wending warfare between sea and shore, and you will begin to see that, even with all its blessings of safe harbors, land-locked bays, and havens of refuge, the continental shelf is not without disadvantages to mankind.

With more ships afloat than there were before the heartless Hun ran amuck with the submarine, there will be a greater demand for minute surveys of all shallow water in coastal territory—thousands of square miles will need even the intensive method of the wire drag, which does not trust to soundings to reveal pinnacle rocks, but touches every square inch of the water at the appointed depth, and thus makes sure that nowhere is there an obstruction reaching above it.

It is probable that the submarine, an American invention prostituted to foul use by the Hun, will be rescued from its ignoble use and made to serve humanity where now it outrages civilization. Able now to descend to the bottom hundreds of feet below the surface, it is not improbable that before many years have passed submarine expeditions will take the place of polar expeditions and many mysteries of the sea will be solved.

Another matter of pressing moment that seems destined to occupy a larger place in oceanographic research after the war is the question of sea food. The great conflict has demonstrated how close is the margin between food production and food consumption, and how much more pressing the food question is destined to grow in the years of peace and racial expansion that lie ahead.

The oceans literally teem with food. The man who declared that humanity is a race of herring-catchers might have overstated the case, but that the sea abounds in food-fishes and fishes fit for food is well known. As soon as we begin to study the subject of ocean fisheries, however, we come up short against the fact that what we really know about the inhabitants of the sea is startlingly limited.

It was not so long ago that the fishermen of the North Sea believed that whales brought the herring in toward shallow water—a conclusion they reached from the observation that schools of herring are frequently found in the vicinity of spouting whales. In 1906 there was a failure of the herring fisheries, and the fishermen blamed it on the Norwegian whaling vessels operating in that region.

Likewise, it is still a moot question whether or not modern fishing methods tend to deplete the supply, and whether artificial propagation of sea fishes is a sufficient counter-measure. A few years ago a British commission measured the intensity of fishing operations in the North Sea. Trailing bottles were set adrift, and it was found that more than half of them were recaptured. In certain localities they were captured at a rate that indicated 90 per cent retaken each season. Marked fish yielded largely similar results, and the conclusion was that a food-fish of adult size had at least three to one odds against its getting through the year uncaught.

And yet there is so little race suicide in the ocean that even such intensive fishing probably has no effect upon the available adult supply. For instance, the female turbot lays 8,500,000 eggs a year, and the cod has 4,500,000 to her credit. The female flounder lays 1,400,000, the sole 570,000, the haddock 450,000, and the plaice 300,000. The poor herring must be content with a meager 31,000.

Much remains to be learned about the migration habits of the world's food-fishes. Where do the salmon go after they leave the rivers? Why does the eel, as discovered sometime since by the Danes, go far out to sea, far to the north and west of the Irish coast, to spawn, and how do the countless hordes of delicate elvers find their way around the British Isles and into the continental rivers? Innumerable are the questions

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The problem of life in the ocean is one full of interest and pregnant with valuable lessons for mankind. Even at the bottom of the deepest trench in the abysmal region of the sea's bottom, where no ray of the sun ever penetrated, where Stygian night is perpetual, where freezing temperatures never cease and where inconceivable pressures prevail, the miracle of life still goes on. When you remember that the atmospheric pressure of 15 pounds per square inch means 30,000 pounds on a surface as large as an average sized man's body, and then consider that in some of the deeper places in the ocean the pressure is more than four tons to the square inch, or eight million pounds for a surface as large as a man's body, you will naturally wonder how any living thing can exist there.

Yet eerie creatures do exist, even in the uttermost depths. Here is a fish swimming by with light-giving organs ranged in rows from nose to tail, on port and starboard sides, a fantastic miniature of an ocean liner, alight from stem to stern, gliding noiselessly through the perpetual night. There is another, with a well-defined searchlight with which to explore the blackness around. Here is a breathing caricature of a mermaid with binoculars, and there a creature whose eyes are upon the ends of long stalks reaching out from the head like sunflowers from the ground.

In size the inhabitants of the deep sea have as wide a range in the direction of microscopic minuteness as those of the land. It is hardly reasonable to suppose they would not range toward largeness as well. Indeed, there is evidence that immense creatures, with flesh of a texture hitherto unknown, exist in the ocean depths. Some years ago a strange object was washed ashore on the Florida coast. Photographs of this peculiar hulk and a piece of it were sent to Professor Verrill for examination. It measured twenty feet in length, forty feet in circumference, and weighed many tons. He found its flesh of a tough, fibrous nature, unlike any known, and concluded that this huge object was but a fragment of some monster of the sea, torn from it by some cataclysm of the deep.

Another phase of oceanography that will demand and receive close attention in the years when navies fulfill a new mission—the illumination of the dark places in man's knowledge of the sea—will be the ocean currents. The effect of these great rivers of the sea upon the welfare of the human race is past imagination. It is said that the Gulf Stream carries enough heat toward Europe every 24 hours to melt a mass of iron as large as Mt. Washington.

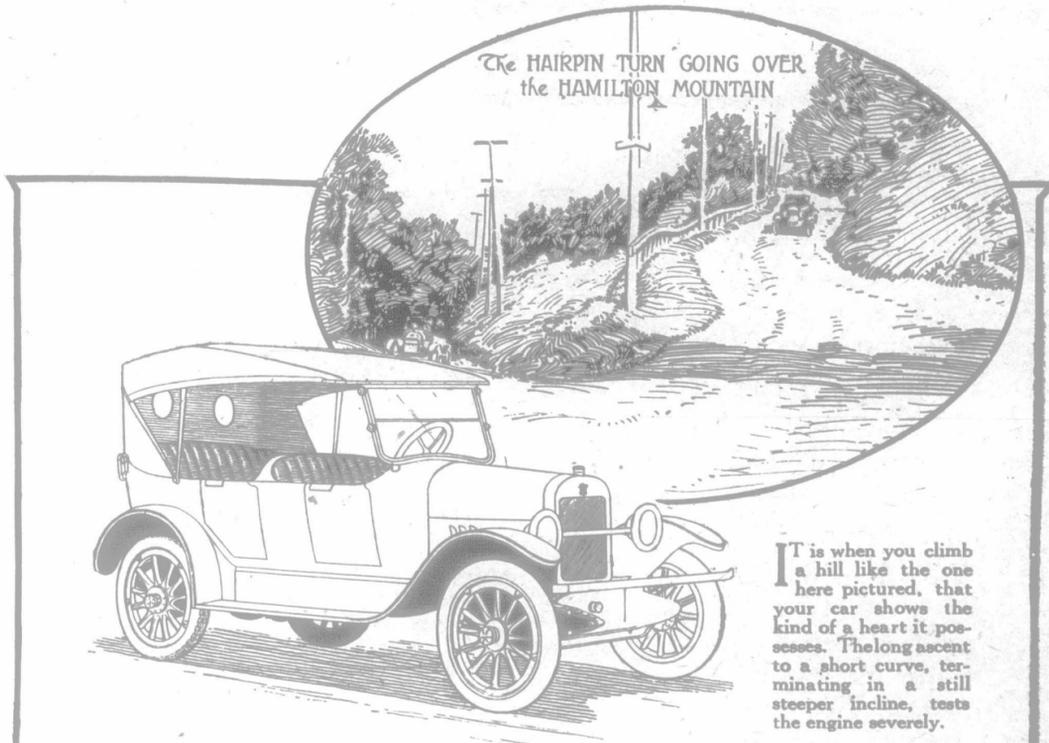
Rear Admiral Pillsbury, describing this remarkable river of the sea, says that every hour there passes through the straits of Florida the enormous total of ninety billion tons of water, carrying enough salt to load many times over every ship that sails the main. Through these straits the stream is 40 miles wide. It carries more water than all of the streams of the world bring down from the land to the sea.

In each of the four quarters of the globe there is a wonderful circulatory system—the heavy, cold waters of the polar seas rushing equatorward, and the light, warm waters of tropic oceans sweeping back, giving a huge swirl not unlike the motion of water driven around the bottom of a basin by the hand.

Vessels and debris caught in these currents often play uncanny tricks. In 1905 the "Stanley Dollar", an American freighter, went upon the rocks at the entrance to Yokohama Bay. Her life-preservers were washed out as she lay upon the beach upon which she was run to prevent her sinking.

In 1911 two of her life-preservers were picked up on the shores of the Shetland Islands, north of Scotland. How they reached there is one of the puzzling questions that so often arise anent the sea. Did they sweep up the Asiatic coast, through Behring Strait, and then through the Northwest Passage and Baffin Bay, and thence by Iceland to the Shetland Islands? Or did they, after floating through the Northwest Passage, get into the Polar Current and sweep down the Atlantic to the point where that ocean river dives under the Gulf Stream, to be picked up there by the latter current and carried to the Shetland Islands?

It has often been urged that the

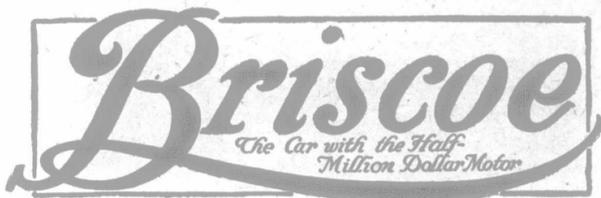


It is when you climb a hill like the one here pictured, that your car shows the kind of a heart it possesses. The long ascent to a short curve, terminating in a still steeper incline, tests the engine severely.

The Briscoe Triumphs on Severe Hill Tests

The average car—slowed down to make a curve half-way up a hill—will not "pick up" again on the final ascent. But the Briscoe will. The Briscoe Motor responds to your call for a spurt—and up, up, up you go—a steady flow of power answering your foot pressure on the gas lever—and you finish that long climb triumphantly "on high."

The efficiency of the Briscoe Motor has been demonstrated in several ten-day, non-stop test runs, in one of which a record of over 29 miles to the gallon was established. In less spectacular fashion, the Briscoe Motor is proving its economy and efficiency by year-in, year-out service, on all sorts of roads, and under all sorts of conditions.



BRISCOE PRICES			
Sedan	\$1,950	Standard Touring	1,225
Special Touring	1,350	Roadster	1,225
All F.O.B. Brockville. Briscoe pays the tax.			

TORONTO AGENTS

Bailey & Peer Motor Co., 497 Yonge Street

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Use Power in the House as well as in the Barn

Runs by Motor or Engine

Maxwell

Power Bench Washer

—has proved itself a wonderful friend to others. Let it help you. It will even do the wringing! Handles the biggest or smallest wash.

heaviest or daintiest clothes with no tearing or wearing. Pays for itself over and over! Made in three sizes. Write for particulars.

MAXWELLS LIMITED. - Dept. W - St. Marys, Ontario 40

American Indian came to the shores of the New World an unwilling voyager on the bosom of the Japan Current. Certain it is that all of these vast rivers of the ocean have played an incalculably important role in the affairs of the human race, and that a more exhaustive study of them than has yet been made holds many revelations in store.

One of the questions that is often asked is whether a ship, sinking in deep water, goes to the bottom, or whether she finds her level in some vertical depth zone and drifts on forever. This question sprang into great prominence when the "Titanic" went down and has been asked frequently during the present war. The answer is, she goes directly to the bottom, else how could a dredge or a trawl be sent down five miles. That same question was asked by the sailors of the "Challenger" while on its celebrated voyage during which material was gathered for fifty volumes about the sea. One of their number died and was buried in particular,



CONCRETE MANURE PITS KEEP FERTILIZER VALUES IN THE MANURE

Write for this free book which tells you how to build manure pits and other utilities of concrete which your farm requires

It is estimated by the Canadian Government (according to Dominion Farms Circular 55) that the annual loss in manure in this country—due to exposure and poor handling—is over two hundred millions of dollars.

Leaching and heating in manure exposed to the weather will account for a 40% decrease in plant food value in three months. On the average 100-acre farm, there would be about 200 loads of manure per year—at a value of \$3.00 to \$4.00 per load. Thus improper handling may result in a loss of \$300 in a year on such a farm. To avoid this loss

Every Farm should have a Concrete Manure Pit

to conserve the liquid manure, for, if the manure is unprotected, a large percentage of the fertilizing material is carried away.

Concrete makes a satisfactory pit for manure—being waterproof, it does not permit any liquid to escape.

Another advantage of such a pit is that in putting a stop to the

seepage from manure piles, it prevents contamination of wells.

The illustration shows one type of pit that is easily constructed. The small sketch adjoining is from the book entitled, "What the Farmer Can do with Concrete" in which full directions are given for the building of a pit five feet deep, with a

sloping floor to allow the manure spreader to be driven in.

Get our book now—and construct a manure pit before next summer. The directions for building it are clear and simple—you can do the work yourself quite easily. The pit will pay for itself, in fertilizer saved, in less than one season.

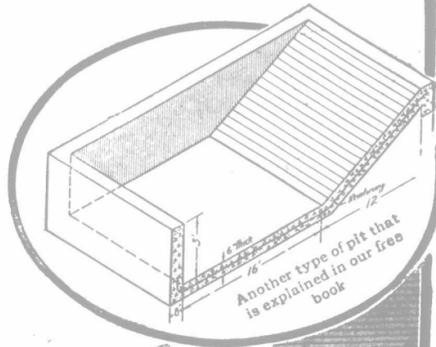
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An excellent type of manure pit, showing overhead carrier



ly deep water. They sent a delegation aft to ask those on the quarterdeck whether Bill would go to the bottom or would float around at some fixed level. They also wanted to know what Bill would be like when he got to the bottom.

One of the strange things that happen when ships sink is that implosions occur. These are inward burblings, often with a force as tremendous as the outward burblings caused by explosions of gunpowder. As the ship sinks into deep water, air-chambers that do not fill up are burst inward with a force proportionate to their resistance. If there be corked bottles in the stores that are not entirely full, the corks are driven in or the bottles burst.

With what force these implosions occur may be gathered from an experience of a scientific expedition. A thermometer was let down into very deep water, wrapped in protecting cloth. When the line was drawn up the cloth contained no thermometer. Instead it contained a lot of impalpable white stuff resembling snow. The implosion had not shivered the thermometer into the proverbial thousand pieces; it had simply transformed it into dust. Wood sent to the bottom of the deep places of the ocean has its very cells invaded and crushed and loses its buoyancy.

These are but a few outstanding phases of the wonders of the wonderful sea. They are only random paragraphs gathered from the remarkable chapters of the great Book of Nature that tells us of Old Ocean and his marvellous ways. The elder days of the becalmed mariners in the Doldrums are gone, and their amazing tales of Flying Dutchman and Wandering Jew, of ships that float about forever, bleached of canvas and rotten of rigging, with decks peopled by ghosts and skeletons—these are but classic myths, just as are the stories of comports and monsters, recognized by all as such.

But the oceanographer has mysteries and problems to solve that make even the riotous imagination of the seasoned old salt seem tame in comparison.—The National Geographic Magazine, Washington.

Gossip.

Having sold his farm, John Elder, of Hensall, writes that he purposes disposing of his entire herd of Shorthorns including about 30 females and 10 bulls. The females are young and in their prime, and most of them are in good breeding condition. They are sired by that noted bull Scotch Grey, which was used in their herd for nearly eight years. His progeny have turned out particularly well and have given satisfaction wherever sold. Crown Jewel 42nd, now at the head of the herd, is a choice roan and all the young bulls and heifers under fifteen months of age are sired by him, and their quality is proving the worth of this sire as a stock getter. Seven of the males for sale are around one year old. Many of the females in the herd have proven to be good milkers, having made creditable records at the pail on more than one occasion.

Hodgkinson & Tisdale, importers and breeders of Percheron horses, write that they are expecting a larger importation of Percheron stallions and mares sometime this month. They have sold stallions this season in localities that never had a Percheron horse before, and the demand for Percheron mares is steadily growing. Miron, the grand champion of the breed at last year's Toronto Exhibition, and also a first-prize winner as a two-year-old at the same fair, has been disposed of to R. W. Garland, of Pinkerton. This horse weighed 2,090 lbs. when shipped, and should prove to be a serviceable sire in the district to which he is going. The performance of the Percheron horse at the war has created a demand for this breed. Messrs. Hodgkinson & Tisdale inform us that their sales have surpassed those of previous years at the time of writing, and that there is a steady stream of enquiries for both sex coming in all the time.

Did you ever wonder how many pounds of grain are required to produce one pound of gain in hogs. Get your father to weigh a bunch of pigs on a certain day and again about two weeks later. Also weigh the feed they eat. From this it is easy to figure out how much grain it took to make a pound of gain.

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No. 1—Alfalfa.....		at 17.00
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EARL BEDAL, Brighton, Ontario.

Burn the Hobbies in Our School System.
EDITOR "THE FARMER'S ADVOCATE":
In these days of inventions to lessen, lighten and hasten farm work, the thought is being constantly forced upon me that the most important factor on the farm is being overlooked and is in grave danger of deteriorating. For of what use are motor-drays, motor-plows and the most up-to-date inventions without a capable man to operate them? And where are we to get capable men if we persistently blind ourselves to the possibilities that lie within the farm boy; if, instead of permitting him to improve and develop the faculties that God has given him, we force upon him useless substitutes and handicap him at every turn?

In my early school-days the only magazine that regularly found its way into our home was "The Farmer's Advocate;" and though its contents in general were beyond our mental capacities we always made a scramble for the puzzle page. And when we had solved the puzzles or given them up, we hungrily leafed the old book from cover to cover, as faithfully as neighbor Benson's bony cow turned her bundles of Canadian thistles for another bite of straw. The evenings were long, books were scarce, and little other entertainment was available except when the hired man was in a mood to regale us with stories. Then we listened, open-mouthed, to his wildest fabrications created purely to excite merriment, or his more thrilling accounts of adventures in *haunted* houses, until the moaning of the pines and the old night watch's mournful ou-oo, ou-oo-oo, startled us, and our excited fancies transformed the most familiar object in the dusky corners of the dimly-lighted kitchen into all sorts of uncanny beings. But our childish terrors were of brief duration and were quickly dispelled by wholesome sleep. The tortures of "home-work" were then unknown, and its horrid spectre never marred our evenings or invaded our happy dreams.

In those olden days we had time to sleep, time to grow, time to think, time to learn from the marvellous world about us. And in spite of the dearth of books we did learn; we learned which were friends, which were foes among birds and beasts and plants. We learned where to apprehend danger, and how to guard against it, and we learned, most of all, to sort out what we needed and not to cumber ourselves with useless waste.

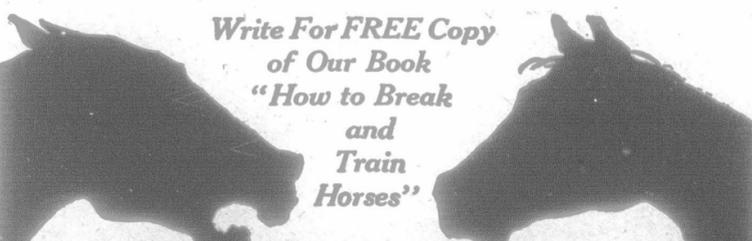
Nor was the moral law by any chance forgotten. Rigid obedience was always exacted, and failure brought certain punishment, perhaps sometimes too roughly administered, but the severity of the lesson doubtless spared the culprit many a keener reproof in after years.

Such was the environment of the "homespun" boy of forty or fifty years ago, and though he might appear a little crude beside his more polished brother of to-day, I'll wager my best "hockeys" against Bill's old wooden "screws" that Bill stands the winner, nineteen times out of twenty, in any moral, physical—yes, or mental contest within Bill's experiences, over your up-to-date Johnny Cannuck.

Take a look at Bill. Some of your fathers knew him well; proved his strength in a wrestling bout; raced with him over fences and across woodlots to the old-time temple of knowledge, unburdened by aught but a lunch pail well filled with bread and meat, and, perhaps, a "hunk" of pie. Watch him pore over his books with the avidity a stalled appetite can never know. Sports—aye and some innocent mischief, too, had its turn in Bill's school life and brought its due reward. But when school was dismissed, school cares were also dismissed, and Bill bounded away towards home, free to live, to think, to read, to recreate himself by whatever available means appealed to him. Without Bill we should never have found such rare delight in Whittier's Barefoot Boy!

But stop! Here comes the modern type of that happy, hopeful model! Poor little Johnny Cannuck, struggling beneath a burden of text-books from which Bill's healthy mind might have sorted some useful ideas, but from which Johnny's over-crowded brain turns only with nausea, and disgust. The joy of acquiring knowledge has never been his, for he has been so zealously crammed with all sorts of mental concoctions that his diseased appetite finds little relish in wholesome study of any sort, and he turns in every direction for diversion from the

Write For FREE Copy
of Our Book
"How to Break
and
Train
Horses"



\$125 PROFIT ON ONE HORSE

HOW ONE MAN CHANGED A VICIOUS "NAG" INTO A FAITHFUL PLUGGER

Charles H. Mackley, of Unadilla, New York, bought a vicious, kicking and biting mare for \$50. The horse was a mean one and no mistake. Impossible to drive, and the mere sight of any one transformed the horse into a regular "bucking broncho."

It looked to Mr. Mackley as though this terror wouldn't even earn her feed. About this time Mr. Mackley was introduced to a student of Professor Beery, the famous American horse-man. And at this friend's suggestion, Mr. Mackley wrote to Professor Beery for the Beery Course in Horse Breaking and Training. Mr. Mackley gave the course a little spare-time attention and then applied his knowledge to correcting his vicious mare. In 10 days, thru the application of Beery Methods, this \$50 "unbreakable broncho" was transformed into a patient, obedient and faithful plugger, which its owner later sold for \$175.

\$125 profit through the Beery System is but one instance. Hundreds of others write us how they have transformed balkers, kickers, horses with habits, and dangerous horses of all kinds into patient, obedient workers of high value.

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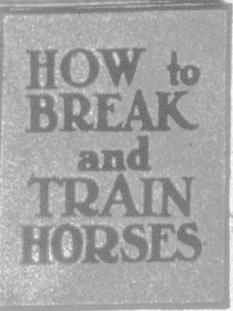
No theory about the Beery Method. It is the result of 30 years' experience with thousands of horses. The Beery Method is certain and guaranteed to produce results.

Thru the Beery Course, you can easily tame the most vicious horse into a gentle, dependable plugger. Not only will the Beery System teach you to break vicious colts the right way, but thru it you can break any horse of any of his bad habits *permanently*. Balking, shying, biting, kicking, fright, and all other bad habits will be totally cured *forever*—and the result will be a more useful horse to own, and a more profitable horse to sell.

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Many Beery Students have been able to pick up a number of "ornery" horses which their owners were glad to get rid of. Then, through the Beery Methods, they have quickly transformed these vicious "nags" into willing workers and have sold them at a big profit. Our free book "How to Break and Train Horses" explains fully about the Beery Course and how much it will mean to you. With the knowledge gained from the Beery Course, you can quickly make your horses or anyone else's horses gentle and dependable.

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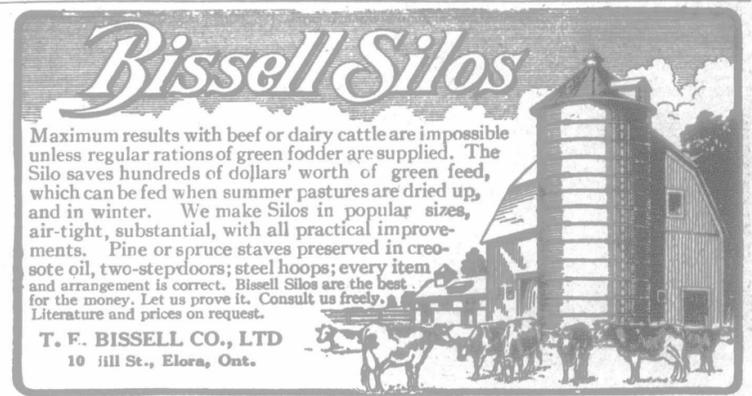


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Will exchange my equity in a first-class, well-improved half section in one of the best districts of Saskatchewan for a bunch of good Shorthorn cattle.

If interested, write, wire or 'phone.

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Oaklands Glory [17414] sired by Harvester (imp.) [5357] (11368) Dam, Bloom of Ironside (imp.) [15999] bay, stripe nigh fore foot, and both hind legs white, foaled April 15th, 1915. For further particulars apply J. H. LAMPMAN, Palmyra, Ontario.

FOR SALE

Second-hand heavy duty Victor Churn, 900 lbs. capacity, in good condition. Apply to Walkerton Egg and Dairy Co., Ltd., Walkerton, Ontario.

hated books. In short, since his natural keenness is being so persistently blunted and his native bent so wilfully ignored, what stimulus is left him?

If you have not already made observations in your own community—not to say in your own homes—as I know some of you have, go into several country schools and verify the above statements for yourselves. Making due allowance for the age at which boys now quit school, you cannot fail to note that where the robust boy, forty years ago, was the rule, he is now the exception or sadly in the minority. While from the mental standpoint, instead of finding Bill wrestling with a will at his own problems and eventually mastering them, you see poor Johnny listlessly waiting to be lifted over the hard places.

When school is dismissed, if you have leisure, follow Johnny home (and if you have any heart give him a hand with his books) and observe what happens there. As he steps upon the threshold his mother calls:

"Is that you Johnny? Wash your hands and practice your music lesson." Watch him drum away for a few minutes until his mother goes to the garden—then see him slip out the front door to lie under a shade-tree, or maybe steal through the orchard to a neighbor's to be out of hearing for a little while.

At supper-time his evasion is discovered but reproofs are his common menu and he pays little heed, and somehow evades his tasks again until the family gather about the evening lamp. Now there is no escape and Johnny wrestles away for two long hours over his "memory work" and a map of—but Johnny isn't by chance much of an artist and the name is not printed yet. Finally he falls asleep with an open history for a pillow. When roused to go to bed he suddenly remembers that he has several arithmetic problems to solve; but an indulgent mother helps him to get three of them, and promises to call him early to finish the rest in the morning.

Johnny is only twelve years old, and he has applied himself willingly or otherwise for six long hours to tedious tasks, some of which at least were, perhaps, always distasteful to him and he surely has had sufficient mental exercise for one day! And don't you feel that he has earned a little recreation in God's free air, or in any case, needs it? "But," you object, "he is becoming a systematic shirker." Yes, but he is but yielding to the tendency our schools are systematically fostering, and his parents are weakly permitting.

Now don't get ruffled and call me names, and begin to hotly enumerate all the advantages of our modern schools. I know they could and should, but they do not give practical results! Just keep cool a minute longer and contrast your grown-up Johnny's habits of dissipating time and energy with Bill's honest and steady application to duty. Bill is still wrestling with his own problems, and with the world's problems in general. He is reading, thinking, and forming his own conclusions. He is using his time and energy with the same generous economy that, even with his limited advantages, makes him one of the pillars in the progress of civilization. Whether he has gone into the business world or remains on the farm he is everywhere "making good." He has made some mistakes, to be sure, but his honest failures are but stepping-stones to someone's success.

And Johnny—He, too, is pursuing his old course. Refusing to read, and still preferring his knowledge second-handed he forms his conclusions (yet not his) of the social, moral and business world from garbled reports gathered upon the street-corners of the nearest town, and consequently has no fair estimate of what the world requires, or of what is required of him. And follow him also about the farm or into the business world, for not being able to make good anywhere, he flits from one occupation to another and is generally admitted to be a failure.

Who is to blame? If he had been encouraged, or even permitted, to follow his native tendency with a reasonable course of study might not he too have "made good?" Even if in rare cases his natural inclination towards a certain trade or calling survive this packing system what of the time of which he has been robbed? What of the unnecessary drain upon his mental and physical powers? And most of all what of the vital effect upon his character? But, as

Why this open throated Cotton Collar CANNOT rub the shoulders

Watch the movement of ordinary collars as horses strain at the traces. At every step you'll notice they rub against his shoulders. That constant chafing, combined with sweat, is the reason why horses get galled. This fault is overcome in the



The dotted lines show the shoulder movement of a horse—how the Lankford moves with instead of against muscles.

Lankford
HUMANE HORSE COLLAR

Instead of opening at the top, the Lankford is made with an open throat that gives pulling muscles full play. Moves with the shoulder muscles, instead of rasping against them. It cannot gall or sweency.

Sweat Absorbed—Shoulders Dry

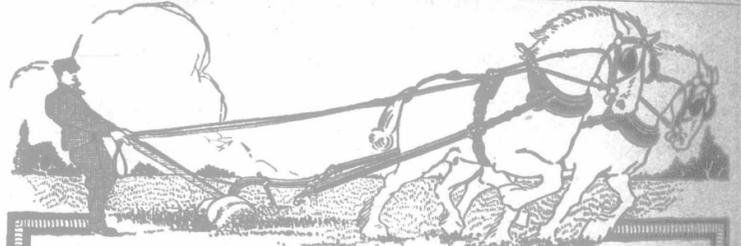
The Lankford is made of closely woven army duck, like a surgical bandage—stuffed with soft, springy cotton fiber. This fiber will not hold heat—absorbs sweat and impurities from sores. Keeps shoulders dry.

Made in sizes to fit any horse—heavy leather bearings and line leathers. Often lasts three or more seasons. Costs about one-fourth as much as leather. Millions used every year.

The Lankford is guaranteed to heal sore shoulders while they work. If dealer cannot supply you, send \$2.50 (state size wanted), and we will ship you a collar, charges prepaid.

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Our No. 426 Special Team Harness is made for heavy farm work. This is a favorite all over Canada. If your dealer does not carry it he can get it for you, so you can see it before you buy it, or you can write us.

No. 426 Superior Quality Farm or Waggon Harness. Blind bridles with side check. Lines 1 in. High top hames with hame tugs to buckle. Breast straps and Martingale. Traces with iron cockeye on end. Pads with hook and terrets. Backstrap with trace carriers on top and folded crupper dock. Traces 1 1/2 in. and balance in proportion. XC or Jap. mounted. Price (less Collars) \$60.35

No. 640 Standard Grade Farm Harness. Blind bridles with side check. Lines 1 in. High top hames. Traces steel chain leather covered. Breast straps and Martingales. Pads with hook and terrets. Backstraps with trace carriers rivetted on top. XC or Jap. Mounted. Price (less Collars) \$40.35

No. 424 Standard Grade Farm or Waggon Harness. Blind bridles with side check. Lines 1 in. High top hames with hame tug to buckle. Traces with iron cockeye on end. Breast straps and Martingale. Pads with hook and terrets. Back strap with trace carrier on top and folded crupper dock. Traces 1 1/2 in. and balance in proportion. XC or Jap. Mounted. Price (less Collars) \$52.80

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48 Wellington Street East, Toronto

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Cairnbrogie Clydesdales

STILL TO THE FORE

Imported and home-bred stallions and mares of the highest quality and individuality. Our record at the leading shows of America surpass all competitors, and we are offering for sale males and females of all ages, and should be pleased to hear from prospective buyers of quality Clydesdales at any time.

For prices and full particulars, write:

GRAHAM BROS., (Cairnbrogie,) Claremont, Ont.

Long-distance 'phone. Station, C. P. R.

Clydesdales and Percherons

I have 15 Clyde Stallions, 10 Percheron Stallions and 10 Clydesdales Fillies. The best collection I have ever had at any one time of prize winners and champions, all for sale at prices second to none. A visit to my stables will convince you.

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MARKHAM, ONT.

Cotton Collar
for the shoulders

ment of ordinary collars as traces. At every step you'll strain his shoulders. That combined with sweat, is the result galled. This fault is over-

Lankford
THE HORSE COLLAR

ing at the top, the Lankford open throat that gives pulling. Moves with the shoulder rasping against them. It mey.

bed—Shoulders Dry

made of closely woven army bandage—stuffed with soft r. This fiber will not hold and impurities from sores.

fit any horse—heavy leather leathers. Often lasts three or s about one-fourth as much as ed every year.

guaranteed to heal sore shoul- rk. If dealer cannot supply te size wanted, and we will harges prepaid. (9-2c)

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Grand Harness

Every Town heavy farm work. This does not carry it he can it, or you can write us. Blind bridles with side check. to buckle. Breast straps and hook and terrets. Backstrap 1 1/2 in. and bal- **\$60.35** (ars) with side check. Lines 1 in. covered. Breast straps and h trace carriers **\$40.35** Blind bridles with side check. to buckle. Traces with iron hook and terrets. Back strap 1 1/2 in. and bal- **\$52.80** (ars) FREE on request.

LTD.
ross Ave., Winnipeg

Percherons
DRE

s and mares individuality. of America are offering ll ages, and prospective t any time.

write:
Claremont, Ont.
P. R.

Percherons
Clydesdales Fillies. The best mners and champions, all for will convince you.
MARKHAM, ONT.

to the last, some one protests, " 'tis blood that tells." Very true! But does not environment and careful culture make good blood? And without these does not even good blood degenerate? No one knows this better than the farmer. Then, do not we who have reaped so richly from the past owe something to future generations?

Now, having completed your observations and being in a position to judge fairly, are you not ready to admit that there is something vitally wrong with our school system? "But," you still object, "haven't our schools improved in the last fifty years?" Certainly they have! but our educators have been so engrossed with the business of *improving* the schools and in filling them with all sorts of hobbies, and insisting upon the boy, (regardless of his fitness or unfitness) riding them all, and all at once, that his initiative is being destroyed; and instead of developing into a strong, self-reliant man, he is in danger of becoming a helpless milksop. And how is he ever to become anything different unless we burn the hobbies and teach him, or, in any case, give him a chance to walk!

Here is the latest hobby; one that has been crowded into the schoolroom. The name is painted upon it in green letters—"agriculture"—and you expect the farm boy will simply clamor to mount it. But there you are again! He would be delighted, perhaps, if it were the real thing, but he has been cramped upon so many hobbies that this imitation looks quite as tame to him as the others! "But, oughtn't we to teach agriculture to the rural boys and girls?" comes the question again. Certainly teach them agriculture, or any other culture—if they have any taste for it, or if you can create a wholesome taste, but teach it in a practical way. Stimulate the boy to expand, to develop what is within him, help him to *find* himself; and above all don't forget that he has a body as well as a brain, and that they are interdependent.

I recently read the principles upon which the United Farmers of Canada purpose to stand in the coming elections, and in the writer's humble opinion they are most sane and laudable, but let me beg that the farmers will also take a livelier interest in the local schools. Ask your trustee boards to look into the "home-work" matter and judge if it will not improve the farm and incidentally the boy to eliminate it.

Middlesex Co., Ont. N. L. M.

The First Incubators.

EDITOR "THE FARMER'S ADVOCATE": It is interesting to learn of the first inventions used to hatch poultry eggs by artificial means. The first invention, coming out seventy-five or eighty years ago, which created a sensation was simply that of an oven, wherein the eggs were hatched into life; but it seems with so large a percentage of failures and subsequent vital feebleness that the apparatus produced but small material results. The next contrivance was a great improvement on the first and was based upon the more natural plan of what the inventor called "top-contact heat," whereby the soft, yielding breast of the parent hen was imitated by longitudinal India rubber bags filled with water heated to the proper degree. The eggs were laid in trays and submitted to the influence of the artificial "mother," with singular success, the average loss being scarcely twenty-five to the hundred. This was the invention of Mr. Cantelo, who tried it both in England and America, and who raised innumerable batches of chickens in every respect well founded, healthy and marketable. He calculated with a single incubator to produce seventeen batches a year of any kind of fowl.
Brant Co., Ont. S. D.

Got the Idea Exactly.

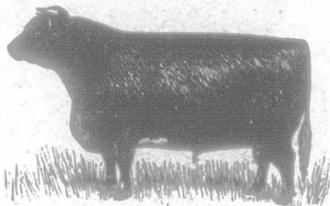
The first sergeant was talking to his men about courtesy. "You men must have proper respect and care for all women and if you ever see a woman in trouble go to her rescue at once. Sam," he continued, addressing a tall negro in the rear rank, "supposing you were walking down the street and saw a big brute strike a woman in the face. What would you do?" "Sergeant," replied Sam, "Ah would look dat brute in de eye and say: 'Man, it am mahty lucky for you dat you didn't strike me!'"

For High-Class Shorthorn Cattle

ATTEND THE McCORMICK DISPERSAL

Paris, Ontario, Thursday, March 13th, 1919

THIRTY HEAD



Breeders wishing to obtain choice breeding Shorthorns will find it to their advantage to attend this sale. Individually, or collectively they compare favorably with the best ever catalogued for a small sale in Ontario. All are selling in excellent condition and the majority carry fashionable pedigrees. Of the thirty, eleven are breeding cows; three are bred heifers and with the herd sire the remaining numbers are made up of yearlings and 1918 calves. Among the later are three young bulls old enough for service. **If you are an admirer of good Shorthorns this offering is guaranteed to please.**

WRITE FOR CATALOGUE

As the farm has been leased for a term of years there will also be sold, 22 two-year-old steers and heifers, 8 horses, (one matched span of Percheron mares (6 yrs old) one matched Clydesdale team, one Belgian mare and two geldings, all grades). Hay, Grain, etc.

Wm. T. McCormick

Sale at the farm one mile East of town limits.

Paris, Ontario

36 Hickory Hill Ayrshires 36

STRICTLY R. O. P. STOCK

SOME OF THE GOOD ONES:

Snowdrop 2nd of Hickory Hill (52518) which has a record of 10,933 lbs. milk and 449 lbs. butter-fat, % 4.11, as a 2-year-old, and also won silver cup in that class for year 1918.

Her dam, Snowdrop of Hickory Hill (23599), with 11,066 lbs. milk and 429 lbs. butter-fat, 3.87% in mature class; also dairy test winner.

Blossom of Hickory Hill (52521), with 10,285 lbs. milk and 383 lbs. butter-fat as 3-year-old.

Scottie of Hickory Hill (61579), whose dam is Dairymaid of Hickory Hill 2nd (45915), with 2-year-old record of 11,843 lbs. milk, 457 butter-fat.

Sixteen cows qualified in R.O.P., with average of 10,302 lbs. milk, 410 lbs. butter-fat and 3.98% test.

Four year old, average 9,300 lbs. milk, 368 butter-fat, 4%.

Seventeen 3-year-old, average 9,490 lbs. milk, 381 butter-fat, 4.08%.

Eleven 2-year-old, average 8,863 lbs. milk, 364 butter-fat, 4.13%.

Dairymaid of Orkney (48686) sire of all young stock in sale, which spells quality and production.

To be held at OLD COMMERCIAL STABLES, MARKET STREET,

Brantford, on Wednesday, February 26th, 1919

AT 1.30 O'CLOCK

Sale under cover.

FOR CATALOGUES WRITE:

Look up Gossip Notes of this issue.

N. DYMENT & SONS, R.R. No. 4, Brantford, Ont.

WELBY ALMAS, Brantford, Auctioneer.

Clerk of Sale, JOHN McKEE, Norwich

Administration Sale of Valuable Siberian, Flemish, Himalayan and English Spot Hares.

The administrator of the estate of Thomas Albert King, late of Milton, in the Province of Ontario, deceased, will sell by public auction at the farm, two miles from Milton, on

FRIDAY, the 28th, FEBRUARY, 1919, at the hour of 2 o'clock in the afternoon,

the entire stock of Hares and Rabbits forming part of the estate of the said deceased. The Hares will be first offered for sale en bloc, subject to a reserved bid, and in the event of no sale then separately. At the same time there will be sold a number of the following breeds of TURKEYS: Mammoth Bronzed, White Holland and Red Bourbon; GEESE: White Embdon, White Chinese, Brown Chinese and African; DUCKS: Rouen, Pekin, Muscovy, White Indian Ragner, East-India Black, and one Call Drake and four White Leghorn Cockerels. Conveyances from Hotel McGibbon to place of sale. The late Mr. King was known as "One of the largest and most energetic stock breeders in the Province." At Guelph Show in December last, he sold one of his stock, a Siberian doe for \$500. Catalogue and full particulars will be mailed on request to undersigned solicitor.

Dated at Milton this 16th day of February, 1919, Ben Fetch, Auctioneer, W. I. Dick, Milton, Ont., Solicitor for the Estate.

To Protect Dependent Ones

is the bounden duty of every man, and this is best done by means of suitable Life Insurance. Insurance in its most attractive form is offered under the Limited Payment Policies issued by The Great-West Life. Not only is adequate provision made for dependents, but the insured is able to provide for his old future as well.

The cost-profit returns—and every other feature of this plan makes it a most desirable form of Insurance. Ask for the leaflet, "Common Questions Briefly Answered," giving interesting information.

THE GREAT-WEST LIFE ASSURANCE COMPANY
Dept. "Z" Head Office: Winnipeg
BUY WAR SAVINGS STAMPS

Early Alaska Oats

Earliest oat in cultivation. Ripens two days ahead of barley. Weigh 41 lbs. to the bushel.

No. 1 sample.....\$1.65 bush.
No. 2 sample..... 1.50 "

Bags extra, 60c. each. Sacks, 15c. each. Terms cash, F.O.B. Guelph. Samples on request. Also O.A.C. No. 3 oats at \$1.50 bush.

Special.—Turnip seed, any kind, \$1.25 lb. Mangel and sugar beets, 65c. lb. at Guelph.

Hewer Seed Co., Guelph, Ont.

Order Nursery Stock

direct from our nurseries and save agents' and middlemen's profits.

Write at once for our free descriptive catalogue and price list of fruit trees, small fruits, ornamental etc. Address:



J. H. McCOMBS NURSERIES
L. B. 828 Fonthill, Ont

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

ale of
NTARIO

males and 17
of 41 lots.

ding, some good dual-
with heifers, bred right.

OTT, Secretary
ONTARIO

ale 5 Bulls

thorns

io, 1/2 mile from
on on

12th, 1919

Marr Flora Missie, Mina, Strat-

on day of sale and passengers

t Orillia G.T.R. Station at noon

where required on approved

Auctioneer.

Ont., Proprietor

ported; if not, the exchange
all give the American exporter
rate on his Canadian draft.
Canadian importer sends cash,
by order, the American will
mand that it be forwarded
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him 100 cents on the dollar.
the Canadian pays his bank
company or the post office a
on American funds. But a
paid in Canada on money
to the United States is only
of saying that Canadian
at a discount in the Republic.

When you cross the border and
Canadian Government notes or
in payment, you will find at
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the simple reason that there
American money claims against
d correspondingly few claims
against the Republic. But if
balanced, the currency would
at a premium nor a discount,

a serious handicap upon all
buyers of American products,
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currency, banknotes and
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in the United States if the
or the banks would establish
the United States to redeem
money at par. This would
ne banks only the expense of
currency home—insurance
charges. They might well
do so in exchange for their
lucrative privileges of note
in Canada.—By W. W.
of Economics, University of

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
Cuts, Sprains, Sore Feet, Capped Hoof,
Strained Tendons, Founder, Wind
Falls, and all lameness from Spavin,
Kingbone and other bony tumors.
Cures all skin diseases or Parasites,
Thrush, Diphtheria. Removes all
Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
warranted to give satisfaction. Price \$1.75
per bottle. Sold by druggists, or sent by ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address
The Lawrence-Williams Co., Toronto, Ont.

Dyke's Automobile and Gasoline Engine Encyclopedia—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, Alt.

Sunnyside Herefords

We have a choice offering in young bulls, some fit for service, also a few females. For fuller particulars and prices write or come and see

Mrs. M. H. O'Neil & Sons
Denfield, P.O. R.R. No. 4, Ontario
Phone connections, Elderton

One Hereford Bull ten months old for sale. This bull is bred of good stock, and will be sold cheap. Apply to
WM. BURNETT, R.R. No. 3, Priceville, Ont.

FOR SALE

Two Registered Hereford Bulls, 15 months old. Good color and well marked. Best of breeding.
A. E. HOMUTH
R.R. No. 2 Wingham, Ont.

SUNNY ACRES

Aberdeen-Angus

The present string of young bulls for sale includes 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.

Alloway Lodge Stock Farm

Angus—Southdowns—Collies
Choice heifers bred to Queen's Edward, 1st prize Indiana State Fair. Bulls winners at Western Fair and Guelph.

Robt. McEwen, R.R. 4, London, Ont.

Aberdeen - Angus

Meadowdale Farm
Forest, Ontario.

Alonzo Matthews Manager H. Fraleigh Proprietor

Aberdeen - Angus

BULL CALVES
Sired by Elm Park Kabul (1st prize at Toronto, Winnipeg and London.)
JOHN D. HAYDEN, Cobourg, Ont.

Springfield Farm Angus

I have six bulls from 8 to 15 months. All sired by Middlebrook Prince 5th, a son of Jock of Glencairn. 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.; Ferguson, G.T.R.
Bell Phone Ferguson.

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 Hillsburg, Ont.

Farming in the War Zone.

Having just returned from a visit to the agricultural districts of the North of France in order to find out, on behalf of the Agricultural Relief of Allies Committee, what are the most pressing needs of the farmers in the devastated zone, Mr. Adeane, the honorary treasurer of the committee, has kindly furnished the Live Stock Journal with some impressions of his tour. It is, he says, a difficult task indeed to convey to English farmers, who after all have suffered no material damage, an idea of how completely the war has demolished the fabric of the farming industry in the once fertile countryside in the Department of the Somme. It has, in fact, obliterated all traces of the industry, and for many a square mile the soil has been so pounded and pitted that it can only gradually be brought back to cultivation.

The British front ran for approximately 120 miles along the northwest corner of France. Behind this line there is an area shaped roughly like an hour glass, fifteen miles wide at the narrow middle and forty miles wide at the top and bottom, where the land is scored by trenches and torn by shells. In one Department alone, that of the Somme, there is a wide area, one-half of which will yield nothing for some years, while on the other half it may be possible to secure a crop within a measurable space of time. As regards live stock, subsistence is possible only at a considerable distance in the rear of the devastated area. Here and there, for example, west of Albert and in the neighborhood of Amiens, where a small amount of land for grazing has been preserved, there were a few cattle of the Flemish or Norman type, but invariably they were in poor condition. In the fighting zone proper, notwithstanding that it is five months since the struggle ceased in this particular region of the Somme, there is hardly a single beast. One may travel hours without seeing a sign of life. All is a wilderness scorched and barren where once was a rich, fertile soil responding readily to the great labor bestowed upon it by the peasant. The only root crop grown is sugar beet, which is cultivated purely as an industrial crop. Thus any sheep which may be kept have at times to travel considerable distances for their food.

The utter desolation of this battlefield is almost overwhelming. The wide expanse of weed-covered mounds and craters which, on a close examination, are found still strewn with all the relics of barbarous warfare, will take years to prepare for cultivation. Villages no longer exist. There is a heap of red rubble and plaster with splinters of timber, and that is all that is left of many a hamlet. Actually 202 towns and villages in the Department of the Somme alone have been completely destroyed to the point of affording no shelter whatever either for man or beast. And until some scheme of housing for both is carried out it is hopeless to attempt to bring back the population as a whole. Yet it is surprising and remarkable testimony to the tenacity with which the peasants cling to what was once their home, to find here and there a few peasants making pathetic efforts to start life afresh in a ruined house with a few roughly-made chairs and tables, and oil paper to let in a dim yellow light while keeping out the weather.

The return of the peasants must be gradual. Until the battlefields are cleared of their debris it is impossible to attempt to resume farming. But as the clearing-up process advances and with the erection of temporary shelters the peasants will be allowed to return to their holdings.

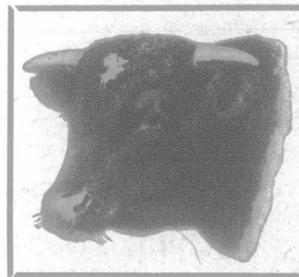
It will be recognized that even if the funds at the disposal of the Committee were ten times greater than they are, their effect would be negligible if distributed throughout the whole of the ravaged area. Therefore, the Committee will be acting wisely in regard to the help they propose to give in France in concentrating upon a comparatively small area—that of the Department of the Somme. In that district British soldiers have fought continuously for four years, and it will be a fitting memorial to their valor as well as to the sympathy of the British farmer if the Committee adopt that area for their work of re-constitution. There the French and British fought side by side, and nothing could be more appropriate than for the British farmer to give first aid to the French peasant whose soil has been hallowed by the blood of both nations.

The Agricultural Relief of Allies Com-

Important Clearing Sale

40 Scotch and Scotch-Topped 40 SHORTHORNS

SELLING WITHOUT RESERVE AT
Oakville Ontario, March 6th



This lot comprises my entire herd. They are a select breeding lot throughout, selling in very ordinary condition and are of the sort that never fail to make good buying. The pedigrees contain much of the most fashionable of present day families including Nonpareils; Jealousys, Lavender's, etc. A large number of the breeding cows will have calves at foot by our herd sire Gainford King and the majority of the others are selling well forward in calf to the service of the same sire. Gainford King is a grandson of the great Gainford Marquis (imp). He is also included in the sale. Write for catalogue.

Remember the date Thursday, March 6th.

Geo. E. Morden ALL TRAINS MET ON DAY OF SALE Oakville, Ont.

YES, ABERDEEN-ANGUS GIVE MILK

They are the only "strictly Beef" breed that was originally "strictly Dairy." As late as 1892 the champion at the British Dairy Farmers' Association show was an Aberdeen-Angus. In Australia and New Zealand milking strains have been maintained in preference to other breeds. Tests at the Ontario Station showed the specific gravity of Aberdeen-Angus milk higher than other beef breeds. A milking herd that supplied Chicago a few years ago tested over 5%. Many cows are heavy milkers in spite of the policy of the breed to maintain its acknowledged beef supremacy and allow dairy breeds to battle out dairy supremacy. For further information write for Aberdeen-Angus for the Dairy Breeder.

AMERICAN ABERDEEN-ANGUS BREEDERS' ASSOCIATION, 817CA Exchange Ave., Chicago

ELM PARK ABERDEEN-ANGUS

I am offering a complete graded show herd; also bulls and females of different ages, in good breeding condition.

JAMES BOWMAN, Elm Park, Guelph, Ont.

LARKIN FARMS Queenston, Ontario

ABERDEEN ANGUS and JERSEY CATTLE
SHROPSHIRE and SOUTHDOWN SHEEP

Correspondence and Inspection Invited
(Please mention "Farmer's Advocate")

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, Elera, Ontario

SPRUCE GLEN FARM SHORTHORNS

We have for sale a number of young bulls fit for service and a few choice heifers.
JAMES McPHERSON & SONS DUNDALK, ONTARIO

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, Whimble, etc. Make your selection early.
GEO. ISAAC. (All railroads, Bell phone) Cobourg, Ont.

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.

Spring Valley Shorthorns

—Herd headed by Sea Gem Pride =96365=. Present offering includes two real herd heads. One imported in dam, the other by Sea Gems Pride and from a show cow. A number of other good bulls and a few females. Write for particulars.
Telephone and telegraph by Ayr. KYLE BROS., R. 1, Drumbo, Ont.

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.

Pure Scotch and Scotch-Topped Shorthorns—We have several choice young bulls of the best of breeding and ready for service. Two are by Raphael (imp.), one by Right Sort (imp.), one by Sittytton Selection, and several by our present herd sire, Newton Cedric (imp.). Prices right.
R. M. MITCHELL, Freeman, Ont., R.R. No.

Boo Spavin

Cure the lameness and remove the bump without scarring the horse—have the part looking just as it did before the bluish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid bluish &—Boo Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists
75 Church Street, Toronto, Ont.

Flintstone Farm

Breeders of

**Milking Shorthorn Cattle,
Belgian Draft Horses
Berkshire Swine.**

We offer animals that will raise herds to a level of wartime efficiency. Bull calves from \$125 up

DALTON

Massachusetts

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.

Creoside 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. Period of 10463 lbs. milk, 390 lbs. fat. Shorthorns and Berkshires of different ages and sex for sale. Inspection invited.

Frank Teasdale - Concord, 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.

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.

Dual-Purpose Shorthorns

For Sale, Three choice Bulls, 10 and 12 months old; also herd sire, 3 years old; his dam's R.O.P. is 10340 lbs. Satisfaction guaranteed. E. R. Wood, R.R. No. 2, Freeman, Ont.

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.

Dr. Bell's Veterinary Medical Wonder, 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers and distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly.
DR. BELL, V.S. Kingston, Ontario

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.**

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.**

mittee propose to continue to work in co-operation with the French authorities, and to meet the requirements of the peasants as they arise. For the moment it would be unwise to offer cattle, since there is no accommodation and a shortage of feeding stuffs in the devastated regions. Later on, possibly by May or June, some of the smallholders will be able to return and then will be the time when gifts of cattle will be greatly welcomed. In the meantime, poultry, sheep and pigs in the order mentioned will be of the utmost use to the returning peasants. It is hoped, with the continued help of farmers and poultry keepers in this country, to send out a series of shipments of useful strains of poultry early in the spring, and the Committee would welcome gifts of birds at once.

The Committee feel that the work of reconstitution is so enormous that their part must necessarily be small. But they appeal for the full support of British farmers to make that part representative of their sympathy with the farmers of our Ally.—From the Live Stock Journal, London, England.

The Fever Thermometer.

EDITOR "THE FARMER'S ADVOCATE":

Doctors are so scarce and sickness so prevalent this winter that patients often have to wait a day or more for a doctor after they have sent for one. Under these circumstances, it is very important for a person who begins to feel ill to find out at once how serious his case is. A person's feelings are by no means a safe guide in judging one's condition.

The first thing a doctor generally does with a patient is to count the pulse and take his temperature. Anyone with a common school education can do the same with a little practice. To count the pulse place the tips of the first three fingers in line lengthwise on the front of the patient's wrist just back of his thumb. Count the beats for a minute, timing the count by the second-hand of a watch. Do not press the wrist too hard. The normal pulse for an adult is about 72 per minute and for an infant about 100 per minute. The pulse should be counted when the patient has been sitting or lying down for a half-hour or more. Work or excitement causes the pulse to go faster. If a grown person's pulse, while lying down, reaches 90 or 100 without apparent cause, it indicates that the person is ill. If the pulse reaches 120 a minute and remains that fast, the case is serious. A woman's pulse is a little faster than a man's.

A clinical thermometer can be obtained from almost any druggist for \$1 to \$1.50. The druggist will be glad to show anyone how to read the thermometer. The reading may be made by holding the top of the thermometer in the fingers of the right hand and rolling it slowly until the mercury comes into sight. There is only one position where it can be seen. Each small line marks one-fifth of a degree. The normal line is at 98 3/5 degrees. When a person's temperature is above 99 degrees, he should remain in bed until after it is normal again and a doctor should be summoned. Tell the doctor how high the fever is. If it is 102 degrees or more he will be likely to make sure of seeing that patient without much delay. The temperature should be taken two or three times a day while the disease lasts. There is always danger with a temperature above 99 degrees.

To take the patient's temperature proceed as follows: If the mercury stands above 96 hold the thermometer by its upper end and give it a few quick downward jerks until it is at 96 or below. Now place the bulb end under the patient's tongue and leave it here for five minutes. At the end of this time the thermometer will indicate the patient's temperature and the mercury will remain at this point until again forcibly shaken down.

A person should practice using a clinical thermometer as soon as he gets one so he will know how, when it is needed. Do not wash a thermometer with warm or hot water; such is likely to break it.

Ont. Co., Ont. **NELSON McDOWELL.**

To observe closely is one of the first and primary requests of a successful farmer. Boys and girls should try and observe more. So many of us look without seeing very much.

For Quick Growth and Early Maturity, Feed

GARDINER'S CALF MEAL

It replaces perfectly the cream in skim milk, and provides the nourishment necessary for quick, vigorous growth. It is rich in protein, and several points higher in fat than any other meal on the market.

Feed Gardiner's Calf Meal first with skim milk, then with milk-and-water, and finally with water only, and your breeding calves will mature earlier and your young steers will be ready for market sooner. It is equally good for colts, lambs and little pigs.

Put up in 25, 50 and 100-lb. bags. If your dealer doesn't handle it, write us for prices, and for information about Gardiner's other products—Ovatum, Pig Meal, Sea-s-fat and Cotton Seed Meal.

GARDINER BROS., Feed Specialists, SARNIA, Ont. 15



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 Castremont.
- No. 3—Dark Roan, Calved July 15th, 1918, Sire Sittyton 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.

SHORTHORNS For Profits

Shorthorn steers dressed the highest percentage at the Chicago International in 1917. Shorthorn steers are preferred by the largest buyers of feeders on the Chicago market. Shorthorn steers show greatest weight for age.

THE BREED FOR FARM OR RANCH
DOMINION SHORTHORN BREEDERS' ASSOCIATION
W. A. DRYDEN, Pres., Brooklyn, Ont. G. E. DAY, Sec., Guelph, Ont. 10

Write the Secretary for free Publications.

The Salem Herd of Scotch Shorthorns

HERD HEADED BY GAINFORD MARQUIS, CANADA'S PREMIER SIRE

Write us about the get of Gainford Marquis. They have won more at Toronto and other large exhibitions than those of any other sire. We still have a few sons to offer, as well as females bred to Canada's greatest sire.

J. A. WATT

Elora, Ontario

Robert Miller, Stouffville, Ont., still has a few Shorthorn bulls, fit for service, and some females that are as good as low price, considering the quality, and the freight will be paid.

Write for anything in Shorthorns. One hour from Toronto.



Walnut Grove Shorthorns—Trout Creek Wonder 56167. Gainford Eclipse 103055. We are offering an exceptionally 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, Ont.

A FEW SCOTCH SHORTHORN BULLS

Several are old enough for service and all are got by a grand son of the great Superb Sultan. Individually they are strong enough to head the best of herds, and the breeding is unexcelled. Write us also for anything in Shorthorns or Clydesdales.

ROBERT DUFF & SON, R.R. Stations C.P.R. - G.T.R., Myrtle, Ont.

Shorthorn Bulls and Females—Herd headed by Ruby Marquis, a son of the great Gainford Marquis (imp.). Our calves now coming are all by this sire. We are also offering a few females in calf to him. Get our prices before buying elsewhere.

PRITCHARD BROS., R.R. No. 1, Elora, Ont.

Beechwood Shorthorns—Herd sire, Browndale Victor "117469." Four young bulls for sale: 1 choice bull, 14 months old, weight 1,100; 2 splendid bulls, 12 months old; 1 nice, mellow roan calf, 9 months; also two Scotch heifers with calves at foot.
Long-distance 029 Erie 'phone. **J. WATSON ROULSTON, R.R. 5, Hagersville, Ont.**

Choice Shorthorn Females

Mysias, Rosemary's, Clementinas, Missie, Miss Ramsdens, Cruickshank, Fragrance, etc., all good pedigrees and all good breeding cattle in calf to young bulls. Prices right. Also a few bull calves.
Correspondence solicited. **JAS. K. CAMPBELL & SONS, PALMERSTON, 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 sire. Write, don't delay.
W. G. GERRIE Farm at C.P.R. Station, Bell 'Phone Fergus **BELLWOOD, ONTARIO**

"Commander" = 115964 = calved Jan. 20, 1917, dark red, a model for type, sired by Burnfoot Chieftain whose dam gave 13535 lbs. milk in R.O.P., his dam is Jean Maisie giving 7850 as 3 yr. old in R.O.P., she is sister to Jean Lassie who gave 13819 in R.O.P. He is strong and sure and price is right. Also have two 10 months old red bulls, strong milk backing, priced to sell. Write for particulars or Caledonia trains). **Hugh A. Scott, Caledonia, Ont. Phone 5-18, R.R. No. 3. (Will meet**

PEART BROTHERS SHORTHORNS

We are offering our Scotch Bred herd sire Nonpareil Counsel 96931, also ten young bulls of his get practically all ready for service, from cows of both beef type and dual-purpose, one of which has qualified in R.O.P. Prices reasonable. Inspection invited. Pleased to meet trains at Hagersville, M.C.R., Caledonia, G.T.R. **PEART BROS., Phone 70-16, Caledonia, Ont., R.R. No. 3.**

SHORTHORNS and CLYDESDALES

Hard 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

Canadian Grown Field Root Seeds.

EDITOR "THE FARMER'S ADVOCATE":
It is most fortunate that our seed trade was well stocked with seed supplies on the outbreak of war. Home production of field root seeds was then in its infancy, but as seed exports from Europe were curtailed in the interest of essential food production, the growing of field root seeds in Canada was encouraged by both Dominion and Provincial Departments of Agriculture.

As reserve supplies in Canada became depleted there was evident a very noticeable decline in the quality of trade seed put on the market. Germination or vitality became low or irregular, and seed generally could not be depended on for genuineness of stock, purity of variety, trueness to type, quality and yield of crop product. Experiment station variety tests consequently became questionable or valueless and in certain cases were given up altogether.

With the decline in quality of trade stocks and the threatened seed shortage, the growing of field root seeds in Canada became a national necessity. Dominion and provincial farms and stations were appealed to by the Seed Commissioner with the approval of the Minister of Agriculture, and the Experimental Farms Branch field root specialists produced last season over 70,000 lbs. of improved seed grown from selected stock of only the best varieties. This superior seed is of the highest vitality, and being grown under our own conditions of soil and climate, should prove of great value to Canadian farmers.

Seed Branch, Ottawa.

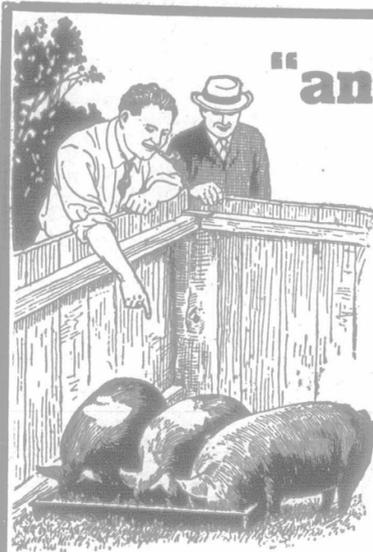
Gossip.

Hickory Hill Ayrshires.

Production and conformation was kept in mind by N. Dyment & Sons when founding the Hickory Hill herd of Ayrshires. The record of this herd has proved that the desired objective has been accomplished. Not only has this herd won prizes in show-rings, but it has won in the milk test at the Provincial Winter Fairs for over two decades. The championship for female at London and the prize for the best dairy animal, any age, has been won on more than one occasion, and now Ayrshire breeders have an opportunity of securing some of the results of Messrs. Dyment's efforts at an auction sale on February 26. There will be individuals of outstanding qualities offered. Such sires as "Dairyman of Glenora" and "Haysmuir Milk Record" have been used in the herd. The former was the first bull to qualify in the R. O. P., and the latter is from one of the best strains in Scotland and has a large number of his progeny qualifying in the R. O. P. test. His progeny also won first for four animals get of sire at one of the past Toronto National Shows. Dairyman of Orkney is the sire of all the young stock in the sale, and he has proven a valuable sire. Snowdrop of Hickory Hill 3rd., one of his daughters, has given as high as 1,529 lbs. of milk in one month. She has had but one calf, and is the only heifer milking from this sire, but her record goes to prove his quality. Some of the best blood of the breed courses in the veins of this herd sire. At the present time, Auchenbrain Union Jack Imp. is at the head of the herd. His sire is Lessnessock Golden Love Imp., and he is closely related to the Torrs Messie cow which sold for \$2,650. A number of the females offered in the sale are bred to him. Remember the date of this sale, February 26, and it is to be held at Brantford, in the old Commercial stables. For further particulars write Messrs. Dyment for a catalogue.

Selling Maisey Hampton Oxfords.

Readers are asked to note the advertising in this and future issues relative to the dispersal sale on Tuesday, August 12, of the Maisey Hampton flock of Oxford Down sheep. This flock is the property of Jas. T. Hobbs, Manor Farm, Maisey Hampton, England. Catalogues may be obtained from A. F. Hobbs, Auctioneer, Cornhall Building, Cirencester, England, two weeks prior to the sale. Further particulars of this sale of prize-winning flock will be given at a later date.



"and they cost me less per pound gain"

CAN you imagine a manufacturer in the city feeding costly raw material into a machine without precise figuring of costs and the most careful selection? Can it possibly pay the "manufacturer" of bacon to feed hogs on the old-fashioned plan, without knowing the cost per pound gain? Decidedly not, in these expensive times.

Our experts have done the figuring for you. They have found out that certain feeds, combined according to known feeding values, will get a hog off to market in far less time, with more marketable, good, firm bacon on him, and at less cost per pound gain.

Monarch Hog Feed

is the cheapest feed you can buy—if you reckon by market results, and that is where your profits come from! Why try to figure out rations? Why worry about providing various feeds? Why waste precious time mixing up feeds? That was all very well when there was no such thing as Monarch Hog Feed available. Nowadays everything must be done expertly if it's maximum profits you want.

It's quality bacon that captures the best prices; Monarch gets the quality—good, firm, hard bacon—at less cost.

Monarch Hog Feed is a true balanced ration; it supplies every nutrient the growing hog demands—no more, no less. Its just right for maximum production, without waste of feed.

It has all the nutrient qualities of shorts, corn products and digestive tankage (rich in flesh-forming materials). Combined as a properly balanced ration they are easily digested; Monarch is palatable; hogs thrive on feeds they relish. Monarch can always be relied upon for best results.

Give Monarch Hog Feed a good, fair trial. Order a ton from your dealer; you can always depend upon getting it; should your dealer not be handling Monarch Feeds, send us his name and address, and we will see that you are supplied.

Monarch Dairy Feed
is a properly mixed balanced ration of oil cake meal and cotton seed meal combined with corn meal and bran; guaranteed analysis is 20% protein and 4% fat.

Sampson Feed
A general purposes feed with same ingredients as Monarch Hog Feed, excepting that oil cake meal is used instead of digest tankage; effective for both cattle and hogs; guaranteed analysis—10% protein and 4% fat.

The Campbell Flour Mills Co. Ltd., Toronto, Peterboro, Pickering

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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.

MILKING SHORTHORNS

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, also heifers and cows for sale. Weldwood Farm, Farmer's Advocate, London, Ont.

60 Shorthorns 60—Bulls—During next few weeks we will sell bulls of serviceable age at a big sacrifice, to make room. Near a dozen good ones to choose from. Can spare near a carload of fine females, mostly sired by Scotch Grey 72692, a champion and sweepstakes bull.

JOHN ELDER & SON, Hensall, Ont.

I HAVE FOUR RED BULLS

Two imported, also a few females for sale.

J. T. GIBSON - **DENFIELD, ONT.**

Burnfoot Stock Farm - Dual-Purpose Shorthorns

We can now spare two cows. One with a record of 8,700 lbs. of milk, due to freshen in Feb. and one with record of 7,500 lb. as a three-year-old due in April. Also three bulls fit for service. Come and see the herd or if convenient your inquiries are solicited.

S. A. MOORE, Caledonia, Ont.

SHORTHORNS

F. W. EWING, R.R. No. 1, Elora, Ont.

Many of the best herds throughout Canada are headed by bulls bred at MEADOW LAWN. It will pay you to select a heifer from this high-class herd.

Beach Ridge Shorthorns and Yorkshires

Shorthorn herd headed by Sylvan Power 95871, a junior champion on Canadian circuit in 1915, and sire of the G. Champion Bullock at Guelph Winter Fair 1918. Young stock of all ages, both sex, for sale; also young cows with calf at foot or in calf to Sylvan Power. We can supply any want in Yorkshires.

R. D. HUNTER, EXETER, ONT.

English Dual-Purpose Shorthorns

For sale: Bull calves and young bulls English bred for milk and beef. The right kind to head Canadian herds to increase profits. From very moderate prices and up. English Large, Black Pigs. A great bacon type, long and deep, thrifty. Come or write.

LYNNORE STOCK FARM
F. Wallace Cockshutt
Brantford - Ontario

MAPLE SHADE

Shorthorns

Young bulls sired by "Archer's Hope." Ten imported bulls. Best Scotch breeding.

WILL. A. DRYDEN
BROOKLIN - ONTARIO

Dual-Purpose Shorthorns

Plaster Hill Herd offer
Two bulls 10 and 20 months; one whose dam gave 11836 lbs of milk in eleven months. These are good individuals. Could spare a few females. Herd headed by Green Leaf Record—96115—and Dictator whose two nearest dams average over 12000 lbs in R.O.P. test. Long distance telephone connection.

Ross Martindale - R.R. 3, Caledonia, Ont.
Shorthorn Bulls for Sale—Eight young bulls of serviceable age. Sired by the imp. bull Donalde Prince 101800.
WM. GRAINGER & SON, Auburn, Ont.

REAL
Illustration of a woman milking a cow. Text: "GARDINER'S CALF MEAL".

THORNS
For Sale
e Dam, Jealousy 4th.
nce Dam, Lady Castremont.
tan Dam, Elendale Lily.
am, Darlington Queen.
ainford Sultan Dam, Crimson
dy Sovereign 4th.
Dam, Glen Buell Clipper 8th.
Dam, Darlington Queen.
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DA'S PREMIER SIRE
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those of any
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few Shorthorn bulls, fit for some females that are as good as rthorns. They will be sold for from Toronto.
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DUNCAN BROWN & SONS
Shedden, Ont.

N BULLS
a of the great Superb Sultan. breeding is unexcelled. Write rtle, Ont.
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R. No. 1, Elora, Ont.

Victor "117469." Four young ill, 14 months old, weight 1,100; his old; 1 nice, mellow roan calf.
N, R.R. 5, Hagersville, Ont.

Females
ank, Fragrance, etc., all good s right. Also a few bull calves.
SONS, PALMERSTON, ONT.

VORITE
and priced to sell. We have y early to the service of the
BELLWOOD, ONTARIO

"L." type, sired by Burnfoot Chief, e giving 7850 as 3 yr. old in R. ong and sure and price is right. sell. Write for particulars or 5-18, R.R. No. 3. (Will meet

THORNS
also ten young bulls of his get ual-purpose, one of which has meet trains at Hagersville, M. Caledonia, Ont., R.R. No. 3.

SDALES
d, 20-months old, and eight
Glanford, Sta. R.R. 3

The London District Holstein Breeders

WILL SELL SIXTY-FIVE HEAD OF REGISTERED

Holstein-Friesian Cattle

At the Brunswick Hotel Stables, City of London

Thursday, March 13th, 1919

Commencing at 1 p.m. sharp

This sale consists of 14 young bulls from 34-lb. sires and dams with 27-lb. records. Also some heifers sired by Finderne King May Fayne 9810, Hill Crest Count Echo 29751 and Baron Colantha Fayne 12273, and from tested dams. These cows will mostly all be fresh or due near sale time. Sale will be held under cover. Send for catalogues to

JOHN McMILLAN, Sec., R.R. No. 2, Glanworth, Ontario

H. C. HOLTBY, President. L. H. LIPSIT, Sales Mgr.

T. MERRITT MOORE, Auctioneer.

Ready for Service—\$150 Buys Him

Premier Pietertje Posch, born Jan. 24, 1918, about half and half in color and with some breeding. He is a good individual, and we guarantee him sound and free from any contagious disease. Sire, Gano Schulling Posch, whose two nearest dams average 28.66 lbs. of butter, with 616 lbs. of milk. Dam, Rideau Pietertje DeKol, with 586 lbs. of milk and 24.09 butter. She is a sister to Toitilla of Riverside (former Can. Champ. in R. O. P.), with 24,094 lbs. of milk and 1,057.5 lbs. butter.

DON'T MISS THIS BARGAIN—WRITE AT ONCE.

H. H. BAILEY, Mgr. Oak Park Stock Farm, Paris, Ont., Can.

WE ARE OFFERING A FEW

Choice Grandsons of King Segis

These bulls are all nearing serviceable age; real choice individuals, and from dams with records from 25 to 31 lbs. of butter in 7 days. All are sired by a 31-lb. son of King Segis. Prices right. Correspondence solicited.

JOSEPH KILGOUR, Sunnybrook Farms (North Toronto) Eglinton P.O., Ont.

Phone Adel. 3900

33-lb. Grandsons of Lula Keys

I have at present ten young bulls all sired by my own herd sire King Korndyke Sadie Keyes a son of Lula Keys 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.

D. B. TRACY (Hamilton House Farms) COBOURG, ONT.

Highland Lake Farms

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.

R. W. E. BURNABY JEFFERSON, ONT.

Farm at Stop 55, Yonge St. Radial

Questions and Answers.

Miscellaneous.

Bull Proves to be a Nonbreeder.

1. Where could I secure a book on gasoline motors?

2. We have a two-year-old herd sire in good condition but he is not proving to be a breeder. I purchased this animal when a yearling and was informed that he was sure. Can I claim any rebate?

Ans.—1. The book entitled "Gas Engine Troubles and Installation," by Rathbun, can be secured through this office for \$1. "The Modern Gas Tractor," by Page, is \$2.

2. It is possible that the animal is in too high condition. If he has never proved to be a breeder since he was purchased, the man from whom you got him should give a rebate if he guaranteed him to be a breeder. However, if you have had the bull for over a year and have made no complaint regarding it being a non-breeder, it is possible that the former owner will consider that the trouble is due to some treatment which the animal has received since you purchased him.

Secretary's Salary.

I have acted as secretary-treasurer for our school section for twenty years. About fourteen years ago the trustees offered to pay me, but as the section was short of funds that year I refused pay, and since then it has not been offered to me. I resigned the position and now they are paying their secretary-treasurer \$10 per year. I told the trustees I ought to have been worth \$5 per year for the last ten years. The matter came up at the annual meeting of the school section, but the ratepayers decided that I should not be

Holstein Bulls

Ready for service and younger. Cows and heifers bred to ORMSBY JANE BURKE, whose two nearest dams average 35.82 lbs. of butter in 7 days. The three nearest sires' dams and his dam's records average 35.69 lbs. for 7 days, and 112 lbs. milk for one day.

R. M. Holtby, R.R. 4, Port Perry, Ont.

"The O'rielly Stock Farm" Holsteins—We have several beautiful young cows and heifers in calf to "King Segis Pontiac Posch," son of the \$60,000 bull, that we are offering at present. Also two choice young bulls, 3 months old. If you want a foundation or an addition to the herd, write us, or come.

J. O'RIELLY, R.R. No. 9, Peterboro, Ont.

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.

COLLINGWOOD, ONTARIO

ELDERSLIE FARM HOLSTEIN-FRIESIANS

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.

A. MUIR (Take Kingston Road Radial cars from Toronto, Stop 37) Scarborough P. O., Ont.

A Few Select Holstein Bulls—Priced right—These youngsters are exceptionally good individuals; all from good dams and also spare a few heifers bred to our 30-lb. sire, Gipsey Pontiac Cornucopia.

JOS. PEEL, R.R. No. 4, Port Perry, Ontario

6 BULLS BY KING SEGIS PONTIAC DUPLICATE Brother to the \$50,000 bull. Three of these are ready for service and all are show calves. Write us also for females. We are pricing a number of heifers, bred to our own herd sire Sylvius Walker Raymondale a grandson of the great May Echo Sylvia. We now have bull calves a few months old by this sire. Let us know your wants. R. W. WALKER & SONS, Manchester Station, G. T. R. Port Perry, Ont., R. R. No. 4.

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 Roubie 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.

C. R. JAMES (Take Radial Cars from North Toronto) RICHMOND HILL, ONT.

When writing advertisers please mention Advocate.

LLENROC STOCK FARM

FOR TWO CENTS

you can send a card to our farms that will bring to you a list of the splendidly-bred young bulls we are offering at such low prices.

DO YOU BELIEVE in using a record sire? Then just take our advice and get that card out TO-DAY.

Our Sire is from a 38-lb. dam and his sire has a 38-lb. dam.

W. C. HOUCK - - - R.R. 1, Chippawa, Ont.

ON THE BOULEVARD OF THE BEAUTIFUL NIAGARA RIVER.

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.

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 Pietertje) 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.

D. RAYMOND, Owner
Queen's Hotel, Montreal

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 to seven days. Correspondence solicited. Visitors welcome.

GORDON S. GOODERHAM, Clarkson, Ont.

Stations: Clarkson and Oakville.

Farm on Toronto and Hamilton Highway.

Cedarbrook Farm Holsteins

For sale, two bulls—one a 32.74-lb. ready for service, and one five months old; sire, the 34.53-lb. son of the great cow, Jennie Bonerges Ormsby; dam, a two-year-old untested grand-daughter of the same cow; fine individuals; priced to sell.

Address—T. JENKINS, 15½ Toronto St., TORONTO

Young Bulls for Sale from R.O.P. champions and dams and sisters of R.O.P. champions, 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.

Silver Stream Holsteins—We are offering a choice lot of young bull calves all 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.

JACOB MOGK & SON, R.R. 1, Tavistock, Ont.

Sunnyside Stock Farm Holsteins—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.

paid. Could I force the section to pay me for my time? R. M.

Ans.—As you had no agreement relative to salary, and also had refused pay when it was offered to you, you would not be justified in taking action. We admit that it was rather depreciating your work as a servant of the section when the new secretary was given a salary and you were refused any remuneration for past work. However, as we understand it, you had no agreement with the trustees as to receiving a salary.

Ruptured Pig.

I have a ruptured pig since it was three months old. It is steadily growing worse, although the pig is healthy. What can I do for this trouble? R. H.

Ans.—It is possible that an operation could be performed at the present time to relieve the trouble; in fact, we feel satisfied that it could, unless the trouble is too bad. In that case it might be well to feed the pig a little longer and see if it will fatten, as the meat would be all right. The operation could be performed by your veterinarian possibly you could do it yourself.

Twin Calves.

Is there any truth in the statement that twin calves will not breed? E. W. D.

Ans.—Where the twins are male and female, the female is generally considered to be a free martin although there have been instances where they have been breeders. Where there are two males, or two females, they are generally breeders

Now is the time to begin laying plans for the school garden. Teachers and pupils can get much that is valuable from a school garden that is not grown merely for show.

ANTS
 to you a list of the
 ch low prices.
 Then just take our
 as a 38-lb. dam.
Chippawa, Ont.
NIAGARA RIVER.

INSANE
TARIO
 Spofford; we have three of his
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 We have sons of our
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ON, R.R. 1, Tavistock, Ont.

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FOOD PRODUCTION MUST BE INCREASED

The horse is a vital factor in such accomplishment. His efficiency is measured by the degree of fitness for constant use.

Stuffed Collar Pads

Are the only guarantee against bruised, galled and chafed shoulders. They are better than other kinds, being soft, springy and absorbent. They make possible the continued use of a horse collar long after its worn condition would otherwise compel its discontinuance.

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 weakened by long usage. This is the greatest improvement since we invented the hook.

Thirty-Seven Years Making Pads
 Look For the Felt Washer

SOLD BY DEALERS EVERYWHERE
 The American Pad & Textile Co.,
 Chatham, Ontario

FERTILIZERS

Lime improves the physical condition of the soil. Use

Acco Hydrated Lime
 on your land. It has been proven by experiments that an unlimed check plot gave a yield of 690 pounds of crop, while a limed plot gave 1,865 pounds. Why should your land not produce a heavy crop? Make it do so by using Acco Hydrated Lime as a fertilizer. Put up in 5, 10, 25 and 40-lb. bags, ready for use. Write for quotations and circulars.

Acco Chemical Co., Ltd.
 23 River St., Toronto.
HAROLD F. RITCHIE & CO., LTD.
 Sole Agents, Toronto

JUST JERSEYS
Baldwins
 REGISTERED
 COATICOOK, QUE.

Twenty-five Years Breeding Registered **JERSEYS and BERKSHIRES**

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.
HOOD FARM - LOWELL, MASS.
WILL SELL FEW FRESH JERSEY COWS
 Jersey Bull one year, dam Mabel's Poet Snow-drop, 1st prize as calf, 1st Junior Champion as yearling, 2nd prize two year old Toronto, four times 1st Woodstock, four times shown. Bull six months, dam Oxford's Silver Bell, milked 38 lbs. day, score 172 points at Guelph 140 days in milk. First calf 1915. I developed and was breeder of Beauty Maid Champion four year old butter cow of all breeds in Canada, also Woodstock Pat, Champion Berkshire Boar Eastern Prov. 1916-17.
IRA NICHOLS R.R. No. 2, Burgessville, Ont.

Questions and Answers.
 Miscellaneous.

Preventing the Horns From Growing.
 How is caustic potash applied to the horns of young calves in order to stop their growth? Is it necessary to slit the skin and take out the growth which is started?
 W. F. B.

Ans.—It is customary to apply the potash to the small nubbin when it is showing. Care must be taken not to have the caustic too moist as there is danger of it running down the forehead and causing a permanent scar.

Distance of Corn Rows Apart.

We have been sowing our corn in rows 28 inches apart, but I have been told that heavier yields have been obtained per acre when the rows are 36 or 40 inches apart and that the quality of the corn was improved.
 J. S.

Ans.—Owing to the extra number of rows you would no doubt get larger yields on rows 28 inches apart if the land was strong enough and the season favorable for growth. However it is customary to sow from 36 to 42 inches apart, as this gives much better opportunity to cultivate at the time when the corn needs it. With rows 28 inches apart one would not be able to go through it with the cultivator after it got a few feet high. With the rows 36 to 42 inches apart there would be more ears likely to form. For best results, 28 inches is considered a little too close to plant.

Roup.

A watery substance runs from the eyes of some of my hens. The birds are also thin, although they are fed on peas, wheat and oats. They get plenty of exercise and are in a clean henhouse. What is the trouble?
 J. C.

Ans.—The symptoms indicate that the birds are suffering from roup, which may be brought on by exposure, to the birds roosting in a draft, or it may be contracted from infected birds. With this disease the head and eyes usually swell and there is a discharge from the eyes and nostrils. Keep the pen well ventilated and free from drafts. Bathe the birds' heads in a weak solution of commercial roup cure, or a five per cent. solution of potassium permanganate. Spray the nostrils with oil of eucalyptus. If tumors form, lance and touch with a five per cent. carbolic solution. The diseased birds should be isolated from the healthy ones.

Feeds For Sheep.

I wish to start sheep raising in Northern Ontario and am able to secure a farm of 94 acres, 35 acres of which is tillable, the remainder being good for pasture. It has a creek running through it, and there are very good buildings on the farm. I purpose putting from 75 to 100 sheep on the place, and a few hogs and cattle. What would you consider sufficient stock to carry on this farm to give a person a living? What crops should be grown for sheep?
 A. C.

Ans.—The amount of stock on any farm depends a good deal on local conditions, and also on whether you intend to grow all the feed used or if you intend purchasing some. The crops very often decided the amount of stock which a farm will carry. All the roughage needed should be grown on the farm, but it is very often necessary to purchase concentrates to carry the stock along. We know of farms of the size you mention, but with more land tillable, that will grow feed for about 25 head of cattle, 15 to 20 sheep, besides the lambs, one or two brood sows and their progeny, and a couple of teams of horses. Some farms will carry more and some less. If you have a farm suitable for sheep raising, there would be a very good living from your 75 to 100 sheep. It requires high land for sheep. There is more danger of disease on the low land. You might be able to keep one or two brood sows and a cow or two. Not knowing the district, or the character of the crops grown, we cannot advise further. However, the tillable land should grow sufficient fodder to carry the sheep over winter. Clover hay and pea straw make very good roughage for sheep; oats, bran and a few roots, together with the hay and pea straw make a very good ration for the winter. The sheep will not require very much grain until near lambing time. The pasture land should furnish the summer feed. Some rape or kale might be sown to supplement the grass pastures.

25% MORE MILK with SILAGE

RIGHT NOW if you had a silo you would not only be getting 25% more milk, but you would be spending a great deal less for feed. With cream and milk at present prices, you must appreciate your need of a good silo more than ever, because there never was a time when good cows, properly fed, would return to their owner as great a profit as they do today.

RIGHT NOW is the time when an Ideal Green Feed Silo, filled with rich, juicy, milk-producing silage, would save your worrying about feeding so much high-priced grain and would be putting more milk in the pail every day.

RIGHT NOW is the time to prepare for bigger profits from your cows next winter. Our silo catalogue, which we will gladly send on request, contains a great deal of valuable information about silage and explains why the Ideal Green Feed Silo is the best to buy.

Write today for this catalogue.

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

IDEAL GREEN FEED SILOS Keep the cows in clover all the winter long

Sizes for 2, 3 and 4 horses.

THE BISSELL DISK
 has made a great record throughout all Canada. There are good reasons why this is so. Balanced Right—Does not hump up. Improved Plate—Cuts and turns soil over. Hitches well Back—Easy draught. This Disk has several imitators, but no equal. None genuine without the name "BISSELL." Test trials given on hard land with anything that cultivates. Write Dept. W for free Catalogue. 02
T. E. BISSELL CO., LIMITED, ELORA, ONT.

See advertisement also on page 297

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 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

THE WOODVIEW FARM JERSEYS - LONDON, ONT.
JNO. PRINGLE, Prop.

CANADA'S MOST BEAUTIFUL JERSEY HERD
 Herd headed by imported Champion Ronwer, 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 of Performance imported prize-winning cows. Also some cows and heifers. Prices right. We work our show cows and show our work cows.

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.

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.

SPRINGBANK R.O.P. AYRSHIRES
 For a few weeks we will offer a few select young heifers from our excellent herd sires, Netherton 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.

MAXIMUM ROOF PROTECTION



The "Brownie" shingle men from the Red Cedar forests of British Columbia bring maximum roof protection to the home in all elements.

This perfect, non-conducting, weather-resisting roofing material—roofing that takes years of growth to produce—and when properly laid will outlast the structure's foundation—this is nature's roofing—not made by man. There are many imitations of

BRITISH COLUMBIA Red Cedar SHINGLES

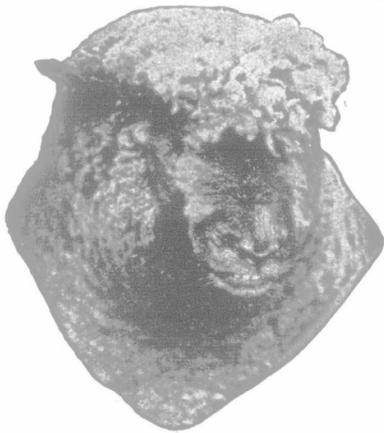
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but nothing has ever touched them for appearance, service, and all-round satisfaction — they give 100 per cent. roofing efficiency at a low cost

If you are building, or planning to build, our booklet, "Roofing Helps"—sent free on request—tells all about Red Cedar Shingles—facts you should know. Drop a card for it today.

Published by the Publicity Section of,
The Shingle Agency of British Columbia
STANDARD BANK BLDG. VANCOUVER, B.C.

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-headers 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

TOWER FARM OXFORDS
Special offering: Ewes, different ages, head to our Champion ram.

E. BARBOUR & SONS, R.R. 2, Hillsburg, Ont.

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.

Shropshires

Yearling rams and ewes. A few nice ram lambs by imported ram.

W. H. PUGH, R. R. 1, Myrtle, 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.

15% MORE WOOL

That's what you'll get by shearing with a machine—tests have proved it. Old methods of shearing leave too much wool on the sheep. The Stewart No. 9 Ball Bearing Shearing Machine shears flocks up to 300 head and leaves no second cuts. Get one from your dealer; if he can't supply you send us his name. Write for catalogue.

CHICAGO FLEXIBLE SHAFT COMPANY
Dept. B 161, 12th Street and Central Ave., Chicago, Ill.

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

CHOICE DORSET 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).

SHROPSHIRE

I am offering for sale a few very choice Shropshire yearling ewes, bred to lamb about May 1st. Prices reasonable.

Alex. Gray, R.R. No. 2, Claremont, Ont.

A Movement to Unite Town and Country.

EDITOR "THE FARMER'S ADVOCATE":
A Council of Commerce and Agriculture, to bring about a closer understanding and a stronger mutual confidence between rural and urban community interests in Essex County, is now being undertaken. The project has already received the most careful consideration of the Border Chamber of Commerce, the Department of Agriculture and a number of the more prominent farmers of the district, and organization will be proceeded with in the near future.

It is proposed to establish an association similar to that, which a few years ago, found its inception in Saskatoon, Saskatchewan, and which finally developed until it embraced the three Prairie Provinces with headquarters in Winnipeg, where annual meetings are held.

F. Maclure Sclanders, Industrial Commissioner of the Border Chamber of Commerce who is fostering the enterprise, was instrumental in the preliminary work in the Western provinces, and is receiving the heartiest co-operation from the Department of Agriculture and the leading farmers of the country.

Speaking of the proposed council, Mr. Sclanders recently said:

"As conditions now exist, there is a conspicuous lack of such desirable confidence. This is wholly regrettable; it is also unintelligent and harmful.

"On the one hand the farmer looks with rather an unkindly and suspicious eye upon the business man; and, on the other, the business man does not seem to realize in any clear or definite sense the absolutely inseparable inter-dependence of the commercial and agricultural communities. For the farmer to blame the business man or for the latter to condemn the farmer for the present condition of things would simply be a case of the pot calling the kettle black.

"Now, the necessity, particularly in these times, for the existence of intelligent and proper confidence between the two communities in point must be obvious to every thoughtful individual. That the present attitude of stand-aloneness is not merely stupid, but actually detrimental in a very invidious sense, no one is likely to dispute.

"As a matter of fact, I am firmly of the opinion that a marked agricultural uplift can only be achieved when the business man will sincerely and energetically focus his trained commercial experience on many of the problems now affecting the agricultural community. The business man through long years and generations of experience in meeting and solving all phases of commercial difficulties is peculiarly adapted to co-operate with the farmer in meeting many of the obstacles and problems with which the latter is now combatting. On the other hand, the farmer struggles largely with nature, and in a large measure he is laboring under a severe handicap in attempting the solution of the many business considerations which are now inseparable from his vocation.

"Such being the case, I believe the solution of agricultural problems and a betterment of conditions generally, must emanate from the business man."

Commenting on the proposal, J. W. Noble, District Representative of Agriculture says:

"The chasm between the agriculturalist and the business man in a great many cases is too wide, and since a Council of Commerce and Agriculture has worked out to advantage in the West, I am strongly in favor of its introduction into this part of Ontario."

In introducing this co-operative movement into older Canada, its promoters have a fertile soil upon which to sow their seed.

Within the past year, when greater production became more imperative than ever, manufacturers of Windsor, Ford, Walkerville, Sandwich and Ojibway instituted the community or co-operative method which was later adopted in other parts of Canada, and throughout the United States.

Then again, when the shortage of seed corn in the spring of 1918 threatened to demoralize, to a large extent, the farming community of Essex, a corn-growing district, active steps were immediately taken by the Chamber of Commerce, which opened negotiations with Washing-

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Essex Co...

Movement to Unite Town and Country.

THE FARMER'S ADVOCATE:
 Council of Commerce and Agriculture about a closer understanding and stronger mutual confidence between rural and urban communities in Essex County, is now being organized. The project has already received the most careful consideration of the Border Chamber of Commerce, Department of Agriculture and the more prominent farmers of the county, and organization will be completed in the near future. It is proposed to establish an association to that effect, which a few years ago was in its inception in Saskatchewan, and which finally died because it embraced the three provinces with headquarters in Toronto where annual meetings are held.

Mr. Sclanders, Industrial Commissioner of the Border Chamber of Commerce, who is fostering the enterprise instrumental in the preliminary stages in the Western provinces, and is the heartiest co-operation from the Department of Agriculture and the farmers of the country.

At the proposed council, Mr. Sclanders recently said: "The conditions now exist, there is a lack of such desirable conditions is wholly regrettable; it is inefficient and harmful. On one hand the farmer looks upon the business man; and, on the other hand, the business man does not seem to have any clear or definite sense of the inseparable inter-dependence of commercial and agricultural communities. For the farmer to blame the business man or for the latter to condemn the farmer for the present condition of the country simply be a case of the pot calling the kettle black."

The necessity, particularly in the present time, for the existence of intelligent confidence between the two communities must be obvious to every thoughtful individual. That the attitude of stand-alone is not only a mistake, but actually detrimental in the long run, no one is likely to dispute. The fact, I am firmly of the opinion, is that a marked agricultural uplift has been achieved when the business man sincerely and energetically joined in the problems now affecting the rural community. The business man, through long years and general experience in meeting and solving commercial difficulties is better equipped to co-operate with the farmer than many of the obstacles with which the latter is now confronted. On the other hand, the farmer, largely with nature, and the business man is laboring under a handicap in attempting the solution of many business considerations now inseparable from his farming operations.

In the case, I believe the agricultural problems and conditions generally, must be solved by the business man. On the proposal, J. W. Representative of Agriculture, between the agriculturalist and the business man in a great many instances, and since a Council of Commerce and Agriculture has worked out a stage in the West, I am confident of its introduction into Ontario."

During this co-operative movement in Canada, its promoters have laid the soil upon which to sow their seed. In the past year, when greater cooperation was more imperative than ever, the farmers of Windsor, Ford, Sandwich and Ojibway institutions of co-operation were immediately adopted in other parts of the province, and throughout the country.

When the shortage of seed in 1918 threatened to a large extent, the farming community in Essex, a corn-growing district, was immediately organized by the Chamber of Commerce, and negotiations with Washing-

ton, and after considerable red tape had been cut and Commissioner Sclanders found it necessary to make a personal trip to the American capital, 11 cars of Delaware seed corn were imported. This action saved the situation, for the crop from the foreign seed, has been pronounced by experts as the highest grade of any southern variety ever grown in Canada, and in many cases the quality excelled that of the parent seed.

The Manufacturers' Co-operative Agricultural Association, organized in Essex County in the spring of 1918 undertook the question of food production primarily on a patriotic basis with no thought of dividends or financial returns, but they successfully demonstrated that the idea was not only feasible, but practical, and, if properly managed, successful from a money standpoint.

Originally, 300 acres of land adjacent to the border communities, that had produced nothing but weeds, and which were stagnating, a liability rather than an asset to the county, were secured rent free. It was soon apparent to the men interested, that throughout the Dominion thousands of acres of the best land adapted to the purpose were lying, unused, within easy reach of the large cities, and they also recognized the economic loss that resulted from the neglect of this phase of agriculture that had remained for decades undeveloped.

Real estate agents, holders of the property utilized, were glad to contribute its use, and unused freight cars donated by the Michigan Central Railway, were pressed into service as storage warehouses. A local manufacturing firm contributed one of the standard tractors, and subsequently another was purchased of a similar type.

Field operations were directed by a highly qualified practical farmer with 17 years' experience in the district. This overseer was selected from the best available, and devoted his entire time to the work.

Crops of beans, flax, corn and potatoes were planted and, as harvest time approached, and the venture was assured of success.

Encouraged by the first year's success, preparations are now under way for a more extensive program in 1919. Over five hundred acres have been secured and 400 acres have been sown with fall wheat. More land will be acquired in the spring for root crops.

Thus, within the past year, in attacking the greater production problem, the Border Chamber of Commerce has discovered, or stumbled upon, a solution which they have proved will contribute much toward the betterment of conditions agriculturally—the application of industrial methods to farming, through the medium of a well-organized, representative Council of Commerce and Agriculture, which will co-ordinate the experience of the farmer with the capital and executive ability of the business man.

The experiment is but on the threshold but its sponsors are confident that within the next year, they shall have demonstrated the advantage of their co-operative system over that of the old individual method.

Farming, they maintain, has not progressed down the centuries, through the various phases of development, as has industry. In early days, the rugged artisan worked alone, or with a few fellow employees at the bench. Later, with the advent of machinery and power, he devoted more and more of his time to executive work, leaving the details of his business to employees. Subsequently he combined his interests with those of other manufacturers, thus secured capital, and founded the modern corporation, he himself having achieved the title of "Captain of Industry." And finally, the last act in the drama, came the merger where vast corporations united, standardized their products for the market, eliminated wastage and reduced operating expenses to a minimum.

On the contrary, the farmer to-day pursues practically the same course as his ancestors, working his individual farm, tilling the soil, and disposing of his produce to the greatest advantage. Within the past few years, labor-saving devices, tractors, and power, it is true, have been evolved, but have they been applied with as good effect as would have been possible had there been more co-operation? This is the question then, that will be decided in Essex County within the next twelve months.

Essex Co., Ont. A. L. BAXTER.



Dreadnaught's TIRE CHAINS

There's greater safety in chains that you can put on quickly--

because the less trouble chains are to use the more likely you are to use them, the fewer chances you will take on greasy roads.

The Long-lever Fastener is one special Dreadnaught feature. Dreadnaught chains fasten on quickly and easily—they give protection with the least effort.

And they have a grip that none can equal.

Links are electric-welded and case-hardened, defying strain and wear. Rim-chains are rust-proof.

Ask your garage man for Dreadnaught Tire Chains, or write us direct for information.

MADE IN CANADA

MCKINNON COLUMBUS CHAIN LIMITED
 St. Catharines, Ont.

Electric and Fire-weld Chains.

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. Lungford 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.

Big Type Chester Whites—Three importations in 1918. 25 bred sows and gilts for sale, some imported, others by imported sires. All bred to imported boars. JOHN G. ANNESSER, Tilbury, Ont.

TAMWORTHS Boars ready for service—a choice lot to select from; also young sows bred for spring farrow. Write: John W. Todd, R.R. No. 1, Corinth, Ont.

INVERGIE TAMWORTHS Boars ready for service, heavy-boned, husky lads from Bacon Beauty 12056 sired by my 800 lb. stock boar; Gilts ready to breed; young boars from 100 to 150 lbs. typical bacon hogs fit to head any herd; little lads and lassies just weaned. Express prepaid. Leslie Hadden R. R. No. 2 Pufferlaw, Ont.

Maplehurst Herd of Tamworth Swine—Present offering: A choice lot of young stock, either sex, from the leading herd of Canada for the last 15 years. We also have standard-bred horses. Present offering: One first-class young stallion; also a few Pekin ducks and S.-C. White Leghorns. D. Douglas & Sons, R.R. No. 4, Mitchell, Ont.

Springbank Chester White Swine, Scotch Shorthorns—Both sexes; priced to sell, including one Chester herd sire, Sunny Mike—15917—Satisfaction guaranteed. Inspection invited. WM. STEVENSON & SON, Science Hill.

Meadow Brook Yorkshires Sows bred, others ready to breed. Six large litters ready to wean, also a good yearling boar. All choicely bred and excellent type. G. W. MINERS, R. R. No. 3, EXETER, ONT.

BERKSHIRE PIGS Boars ready for service, sows bred and ready to breed. Also some young things bred from winning stock. Prices reasonable. JAMES CLARK & SONS, Puslinch, R.R. No. 1, Ontario.

RENNIE'S SEEDS

Produce Victory Crops



THE Rennie Catalogue for 1919 is brimful of information and suggestions on the growing of flowers and vegetables. Beautifully illustrated in colors, this catalogue is truly valuable as a gardening guide.

It shows you the practical results obtained by planting tested seeds, and it proves to you the best kind of seeds to buy.

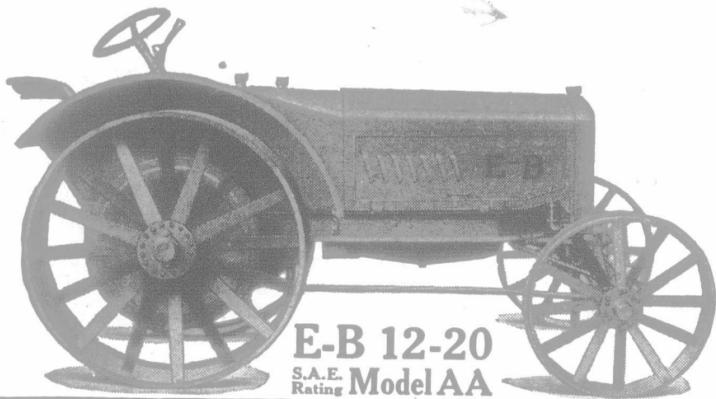
Use the Rennie Catalogue as a Ready Reference

Make your selection of seeds from it—then go to your dealer and have him fill the order. If he cannot supply you with all you require write us direct.

To safeguard our customers all Rennie's Seeds are tested at our trial ground. This insures that buyers of Rennie's Seeds get nothing but the very best.

If you haven't received a copy of our 1919 Catalogue, write for one to-day.

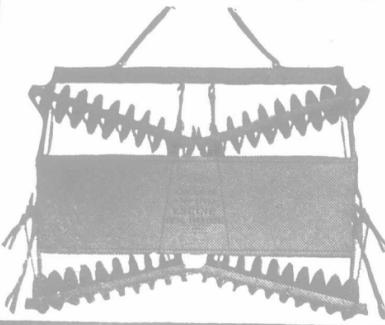
THE WILLIAM RENNIE COMPANY LIMITED
KING AND MARKET STS. TORONTO
ALSO AT MONTREAL WINNIPEG VANCOUVER



E-B 12-20
S.A.E. Rating Model AA

USE E-B 12-20, S. A. E. Rating, Model A A with the E-B No. 60 Engine Disc Harrow

FOR Canadian power-harrow work this combination can't be improved upon: The famous E-B 12-20, S.A.E. Rating, Model AA. Dependability, backed by 67 years of E-B implement manufacture and 12 years of E-B tractor building. Powerful, economical 4-cylinder kerosene motor with 25% surplus power. 88 parts heat treated. Enclosed, dustproof gears. Hyatt Roller Bearings, K-W Magneto, etc. Woman or boy can handle it.



The E-B No. 60 Engine Disc Harrow is built in two sections with large weight pan between. 8 ft. for 12-20 and 10 ft. for larger power units. Extra heavy discs, flanges, axles, etc. Equal to heaviest engine work. Front discs throw out, rear discs throw in, assuring thorough pulverization. Ask your E-B dealer about this power-harrow combination.

Emerson-Brantingham Implement Company, Inc.
REGINA, SASK.
The John Goodison Thresher Co.
Sarnia, Ont.

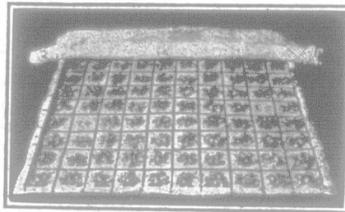
Our School Department.

Will Your Father's Seed Corn Grow?

All seed corn that you see on the cob, or off of it, will not grow. At the base of each kernel there is a little plant hid away inside which you can easily find by cutting the kernel down the centre after allowing it to stand awhile wrapped up in a warm moist cloth. Sometimes these germs have been frosted, or perhaps they did not mature in the fall, and when such is the case they either do not grow at all when put into the ground, or the small plant into which they develop at first is weak and yellow. One cannot always tell by looking at a kernel whether it will grow or not, so farmers test their seed before planting to make sure that the corn will germinate. There is something else to be learned by the test. Frequently the germ will send up its leaves and give

Every pupil should observe and answer the following questions for himself:

1. Why is the sawdust or sand added to the top?
 2. What is the chief factor which causes the corn to germinate?
 3. What percentage of the corn grew?
 4. If Harry Smith's corn germinated 100 per cent., how did his father care for it since it was harvested?
 5. If another sample in the box did not grow what care had it received and why did it not germinate?
 6. How many pounds of seed are required to plant one acre (in hills and in drills) when the corn germinates from 95 to 100 per cent?
- We are testing our seed corn for Weldwood Farm, and in an early issue we shall be able to tell you how well it germinated and how much we intend to plant per acre.



Testing Seed Corn.

off roots into the soil but both may be so weak that the plants do not grow well and the result is a poor crop. Such seed is said to have low vitality. Testing seed corn is very interesting work and all pupils should bring a sample of their fathers' seed corn to the school and test it to find out what percentage will germinate, and if the plants are healthy and strong.

One of the older scholars might bring a box about two inches deep and two and a half feet square. Fill it three-quarters full of sand or sawdust and cover with a piece of cheesecloth. Then divide the surface into two-inch squares by driving small nails into the edges of the box and putting strings across each way. The squares thus made should be numbered. Each pupil should have at least one square in which to test an ear of corn. Take three kernels from the tip of the cob, three kernels from the butt, and four from the centre and place them well within the strings which mark off the spaces. It is not necessary to take so many kernels but this number makes it easy to figure the percentage of germination. When everything is in place, cover the corn with a layer or two of cheesecloth and moisten the contents of the box, but do not put on too much water. Now sprinkle about one-quarter inch of sawdust on top of the cloths, or cover with a thin layer of sand. Keep the box in a moderately warm room for six or seven days and then open it to see which kernels have germinated and which have not. It may be necessary to moisten this small farm once or twice if it becomes dry during the test. The cover should be lifted carefully for the corn shoots often adhere to the cloth and become displaced.

A Study of Live Stock in the Rural School.

It is impossible to teach live stock husbandry in the school room. An image of all the various types of cattle, horses, sheep and swine cannot be impressed upon the student's mind without having the animals before the class. This has suggested to some teachers that they take the pupils to the farm of some prominent breeder in the neighborhood and there teach the lesson. This has been tried with success on several occasions and the plan commends itself to teachers in general. Pupils of the public schools should not be expected to know all the breed characteristics of the Shorthorn, Hereford, Aberdeen-Angus, Holstein, Jersey, Ayrshire, etc., but they ought to know the chief points of difference between a beef and dairy animal. They ought to know what is meant by long-wooled and short-wooled breeds of sheep, and it is quite as reasonable to expect that they understand the difference between bacon and lard types of swine. Take the class to the stable of some prominent breeder right in the neighborhood and get him to explain what he looks for when selecting a dairy cow, a steer to feed, or a female animal of the beef breeds. By drawing attention to the important points of the animal before the class a more lasting impression can be made.

There are fundamentals that should be mastered in the study of all live stock. Remember that all typical dairy cows are more or less wedge-shaped. This, on first thought, may appear strange for a good cow, taken as a whole, does not resemble a wedge. However, the general outlines of the cow when viewed from different positions suggest wedges. For instance, stand behind a typical dairy cow and see if she is not wider behind than in front. That is, if you should put a straight-edge against one side and another straight-edge against the other side, the two ends would come together somewhere in front of the animal's head. This is why the cow is said to be wedge-shaped in this particular, but the typical dairy cow can be viewed from two other directions with the same result. If you cannot detect these other two wedges, write to us and we will tell you where and how to look for them.



A Class of Teachers from the Hamilton Normal School Studying Live Stock at the Asylum Farm, near Hamilton.

Department.

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Study of Live Stock in Rural School.

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... Studying Live Stock
... tcn.



Holding War-Time Markets for the Canadian Farmer

Canada is called upon to help to feed Europe during the period of Reconstruction.

This is good business for the Canadian farmer as it means he may be assured the same markets as he had while the fighting was on BUT—these prospective customers are little better prepared to pay cash for their purchases than they were during the War. To hold these markets for you, and make it possible for you to get the cash, the Dominion of Canada must extend credits.

Must Supply Credits

How is Canada to supply the necessary credits and finance this international trade? From the invested savings of her people.

The plan has been most carefully worked out. If the Canadian people co-operate to the utmost of their ability, the markets are assured, the people profit by their investment, their money is available when needed, and since Canada will, in due course, receive back the money advanced to the buying nations, not a dollar is added to the permanent indebtedness of the country.

\$5.00 for \$4.01

The Dominion of Canada is raising the necessary money by the sale of War-Savings Stamps.

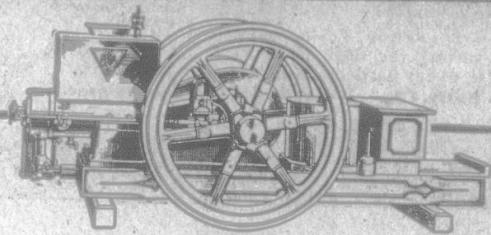
In your own interest, buy War-Savings Stamps. Get every man, woman and child you can talk to, to buy War-Savings Stamps. The price this month is \$4.01.

Each stamp will be redeemed on Jan. 1st, 1924, by the Dominion of Canada, for \$5.00.

As an aid to the purchase of a War-Savings Stamp, you can buy Thrift Stamps at 25 cents each. Sixteen Thrift Stamps on a Thrift Card represent \$4.00 on the purchase of a W-S.S.

W-S.S. and Thrift Stamps may be purchased at Money-Order Post Offices, Banks, and other places displaying the sign at the top of this announcement.

50



Ask Any Alpha User

So much confidence have we in the fine service that Alpha Engine users are getting that we say "Ask any Alpha user."

We know the Alpha is honestly built, and so do the users. We know it is dependable, and so do they. Every user knows how simple it is—no electric batteries or complicated attachments. And every user knows what a work and time saver it is.

Write today for our gas engine book

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

Tested by Time, Panic and War

Mortgage Corporation Debentures do not fluctuate in value. Neither time, panic nor war affect them.

Stocks drop. Some disappear altogether. But through all the excitement and strife of war, Standard Reliance Debentures have stood the test for security of principal and permanency of interest.

A \$100 Standard Reliance Mortgage Debenture is still worth a \$100 and pays 5 1/2% interest in cash on the day it is due.

Mortgage Corporation Debentures

The debentures are issued in amounts of \$100 and upwards, and are repayable at a fixed period to suit your convenience.

Thousands of people have invested their savings in these debentures without the loss of one dollar invested.

Write to-day for our interesting booklet about "PROFITS FROM SAVINGS."

Paid up Capital and Surplus Funds - - - \$3,362,378.63



STANDARD RELIANCE MORTGAGE CORPORATION HEAD OFFICE—TORONTO

Branch Offices: Ayr, Brockville, Chatham, Elmira, New Hamburg, Woodstock

Egg Money

depends upon proper feeding. Give your birds

Pratts Poultry Regulator

with the feed. Keeps them in vigorous health. Builds healthy, vigorous layers and breeders. Keeps disease away. You don't experiment when you use "PRATTS"—the time-tested egg producer and safe, sure tonic. Try it at our risk.

At your dealer's in pkgs., also 25-lb. pails and 100-lb. bags. Money Back if Not Satisfied. Write us for new book on care of Poultry. It's FREE.

Use PRATTS ANIMAL REGULATOR The Guaranteed Stock Tonic

Pratt Food Co. of Canada, Limited, 328L Carlaw Ave., Toronto P-20



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.

MUTUAL DAIRY & CREAMERY 743 King St., W., Toronto, Ont.

Cream Wanted

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

Ontario Creameries, Limited London, Ontario.

These Seven Cows



These Seven Cows Kept for One Year on the Product of One Acre

It is hardly believable. Keeping seven cows for a whole year on the product of one acre goes a long way towards reducing the cost of milk. On one acre of land in the state of Michigan, Ross' Eureka Ensilage Corn produced, in one year, 70 tons and 800 lbs. of the best quality of sweet ensilage. Figuring at the rate of 50 lbs. per day, this would be sufficient to feed seven cows for one year with enough left over for 261 feeds.

Ross' Eureka Corn grows the tallest, has the most leaves, is very short jointed and will produce more tons of good sweet ensilage per acre, than any other variety. Four of the heaviest acres of this corn in one year gave a total yield of 200 tons and 96 lbs., an average of 50 tons and 24 lbs. per acre, but this is not much above the average. You do not need to plant your whole farm when you can fill a 200 ton silo on from 4 to 6 acres of Ross' Eureka Ensilage Corn.

The best money you can spend on the farm is for good seeds. Poor seed is costly at any price. Eureka costs but very little more than other varieties. Good seed is worth what you pay for it. Ask yourself what corn is worth

per bushel that will produce 70 tons per acre over ordinary corn, which usually yields from 12 to 20 tons per acre.

As ye sow, so shall ye reap. If you plant cheap corn you will reap accordingly. We have been selling Eureka corn for nearly 40 years and we know before shipping that it will grow under favorable conditions. This corn usually germinates 90% or better. One of our customers wrote us that Eureka Corn would grow if planted in a mud-puddle.

Ross' Eureka Corn was introduced by us about 35 years ago. It is white, smooth dent variety, and grows the tallest of any known corn, usually from 16 to 20 feet. We have heard from some of our customers who say that it grows as high as 23 feet and it will get into condition for the silo early in September.

Ross' Eureka Corn

Help Feed the World

Before the war we exported six million tons of food. In 1918 we exported twelve million tons. Now the war is over, Hoover says, we must export twenty million tons in 1919.

Buy a

Betsy Ross Victory Garden

17 large packages of highest quality vegetables, enough for the home garden, postpaid, for only \$1.00

1 pkt. Beans, Sure Crop Black Wax	1 pkt. Spinach, Thick Leaf
1 pkt. Beet, Crosby's Egyptian	1 pkt. Sweet Corn, Golden Bantam
1 pkt. Carrot, Danvers Half Long	1 pkt. Onion, Yellow Globe Danvers
1 pkt. Cabbage, Copenhagen Market	1 pkt. Turnip, P. T. White Globe
1 pkt. Cucumber, Early White Spine	1 pkt. Swiss Chard
1 pkt. Lettuce, May King	1 pkt. Beans, Green Pod Stringless
1 pkt. Peas, Sutton's Excelsior	1 pkt. Squash, Summer Crookneck
1 pkt. Radish, Scarlet Globe	1 pkt. Melon, Rocky Ford
1 pkt. Squash, Blue Hubbard (6 Collections \$5.00)	

Each variety the best of its kind. All should be planted in every garden. Address, enclosing \$1.00, ROSS BROS. CO., Front Street, Worcester, Mass.

We do not ask you to take our word for what Eureka Corn will do but refer you to the following letters. Some of these may be your neighbors. If not you can write to them if you wish. Here is what they say:

Trenton, Ontario, Canada

Dear Sirs:—Regarding the Eureka corn received from you last season, would say this corn is the best corn for ensilage I have ever grown or in fact ever seen.

The past season has been very bad for corn, but this variety grew 16 ft. high. It was sown late and although the season was very dry it grew rapidly. We sowed it on June 15th and harvested it Sept. 12th.

I would recommend Eureka Corn to any one wanting a heavy yielding variety.

Respectfully, D. MacDONALD.

Petersburg, Ontario

Gentlemen:—The Eureka corn I got from you last spring produced a splendid crop all over this community. Some of it stood 13 to 16 feet high. It gives an immense pile of ensilage. The only objection the farmers have to it is that they could hardly cut it with the corn binder, such thick stalks and so heavy work loading it to and from the wagons when cutting.

Yours truly,

J. B. SCHWARTZENTRUBER.

Monkland, Ontario

Gentlemen:—As to Eureka corn will say I had 3½ acres of Improved Leaming and 1¼ acres of Eureka, and I am satisfied I had as much Eureka as Improved Leaming, and the man who filled my silo said that in his fall work filling silos, he saw nothing that would equal your Eureka.

Yours truly,

ALEX. J. DANIELS.

Queensville, Ontario

Sirs:—The Eureka corn purchased from you last spring is the greatest silo filler I have seen. It was the biggest and tallest and contained the most sugar of any variety we used in filling about 25 silos and would recommend it to any one as a good ensilage corn. I let my brother have ½ bushel and have inquiries for about 15 bushels from his neighbors, so I think that is a fair recommendation in itself.

Yours truly, T. A. SMITH.

On account of the embargo this past season we were unable to ship any corn into Canada, and as a result, we had to disappoint hundreds of customers and refunded a large amount of money. We understand there will be no such difficulty this year and to our old as well as to our new customers we can promise early shipment and corn of high germination. We are always glad to mail samples.

Ross' Eureka Corn is only one of our specialties. We handle a complete line of Farm Seeds, such as Oats, Rye, Barley, Wheat, Buckwheat, Cow Peas, Vetch, Soy Beans, Essex Rape, and all varieties of Field and Ensilage Corn; Grass Seeds, including all kinds of Alfalfa and Sudan Grass.

We also have a full line of Agricultural Implements, Poultry Supplies, Fertilizer, etc. Our 120-page catalog will be mailed free if you ask for it. Seventy-two pages of this book are devoted to descriptions and priced seeds, and the balance to Fertilizers, Implements, etc. It is mailed free if you mention this paper.

ROSS BROS. COMPANY, 65 Front Street, Worcester, Mass.