

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE
SUCCEED
FOUNDED

Director, Central B.S. Farm, Dec. 19, 1918

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

ENTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

LIII.

LONDON, ONTARIO, DECEMBER 26, 1918.

No. 1370



TH**E**RE are four important things that should be considered by every person when buying fencing this season.

- 1st—The reputation of the manufacturer.
- 2nd—The quality of his product.
- 3rd—The value.
- 4th—The length of service.

The higher the manufacturer's reputation the more jealously he guards against anything that would tend to injure it. A manufacturer with a continent-wide reputation for integrity, square dealing and the honest quality of his products, such as has been attained by the Frost Steel and Wire Company, is always eager to maintain his position as the leader in his line. The Frost reputation and leadership insures a safe fence investment to the buyer.

No other fence-maker in Canada or any other country puts more downright quality into his fence than the Frost Steel and Wire Company. Frost Fence is not made of ordinary commercial wire. We buy the raw material and draw it into Frost Full Gauge No. 9 Hard Steel Wire. We put that elastic "give-and-take" into it that has made Frost Woven Fence famous for the strains it will bear. We also put that

coat of pure zinc spelter on the wire that makes Frost galvanizing stand the Canadian weather as no other fence has ever been able to do.

Frost Fence has always been sold at a price that is eminently fair considering its superior quality. Frost Fence could be sold for less money if we used ordinary commercial wire and ordinary fence locks, and rushed it through the factory instead of weaving it slowly on our special machines, so that every stay stands up straight and true and the spacing between wires is always absolutely accurate. Every dollar invested in Frost Fence is a dollar wisely invested—one that buys years of service.

Many thousands of Frost Woven Fences have been erected in Canada. If you could see a Frost Woven Fence that has been doing service for several years and note how little it has been affected by the stress of weather and the strains of leaning cattle, you would have conclusive proof of the enduring quality that the name "Frost" stands for. Write and ask us for dealer's name and a copy of our fence catalogue showing styles for every farm fencing purpose, including ornamental fence and gates.

107

A style for every purpose.

Frost Steel and Wire Company, Limited, Hamilton, Canada

GILSON PRODUCTS

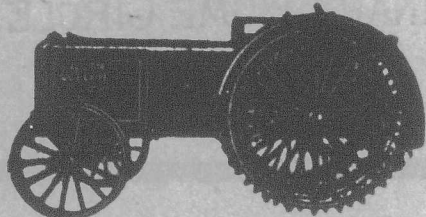
"Goes Like Sixty" 100% Service

DON'T WASTE MONEY ON EXPERIMENTS!

For sixty years, we have steadily worked at raising the performance and efficiency of Gilson Products to their present standard recognized by men of discrimination, sound judgment and experience—successful men—as representing the highest standard of value to-day. Gilson Products are Dominant in Quality and Service.

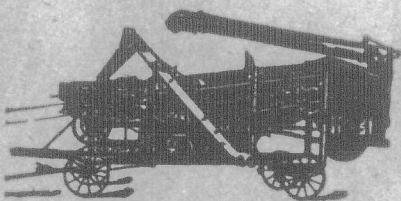
WE HAVE PAID FOR YOUR EXPERIENCE! When you purchase a Gilson outfit, you are assured of getting the maximum of SAFETY, SERVICE and SATISFACTION.

A PRACTICAL TRACTOR FOR YOUR WORK



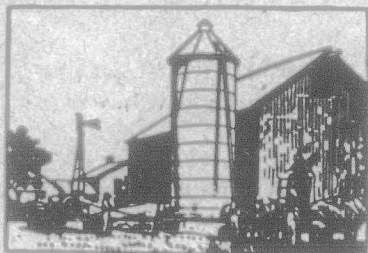
The Gilson Tractor will do your work. It is standardized throughout. It incorporates all the improvements of modern tractor engineering. The smooth running, powerful motor operates on either kerosene or gasoline,—the transmission runs in oil and is absolutely dust-proof,—the perfect radiator of large capacity,—the simple clutch arrangement,—ease of operation,—the easy starting device,—all are combined in one excellent machine. Sizes are 12-25 and 15-30. Write for free Tractor catalog and quotations.

THIS WONDERFUL LIGHT-RUNNING GILSON THRESHER

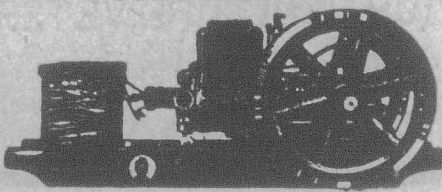


"Goes Like Sixty"

Saves Time—Money—Labor. Be independent of the gang. Keep your farm free of weeds. Do your threshing when you please, with a 6 to 12 h.p. Engine and the Wonderful Light-Running Gilson Thresher. Furnished with or without Blower. Send for free catalog.



THIS ENGINE WILL COST YOU NOTHING



"Goes Like Sixty"

You need an engine,—get a Gilson on our 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 bother and enjoy that "feeling of security" which is such a definite part of the staunch, reliable Gilson Engine.

When you buy a Gilson Engine you buy reliable power plus service,—the utmost economy. You get exclusive patented features, fully described in our catalogue, which will be sent you free,—that will enable you to get greater service at less cost.

A smooth running, dependable motor, which will give you maximum power at minimum cost, day in and day out, all the year round. Write for catalogue No. 25. All sizes for all purposes.

A "Gilsonized" Farm

Gentlemen:—

We have been running our 8 h. p. Gilson Engine for nearly four years. It has always given us the best of satisfaction.

We use it to run our N-13 in. Gilson Ensilage Cutter, and this fall we put thirty feet of corn in our "Gilson" Hyle Silo in seven hours. We run our 10 1/2 in. plate grinder, grinding at the rate of twenty-four bags of mixed grain per hour. The other day we ran the engine sawing wood, using four gallons of fuel in a ten-hours' run, wood being maple and beech.

Our little "Johnny-on-the-Spot" after all his years of service, is still on the job, as willing and useful as ever. Mother thinks the world of "Johnny," as he saves an inestimable amount of hard work, and we consider he has paid for himself over and over again.

I have operated and repaired different makes of engines, but I have not seen an engine yet that stands up with the Gilson for power and fuel economy per rated h.p.

Yours respectfully,
MELVIN HUETHER,
R.R. No. 4, Kitchener, Ont.

"OVER THE TOP" OF THE HIGHEST SILO



"Goes Like Sixty"

The Wonderful Gilson Silo Filler is the one blower that will put the corn over the top of the highest Silo,—and the smallest size will do it with a 4 h.p. engine. There is a Gilson Silo Filler for every purpose,—for the individual farmer,—for the syndicate,—and a very large capacity of machines for the jobber.

We positively guarantee every Gilson Silo Filler to cut and elevate more ensilage with the same power than any other blower cutter made.

With a Gilson Cutter you can cut your own corn at just the right time,—no waste—no loss. Be independent of the cutter gang. Refill your silo without expense.

Write for free Silo Filler book to-day. It tells the Gilson story from start to finish,—points out the advantages of the design, and describes the all metal construction in such a way that you will understand why the Gilson Cutter will do more work with less power than any other.

Fill out coupon below and send immediately.

Singular Satisfaction

Gentlemen:—

I am sending you photograph of my Gilson Tractor and Gilson Thresher.

My tractor has been a source of singular satisfaction to me. When I bought it I was not positive that it would be a paying investment. I took the chance and am delighted with the results.

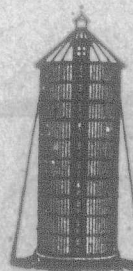
The tractor is invaluable for work at the draw-bar, such as plowing, harrowing, etc., and it is exceedingly valuable with the belt, where I do my own grinding and threshing, and I help out the neighbors quite a bit. The tractor is so simple, so easy to handle, so thoroughly reliable and willing, that we find lots of jobs for it and it does them all with the greatest economy and satisfaction.

The Gilson Thresher, which I purchased later, has more than met my expectations. It is the cleanest thresher I have ever seen, and has far more capacity than I expected or you represented.

Yours truly,
D. MCKENZIE, Glencairn.

HYLO SILO

Sweet, Fresh Ensilage Down to the Last Forkful



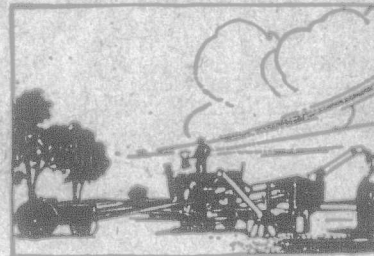
The Hyle Silo sets new and higher standards in silo construction and silo service.

The Hyle Silo insures perfect ensilage down to the last forkful,—sweet, fresh and nutritious. The Hyle Silo is purchased by the modern farmer,—the man who buys on a business basis,—buys for the money it will make him. Some of the advantages of the Hyle Silo are as follows:—

—infinitely superior material and machinery,—exclusive and patented self-adjusting hoops, which automatically take up all the expansion and contraction,—single-length and two-piece staves used exclusively,—all staves tongued, grooved and bevelled with extraordinary accuracy, both sides and ends, making perfect self-draining, airtight joints,—interchangeable perfect fitting doors with patent lock,—steel ladder,—rigid interchangeable door-frame construction,—perfect anchoring system, etc.

The Hyle Silo will last indefinitely,—it is airtight, leak-proof and storm-proof. It will pay for itself in profits earned in the first six months of use and thereafter it will continue to make money for you at no additional expense or attention.

Write for free silo book to-day showing detailed illustrations of special Hyle service features, and many letters and farm scenes of users.



Mark X opposite the books you wish.

Each of our products is described and illustrated in a plain way so that you may easily understand the mechanical features that make Gilson Products yield supreme service. Send in the coupon for one or for all of the booklets. Your enquiry will be welcome.

GILSON MFG. CO., LIMITED

609 York Street, Guelph, Ontario

- Thresher
- Engine
- Tractor
- Silo
- Wood Saw
- Silo Filler

NAME
ADDRESS

SEEDS WANTED

We are buyers of choice quality Red Clover, Alsike and Ontario-grown Alfalfa and Sweet Clover; also Timothy Seed and Seed Grain

Mail samples, stating quantity to offer and price.

Kenneth McDonald & Sons, Limited
Seed Merchants, OTTAWA

Patent Solicitors—Fetherstonhugh & Co.
The old-established firm.
Patents everywhere. Head Office: Royal Bank Building, Toronto. Ottawa Office: 5 Elgin St.
Offices throughout Canada. Booklet free.



SKUNK, COON MINK, WEASEL

Are all bringing good prices. Ship your lot to us and receive highest market figures, returns made same day as shipment is received. Shipping tags furnished free. Write for some and price list.

WM STONE SONS, LIMITED

WOODSTOCK, ONT.

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



SKUNK We pay highest cash prices for all staple furs—Skunk, Mink, Muskrat, Raccoon, Red Fox. Fancy furs a specialty, including Silver and Cross Fox, Fisher, Marten, etc. Est. 1870. Our continued prompt returns and liberal policy are now bringing us shipments from all North America, Alaska to Mexico. Send for free Price List. Address M. J. Jewett & Sons, Redwood, N. Y., Dept. 31.

A Time To Be Cautious

It is no doubt a time to be cautious. But it is possible to be over cautious. There is no reason why a man should leave his money on deposit when he could as easily and with equal safety obtain 5½% by investing it in

Mortgage Corporation 5½% Debentures

At the present time, Mortgage Corporation 5½% Debentures form a profitable and safe investment for idle money.

Interest at 5½% is payable in cash on the day it is due. Principal on the date agreed upon.

The busy or inexperienced investor has no worry, no watching of values and markets. His security never shrinks.

Not a dollar has ever been lost by an investor in these Debentures.

An interesting booklet about "PROFITS FROM SAVINGS," which gives some very valuable advice, will be sent free on request. Write for it to-day.

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



WHERE SHALL I SHIP MY FURS?

The Important Problem Every Fur Shipper Must Solve to be Successful

You are receiving price lists and other literature from many different Fur Houses—all claiming to pay the highest prices, etc., etc. This makes it difficult for you to choose your Fur House and a wrong guess may mean dollars out of your pocket. You must exercise great care and caution in choosing the Fur House to whom you are going to entrust your catch of Fur-bearers. You can solve this important problem by making "Shubert" a trial shipment.

For more than thirty-five years "Shubert" has been paying Fur shippers "more money" for their Furs—always giving an honest and liberal assortment—paying the highest market prices—sending returns out promptly, in other words, rendering "better service"—"quicker." "Shubert" offers you the SERVICE of an honest—reliable—responsible—safe Fur House—where you take no risk. "The Shubert Guarantee" protects you absolutely. A trial will convince you. Get a shipment off—TODAY.

Write for "The Shubert Shipper," a complete Fur Market Report and Price List issued at every change in the Fur Market. It's FREE—Write for it—NOW.

SHIP YOUR FURS DIRECT TO **A.B. SHUBERT, INC.** The Largest House in the World Dealing Exclusively in AMERICAN RAW FURS 25-27 W. Austin Ave. DEPT. 141 Chicago, U.S.A.



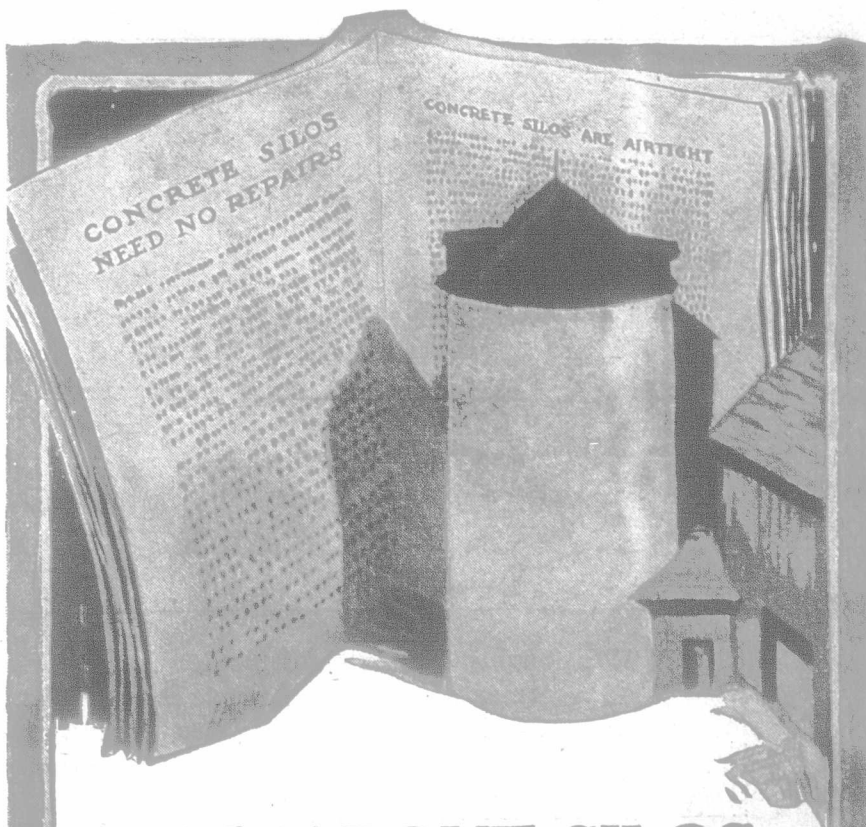
YOUR FARM Will Yield Bigger and Better Crops if you FEED Your Lands with

STONE'S FERTILIZERS

They are rich in AVAILABLE Plant Foods—are made from materials of highest quality. Their mechanical condition is unexcelled—no clogging in the drill. STONE'S FERTILIZERS give results.

See our local agent, or write us direct.

William Stone & Sons, Limited WOODSTOCK, ONT. (Head Office) Ingersoll, Ont. Stratford, Ont.



ALL ABOUT SILOS

and other things that help make farming profitable.

CONCRETE makes the ideal silo, because it has air-tight, water-tight walls, with no joint—the walls being non-absorbent and round in shape. Besides that air-tightness and water-tightness which are so essential to the proper preservation of the silage, the concrete silo has such other important qualities as fire-proofness and permanence.

A permanent silo of concrete is the safest and best investment a farmer can make. It means larger herds, less work, more profit.

Our book, "What the Farmer can do with Concrete," explains how all things of Concrete on a farm are built, including Silos. Write us for the names of concrete silo-builders in your neighborhood, or follow the very complete instructions in the book, which is free to any farmer who writes for a copy.

CANADA CEMENT COMPANY LIMITED 501 HERALD BUILDING, MONTREAL

Sales Office at MONTREAL TORONTO WINNIPEG CALGARY

"Canada" Cement can be secured from over 3,000 dealers, in nearly every city, town and village in Canada. If you cannot locate a convenient dealer, write our nearest Sales Office.



Send me your Literature

NAME _____

ADDRESS _____

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.

We Pay Highest Prices For RAW FURS

Send us your next shipment. Price list and catalogue of trappers' supplies now ready. We pay express and postage.

E. T. CARTER & CO. 82 Front St. E. Toronto, Ont.

The Advocate Advt's. Pay.



\$5.00 for \$4.00



The Dominion of Canada, in accordance with Order-in-Council P.C. No. 2462, offers for sale in Money-Order Post Offices, Banks and other authorized places, the 1919 issue of

War-Savings Stamps

"War-Savings Stamps will provide financial assistance to the Government, an excellent investment for small savings, and a strong incentive to every-day economy."—

Sir THOMAS WHITE, Minister of Finance.

A WAR-SAVINGS STAMP is Canada's promise to pay Five Dollars on January 1st, 1924. It costs you \$4.00 if purchased before January 31st, 1919, and the purchase price increases one cent each month after that date.

The difference of one dollar represents the high rate of interest earned. W-S.S. are a splendid investment for every man, woman and child in the Dominion of Canada.

Certificates are issued providing spaces for ten W-S.S., and in order to protect you against loss through fire, theft or other cause, you may register a certificate, with one or more W-S.S. attached, at any Money-Order Post Office. A Certificate registered in your name is of no value to anyone but yourself.

THRIFT STAMPS are also on sale and cost 25 cents each. These bear no interest, but they help you to save to buy a W-S.S.

Sixteen Thrift Stamps on a Thrift Card will be exchanged for one War-Savings Stamp.

You have all the resources of the Dominion back of your investment in War-Savings Stamps, and if at any time circumstances compel you to realize on your investment, your money is available.

SOLD WHEREVER THE SIGN IS DISPLAYED

13

Interprovincial Pressed Brick

Handsome
Durable
Economical

Write for Colored Catalogue Sheets

Address—

INTERPROVINCIAL BRICK CO. OF CANADA, Limited
30 TORONTO ST., TORONTO

Plant—Cheltenham, Ont.

SEEDS
1866 1918
CORN
For 1919 Sowing
Specially priced for early shipment, carefully selected, strong vigorous seed. Recent tests show 95 to 98 per cent. germination.

ON COB	Per Bus. 70 lbs.
Longfellow	\$4.50
White Cap	3.75
Golden Glow	3.75
Wisconsin No. 7	3.75
Balley	3.75
Improved Leaming	3.75
Bags Free.	1

Orders of 5 bushels or more, we will pay freight in Ontario and Quebec. Write at once for our ADVANCE PRICE LIST and compare our prices with others. We sell direct to farmers. No Middleman's profits.

BARGAIN IN BAGS.
Second hand bags strongly patched by machinery. Cotton first quality, \$6.00 per dozen. Cotton, second quality, \$5.00 per dozen; third quality, \$3.50. Jute sugar bags, \$1.80 per dozen. Jute flour bags, \$2.00 per dozen.

Write for our Poultry catalogue.

GEO. KEITH & SONS
124 KING ST. E. TORONTO

WHEN YOU GO WEST

WE HAVE THE Lowest Fare Modern Train and the Scenic Route and the Service, too

Comfortable trains leave Toronto at 9 p.m. Mondays, Wednesdays and Fridays, connecting at Winnipeg for all points West

For information, descriptive literature, etc., apply to nearest C.N.R. Ticket Agent, or write General Passenger Department, 68 King Street E., Toronto, or 226 St. James Street, Montreal.

CANADIAN NORTHERN RAILWAY

Maxwell

If you have running water in your home, you should have a Maxwell Water-Motor Washer.

"Home" Water-Motor Washer

Attach it to the faucet, turn on water, and the machine washes the clothes—without help—without any attention. Water and suds, that's all—and great piles of dirty clothes will melt away as though by magic, till wash-day becomes the lightest working day in your week.

Nothing to do but put in the dirty clothes and take them out clean. Think how many other things you can be doing meanwhile! Here is a

Motor Washer

that makes special appeal to thrifty housekeepers—no gasoline to buy or current to use—just plain, cheap water! And it will clean the clothes just as carefully as you would do them by hand. Saves work—saves time—saves backache—saves the clothes! Ask your dealer.

MAXWELLS LIMITED Dept. W St. Marys, Ontario 39

WANTED Alsike, Timothy, Red Clover, Ontario Grown Alfalfa, and White Blossom Sweet Clover. If any to offer please mail samples, and we will at once let you know highest prices we will pay f. o. b. your station. **TODD & COOK, Seed Merchants, Stouffville, Ontario.**

Seed Corn—Strong, vigorous seed, carefully selected and tested. Cut and husked by hand. Grown in Essex Co. from native seed. White Cap, Wisconsin No. 7 and Balley. Send for special prices for immediate delivery.
A. GRANT FOX, Ruthven, Ontario

SEED CORN
A quantity of choice White Cap Yellow Dent (an early strain) for sale, at \$4.50 for 72 lbs., f.o.b. Highgate. Bags free.

J. F. STONE, Kent Co., Highgate, Ontario
—A quantity of select early Leaming, Longfellows and White Cap Yellow Dent, \$4.75 per bushel f.o.b. Bags free.

GEO. B. LANGFORD, Kent Bridge, Kent Co.
SEED CORN
Carefully selected and rack-cured. Won 1st prize at Elgin Corn Show for this variety. Golden Glow Yellow Dent, high quality, \$5 per (70 lbs.) bus.; extra high quality, \$7 per (70 lbs.) bus. Bags free.
J. L. WATTERWORTH, Wardsville, Ont

QUALITY COUNTS

What about that new house you've waited four years to hold? Of course you'll want

MILTON BRICK

So get your order in now for early sleighing.

MILTON PRESSED BRICK CO., LIMITED
Head Office: MILTON, ONT. Toronto Office: 50 Adelaide St. W.

The Farmer's Advocate and Home Magazine

PERSEVERE
AND
SUCCEED

ESTABLISHED
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LIII.

LONDON, ONTARIO, DECEMBER 26, 1918.

1370

EDITORIAL.

We wish the producers of Canada a Happy New Year and a prosperous 1919.

Make up a supply of whippetrees and doubletrees; they will be needed next spring.

Read and discuss current topics at your local clubs; there are usually several sides to a question.

Obtain your supply of corn and grass seeds early. Red clover is sure to be high in price and scarce.

Plant trees in memory of our fallen heroes. Such will be a more fitting and lasting monument than stone or marble.

Live stock will be the sheet anchor of Canadian agriculture. Look well to the size and quality of your herds and flocks.

Breeders of pure-bred stock will probably find time during the winter months to handle the young stuff and make it tractable.

There is an insistent demand for consolidated schools in Ontario, to which the Minister of Education can well give consideration.

Finish the cattle and hogs before shipping them. Half-finished stock is a poor advertisement on any market, and bad for business.

Towns, cities, manufacturers and all have publicity agents, why not agricultural publicity agents to place unbiased information before the consuming public.

Turn out and vote at the municipal election. There is need of big, broad-minded business men in municipal affairs, and you cannot put them there if you don't vote.

The Packers are asking to be allowed to make more than 11 per cent. on their invested capital. Farmers have long been asking for the privilege of making even half that amount.

Go over the wagons and implements during the winter months; tighten up the loose nuts, replace the broken parts, paint the wood-work, and oil the metal parts to prevent rust.

Roads have been very bad in some districts this fall. If the road-drag had been used to fill up the ruts the water would have drained off, making a better road this fall, and the good effect would be noticeable next spring.

Now that the country is encumbered with a heavy national debt and production is of paramount importance, any monies taken out of the public treasury to provide employment should be expended in such a way as to increase the output. A through highway for long-distance motoring will certainly yield no revenue; it will be more of a liability than an asset, so far as returns are concerned. We need good roads, but we require them leading into the marketing centres. Long-distance travelling can be done more cheaply by rail and we have railroads well distributed. The railway stations and the market centres should be linked up with the side roads and concessions by good roads, but joyriders should not press their demands for an expensive thoroughfare that will not assist materially in meeting our financial obligations.

More Government Action Needed.

It seems necessary at this very critical period to urge upon the Government of Canada the extreme need of immediate action in regard to certain agricultural matters. The Cabinet, no doubt, is burdened with the stupendous problems of reconstruction, but it appears that the lack of action in one particular direction is bound to cost this Dominion millions of dollars and retard our agricultural development to a lamentable extent. We refer to the consideration (or rather the lack of it) which the Government has given to the live-stock industry during the last few months, and particularly during the weeks subsequent to November 11, when the armistice went into effect. Live stock is mentioned particularly for the simple reason that our prosperity as farmers depends upon it absolutely. Grain prices will come down considerably when the 400,000,000 bushels of wheat in Australia and Argentina begin to move freely towards the empty cupboards of Europe. Not so with meat animals and animal products, for the decrease of 6,506,000 cattle, 2,430,600 sheep and 24,710,000 pigs in six of the principal countries of Europe alone insures a strong and insistent demand for years to come. These figures were made public by the Food Controller, and they represent decreases that will require years to make up. The values of live stock and animal products will, no doubt, drop below their present levels, nevertheless there is only one way out, and that is to convert the produce of our farms into live stock and liquate our production through such channels as the stock yards and the packing house.

There is also another phase of the matter which is of paramount importance to every Canadian citizen. We have a huge national debt and enormous obligations which will require an unprecedented volume of exports to ward off national bankruptcy. This necessitates still greater production on the farms and in the factories. More than that, the products of the farms represent real wealth to an unparalleled degree, and of this the Government must be aware.

With these incontrovertible facts in mind, one cannot help but wonder at the little progress made looking to the upbuilding of agriculture and the stability of our markets. There will be competition, keen competition, and other countries have had commissions in England and Europe for weeks sending instructions home to their people. Dr. J. W. Robertson accompanied Canada's delegation overseas, but he must be introduced to the conferences as representing Canada's agricultural past, not her present. He has done a great work in years gone by, but Dr. Robertson is not the man the industry would have chosen at this time. There is a demand on the part of producers for an influential representative in Europe right now to take part in the deliberations going on there, and to follow him with a representative or representatives "to obtain the fullest possible recognition for Canadian agricultural products."

At the meeting of the Canadian Council of Agriculture, held in Winnipeg, the last week in November, H. W. Wood, of Calgary, Alta., and W. A. Dryden, of Brooklin, Ont., were recommended to the Government as suitable representatives to proceed overseas in the interests of grain and live stock, respectively. Mr. Wood found it impossible to leave and Mr. Maharg has gone in his place, accompanied by Norman Lambert, Secretary of the Council. Two weeks elapsed and Mr. Dryden had no request from the Government to serve his country in this capacity, and, so far as we know at time of writing, the request has never been received. Mr. Dryden would have been favored with the unanimous endorsement of the men engaged in the industry, but there was a hitch somewhere, and from all appearances the matter of a live-stock representative is still in abeyance.

Nine months ago there was being discussed an elaborate program embracing improvement in ship-

ping, railway transportation and accommodation at Eastern terminals or harbor fronts so that air-controlled space would be available in cars and steamships, making it possible to export chilled meats and compete with other countries who are already ahead of us in this regard. This meant a large abattoir and cold-storage facilities situated at an Atlantic port, and a year-round trade in animal products with the Mother Country and Europe. Besides bolstering up and stabilizing the whole live-stock industry in Canada, the move was destined to awaken the Eastern Provinces and give the vast territory lying between the city of Quebec and Sydney, Cape Breton, a market for meat animals such as has never been enjoyed before. If this program is ever carried out it will mean increased production amounting to millions of dollars in Eastern Quebec and the Maritime Provinces, and the project will cost in the neighborhood of only \$500,000. The Live Stock Commissioner and the Canadian Live Stock Council have been working in harmony on this great scheme, and apparently the Minister of Agriculture was sympathetic, for at the Central Canada Exhibition, in Ottawa, Mr. Crerar, while not committing himself, made very significant public utterances, and the stockmen as a result were very optimistic. However, nothing has been done, and it seems that in some way or other the Government's attention has been diverted to improvements at Montreal. Work and money expended there will only have a local influence, and will not satisfy the live-stock men who have become enthused with the importance of the project farther east, at a port open the year round.

The Government has arranged for a certain amount of credit to France and Belgium to strengthen our market, but that will not satisfy the producers. There will be an appeal made to increase our live-stock holdings and improve the quality of our live stock, but this will be abortive if the Government does not take immediate action looking to the development of a permanent and extensive export trade in chilled beef and animal products. Producers must have a palpable guarantee of protection against the losses arising out of poor trade facilities and connections, and moreover they will demand protection from the powerful interests through whose hands the products will pass. The Minister of Agriculture must impress this upon his colleagues at once, and the Minister of Finance and Acting Premier will surely be interested (and he has already expressed himself as such) if he is giving proper attention to the future financial situation in this country. The Government must lead off, then the country will follow.

Breed Sows, Don't Sell Them!

Our hog population is more subject to fluctuation than that of any other class of live stock. It is easy to get into and out of hogs. However, when one follows the crowd, he is usually in when the price is low and out when the price is high. That is one factor that makes for high and low prices, namely, the flow and ebb of the supply. We have been passing through abnormal times. Hogs were increased, but the exceptional demand more than counterbalanced the offerings. Many are beginning to fear that the cessation of hostilities will soon cause the demand to lessen and prices to recede. Some thought should be given to this matter, for it is a complicated one.

No doubt when the stimulating influences of war cease to affect the market for hog products, the prices will drop somewhat, but on the other hand there is the effect of the war to be considered, and the terrible rent it has made in European swine production. Instead of curtailing our market, the armistice and coming peace have widened it. Germany's pigs have decreased, the Food Controller says, to the extent of 19,000,000. France has suffered a decrease of almost 3,000,000, and Denmark, our greatest rival on the British market,

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

Published weekly by
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s. in advance.
3. ADVERTISING RATES.—Single insertion, 20 cents per line, *agate*. Flat rate.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payment of arrears must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid, and their paper ordered to be discontinued.
6. REMITTANCES should be made direct to us, either by Money Order, Postal Note, Express Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
8. ANONYMOUS communications will receive no attention. In every case the "Full Name and Post Office Address Must be Given."
9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent, Veterinary or Legal Enquiries, \$1.00 must be enclosed.
10. LETTERS intended for publication should be written on one side of the paper only.
11. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.
12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known. Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL and will not be forwarded.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (Limited),
London, Canada.

has dropped almost 2,000,000. The decrease in six of the principal countries of Europe amounts to 24,710,000. Surely this condition of affairs will inspire sufficient confidence in farmers to breed their sows instead of sending them to the slaughter house.

There is still another phase that has a very important bearing. Prior to the war Denmark had become entrenched in the British market with her hog products. During hostilities she has been catering to other countries, and her supplies are short. In the meantime, Canada has gained a footing and now the question is before us whether we shall go on and firmly establish ourselves with volume and quality, and thus ensure a continuous future demand, or allow ourselves to be crowded out altogether, and consequently obliged to drop back to a position of comparative unimportance. In view of the fact that all are agreed to the policy of converting our farm crops into live stock, it would seem wise to increase our swine and thus ensure a lucrative market for the years to come. We can only expect to compete successfully with the United States and other countries by producing the bacon hog, and even with that as our specialty we must have volume or we will be ignored. So far as live-stock production goes we are only touching the fringe of our possibilities. There is a great future ahead if producers will supply the volume and quality and the Government will keep open the avenues of trade and see that justice prevails in all the transactions leading up to the disposition of the product. The matter is in our hands now. Let us carry this thing through and make Canada the headquarters for choice bacon.

An Opportune Time to Improve Our Roads.

BY ALLAN MCDIARMID.

If there ever was a time in our lives when our attention was called to the kind of roads we have in this country, it has been throughout this past autumn. It takes the wet weather to show up one of the weak spots in our Twentieth Century "Civilization." There are exceptions to the rule in this matter of bad roads, just as in every other case, but it has been very apparent lately that the good road is the exception and the horse-killing, time-wasting mud-trail, the rule.

Emerson mentions the fact, in one of his Essays, that in some of the Western States of that time, he had noticed that the roads near a large town or city often started out as a grand highway, with trees planted on

both sides of it, but as you followed it up it gradually got bad, and then worse, and finally ended in a squirrel-track that ran up a tree. A little worse than ours yet, but going to show that newly-settled countries all have their road problems. We consider this a comparatively young country and some allowance will have to be made for that fact, but all the same there's no excuse for us being as backward as we are in some sections in regard to our country highways.

I heard a man being asked once if he had a good farm. "No, I can't say that I have," he replied; "about all it's good for is to hold the rest of the land in the neighborhood together." And I suppose he would have said the same thing about most of our roads, if he had been asked as to their main purpose. They hold our farms together, at least.

It has been said that roads are the first and most important element in the advancement of a nation. Rivers, canals and railways have their place and share in progress, no doubt, but they act as the main outlets from a country, as it were. As I heard a farmer say once, when he asked that a side-road leading to his place be repaired and was told that the main road was getting all the time and money that year: "What good will it do me," he yelled, "to fix up the main road if I can't get to it?" And that is the situation, comparatively speaking, in regard to our country roads and the railways. They're but little use to us if we can't get to them.

Of all nations that have inhabited this earth the Romans were the greatest road-builders. They left us an example that we have so far failed to follow. The roads they built are still there, as models of efficiency and permanence. The fame of their Appian Way has come down to us through all the intervening centuries. It was built about 313 B.C. and parts of it are still to be seen, although unused and uncared for for hundreds of years. In building it the Roman workmen removed all the loose soil from the foundation, and on this solid base were built several layers of stone cemented together by lime and some other unknown material. On top of this was laid the pavement, made of large blocks of the hardest stone and so well fitted together that it all looked like one solid piece. As concrete does in present-day construction. Hills were cut through and valleys filled up and no difficulties were too great to prevent them accomplishing their purpose. The cost was tremendous, but evidently they thought they were getting the worth of their money.

The roads they built in Britain, after their invasion of it, although not planned on so extensive and costly a scale, are still used by men of to-day, and are looked on as being among the best highways in the world.

Apart from what Rome did for her, however, England continued to have bad roads until about a couple of hundred years ago. In 1285 a law was passed that all trees within two hundred feet of the roads be cut. This was for the purpose of preventing robbers hiding in them and holding up the passing travellers. Then, in Edward III's time the first toll-roads were built. Later an Act of Parliament provided that two surveyors be appointed to look after the highways and keep them in repair by compulsory labor. After this came the "Statute-Labor Tax," and we have the beginning of a system that has come down to us of the present time, without very much change or improvement. It didn't solve the problem in old England. Their roads continued to get worse instead of better. They came to be little but horse-tracks, and the only advantage in following them was in the fact that they kept to the high ground and the traveller was saved from becoming lost in the bogs. England, at this time, was evidently badly in need of another Roman invasion.

But, in the course of time two men were born that lived to change the situation. These men were Telford and Macadam. They made England's roads what they are to-day, although their ideas and systems were different in some respects. Telford's plan was to make a strong foundation of flat stones and then put several layers of crushed rock on top of this. Macadam did not pay so much attention to the foundation, provided the ground was fairly dry. He simply laid down stone, broke in angular form, and by means of a roller crushed them into place until a solid road had been built up. Both systems gave good results. And so will any scheme of road-making that puts its main dependence on stone. That is, stone of the right quality. Sandstone is too easily crushed. Limestone is affected by the weather. There is a sort of granite boulder, pretty common in this country, that seems to serve the purpose better than anything else. It makes as permanent a road as can be had, apart from concrete.

But a knowledge of all these facts and the example that other nations have set before us won't go for much, or anything at all, if we don't wake up to the fact that we are behind the times in this country, and make some sort of a move that will bring about a change in that state of affairs. To acquire good roads three things are necessary. They are men, material and money. Now that the war is over we have the men. As to material, there are millions of tons of it lying scattered all over the land. And so far as money goes the last "Victory Loan" made to the Government isn't so far back in the past that we can't draw a few conclusions from it.

They say that one of this country's problems at present is to provide for our returning soldiers. Here's the key. Let them help us in the effort towards a better system of highways. The investment will pay us more than five and a half per cent., and Canada will be a pleasanter country to live in by about fifty per cent., at least.

We know that there has been a good deal of talk in our Houses of Parliament during the past two or three years on this subject. But this talk hasn't so

far had any effect in keeping us out of the mud. If something doesn't happen soon we're going to turn Bolshevik.

Nature's Diary.

A. B. KLUGH, M.A.

Peat. (Continued.)

In color peat ranges from light-yellowish or straw color through various shades of yellowish-brown, reddish-brown, and dark brown to jet black. All of these colors are darker when the peat is wet, but the lighter shades often change to dark brown after the peat has been cut and exposed to the air.

From what has already been said, it is apparent that the peat has great capacity for taking up and holding water. The water present in peat is held partly in the interstices of the deposit and partly in the cell-walls and cell-cavities of the plants composing the peat. Of this water a part only is removable by pressure or other mechanical means. Prolonged trials made by many competent experimenters show that only a relatively small per cent. of the water can be pressed from peat having at the outset 90 per cent. moisture, which is about the quantity found in the peat as it occurs in the bog. The remainder of the water resists the greatest obtainable hydraulic pressure and the best centrifugal machines, and can be removed only by evaporation. By pressure the amount of water can only be reduced to about 70 per cent., and the rest can only be driven off by heat, either derived from the sun or more expensively from an artificial source. This residual water is held mainly in the cells of the plant components, and is clearly not held in chemical combination, as it can be entirely removed by gentle heat without destroying the structure of the peat. After drying under proper conditions the peat will again take up water and will assume its former appearance, but drying destroys the cementing compounds in the peat, and peat that has been once dried out, will not, even if thoroughly wet, make good machine-peat bricks.

The quantity of water held in peat varies somewhat, being less in the black, thoroughly-decomposed types than in the more fibrous brown ones. Thorough maceration also has the effect of rendering the water more free in its movement in the peat, this effect being probably due to the increased uniformity of texture and not to the breaking up of the cells of the plant remains, as these cells are exceedingly minute and would not be much affected by the coarse machinery commonly used for grinding peat. After thorough maceration and puddling, if the peat mass is allowed to dry slowly to an air-dry condition, it contracts in bulk, and dries into a hard and firm substance that absorbs very little water even if immersed. This effect is due to the formation during drying of a complex hydrocarbon compound known as hydrocellulose, which is distributed through the interior of the peat brick and which forms a skin over its surface. This skin while it will absorb moisture from the interior and transmit it to the air does not allow the water to pass in the other direction. Untreated peat, on the other hand, dries into a loosely aggregated mass, which takes up water readily and is easily broken up either in the wet or dry condition.

Peat that has been dried below the air-dry condition, that, dried until it contains less than 25 per cent. moisture that is, dried until it contains less than 25 per cent. moisture, quickly absorbs moisture from the air, and its moisture content then varies with the relative moisture of the air, so that the air-dried peat contains a lower percentage of water in a dry climate than in a moist one, or in dry weather than in wet.

The suitability of a peat deposit for certain definite uses depends much upon the physical condition of the plant remains contained in the peat. Thus, if peat is to be used for stable-litter there should be a large amount of well-preserved fibrous matter present, whereas fine-grained, structureless, compact peat is the best type for use as fuel.

The classification of peat is usually based upon physical properties, but it is difficult to draw hard and fast lines between the different types. In this connection the word "muck" should be mentioned. This term is frequently used as distinct form of peat to characterize peaty soils high in mineral matter, but it is often used by farmers to indicate swampy soils which, by their color, show a high percentage of organic matter, whether they are of pure vegetable origin or not.

A convenient and commonly used classification of peat is the following:

Turfy peat.—Consisting of slightly decomposed mosses and other peat-producing plants, having a yellowish or yellowish-brown color, very soft, spongy and elastic; weight from 7 to 16 pounds per cubic foot.

Fibrous peat.—Little decomposed peat which is brown or black in color, brittle and easily broken; weight from 15 to 42 pounds per cubic foot.

Earthy peat.—Nearly or altogether destitute of fibrous structure, drying to earth-like masses which break with some difficulty; weight, 25 to 56 pounds per cubic foot.

Pitchy peat.—Dense; when dry, hard. Often resisting the blows of a hammer, breaking with a smooth, lustrous fracture; weight, from 38 to 65 pounds per cubic foot.

This last kind of peat is very similar to lignite, and in this series of peats we see a change from recent and little decomposed plant remains in the direction of coal. (To be continued.)

THE HORSE.

Attention to Horses' Teeth.

There are many horses of all ages that are not thriving although consuming a reasonable amount of feed, and their owners are at a loss to account for it, and often spend money in condition powders, stock foods, etc., without results.

The animals do not show symptoms of illness, but simply do not thrive and have not the life, spirits or energy that they should have. The cause, in the majority of cases, will be found in the mouth; there is usually either faulty dentition or irregularities of the teeth. The subjects do not need medicinal treatment but what is required is intelligent attention to the teeth. We say "intelligent attention" as, in many cases, unskillful or ignorant interference does much more harm than good. While it does not necessarily require a veterinarian to make a skillful veterinary dentist, it requires a man who is conversant with the anatomy of the mouth, and has the necessary instruments and skill to correct abnormal conditions of the teeth—few farmers have either. And the so-called "veterinary dentist" who is not a veterinarian, is usually an unscrupulous person who understands neither the proper arrangement of the teeth nor the proper manner of correcting faults; a man who lives by deceiving the horse owner. Hence, in most cases, it is wise for the owner to get a qualified man to attend to his horses' teeth. There are few horses that have reached the age of six or over (and often those of younger age) that would not do better if their teeth were attended to yearly. The reputable veterinarian does not make a practice of examining the mouths of his patrons' horses, and telling them that the teeth require attention. This appears too much like "asking for a job" and horse owners are very apt to take it that way, hence the veterinarian who has much respect for either himself or his profession is above it. He rightly thinks that if his advice or service is worth having it is worth asking for. At the same time, a large percentage of horses that give reasonable service and look reasonably well on the feed consumed would look and thrive better if their teeth were dressed regularly. There are many cases in which attention is not required, and the professional man who, for the sake of the fee, will dress a mouth that does not require it, is, we trust, rarely seen.

The first trouble likely to result from the teeth appears, in many cases, between the ages of two and four years. At from two years and three months to three years of age, the first and second molar teeth in each row (which are temporary teeth) are shed, and replaced by permanent ones. At from three years and three months to four years, the third molar in each row (also a temporary one) is shed and replaced by a permanent one, and the sixth molar in each row appears. It is not uncommon to observe a colt about three years or about four years of age, that is unthrifty and has difficulty in masticating. He does not appear sick, but becomes dull and listless and does not eat well. During the growth of the permanent molars, which are to take the space previously occupied by the temporary ones, the fangs or roots of the latter gradually disappear by absorption as the new teeth grow. In normal cases, by the time the new tooth reaches the level of the gum the fangs of the temporary one have been absorbed and the crown drops off, but in other cases, on account of incomplete absorption, this does not occur, and the continued growth of the new tooth forces the temporary one above or below the level of its fellow, and as a consequence perfect mastication becomes difficult or practically impossible, and unless the animal be given feed requiring little mastication, he will fall in flesh and energy. When unthriftiness without apparent cause is noticed in colts of these ages, the molars should be carefully examined, and if any of the crowns are not shed they should be removed by the use of forceps.

In older horses the trouble is usually due to the presence of sharp, projecting points on the outer edges of the upper molars and the inner edge of the lower ones. The lower jaw is narrower than the upper jaw, hence the rows of molars are closer together, and as the motion during mastication is lateral, it can readily be seen that the molars in the upper rows will be worn from without inwards and upwards, leaving the outside of the teeth the longer, and the lower molars will wear from within downwards and outwards, leaving the inner border of the teeth the longer. The teeth are irregular in outline on each side, hence, on account of the manner in which they are worn there are numerous sharp points on the sides of the teeth mentioned. These, in many cases, irritate or scarify the cheeks and tongue, and the degree of inconvenience or inability to masticate properly will depend upon the size and direction of these points, but in most cases they cause more or less trouble. Treatment, of course, consists in rasping the sharp points off. For the performance of this operation a mouth speculum to keep the mouth open, and rasps of different shapes are required, and care must be taken to not remove too much of the teeth. Special care must be observed to not rasp the bearing surfaces of the teeth. These surfaces are normally rough and serrated in order to grind the feed, hence, if made smooth, the horse will be in a worse condition than before.

In other cases, from various causes, one or more of the molars become longer than their fellows, the opposing tooth being abnormally soft, hence wearing more quickly, or the roots decaying and allowing the tooth to be forced more deeply into the socket. The long tooth or teeth after a while attain such length that they come in contact with the opposite gums and render perfect

mastication impossible. In such cases the long tooth or teeth must be shorn or rasped down to the level of their fellows. A horse whose molars are in this condition will, of course, never again have a perfect mouth, but after the teeth are shorn or rasped down he will be able to masticate fairly well.

Decaying teeth are sometimes met with in horses. This condition is usually indicated by a fetid breath or a fetid discharge from the nostril. In some cases difficulty is experienced in locating the decaying tooth, but when the disease has reached that stage in which it can be located it should be extracted.

What are called "Wolf Teeth" are small, supernumerary teeth which appear in front of the first molar in the upper jaw. They are commonly supposed to effect the eyes, but this is a false idea. They seldom do any harm, except when quite large and in such a position that they interfere with mastication, but, being supernumerary and having no function, they should be extracted.

WHIP.

Percheron Breeders of America Held Annual Meeting.

The annual meeting of the stockholders of the Percheron Society of America was held at 8 p.m., December 2, in the Congress Hotel, Chicago. A goodly number of Percheron breeders were in attendance.

President White, in his opening address, expressed the deep thankfulness which all Percheron breeders feel in the close of the war. He spoke of the notable service which the Percheron breeders of France and America have rendered to the allied cause, furnishing horses, themselves and their sons. He referred to the horse situation in Europe where, according to information he has recently received from members of the Agricul-



A Good Colt and Its Young Mistress.

tural Commission sent to Europe to study the situation respecting live stock and farm products. There is a great shortage of work horses, the balance on which cannot be restored except by the shipment of large numbers of horses from this country. He cautioned breeders, however, not to expect too sudden a response in value on account of the fact that ship space will not be available for ready exportation of horses before spring, and even if there were available space at the present time it would not be advisable, because of the lack of grains and forage for horses over there.

The need for intelligent action on the part of individual breeders in eliminating unsound horses and those of faulty conformation was specially dealt with by President White. Breeders were urged to weed out rigorously and castrate the inferior stallions and to sell the mares of inferior character as grades, to the end that the standard of the breed might be steadily improved.

In conclusion, the President dealt briefly with the general utilization of the multiple hitches for six, eight and ten-horse teams, which render it possible for an individual farmer to do double or treble the work in the field that has heretofore been done per man. All breeders were urged to make general use of these hitches in order that they might not only increase the efficiency of their own farm help, but encourage the more intelligent and general use of these larger teams, thereby increasing the efficiency of draft horses and adding to their value.

Secretary Dinsmore in his report stated that the registrations made during the last fiscal year were somewhat less than in 1917; 3,881 American-bred stallions, 5,226 American-bred mares, 63 imported stallions and 10 imported mares were recorded, a grand total of 9,180. Only 21 of these imported animals were imported and registered within the last fiscal year. The other imported animals have been imported in preceding years and heretofore recorded in minor associations. A total of 9,798 transfer certificates were issued during the past year and about 2,500 more transfers

were embodied in rewritten certificates, or accompanied applications when tendered for record. The transfers were slightly in excess of those of the preceding year. The rank of the leading states, arranged in order, according to number of animals purchased by breeders residing within those states, is as follows: Iowa, 1,526; Illinois, 1,187; Canada, 770; Kansas, 754; Missouri, 618; Ohio, 528; South Dakota, 513.

The Secretary also reported that Volume XIX of the Percheron Stud Book of America containing pedigrees from 122,001 to 134,000 had been issued during the past year, and that the next Volume, containing pedigrees from 134,001 to 146,000, was nearly ready for completion by the printers.

In the election of directors, William Danforth, of Minnesota, W. S. Corsa, of Illinois, and Ed. Nicodemus were elected to succeed themselves, and Otho H. Pollock, of Ohio, was elected to succeed Lewis Slack, of Ohio. At the conclusion of the annual meeting of the stockholders the annual meeting of the Board of Directors was held in room immediately adjoining. President E. B. White, who has served the Society during the bitter years of protracted litigation, was re-elected to succeed himself, U. L. Burdick, of North Dakota, was elected Vice-President, C. N. Stanton, of Chicago, Treasurer, and Wayne Dinsmore, Secretary, re-elected for a term of three years. W. S. Corsa was elected as a representative from the Percheron Society to the National Society of Record Associations.

LIVE STOCK.

Swat the inferior pure-bred bull as well as the inferior grade or cross-bred.

Remember that sheep require water regularly just the same as other stock.

Do not make the feed as sloppy for the hogs in winter as you would in warm weather.

The Ottawa Winter Fair will be held January 14 to 17. Make your entries of live stock early.

The frequent use of curry comb and brush increases the thriftiness and, incidentally, improves the appearance of the cattle.

It is time for us to realize that a business cannot live on a reputation alone. It must produce the goods that will maintain a reputation.

A determination to improve the stock on the farm and to have it in prime condition when marketed should be included in every Stockman's New Year resolutions.

If Canada is to maintain a large export trade it will be necessary for every stockman to maintain the maximum number of animals on his farm, and to finish his stock before marketing it.

Once a hog gets to the 150-pound mark it does not take long to increase his weight to 200 pounds, or the weight desired by the market. There is little likelihood of the price dropping for some time. It will pay to finish the hogs.

Judicious advertising through the proper medium has built up many a business. Through the press the public is made aware of the business in which you are engaged. If you do not advertise, the world has no evidence that you have any pedigree stock worth looking at.

It is reported that the quality of Canadian meat products exported is not on a par with that of other countries. We are in too big a hurry to cash in. Our competitors take time to make their bullocks and hogs prime, and as a result are gaining an enviable place in the world's markets.

During the week of the International, at Chicago, consignments of the various breeds were sold by public auction at remarkably high prices. In Shorthorns, 29 females and 14 bulls made an average of \$2,307. Fifty Herefords averaged \$1,566; 34 Angus averaged \$986, and 43 Polled Durhams made an average of \$506.

Corn produces a greater weight of feed to the acre than most other farm crops. The silo is the place to store it so that it is ready for use at any time, and gives feed analogous to June pasture conditions for the stock during mid-winter. If you want to handle more income, plan on one or more silos full of corn next year. It will help out if hay or straw is short. Good seed is essential to a good corn crop. Procure a supply early.

Did you notice the care taken by herdsmen at the Winter Fair in preparing the rations for the animals on exhibition? Good quality feed was used and it was made as palatable and appetizing as possible. A little more might advisedly be done on the average farm in the way of catering to the animals' wants. An animal must relish its feed if it is to make maximum gains. Mixing of dry roughages with pulped roots, or silage, and sprinkling on a little salt, is a good practice. It takes more time, but it pays.

The Argentine is a great meat-producing country. It is placing a high grade product on the British market, which is meeting with favor. Quality as well as quantity is their watchword. It is significant that some of the highest priced bulls of England and America have been

and are being purchased for that Southern country. If these bulls are worth the price for building up the herds of that country, they should be worth as much to Canadian breeders. It is a good policy to keep the best bulls at home and to maintain them in service as long as possible.

One man may only keep what stock he can feed with the crops grown on the place, while his neighbor on the same sized farm, of practically equal fertility, keeps nearly double the number of animals, and purchases concentrates to supplement the home-grown feeds. The former claims that he cannot afford to buy feed, while the latter cannot afford not to do so, as his animals give him good returns for the money invested in extra feed. Why the difference of opinion, and the difference in the number of animals kept per 100 acres of land? Is it in the quality of stock kept, or the business ability of the farmer? In your opinion, how many head of the various classes of stock is it profitable to keep on the average 100-acre farm?

Ontario Hereford Breeders Have a Good Sale.

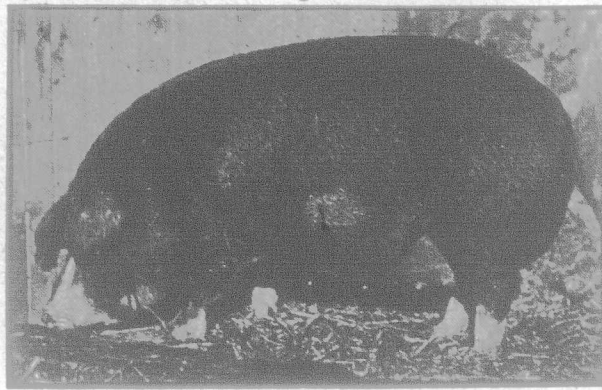
At Guelph, Ontario, on December 13, the day following the close of the Provincial Winter Fair, the Ontario Hereford Breeders' Association held one of the most successful pure-bred stock sales of the year. Like other events held recently, however, the attendance was not large owing to the prevalence of influenza, which prevented the Secretary and Manager of the sale, Jas. Page, of Wallacetown, from being present at the ring-side and also prevented the American Hereford auctioneers, who were to have wielded the hammer, from being in attendance. Despite the many handicaps, the 53 head of Herefords passed through the sale at the splendid average of \$306.14. Of this number, 14 were heifers under two years of age, many being calves of the calendar year, and these made an average of \$258.89. The 9 two-year-old heifers sold at an average of \$303.90, and the 13 cows three-year-old and upward made an average of \$390. The 17 bulls averaged \$282 apiece. The top price of the day, \$860, was paid by L. O. Clifford, of Oshawa, for the three-year-old American-bred cow, Lorna Fairfax, from the Page consignment. She is one of the best cows seen on the Canadian show circuit this year, and at the price was probably one of the best buys in the sale. Teddy Fairfax, a nine-months-old calf consigned by John Black & Son, of Amaranth Station, was the highest priced bull. He is a thick sappy youngster of ideal Hereford type, and went at the bid of \$550 to the Ontario Agricultural College. Miss Brae Real 22nd, a ten-months heifer, consigned by Jas. Page and donated to the Belgian Relief Fund, brought \$230. Among the consignors to the sale were: H. T. Purdue, Wingham; L. O. Clifford, Oshawa; J. Hooper & Son, St. Marys; A. F. O'Neil & Sons, Denfield; J. E. Harris, Kingsville; J. Pickett, Freeman; Fred Martin, Guelph; W. H. & J. S. Hunter, Orangeville; A. J. Moffatt, Watford; R. J. Leach, Watford; D. Granger, Creemore; McNeil & McNeil, Dutton; W. Readhead, Milton; Mitchell Bros., Norham; Jas. Page, Wallacetown. Following is a list of the animals, together with the name and address of the purchaser:

Males.	
Beau Gaston 52nd, Hunter Bros., Orangeville.....	\$300
Brae Real 12th, Jas. Lowe, Ariss.....	195
Brae Real 14th, W. W. Hallman, Clifford.....	230
Brae Real 13th, McNeil & McNeil, Wallacetown.....	460
Bonnie Donald, W. H. Readhead, Milton.....	330
Challenger, W. T. Martin, Hillsburg.....	150
Teddy Fairfax, J. D. Lowery, Sarnia.....	500
Conny Boy, Chas. Newel, Campbellville.....	190
Cruiser 3rd, A. F. O'Neil, Denfield.....	200
Cruiser 2nd, R. J. Weatherup, Norham.....	250
Captain Refiner, Stanley Loutitt, Belwood.....	175
Montey, Alex. Smith, Hespeler.....	200
Brae Princeps, W. Hales, Dutton.....	200
Eleven-months Bull, D. Caswell, Newtonbrook.....	255
Donald Perfection, M. Chappell, Port Elgin.....	200
Teddy Fairfax, Ontario Agricultural College.....	550
Wilson Fairfax, Robt. Leach, Watford.....	410
Females.	
Peggy, D. Warden, Grand Valley.....	700
Daisy 4th, W. May, Orangeville.....	275
Maple Lass, D. Warden.....	400
Little Beauty, R. J. Weatherup.....	285
Miss Beau, W. Mitchell, Norham.....	300
Floss, Jno. Giles, Clifford.....	295
Ruby, L. O. Clifford, Oshawa.....	200
Lady Donald, E. Brahy, Brampton.....	150
Nettie Albany, Robt. Harwood, Rockwood.....	180
Blue Sim, L. G. McCrae, Guelph.....	300
Jenny Lee, Wm. Mitchell.....	325
Miss Brae Fairfax, A. J. Moffatt, Watford.....	260
Louisa, C. Lyons, Dutton.....	295
Miss Brae Real 22nd, Wm. Mitchell.....	230
Miss Brae Real 20th, W. H. Readhead.....	300
Miss Brae Real 17th, W. Bell, Staples.....	320
Lorna Fairfax, L. O. Clifford.....	860
Blanche Fairfax, A. L. Currah, Bright.....	435
Blossom 4th, J. W. Newman, Casselman.....	250
Belle 10th, E. T. Howse, Ariss.....	290
Creemore Lucy, Geo. Gastle, Milton.....	390
Sweetheart, E. Readhead, Milton.....	450
Belle, W. M. Thurston, Dunsford.....	305
Sweetheart 2nd, Wm. Mitchell.....	250
Beauty Lass, Jas. Hill, Fergus.....	160
Princess 5th, W. H. Readhead.....	300
Dowager 19th, A. F. O'Neil.....	280
Bellflower, D. Caswell.....	200

Roseleaf of Brookdale 22nd, W. M. Thurston.....	260
Joan, Wm. Mitchell.....	375
Maid Marion 2nd, E. Readhead.....	310
Rocklyn Beauty, J. H. Hillyard, Cataract.....	220
Rocklyn Pet & Calf, Wm. Mitchell.....	350
Mildred, D. Caswell.....	250
Lady Ellen, Hunter Bros.....	255
Nettie Donald, Wm. Hammel, Singhampton.....	425

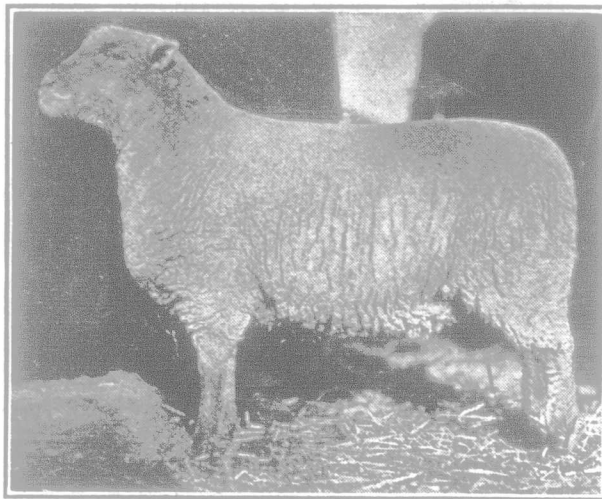
The Poland-China Breed of Swine.

The Poland-China pig is of American origin. His home is in Southwestern Ohio, a district noted for its luxuriant crops. The origin is not clearly known; there are differences of opinion as to the blood used in the formation of this fat type of hog. In the early days hogs known as Big Chinas, Irish Grazier, Berkshire and Russian were kept in the State. Consequently it may be possible that the blood of each of these is incorporated in the Poland-China, a breed which while not common in Canada is gradually being introduced. The



Champion Poland-China Sow
Champion Sow of the breed at Guelph for C. Stobbs, Leamington, Ont.

Russian pig is described in "Types and Breeds of Farm Animals," by Plumb, as being white with coarse hair and a long, coarse head, but carrying great length and height. The Big China breed of pigs was also white and they were of medium size, of fine form, small head, short legs, and were splendid feeders. The Big China, crossed with the Russian, produced superior feeders. The Berkshire breed met with a good deal of favor at that time, and the breed was principally crossed on the breeds above mentioned, giving symmetry, activity, quality and black color to the offspring. The Irish Grazier was described as being white with a long body, but strong back, and producing fine hams. It was in the early sixties when the name "Poland-China" began to be given to the progeny of the Berkshire-China-Irish-Russian cross. The name "Poland" is believed to have been used to designate the progeny of a particular animal that had been obtained from a man who was a Polanders by birth. It was in 1872 that the name Poland-China was decided on by the National Swine Breeders' Convention in session that year. The solid black color, with white feet, tail and face, meets with favor in present-day show-rings. The breed is classed among the middle-weight breeds, al-



Champion Wether
Yearling Southdown Wether that won championship, at Guelph for Peter Arkell & Son, Teeswater.

though formerly large weights were obtained. Breeders, however, have selected for a more refined type to meet the demand of the present-day market. Breeders of Poland-Chinas claim that they have little difficulty in bringing the pigs to 200 pounds in six months.

Originating in the Corn Belt, it is natural that this breed would be at its best in those sections where corn is the main crop. However, the breed adapts itself to a variety of conditions. It is noted for its early maturing qualities. It is well suited to grazing, and makes very satisfactory gains on clover or blue-grass pasture. In the Western States it is customary to pasture the pigs during the summer and finish them off when the grain is mature. This breed puts on flesh very rapidly when put in the pen. To-day it is one of the most popular breeds in the United States, but as yet it is kept in the background in Canada by the bacon

breeds. This does not indicate, however, that they are unsuited for Canadian conditions. In the Corn Belt of Ontario are to be found several herds which have produced foundation stock for herds in various parts of the province. We understand that this breed produces somewhat more external fat than do some of other fat classes of hogs. For certain trades, no doubt this is a good factor, but where the market demands a rather lean type of bacon some of the other breeds have gained the ascendancy. The Poland-China is used considerably for crossing with other breeds to produce the commercial hog. The progeny mature early and fatten easily. Some have criticized the fecundity and prolificacy of the breed. There may have been foundation for this criticism at one time, but by selection and judicious mating this has to a large extent been overcome. It is true with all breeds of the fat type that they do not as a rule have such large litters as the more rangy type. Exceptionally high prices have been paid for breeding stock and organizations have been formed to promote the interests of the breed.

At our larger shows the Canadian breeders usually bring out a good exhibit and give the public an opportunity of comparing the type and conformation of this breed with that of the better known breeds in the country.

The characteristics of the Poland-China breed, as given by Plumb, in "Types and Breeds of Farm Animals," are as follows: "The head is of medium length and breadth in good specimens, with a rather full jowl below. The face is classed as straight, the nose and space from below the eyes to nostrils being free of dishing. The cheeks tend to be rounding and full and frequently are somewhat seamed. The ears should be fine and break over at the top third into a neat droop; thick, heavily attached ears are objectionable. The neck of the Poland-China tends to be short and thick, the shoulders a bit prominent but well covered, the back strongly supported with a gradual yet moderate arch the entire length, the loins and ribs being thickly covered, wide, and strikingly arched in well-fattened specimens. The sides have but a moderate length, with an excellent depth. The rump is of medium length but is frequently somewhat low, so that the entire upper line of the pig from ear to tail has a more curved outline than some other breeds. The hind quarter is characterized by great thickness of flesh, the hams being thick for the entire length from top to bottom, with a full, deep twist between. The legs are shorter with this breed than with some others, but too refined a bone and not the strongest of pasterns are common. When heavily fed and made to carry much weight for the age, the feet are frequently poorly supported at the toes. Taking the entire form into consideration, no breed shows such compactness and great meat-producing capacity on such short legs as does the Poland-China. Its most characteristic features to the onlooker are the color, straight nose, droopy ear, very broad and curved back, superior hams, and short legs."

Judging Competitions at the Guelph Winter Fair.

More than the usual amount of interest was aroused this year by the Inter-County Judging Competition and the competition for individuals open to students of the O. A. C. and farmer's sons. In the former there were 21 teams of 3 men each as compared with 20 last year and in the latter there were 156 entries made by 95 individuals. York county representatives under the able training of J. C. Steckley, Agricultural Representative, were not so fortunate this year as in the two years past and were forced to give way to a team from Durham county. The possible score was 3,000 points, made up from 200 points in each of five classes, heavy horses, beef cattle, dairy cattle, sheep and swine, and there were 3 men in each team. The awards and scores were as follows, with the names of each team member for the first 3 winners, as well as their Agricultural Representative: 1, Durham, (2,139), W. Eber Snowden, Bowmanville; Reginald Fallis, Millbrook; Roy Ferguson, Blackstock; G. A. Williams, Agricultural Representative, Port Hope. 2, York (2,095): Oscar Cox, Todmorden; H. Collard, Unionville; Raymond Morton, Keswick; J. C. Steckley, Agricultural Representative, Newmarket. 3, Oxford (2,087): Jerden Palmer, Norwich; Joe Snyder, Norwich; Clement Hilliker, Norwich; G. R. Green, Agricultural Representative, Woodstock. 4, Essex (2,009); 5, Middlesex, (1,991); 6, Norfolk, (1,973); 7, Victoria, (1,966); 8, Peel, (1,963); 9, Grey, (1,890); 10, Halton, (1,887); 11, Bruce, (1,795); 12, Waterloo, (1,764); 13, Wentworth, (1,708); 14, Kent, (1,701); 15, Lambton, (1,589); 16, Dufferin, (1,556); 17, Lincoln, (1,553); 18, Welland, (1,491).

The first six men in each of the five classes of stock are given herewith, with the number of points secured in brackets. Heavy horses: 1, Oscar Cox, York, (187); 2, Raymond Morton, York, (182); 3, Orrin Batty, Grey, (180); 4, Harvey Collard, York, (178); 5, Roy Ferguson, Durham, (177); 6, Harley Wilson, Wentworth, (176). Beef cattle: 1, Gladstone Shaw, Peel, (177); 2, Jerdon Palmer, Oxford, (174); 3, Archie Tolmie, Victoria, (158); 4, Harvey Wilson, Wentworth, (154); 5, Carl Higgins, Essex, (149); 6, Clement Hilliker, Oxford, (146). Dairy cattle: 1, Oscar Cox, York, (180); 2, Raymond Morton, York, (179); 3, Reginald Fallis, Durham, (166); 4, Harvey Collard, York, (163); 5, Willard Butler, Norfolk, (158); 6, Clifford Jones, Middlesex, (156). Sheep: 1, W. Eber Snowden, Durham, (180); 2, Edgar Currie, Victoria, (177); 3, Reginald Fallis, Durham, (144); 4, Joe Snyder, Oxford, (138); 5, Emerson Warden, Lambton, (136); 6, Homer Scott, Kent, (135). Swine: 1, Gladstone Shaw, Peel, (184); 2, Geo. Duncan,

Peel, (183); 3, Willard Butler, Norfolk, (176); 4, Geo. Pack, Middlesex, (175); 5, T. B. Barrett, Norfolk, (172); 6, Jerden Palmer, Oxford, (170).

Coupled with the competition for individuals was an inter-year competition for the students of the Ontario Agricultural College, the successful class team securing the Day trophy. Each team was to consist of 5 men selected in advance by the class. The senior, or fourth year, won with 4,292 points, followed by the second year with 4,032 points. The third year were third and the

freshmen fourth, neither having a full team. All told, there were 27 entries in horses, 31 in beef cattle, 31 in dairy cattle, 27 in sheep, 21 in swine and 19 in poultry, in the individual competition. The first five men in each of the five classes of stock and their scores are given below. Heavy horses: 1, J. D. Dyer, (155); 2, F. Webster (153); 3, V. Stuart, (141); 4, A. W. Mead, (140); 5, L. E. Dymont, (137). Beef cattle: 1, F. M. Snyder, (170); 2, V. Stuart, (161); 3, L. S. Chapman, (160); 4, J. R. Higgins, (141); 5, G. Grant, (139). Dairy cattle:

1, E. Stillwell, (159); 2, W. A. Fleming, (158); 3, L. A. Dymont, (156); 4, J. B. Hanmer, (153); 5, W. B. Blakely, (152). Sheep: 1, D. F. Aylesworth, (191); 2, C. Tice, (188); 3, M. F. Cook, (175); 4, J. M. Shales, (145); 5, W. C. Hopper, (136). Swine: 1, W. R. Gunn, (185); 2, J. R. Higgins, (179); 3, C. Flatt, (170); 4, S. King, (166); 5, P. L. Sanford, (165). Poultry: 1, G. S. Snyder, (250); 2, C. F. Luckham, (249); 3, T. Hall, (245); 4, R. Frith, (233); 5, C. C. Eidt, (232).

Range Breeding Problems and Programmes.

By Jas. McCaig.

THE other day I saw an account of a prize being given to somebody for giving the greatest number of reasons why sheep should be kept on the farm. In fact, most of the literature you read in agricultural sheep magazines and periodicals is made up of ingenious persuasion of the farmer to get a flock of sheep, by which it appears that people are convinced that the sheep business is in need of revival.

The general evolution of the sheep business seems to be something like this. Sheep were, to a reasonable extent, part of most farming enterprises in the East in the early days of development of both Canada and the United States. When the short grass areas of the Western prairies opened up, then the great volume of the sheep interest of the country became a range interest; at least, the volume of it became sufficient to furnish a competitive element in mutton and wool production which the Eastern producer could not very well meet. The total investment of the Western rancher was in productive stock, with nothing invested in land and next to nothing invested in equipment. This condition, however, of free lands has been steadily subject to reduction through settlement. The total national production of wealth from land has, no doubt, been vastly increased, but it has been changed from beef and mutton and bronchos to grain. People cannot get along without horse stock and some cattle stock, and it is the sheep industry as a whole that has suffered shrinkage. Investigation in Eastern States show that even in the states where sheep are most numerous, that is, in Maine, New Hampshire and Vermont, only one farmer in five keeps sheep, while over the whole of the Eastern States only one farmer in fifty keeps sheep.

Eastern farmers have been devoting their land to other uses than sheep grazing. They have been engaged in truck farming, dairying, pig-raising and poultry, and generally in work requiring more or less intensive application of labor and that gives large per acre returns. It is thought that sheep will not yield suitable returns from expensive land, though Great Britain has decidedly proved the contrary, and people who are promoting general farm economy of a conserving type are facing the task of trying to get sheep back on Eastern farms and likewise getting them on to the farms of the settlers who have blackened the range. Judging by the appeals that are made to the farmers to get some sheep, it seems to be some job.

Cost of Production on Range Going Up.

Where the range does persist the cost of raising wool and mutton has vastly increased. The top of grazing on range land seems to be difficult to conserve, and when the range feed becomes short it is necessary to supplement the grazing by large quantities of purchased concentrated feed, or modify the management by converting part of the land to cultivation and raise a larger volume or bulk of feed by the application of labor to the land. The result, in either case, is that the cost of producing wool and mutton has been very greatly increased, and, of course, the cost and price of producing breeding animals has been greatly augmented. Even without the war, sheep prices would have been subject to progressive increase due to the higher cost of production, and we have not yet got to a point, as far as the small average farmer is concerned at least, of regarding the little sheep flock strictly on its commercial merits. It is the main sources of revenue such as grain, beef and butter which are given adequate business scrutiny. Most people, so far as they give the matter any attention at all, generally say that sheep are profitable, but the investment of both money and care in the sheep as part of the farm enterprise is proportionately so small that the interest is not systematically taken account of.

Difficulties of the Ranchman.

Instead of trying to fulfil the very necessary task of bringing sinners to repentance, we might perhaps give some attention to the ones that have already been brought into the fold, and try to give them a little help towards orderly improvement. There is no doubt but that the range business is still the larger part of sheep interest in Alberta, and is still more or less important in Saskatchewan. It is likewise the case that the range business is in the same condition of flux and uncertainty on the breeding side as it has always been. A farmer has practically no problem on the breeding side at all. He is bound to select a mutton breed of sheep because in normal times his returns are almost wholly from mutton, and with his considerable capitalization in land, he wants the quick turnovers which can be secured from rapidly-maturing stock; for example, the ninety-pound lamb produced on milk and grass and without any hand feeding. The English mutton sheep in practically all of the most common breeds up to the number of eight or ten, have all been brought to a state of improvement by selection that leaves little to be desired. If a man wishes to raise pure-bred sheep he buys as good ewes as he can afford and the best rams

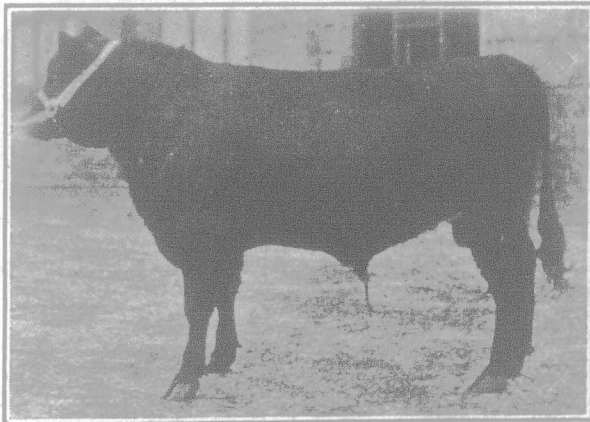


Hereford Character

he can find (because he cannot afford to buy anything else) and keeps on steadily at the business and gives the degree of care necessary to produce well-developed individuals of the breeds. If he goes into grade sheep he does practically the same thing, namely, chooses the breed which he likes best and grades it up to as near perfection as possible through the use of the best sires procurable, and he should not change back and forward from one breed to another, as many, however, do.

Inherent Qualities of the Merino.

With the range man it is different. We have a range breed of sheep just as distinctly and perfectly developed for range conditions as the English sheep is for farm condition. Unfortunately for the Merino, however, his products and services are too restricted for modern needs. The capacity for achievement of people in the temperate climate is held up on a meat diet. These seem to be the elements in the race that are qualified to service. While wool has no adequate substitute, the matter of fineness does not figure as a standard, because the gauge is a gauge of common or general utility. The capacity for meat production, however, is important, both as to quantity and quality. Mutton is not a strong or concentrated type of meat like pork, but is wholesome and easily digested and furnishes variety to diet which is a feature of modern food demand. Consequently, we are not content to let the sheep



Middlebrook Prince 11th.

Champion Angus Bull at Guelph for J. Lowe, Elora, Ont.

specialize on the side of either quantity or quality in wool. In other words, the Merino is up against the problem of adjustment to existing demand. The chief resource it brings is the herding habit. We have no flocks that can be run in such numbers as the Merino. Consequently, so long as we are running range sheep, we must make use of the herding habit of this breed of sheep.

It is not to be said, however, that the contribution of herding qualities is the only thing which the Merino gives us. The heavy shearing qualities and fineness together are resources that can be made good use of in combination with the coarser elements of the mutton breeds, and it is this kind of compromise or combination

of elements that seems to stand for the characteristic solution of the Merino problem of adjustment, and generally of the breeding side of range sheep management.

Continuous Grading Up by Mutton Rams Impracticable.

Range men in Canada have got into possession of a wholly good bank roll without having yet developed any consistency, certainty or systematic practice in breeding whatever. Some years ago they fell for the general popularity of the Shropshire, and Shropshire rams were used in large numbers for crossing with range ewes. Any first cross seems to be good, but crossing of Shropshires, which some perhaps expected to lead to the development of range breeds with good mutton qualities and good fleece protection and perhaps reasonable herding qualities, were disappointed by light bone, light bodies, light fleeces and general loss of constitution, that is, where actual range conditions were followed. If the long wools were used, equally good or better cross-breeds were secured the first time, and no worse the second time, but it is no doubt true that it is impossible to follow any continuous grading-up system towards mutton standard on Merino ewes under open range management.

What is commonly done is to swing backward and forward between mutton rams and fine wool rams. A mutton ram is commonly used for a couple of years and then a switch is made to Rambouillet rams for a couple of years, without particular care in the classification of stock on the ewe side. The only guide is that mutton sheep are used for a while, and that the openness of the fleece is corrected by the use of fine wools again when it appears in a general way that that is desirable.

Crossing and Selection Together.

The systematic breeding of cross-bred sheep has reached a better stage in other range countries than it has in ours. Its advantages are made full use of, and its limitations are recognized. While it is being practiced it is accompanied by selection likewise, in order to preserve relative uniformity in the ewe flock at each stage. For example, a range man starts with a bunch of Merino ewes and a long-wooled ram—Cotswold, Lincoln, Leicester or Romney Marsh. What he gets from this cross are what are called half-breeds, that is, half-bred long wools, as the transformation is ascribed to the ram. This first cross comes more regular in type than the three-quarter-breeds secured by the use of a long-wooled ram on the half-breeds. Judicious selection, however, will probably result in cutting out about 10 per cent. of the half-breeds which fail to show the general characteristics and qualities of the cross. The remaining 90 per cent., being bred to a long-wooled ram again, gives us what is called three-quarter-breeds. Strange to say, these show less uniformity than the half-breeds, and it would probably be necessary to cut out fifteen or twenty per cent. of these, which are off type either towards one side or the other, and somewhat nondescript. It is found to be unsafe to continue what might be called a grading-up process with the long-wooled rams further, and the three-quarter-breeds that are bred back to a Merino ram. This crop is called the Comeback, and it shows still greater tendency to variation, and about 25 per cent. of these have to be cut away to conserve the uniformity of the breeding flock. These Comebacks are then bred to a Merino again. This gives two infusions of each kind of blood to the Merino foundation. The tendency to break up and vary is still greater in these than in any of the previous crosses.

Does Not Develop a Breed.

As said before, the rancher is not particular about different methods of breeding as between half-breeds and three-quarters, and does not recognize the point of limitation that he has reached at the end of the fourth cross anyway. Breeders who follow this regular method of crossing and selection usually consider it profitable and desirable not to use long-wooled rams again; for example, because the regularity of the cross-breeds breaks up badly and disappears on its fifth cross, and they use these sheep to breed with black-faced rams such as Oxford, Hampshire, Shropshire, and then market the whole bunch of ewes and lambs together. This method has some semblance to a system, and has already been demonstrated as satisfactory practice, though it can only be called cross-breeding even if it is systematic and entails the practice of always beginning with pure Merinos and pure long-wools, and exercising such details of breeding as are indicated by the various crosses spoken of.

A Range Breed.

The next matter to be considered is that of the development and use of a type of sheep for the range which has a good combination of size and mutton on one hand, and herding qualities and good wool production along with these. This has virtually been attained in

the production of the Corriedale sheep. This is a different thing from the practice of systematic cross-breeding on the range which has been discussed so far. The Corriedale breed originated in New Zealand by crossing of Leicester and Lincoln rams on Merino ewes. The name is derived from the name of an estate at which this work was carried on in New Zealand. The first breeding began about 1868, and the credit of developing the breed belongs to a shepherd by the name of James Little, who about ten years later was found in possession of a flock which he was breeding and developing on his own account. The Merino sheep produces a good fleece, but poor mutton and little of it. However, it can stand hard conditions of the range successfully. The aim of his work was to secure a half-bred type of sheep of a good all-around sort, that is, which was hardy and would produce both good wool and mutton. The method of producing this half-bred sheep is simple enough. The Corriedale is simply an in-bred cross-bred, but when we say it was simple, we fail to take account of the touch of genius involved in the work of selection of the breeding animal that it was thought desirable to perpetuate. The breed is now considered fixed and is recognized as a pure breed in the herd book of the New Zealand Sheep Breeders' Association. The fleece is comparatively long and dense at the same time. The sheep is a hardy, fairly strong-boned sheep of good size, and the lambs in New Zealand run from one hundred to one hundred and thirty or forty pounds at six months, and the wethers grow to such size as makes them almost undesirable if they are kept till after they are a year old.

The Harvey Enterprise.

There may be those who place a doubtful value on a sheep of cross-bred origin, but this is obviously wrong. Many of our best and most profitable English breeds, in fact all of them of the breeds represented in Canada except the Southdown and Leicester, are the result of the judicious use of other breeds to greater or less extent to bring about qualities desired by the constructive breeder. The Leicester has helped most of the long-wooled breeds and probably also the Shropshire. The Southdown has affected most of the medium-wooled breeds. The Oxford, which is one of the most popular of the medium-wools to-day, is the result of a fifty-fifty combination of Hampshire and Cotswold eighty or ninety years ago. With regard to the use of cross-bred rams itself, the question cannot be dismissed summarily as undesirable. In the Old Country the practice of crossing such sheep as the Border-Leicester and Wensleydales on black-faced ewes is very common. The Oxford is used on these crosses and, in some cases, the half-bred ewes and half-bred rams which are bred on identical lines are interbred systematically for the production of mutton.

THE FARM.

Crain and Seeds at the Guelph Winter Fair.

A marked increase in grain and seed entries was evident this year as compared with 1917. All told there were three hundred and ninety-four entries in the open classes this year, and ninety entries in the Field Crop Competition. Some of the classes were not very well filled and, as is usually the case, entries of clover and some of the other small seeds were comparatively light. On the whole, however, these classes were somewhat heavier than usual. The championship in oats was won by H. L. Goltz, of Bardville, who won with O. A. C. No. 72. Mr. Goltz also won the potato championship with Gold Coin, and the field pea championship with two bushels of Canadian Beauty. The spring wheat championship was taken by R. S. Frisby & Son, of Unionville, with a sample of Goose wheat, while P. J. McEwen, of Wyoming, captured the fall wheat championship with Dawson's Golden Chaff. R. J. Wilson, of Charing Cross, secured championship honors

in barley with a sample of O. A. C. No. 21, while J. M. Allan, Canboro, took the championship in alfalfa. Corn championships were divided between B. R. Cohoe, South Woodslee, and A. S. Maynard, Chatham. The former secured honors in dent corn with a sample of Golden Glow, while the latter showed Salzer's North Dakota. The auction sale of prize grain was held on Wednesday, and occupied nearly the whole day. Prices were reasonably good, although the championship entry of O. A. C. No. 72 oats brought only \$5.50 as compared with \$13.00 in 1917, and \$11.00 in 1916. Last year the second-prize oats brought \$9.25, while this year the sale price was \$3.50. Last year the fifth prize brought \$5; this year it brought \$4.25. Flint corn sold as high as \$9.25 per bushel; dent corn up to \$7.50; spring wheat up to \$8.50 per bag, and fall wheat up to \$6.25. Clover went at \$29; alsike at \$19 and \$20, and alfalfa at \$19 to \$40. A list of the exhibitors and awards follow.

Exhibitors.—S. W. Bingham & Sons, Hillsburg; Geo. Irwin, Simcoe; Frank Farrow, Mt. Brydges; Cable Bros., Forest; F. G. Hutton, Welland; G. A. Burns, Paris; T. A. Goodfellow, Teeswater; Andrew Schmidt, Mildmay; W. C. Barrie, Galt; R. G. Dawson, Niagara-on-the-Lake; Jacob Lerch, Preston; P. J. McEwen, Wyoming; A. Elcoat, Seaforth; W. Winer & Sons, Guelph; Darcy E. Bondy, Arner; Jas. McLean, Richmond Hill; Knox Bros., Wroxeter; Richard Wilkin, Palmerston; Wm. Naismith, Falkenburg; Thos. Cox, Rockwood; Albert J. Pearce, Norwich; Geo. E. Foster, Honeywood; Norman Dryden, Galt; A. R. Wood, Fergus; C. W. Gerow, Guelph; H. A. Cormack, Arthur; John Doyle, Paris; Jas. Bell, Woodbridge; Richard Tupling, Honeywood; W. E. W. Steen, Streetsville; W. L. Dixon, Varney; W. B. Roberts, Sparta; Fletcher Walker, Royston; Peter McKinley, Tecumseh; Jno. McDiarmid, Lucknow; R. R. Moore, Norwich; R. H. Crosby, Markham; R. L. Taylor, Brussels; C. H. Drummond, North Bruce; D. Carmichael Jr., West Lorne; Oscar Klopp, Zurich; Thos. Totten, South Woodslee; E. Tolton, Guelph; F. W. Oke, Alvinston; J. A. King, Wardsville; R. J. Johnston, Chatham; H. L. McConnell & Sons, Pt. Burwell; H. M. Vanderlip, Brantford; Geo. Barrett, Tecumseh; Wm. A. McCutcheon, Glencoe; E. J. Gartley, Puslinch; Jas. Morrison, St. Mary's; F. B. Hutt, Georgetown; Albert Gilbert, Simcoe; Thos. Keepin, Vittoria; E. Brien & Sons, Ridgetown; A. S. Maynard, Chatham; Arch. Maccoll, Rodney; A. W. Van Sickle, Onondaga; F. W. Scott & Sons, Highgate; Wm. Roth, Fisherville; B. G. Palmer, Norwich; Frank Kelly, Aylmer; A. C. Phipps, Caledonia; Chas. Kiel & Sons, Chatham; Edwin E. Murphy, Silver Hill; W. B. Roberts, Sparta; F. A. Smith, Pt. Burwell; L. D. Hankinson, Aylmer; G. W. Atridge, Blenheim; Jos. Walker, Wardsville; E. D. Hilliker, Burgessville; Bert. M. Weiss, Sarnia; Fred. Warwick, Blenheim; A. S. Campbell & Sons, Blenheim; J. R. Stork, St. Catharines; E. J. Mullins, Woodslee; G. W. Coatsworth & Son, Kingsville; T. J. Ouellette, Walkerville; Jno. Wallace, Woodslee; W. C. Anderson, Amherstburg; Robt. W. Knister, Blenheim; Isidore Gouin, Tecumseh; Wm. H. White, Staples; Robt. Morrison, Chatham; Frank Weaver, Turnerville; W. M. Smith, Scotland; C. E. Smith, Scotland; Wm. Murdock, Palmerston; F. W. Wilton, Mt. Brydges; David Hamilton, Varney; Jas. Milloy, Erin; Jas. M. McCormack, Rockton; Jno. Park, Amherstburg; Jno. McKee & Son, Norwich.

Awards.—Fall wheat, white: 1, McEwen, (Dawson's, \$7.05); 2, Burns, (Dawson's, \$5); 3, Erwin, (Plymouth, \$5); 4, Goodfellow, (Sleep and I'll Pay the Rent, \$5); 5, Hutton, (Early Windsor, \$5.25); 6, Farrow, (Dawson's, \$5). Fall wheat, red or amber: 1, Winer & Son, (Imperial Amber, \$6.25); 2, Bondy, (Egyptian Red, \$5); 3, Elcoat, (\$5). Spring wheat, except Goose: 1, Naismith, (Marquis, \$8); 2, Wood, (Marquis, \$8.50); 3, Bell, (Marquis); 4, Barrie, (Marquis, \$7.75). Goose wheat: 1, McLean, (\$6.75); 2, Tupling, (\$6); 3, Steen, (\$5.50). Banner oats: 1, Bingham & Sons, (\$5); 2, Dixon, (\$4); 3, Hutton, (\$6); 4, Dawson, (\$3); 5, Walker, (\$3); 6, Elcoat, (\$2.75); 7, Lerch, (\$2.50); 8, Goodfellow, (\$2.75). Oats, O.A.C., No. 72: 1, Winer & Sons, (\$4.75); 2, Klopp, (\$3.25); 3, Gerow, (\$4); 4, McDiarmid,

(\$2.50); 5, Lerch, (\$3.50); 6, Wilkin, (\$2.50); 7, Totten, (\$2.25); 8, Oke, (\$2.25). Oats, O.A.C. No. 3, Daubeny or Alaska: 1, Tolton, (\$3.75); 2, Elcoat, (\$3.75); 3, Cormack, (\$3.50); 4, Knox Bros., (\$3.75); 5, Moore, (\$3). Oats, A.O.V., white, correctly named: 1, McCutcheon, (\$5); 2, Gartley, (\$2.50); 3, Vanderlip, (\$10.25); 4, Barrett, (\$2.75); 5, Barrie, (\$2). Six-rowed barley: 1, Wilson, (champion, \$6.75); 2, McKinley, (\$5); 3, Bingham & Son, (\$4); 4, Foster, (\$6); 5, Morrison, (\$4.50); 6, Van Sickle; 7, Barrie; 8, McCutcheon; 9, Cormack; 10, Cable Bros. Rye: 1, Lerch, (\$3.50). Buckwheat: 1, Van Sickle, (\$3.75); 2, Lerch, (\$3.25). Large field peas: 1, Wilkin, (\$6.75); 2, McLean, (\$5.50); 3, McCutcheon, (\$6). Small field peas: 1, McTavish, (\$7); 2, Bingham & Son, (\$6.25). Large white field bean: 1, Hutt, (6); 2, McCutcheon, (\$7.75). Small white field bean: 1, Johnston, (\$7); 2, Maynard, (\$5.50); 3, Lerch, (\$4.50); 4, Klopp, (\$5.50); 5, Maccoll, (\$5.50); 6, Barrie. Yellow field beans: 1, Scott & Sons, (champion, \$6). Red clover: 1, Roth, (champion, \$20). Alsike: 1, Roth, (champion, \$20); 2, Kelly, (\$19); 3, Allen, (\$19). Canadian alfalfa: 1, Allen, (champion, \$40); 2, Kelly, (\$35); 3, Phipps, (\$40); 4, Roth, (\$19). Timothy: 1, Goltz, (\$8); 2, Tolton, (\$8). Ten ears Compton's Early Flint: 1, Murphy; 2, McCutcheon; 3, Smith; 4, Kiel & Sons; 5, Roberts; 6, Maccoll. Ten ears Longfellow Flint: 1, Johnston; 2, Maynard; 3, Hankinson; 4, Smith; 5, Gilbert; 6, Keepin. Ten ears Salzer's North Dakota, Flint: 1, Johnston; 2, Maynard; 3, Campbell & Son; 4, Warwick; 5, Dawson; 6, Stork; 7, Atridge. One bushel ears, any above varieties: 1, Johnston; 2, Maynard; 3, Campbell & Son; 4, McCutcheon; 5, Smith; 6, Hankinson; 7, Dawson. Ten ears Bailey, Dent: 1, Ouellette; 2, Anderson; 3, Coatsworth & Son; 4, Woodbridge; 5, Knister; 6, Smith; 7, Kiel & Son. Ten ears Improved Learning Dent: 1, Knister; 2, Kiel & Son; 3, Gouin; 4, Brien & Son. Ten ears White Cap Yellow Dent: 1, Ouellette; 2, Cohoe; 3, Mullins; 4, King; 5, Wallace; 6, Bondy; 7, Rorrison. Ten ears Wisconsin No. 7 Dent: 1, Parks; 2, Weaver; 3, Johnston; 4, Cohoe; 5, McKinley; 6, Knister; 7, Mullins. Ten ears Golden Glow Dent: 1, Cohoe, (champion); 2, Oke; 3, Mullins; 4, Hankinson. One bushel ears, any of above varieties, Dent: 1, Cohoe; 2, Bondy; 3, Ouellette; 4, Parks; 5, McKinley; 6, King; 7, Wilson. Ten ears, any sweet table variety: 1, Totten; 2, Moore; 3, Smith; 4, Hilliker; 5, Hankinson. Ten ears, any sweet canning variety: 1, W. M. Smith; 2, C.E. Smith; 3, F.A. Smith; 4, McKee & Son; 5, Hankinson. Potatoes, round white type, Green Mountain, Deleware or Dooley: 1, Farrow, (Dooley, \$1.75); 2, Burns, (Dooley, \$2); 3, Goltz, (Green Mountain, \$1.50); 4, Wilton, (Dooley, \$1.75); 5, Murdock, (Dooley, \$1.50); 6, Milloy; 7, Murphy; 8, Wood. Potatoes, round, white, A.O.V.: 1, Schmidt, (\$1); 2, Wilton, (\$1.25); 3, Walker, (\$1); 4, Hamilton, (\$1); 5, Doyle, (\$1.25). Potatoes, long white, Empire State: 1, Naismith, (\$1.50). Potatoes, Long White, A.O.V.: 1, Naismith, (\$2). Early potatoes, Irish Cobbler or Extra Early Eureka: 1, McCormack, (\$2); 2, Crosby, (\$2.25); 3, Milloy, (\$2); 4, Doyle, (\$1.75). Early potatoes, A.O.V.: 1, Naismith, (\$2); 2, Bingham & Sons, (\$1.50). Mangel seed: 1, Moore; 2, Burns; 3, Crosby; 4, Bondy. Turnip seed: 1, Moore. Beet seed: 1, Moore; 2, Crosby; 3, Smith. Carrott seed: 1, Crosby; 2, Moore. Onion seed: 1, Moore. Parsnip seed: 1, Moore. Cucumber seed: 1, Moore. Tomato seed: 1, Moore. Bean seed: 1, Lerch; 2, Moore. Pea seed: 1, Moore. Sheaves, autumn wheat: 1, Maccoll. Sheaves, spring wheat: 1, Naismith; 2, Goltz; 3, Maccoll. Sheaves, white oats: 1, Cohoe; 2, Goltz; 3, Naismith; 4, Van Sickle; 5, Walker. Sheaf, six-rowed barley: 1, Naismith; 2, Goltz; 3, Van Sickle; 4, Cohoe; 5, Maccoll. Two bushels cleaned autumn wheat seed from multiplying field: 1, Barrie, (Dawson's, \$5.75). Spring wheat seed as above: 1, Naismith, (Marquis); 2, Barrie, (Marquis, \$6.50). White oat seed as above: 1, Dixon, (Banner); 2, Goltz, (Imperial Scotch, \$2.50); 3, Klopp, (No. 72); 4, Naismith, (No. 72); 5, Wilton, (No. 72, \$2.75). Six-rowed barley, as above: 1, Van Sickle, (\$5.50); 2, Barrie, (\$4.50); 3, Goltz, (\$3.75); 4, Foster; 5, Klopp. Field peas, as above: 1, Goltz, (champion, Canadian Beauty, \$9); 2,



A Field of Oats Which Stooked Up Well.



A Field of Flax Which Returned a Good Revenue.

Friesian like, she has all the milking points of the Jersey. Her performance entitles her to the championship of New Zealand. She is from Netherland Princess by Paul Pieterje. She was never milked more than three times daily. The test began after her fourth calf.

The British Government has cabled an order to the Australian Government for the supply of 22,000,000 lbs. of jam to be delivered in Egypt during the present year and before next June.

Australia.

J. S. DUNNET.

NOTE.—These notes from our Australian Correspondent were written on September 25 and no doubt con-

ditions have changed some what during the letters long voyage to Canada.—EDITOR.

Record Yields in Victoria County.

EDITOR "THE FARMER'S ADVOCATE":

What is believed to be record yields for Ontario in the three crops mentioned below were made in Victoria county this year. The particulars are as follows:

Jas. McClory threshed 242 bushels and 20 lbs. of alsike from 17 acres. Five acres of this threshed 87

bushels, which is a little better than 17 bushels to the acre. The total crop sold for \$3,665. Yields of 12 and 13 bushels have been common.

Wm. M. Graham threshed 196½ bushels Blue Kent peas from 4 acres, which is a little better than 49 bushels to the acre.

On 17 acres T. A. Newman raised 937 bushels Marquis wheat. This is slightly more than 55 bushels per acre.

While the yields quoted are the most outstanding so far reported and verified, phenomenal yields of all crops have been quite common in all parts of the county.

Victoria Co., Ont.

A. A. KNIGHT,

Representative Dept. of Agriculture.

Automobiles, Farm Machinery and Farm Motors.

Prolong the Life of Farm Machinery

Hundreds of thousands of dollars are wasted every year through carelessness in the handling of farm machinery. This constitutes one of the largest leaks on the average farm, but yet is one which could largely be stopped. Implements have gone up in price from seventy-five to one hundred per cent. Consequently, from an economical standpoint better care than ever should now be taken of machinery. The life of some of our most expensive implements runs around seven or eight years, although in some hands it is prolonged to twelve or fifteen years. If one farmer can keep a binder, mower, drill, etc., in good running order for a period of twelve or more years, why cannot most of the farmers do the same? The loss is due very largely to carelessness or thoughtlessness on the part of the operator and owner. If the implements are allowed to be exposed to the elements they very soon deteriorate. Metal and wood quickly rust and rot when exposed to rain and sun. A loose bolt or two soon result in the part which they are holding becoming worn, so that soon it cannot be held in place and repairs are necessary. Failure to use sufficient oil of the right quality causes bearings and castings to become so worn that they cannot perform their work efficiently. Far too little oil is used when the machinery is in operation, and too little time is spent in looking over the machines and tightening the bolts and nuts and making adjustments that are essential to the best work of the machine. Outside of the plow, cultivator and disk, the implements on the average farm are only in use ten or twelve days in the year; very often the 355 idle days result in much greater depreciation than is caused by the days of work. The conservation publicity section of the Canada Food Board in a communication stated "that if we only take the ordinary measure of depreciation on machinery generally it will be found that the result is astounding. Everybody knows that machinery depreciation is

reckoned in industry from as high as fifteen per cent. down to three per cent. annually. In Canada there were 50,000,000 acres in cultivation in 1918. Placing the value of machinery on the farm at \$2 an acre, we have a total value of \$100,000,000. Depreciation at the lowest rate accepted by accountants would represent \$3,000,000 to be written off this every year. Not all this depreciation is preventable, a good deal of it is by the use of oil, a pot of paint and a brush."

If at all possible, the implements should all be stored under shelter. It does not require an elaborate building, but it does need a structure that will keep out the rain and snow. With building material at the present high price, it would cost a considerable sum to erect an implement shed, but a suitable building will result in prolonging the life of the machinery several years. It is not an uncommon sight to see the plows, harrows, binders, cultivators, etc., left standing in the field from one season to the other. The housing of these implements would lengthen their life considerably, thus resulting in a high rate of interest on the initial investment.

It is a good practice to thoroughly clean up the implements and give the metal parts a coating of grease or oil. This will prevent rust from eating into them, and will thus greatly prolong their life. A little paint might advisedly be applied to the wooden parts; not only would it serve as a protection but would greatly improve the appearance. True, these jobs take time, but if by spending a few hours in applying paint and oil to the implements you are able to get even one or two years' more use out of them, it will be time well spent.

When parts of an implement become worn, it has been too frequently the custom to discard the old implement for a new one. With the ever increasing price of farm machinery it might pay well to order a few of the worn parts and do a little reconstructing. Go over the implements and tighten up all the loose bolts and note what castings are worn or broken. Do not

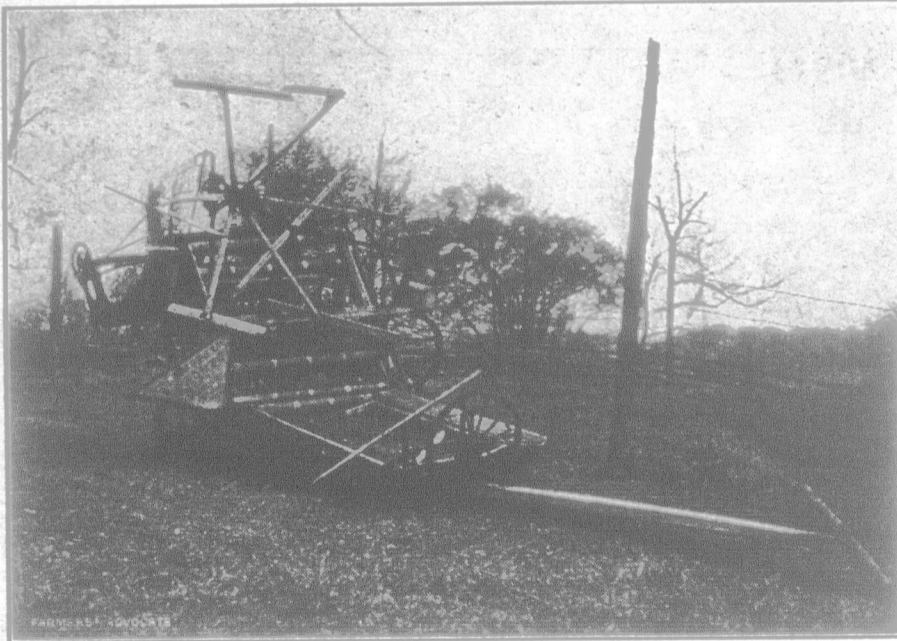
wait till next spring to do this; do it now, and place your order for the needed repairs. By so doing, the implements will be in readiness for use when needed, thus avoiding unnecessary delay in a rush season. It is not necessary that our expensive farm machines should be relegated to the scrap heap after less than two weeks' work for each of seven or eight years. True, some parts may need replacing. For the past two or three years it has not been so easy to get repairs as in pre-war days, consequently the necessity for overhauling the machinery in the fall and ordering what parts are needed. Pay a little more attention to the machinery about the place; shelter it, give it plenty of grease and oil, and do not allow bolts and nuts to loosen and become lost.

Spark Plugs Fill With Carbon

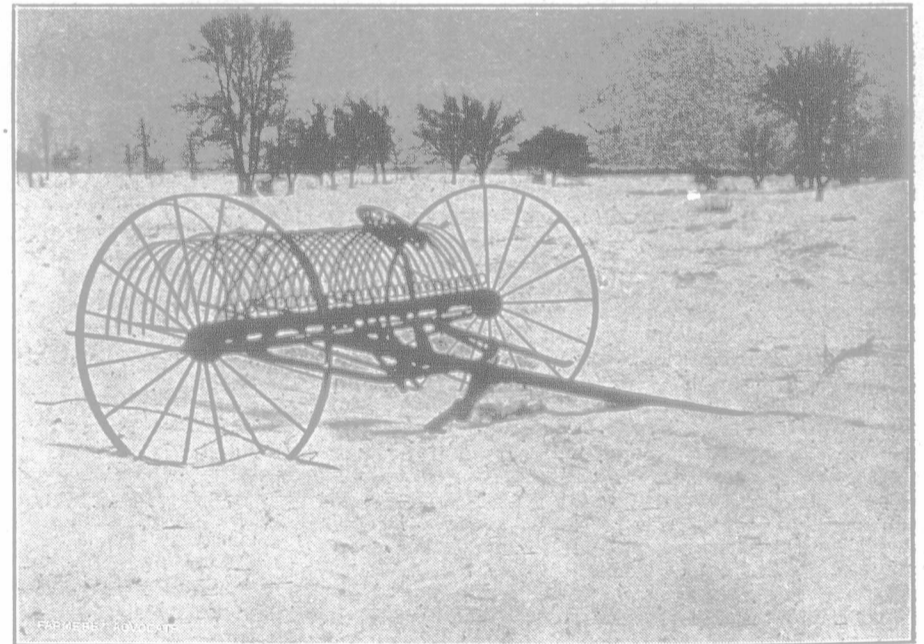
What is the cause of the spark plug of my car getting filled up continually with carbon. It is only the two front ones which bother; they get dirty in a very few miles. I have put in new piston-rings and the ignition seems to be all right. I have had the timer cleaned but it appears to make no difference. Would it be any use to put other piston rings in? The car has only been run about 2,700 miles. The engine misses so badly that I can only get about 12 or 15 miles from a gallon of gasoline. Last summer the car ran all right. What do you think of the Atwater-Kent ignition?

D. W. P.

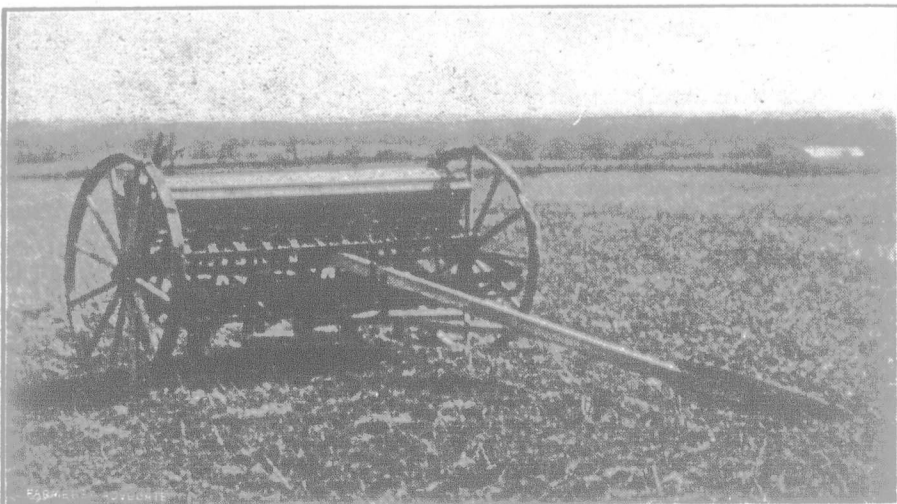
The spark plugs of your car are being carbonized because oil is getting past the pistons. This may be due to poor valve seating or poor ignition or air leaks around the carburetor intake manifold. It is well to remember that after putting in new piston rings a car should be run at least 500 miles in order that the rings may become thoroughly worked in. Perhaps you have not run your car far enough with the new rings to be able to accurately judge their value. If you will



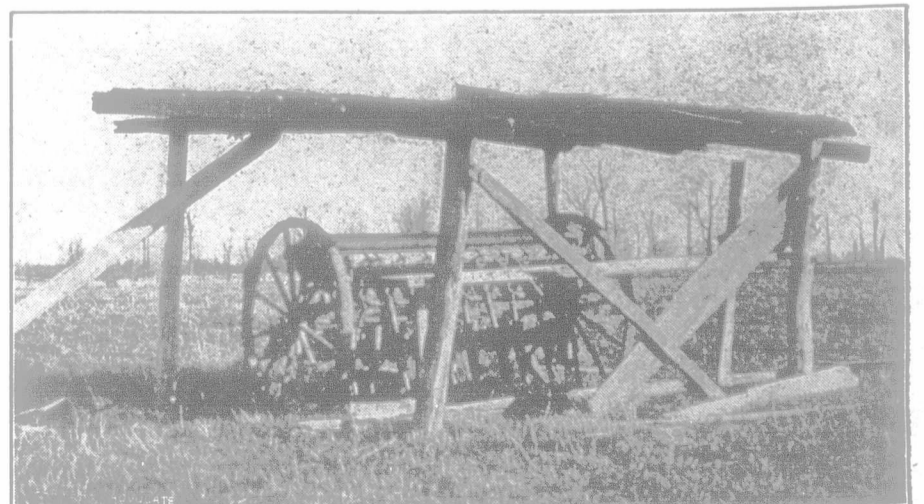
Too expensive an implement to leave thus exposed.



An implement frequently rusts out faster than it wears out.



In the field but not necessarily ready for seeding.



Not suitable protection but better than nothing.

Let us know what piston rings you have put in we can then advise you whether a change is necessary. The Atwater-Kent system of ignition bears a good reputation.

Batteries for Lighting Purposes

- 1. Have many lights will a 1 1/2 H.-P. gasoline engine make running them direct off the dynamo?
2. How many storage batteries would it take to run 6 lights 6 hours?
3. How long would it take the 1 1/2 H.-P. engine to charge these batteries?
4. Would a storage battery connected with a motor and dynamo recharge itself?
5. Will a given current of electricity connected to a motor and dynamo make more than itself? If so how much?
6. Where can I procure some good books on electricity, and motors, and how much are they? C. B.

Ans.—1. It depends on the lamps. If they are 25 watt lamps then with the engine running at full power you could run 45 lamps. At 3/4 load 34 lamps. If 40 watt lamps, then the engine would run only 3/8 of the above number, i. e. 38 at full load and 21 at 3/4 load.

2. Here again the answer depends on the lamps. What voltage are they made for? If they are 6 volt lamps as used on many automobiles then three cells will run the lamps full brightness for a time, the length of which depends on the size of the cells. Each storage cell has a pressure of 2 volts no matter what size it is. But the larger the cell the longer it will run the lamps full brightness. If, however, the lamps are made for 32 volts, which is quite common in small domestic plants, then it will require 16 cells to run one lamp or six or any other number, and the length of time they will last depends as before on the size of the cells and the number of lamps.

3. From 24 to 48 hours depending on how completely they were discharged at starting.

4. and 5. No. You couldn't get as much current out of the dynamo as you put into the motor, consequently the battery would be losing slightly all the time and would finally become completely "run down".

6. Get "Electricity on the Farm" by Anderson, as a starter. It is published by Macmillan & Co., and may be had through any bookseller. Price possibly \$1.25. W. H. D.

Over Loading the Magneto.

I have heard that placing too heavy a load (by connecting extra lights) on to a Ford magneto, will, in time, weaken the magneto. Is this so? Or will the only result be to interfere with the ignition when the engine is running slowly?

The two extra lamps would be connected in series and would each consume about. 43 amp. W. G.

Putting too heavy a load on the Ford magneto has been found by experience to weaken the magnets so that in some cases recharging has been necessary. W. H. D.

THE DAIRY.

The Dairymen's Banquet at the Winter Fair.

The Annual Dairy Banquet, heretofore supplied by the breeder winning the championship in the dairy test, but this year conducted under the auspices of the Holstein-Friesian Association of Canada, was held on Wednesday evening after the conclusion of the dairy test. The occasion was marked as distinct from other similar occasions in past years by the presence of the Minister of Agriculture for Ontario, Hon. G. S. Henry, and the Chairman of the National Live Stock Records Committee and President of the National Live Stock Council, Wm. Smith, of Columbus. The chair was occupied by R. S. Stevenson, on behalf of the Association. The usual procedure of drinking to the future success of the winner, in this case Geo. Smith, Port Perry, was followed, after which speaking was introduced.

Prof. H. H. Dean, O. A. C., was the first speaker, and took occasion to emphasize the necessity for three-fold improvement in dairy cattle, namely, by standardization of size and weight of cows, standardization as to production and standardization as to form and, possibly, color. "We, as dairymen, should standardize our herds even as we should standardize our products," said the professor. "I believe the time has come when we cannot afford to keep cows that produce less than 8,000 to 10,000 pounds of milk in a year, or make less than 400 pounds of butter per year." Wm. Smith, the next speaker, emphasized the reconstruction problems that face us now, and said in substance as follows: "While we are on the eve of peace, new events must take place, and we must face these changes in a manner that will redound to our credit and our future prosperity. I do not think that we need have any fear whatever for Canada and what will happen in the immediate future. Live stock, meats and dairy products of all kinds will be needed in Europe in increasing ratio in the future. Governments can do much to assist in meeting these problems, but anything that is done should be done at once, as changes are coming rapidly. European markets must be examined, and Canadians must be sent there immediately to report back as soon as possible. Money

will be required, but Canadians can amply provide for this.

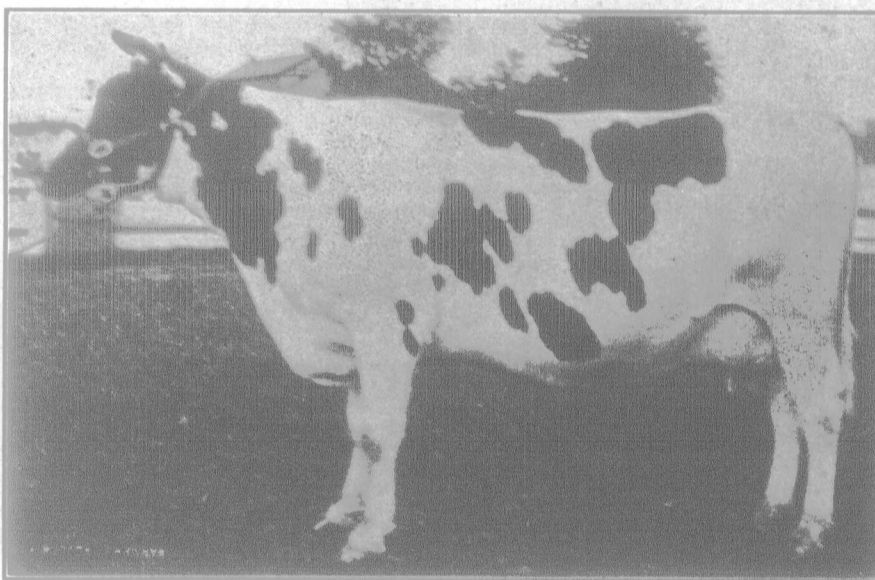
"In connection with the Ontario Provincial Winter Fair, I would like to say that Guelph has done well, and for years past has played her part. I will not say that the show has outgrown Guelph, but other places are making strenuous efforts to secure it, and 1920 may see it held elsewhere. If such is the case, no one place must stand in the way of enabling the show to continue to grow and remain worthy of the live-stock industry."

The Minister of Agriculture may also be quoted in substance as follows: "I know that, in the past, dairymen have not been getting a reasonable reward for their efforts in production. It seems to require a long and tedious process of education to convince the consumer that he must pay for a good article. I think we are making progress, and that we may safely say, also, that once we move back into normal times, this condition will be remedied. I want to congratulate progressive dairymen on their appreciation of the returns from investment in good stock and improved equipment."

"At the Winter Fair, accommodation was adequate some years ago, but our progress has been very great. I feel that it is about time to move forward, and I think this will appeal to the dairymen more than to anyone else. Under present conditions there is little incentive to the dairyman to come out and do the best work in the dairy test. As far as the Governments are concerned with reconstruction, I think I can say that they appreciate the necessity for prompt effort. There is a general consensus of opinion that now is the time to move, and if we move along sane lines it does not matter much what money we spend. All we ask of the stockmen is that they do their best to produce a first-class product." Other speakers were representatives of other breed associations, and the addresses were interspersed with music and other entertainment.

Composite Milk Supplies

The composite milk test is a fortunate possibility for the man with a herd of cows who wishes to do his own testing as a check upon that of the creamery or cheese factory, or who is progressive enough to main-



Jessie Grace Keyes. First prize dry cow and champion Holstein female at the Central Canada Exhibition, Ottawa, 1918. Owned by Cummings & Gosselin, Cummings Bridge, Ont.

tain a record of what each cow in his herd is doing. It is a great labor-saver for creameries and cheese factories also, as well as for cow-testing association; since it is possible to sample the milk of each cow or each patron at different times without making the actual test more than once a month.

The great object of the composite sample is to obtain an average test of a number of smaller samples. In creameries and cheese factories it is the practice to take a small sample from each delivery made by a patron, putting them together in a small bottle, one for each herd represented. In this bottle there is also a representative, of which several kinds are used, the most common being made from five parts of potassium bichromate and one part corrosive sublimate, or mercury bichloride. If the samples are not to be kept longer than two weeks the bichromate of potassium may be used alone, providing enough is used to give the milk a lemon-yellow color. If the mixture named above is used, milk can be preserved for one month, if as much as will lie on a ten-cent piece is used for each pint of milk to be preserved. There is some danger in the use of corrosive sublimate alone, largely for the reason that it is very highly poisonous and does not give any distinctive color to the milk, to show that poison has been added. Occasionally, twenty drops of formalin are used per pint of milk, but its use is objectionable for the same reason as corrosive sublimate. Tablets can now be secured commercially and used with excellent results.

As indicated above, the amount of preservative required will depend upon the condition and size of the sample, the length of time the milk is to be retained, as well as the conditions under which it is kept. If the sampling has been done properly the test should show an average percentage of fat made up from a different lot from which the samples were taken. The following

notes and comments or composite sampling are made by the Dairy Department, O. A. C., Guelph.

"1. Pint or half-pint bottles stoppered with cork or rubber stoppers answer fairly well for composite sample containers, although bottles fitted with glass stoppers are preferable, as they are not so likely to carry mould spores into the milk.

"2. The bottles should be kept tightly stoppered to prevent evaporation of the moisture, which will cause the test to be too high.

"3. Better results can be got by keeping the bottles in a cool place and out of direct sunlight.

"4. It is absolutely necessary that each bottle should have a distinguishing mark—either name or number. Stovepipe, or bicycle enamel, answers very well for the purpose. Paint is not so lasting. Another method is to write the name or number on a gummed label, stick it on the bottle, and coat it over two or three times with shellac, or, the glass may be roughened with a whetstone or file, and the number written on with a lead pencil.

"5. Place the preservative in the bottle before any milk is put in. It may be necessary to add a little more later if the sample shows indication of spoiling. Avoid using too much preservative as it hardens the casein in the milk, making it difficult to test, and oftentimes causing a burnt or charred reading.

"6. The sample for the composite jar should be taken after the milk has been poured into the weigh can. An ounce or half-ounce dipper is often used for this purpose. A sampling tube, or milk "thief" is also very satisfactory. It is very difficult to accurately sample frozen milk, and patrons should be warned against sending milk in that condition.

"7. Each time a fresh sample is added, the jar should be given a gentle rotary motion to mix the cream and the fresh milk with the part containing the preservative. Avoid shaking the jar violently, as that has a tendency to churn the contents.

"8. To prepare composite samples for testing, heat the sample from 100 degrees to 105 degrees F. by placing in warm water, to loosen the fat adhering to the sides of the bottle, and then mix thoroughly by pouring. Take the sample quickly and place in the test bottle. Set the test bottle in water at 60 degrees to cool the milk before adding the acid. Strict attention paid to this point of cooling will usually prevent burnt readings. Sulphuric acid appears to act more strongly on samples containing preservatives, therefore, it is advisable to use slightly less acid. If difficulty is experienced with burnt readings caused by an excessive amount of preservative, it is recommended to add the hot water at two different times, filling to the bottom of the neck of the bottle and whirling one minute and then filling to about the 8 per cent. mark, and whirling again for another minute.

"9. To find the correct average test of the milk from a herd of cows, find the total pounds of fat and total pounds of milk, multiply the pounds of fat by one hundred and divide by the pounds of milk. There is often considerable difference between the correct average test found in this way and the test obtained by adding the different tests together and dividing by the number of cows tested.

Holsteins and Ayrshires Under Tests.

From October 1 to December 1 the Ayrshire cows qualifying in the Record of Performance test have made some creditable records. White Rose heads a mature class of eleven animals, with a record of 12,569 lbs. milk testing 4.19. There were only two qualifying in the four-year-old class, but Maple Leaf Jean gave 12,366 lbs. milk in 318 days. Six three-year-olds qualified. Primrose of Orkney 4th headed the class with 8,309 lbs. of 4.65 per cent. milk. In a class of eight two-year-olds, Scottish Victoria 2nd was first. She gave 9,016 lbs. of milk which tested 4.04 per cent. Her lactation period lasted for 312 days.

During the months of October and November, 20 cows and heifers qualified for enrolment in the yearly record of performance. Grebegg 2nd headed the mature class with 17,861 lbs. milk, producing 583 lbs. butter-fat. The four-year-old class was led by May Evergreen Woodland with a record of 17,683 lbs. milk. Colantha Tidy Johanna, a three-year-old, gave 14,523 lbs. milk. Maud Segis of Elderslie made the best showing of the two-year-olds. She gave 14,134 lbs. milk, which yielded 482 lbs. butter-fat.

From October 1 to the last of November, 55 Holstein cows and heifers were accepted for entry in the Record of Merit. The mature class is led by Victoria Posch De Kol with 592.2 lbs. milk in seven days. Bessie of Bellevue and Colony Minnie Newman were the leaders in the senior and junior four-year-olds. The two three-year-old classes were headed by Annie Calamity Vee-

man and Llenroc Jemima Pride, with 508.1 and 542.9 lbs. of milk, respectively. S. C. P. Leonora Mechthilde was first in the senior two-year-old class, and K. S. A. C. Pietertje headed the junior two-year-olds, with 431.5 lbs. milk. In the thirty-day test this cow produced 1,684 lbs. milk.

HORTICULTURE.

Unprofitable Varieties of Fruit

One of the biggest questions facing the grower of any kind of fruit in Eastern Canada at the present time is that of proper selection of varieties. There are so many hundreds of varieties of each kind of fruit, and so many different nurserymen who list large numbers of varieties, that the prospective planter is sometimes at a loss to know just which to choose. In apples alone there must be at least, two or three hundred varieties, planted to a greater or less extent in the Province of Ontario alone, although it is true that a list of twenty-five would include nearly all the varieties found in commercial orchards. But it is quite possible that even twenty-five varieties is too long a list for commercial growers in the Province of Ontario. One of the greatest forward steps which the industry could take would be to pare the list down and eliminate every variety which experience in culture and marketing has shown to be of secondary importance.

The Ontario Fruit Growers' Association has, in the past, made attempts to discourage the planting indiscriminately of inferior varieties, but they face a very difficult task, especially since this is only one of many questions of almost equal importance. Nurserymen could do a great deal to discourage the planting of poor varieties if they would omit them from their catalogues. This is exactly what is being done by the Pacific Coast Association of Nurserymen in the United States. A committee was appointed to deal with this problem, and at the sixteenth annual convention of the Association the list given herewith was selected as containing those varieties which should be dropped from catalogues and budding lists and their sale discontinued. Even nurserymen who have been making specialties of certain varieties in the list as urged to discontinue the practice, unless they feel absolutely that the variety is one of merit and is much in demand.

It will be readily acknowledged by anyone acquainted with varieties of fruit that many of these varieties are quite common in Eastern Canada. Now it is certain that varieties which are not successful in the Northwest might very easily be commercially profitable in Eastern Canada, and, in fact, several instances of this occur in these lists. There are, however, a great many varieties found herein that are known to be decidedly unprofitable in Ontario or other parts of Canada, but which are grown here and there in varying quantities. Each fruit grower who has planted or contemplates planting a new orchard, whether it be of apples, pears, cherries, plums or peaches, should very carefully consider the question of variety selection. Some varieties are weak in trunk or root system, others show a great deal of tenderness, while still others adapt themselves to certain soil conditions, or are of very poor quality. These undesirable characteristics are often found combined with some of the very things that are wanted in varieties of high merit, but it is often found that so serious is the drawback occasioned by the fact that a variety is tender to cold in spite of superior quality and flavor in the fruit that it should not be planted. The question is very closely bound up with the future success of the fruit industry, and should be given the most serious consideration by everyone.

Apples.—Akin, Am. Sum. Pearmain, Antonovka, Arkansas Beauty, Autumn Strawberry, Babbitt, Bailey Sweet, Belle de Boskoop, Benton Co. Beauty, Black Ben Davis, Blenheim Orange, Blue Pearmain, British Columbia, Canada Reinette, Coopers Market, Coos River Beauty, Dutch Mignonne, Early Colton, Early Strawberry, English Russet, Fallwater, Fall Jenning, Fall Pippin, Gideon, Gloria Mundi, Goal, Golden Sweet, Haas, Hoover, Hub. Nonesuch, Hyde's King, Ideal, Iowa Blush, Isham Sweet, Jersey Sweet, Keswick Codlin, King David, Limber Twig, Longfield, Mann, Okabena, Ontario, Opalescent, Palouse, Patton's Greening, Peck's Pleasant, Peter, Pewaukee, Pryor's Red, Rambo, Rawle's Janet, Red Bellflower, Red Canada, Red Gravenstein, Red Russian, Romanite, Roxbury Russet, Salome, Scott's Winter, Seek-no-further, Senator, Shackelford, Sierra Beauty, Skinner's Seedling, Smith's Cider, Spokane Beauty, Springdale, Stark, St. Lawrence, Stump, Summer Queen, Sutton's Beauty, Swaar, Sweet June, Tetofsky, Twenty Ounce, Vandervere, Walbridge, Waldron Beauty, William's Favorite, Willow Twig, Winterstein, Wismer's Dessert, York Imperial.

Pears.—Bessemianka, Crocker's Bartlett, Dearborn Seedling, Doyenne de Ete, Duch. de Angoulene, Easter Beurre, Garber, Idaho, Kennedy, Koonce, Lawson, Le Conte, Lincoln Coreless, Madeline, Mt. Vernon, Pound Pratt's Seedling, Sou. de Congress, Tonkoveithka, Vermont Beauty, Vicar, Wilder.

Cherries.—Allen, Baldwin, Centennial, Chapman, Deacon, Dyehouse, Gov. Wood, Hoskins, Knights Ey. Blk., Ostheime, Oxheart, Roe, Vladimir, Windsor, Yellow Spanish.

Plums.—America, Apple, Bartlett, Chalco, Chas. Downing, Clyman, Combination, Forest Rose, Gaviota, Hale, Jellico, Moore's Arctic, Pottawattamie, Shipper's Pride, Sultan, Washington, Weaver, Wild Goose.

Peaches.—Amsden, Australian Saucer, Banner, Bokhara, California Cling, Chinese Cling, George 4th, Gillingham, Golden Cling, Greensboro, Henrietta Cling, Imperial, Levy's Lats, Mountain Rose, Newhall, Orange

Cling, Oregon, Prolific, Runyon's Orange, Sneed, Strawberry, Susquehanna, Van Buren, Wager, Wheatland, Wonderful.

POULTRY.

Get Ready for Winter

EDITOR "FARMER'S ADVOCATE":

Now that the winter is close at hand there are many duties which the poultryman must not neglect. Sometimes winter holds off until along towards the New Year and at other times the first of November marks the end of the autumn weather. So it is necessary to be ready for the cold at any time from now on. If the yards have not been cleaned up it is just the time now to go over them and rake up all the rubbish such as sticks, stones, weeds and grass which have accumulated there. It is necessary to keep the yards clean at all times but just at this season it is wise to go over them carefully, thus one gets rid of all decaying matter and keeps the yards clean and free from bad odors.

Of course, all repairs to the buildings have been made. Remember that a small leak in the roof where only a few drops of rain or snow can get through or a small crevice in the side walls, perhaps just a nail hole near the roost will as likely as not be the cause of a cold or case of roup. Dry floors and dry litters are necessary. Dampness of any kind is far from conducive to good health in the fowls. Replace broken glass and put in new cotton where needed in the windows. Do not wait until real freezing weather before you do those things but do them now.

If the buildings are not as warm as they should be, it is a good plan to go over them and cover the interior with a good grade of building paper. This will keep out the wind and make it more free from draughts. Or better still, one can cover the outside of the building with felt ready roofing, which will make an ideal draught-proof house. The ends and west side can thus be covered with the roofing while such covering may not be necessary on the south side.

Weed out all the cull fowl. This is important. Grain is high in price, and one cannot afford to feed grain to those which surely will not be profit producers. Of course we cannot always tell which will be layers but we do know that some of the real late hatched and poorly developed birds which some winter over cannot be profitable. Sell off those that cannot pay, except those which you will want for table use. Better keep a hundred good ones that will be likely to pay than two hundred and have only half or two-thirds of them pay. It is not how many birds but how much profit can be averaged per bird.

Get a good supply of necessary feeds such as oyster shells, grit, charcoal and green feed such as roots, cabbage etc. One can often get cull cabbage and roots in the fall a t a small price which will be good for the birds during the stormy days. Get plenty of litter ready, straw, or dry leaves when they can be secured are a very fine litter. Have supplies convenient so when the cold weather gets here one will not need to worry about them. Much of the pleasure and profit of poultry keeping consists in having everything handy.

Chateauquay Co., Que.

J. D. L.

Skim-milk Versus Meat Scrap

A very valuable line of work in connection with the feeding of animals and the diet of human beings has been conducted by Dr. E. V. McCollum, of John Hopkins University, in the United States. Most people are already familiar with the main points which Dr. McCollum seems definitely to have established. He found, for instance, that there seemed to be two unknown substances which he has called Fat Soluble A and Water Soluble B, which are found in milk, eggs and leafy vegetables. Rations with these substances omitted, result in a variety of diseases and ultimate death. It is for this reason that so much stress is laid upon the widespread use of dairy products. It has been found upon investigation with cattle, that among different kinds of grain feeds, such as wheat, corn, and other cereals, all of which are standard stock feeds, some of them if fed exclusively during a gestation period will result in either imperfectly formed or stillborn calves.

Just recently the Poultry Department, at the O. A. C., completed a set of feeding tests with young chicks, designed to see whether in a general way the same conditions obtained with poultry as with dairy cattle. This experiment was more in the nature of a feeler than an authoritative investigation. Certain lots of young chickens were fed for seven weeks on various rations in which beef scrap, milk, cornmeal and shorts, the yolk of eggs, and green feed in the form of alfalfa leaves, finely chopped up, were combined in six or seven different ways so as to feed each of the feeds separately. The different lots certainly showed remarkable differences in growth, and if a test of this kind is any indication whatever, it is certain that beef scrap is no substitute for milk in the ration of growing poultry.

It is interesting, therefore, to come across a set of experiments designed to obtain the feeding value of commercial meat scrap and sour skim-milk in egg production. These experiments were conducted at Purdue University, Indiana, with White Plymouth Rocks. There were thirty pullets in each flock, and the males were changed from pen to pen every few days so as to eliminate any influence on fertility or hatchability from this source. What were called the skim-milk pens were fed a grain ration of 10 pounds of corn, 10 pounds wheat and 5 pounds of oats and a mash of 5 pounds of bran,

5 pounds of shorts and 50 pounds of skim-milk. The meat scraps pen were fed exactly the same ration, except that 3.5 pounds of meat scraps were substituted for 50 pounds skim-milk, since it was estimated that this amount of meat scrap contained the same amount of protein as 50 pounds of skim-milk. With the check pen, no skim-milk or meat scrap was fed. Mangels were used as green feed when the birds were not on range, and the grain was fed so that birds received about one-third of it in the morning and two-thirds in the evening so that the mash could be eaten during the day, the latter and skim-milk being always accessible. The experiment was conducted with both pullets and hens, and the conclusions are given in a condensed form in the following, taken from Bulletin No. 218:

Pullets.

"A Plymouth Rock pullet is an efficient transformer of raw material into a finished product.

"The consumption of feed of the meat scraps pen was 97.63 pounds of feed per fowl at a cost of \$1.69; the no-meat food pen was 83.24 pounds at a cost of \$1.37 and of the skim-milk pen 201.82 pounds at a cost of \$1.79. Of the feed consumed in the latter pen, 115.74 pounds was milk.

"All birds tended to consume a similar amount of grains and mash regardless of whether they were good or poor layers.

"It was the addition of skim-milk or meat scraps to the ration that increased the efficiency of the grain.

"The cost of feeding a Plymouth Rock pullet on a good ration averaged about \$1.75 for the year 1916 but during 1917, this cost increased to nearly \$2.50.

"It cost an average of \$0.155 to produce one dozen eggs in the skim-milk pen, \$0.162 in the meat scraps pen and \$0.275 in the check pen.

"It cost less to feed a pullet when no skim-milk or meat scraps was fed, but it cost more to produce a dozen eggs.

"The amount of dry matter required to produce one pound of eggs in the skim-milk pen was 4.9 pounds; in the meat scraps pen was 5.14 pounds, and in the no-meat-food pen was 9.57 pounds.

"The egg production averaged 140.2 eggs per pullet for the skim-milk pen, 135.9 eggs per pullet for the meat scraps pen, and 61.2 eggs per pullet for the check pen.

"All birds tended to lay the most eggs in or about the month of April whether well or poorly fed; whether good or poor layers.

"The profit over feed in the skim-milk pen was \$1.59; in the meat scraps pen, \$1.62; and in the no-meat-food pen, \$0.05.

"The feeding value of skim-milk for Plymouth Rock pullets was \$1.60 per hundred pounds and of meat scraps \$20.03 per hundred pounds.

"The meat scraps pen produced better fertility but not as good hatching power of eggs as the skim-milk pen.

"Birds received neither skim-milk nor meat scraps produced eggs of the best fertility.

"A Plymouth Rock produces about 27 pounds of manure in a year at night.

"The method of feeding has no influence on the health or mortality of the flock.

Hens.

"Under normal conditions, hens consume about as much food as pullets.

"Hens that were starved for animal protein as pullets, increased their consumption of everything as hens, when fed milk in abundance.

"It cost but slightly less to feed a hen than a pullet.

"When fowls had sufficient animal protein all their lives they normally laid less eggs as hens than as pullets.

"Fowls that did not receive sufficient animal protein as pullets, laid poorly, but when given skim-milk as hens they laid as many, if not more, eggs than pullets normally did.

"A fowl's egg capacity cannot be judged by the number of eggs she laid unless she received a normal ration.

"The no-meat-food pullets moulted early and were in full new feathers by October. When skim-milk was added to their ration in November, they responded quickly by laying more winter eggs as hens than any fowl did as pullets.

"Early moulting indicates poor laying, but it may not indicate poor laying capacity.

"Hens not fed milk as pullets produced more income and profit over feed as hens, than did the milk fed pullets.

"Hens seemed to produce better fertility than pullets, but showed little improvement in hatching power of eggs.

FARM BULLETIN.

Mr. Bailey Goes to England

Mr. C. F. Bailey, Assistant Deputy Minister of Agriculture for Ontario, left recently for England to assist the Dominion Soldiers' Settlement Board in organizing classes in agriculture in Great Britain and France during the demobilization period. Mr. Bailey will accompany Major Ashton, a member of the Board, and will be away for a couple of months. The Board is working in co-operation with the Khaki University overseas and in co-operation with the Provincial Departments of Agriculture and Agricultural Colleges in the different provinces of Canada. A special course of three months has been planned as a preliminary to fit inexperienced or partially experienced men who desire to take up land under the loan system to be administered by the Board.

Record - Breaking Attendance at the United Farmers Convention.

U. F. O. Co-operative Does \$1,765,000 Business. Profit of \$4,100. R. H. Halbert Again Elected President U. F. O.

The organization known as The United Farmers of Ontario, representing organized agriculture in the Province of Ontario, brought to a successful and enthusiastic issue its fifth annual convention, held at Convocation Hall, Queen's Park, Toronto, Wednesday and Thursday, December 18 and 19. The seats were nearly all filled at even the first session, and the meeting throughout was productive of much discussion. One of the most debated subjects was introduced by way of a proposed amendment to the constitution, and had to do with an increase in the capitation tax paid by local clubs to the Central Association. This presented no difficulty, and it was only after full discussion that it was kept down to \$1 instead of 50 cents per member as in previous years. An amendment was enthusiastically passed admitting women to full equality of membership. By resolution also the directorate was enlarged to include many more members, one for each county and judicial district in the province. Under former conditions, 8 men only were elected. In future, the president and secretary will be elected by the annual meeting in December, while the directors will be elected by their own clubs, one director from each county, or judicial district, these directors to elect a vice-president and two others, who with the president and secretary, will constitute the executive. B. C. Tucker, Past President of the United Farmers' Co-operative Co., discussed the Military Service Act, as the Agricultural Representative on Leave of Absence Boards for Military District No. 3. The speaker referred to the delegation to Ottawa as having been productive of some good, especially in the case of only sons of widowed mothers, or sons of invalidated parents. "It is also to be regretted", said the speaker, "that drafted men from the farms have been forced to Siberia." The "Cross" case came up and Mr. Waldron stated, as solicitor for the organization, that the conviction should have been, but was not, quashed, on the basis that the magistrate was not in a proper judicial frame of mind when judgment was delivered. He also proclaimed it the duty of the U. F. O. to make contribution to Mr. Cross for what he had suffered, largely because of his adherence to and activity in the U. F. O. Later on \$504.37 was raised for this purpose. With regard to the validity of the Orders-in-Council passed last spring by the Dominion Government, dealing with the M. S. A., Mr. Waldron believed that these orders-in-council were upheld as a result of a pre-arrangement between the Minister of Justice and Judges of the Supreme Court. The only recourse now, said the speaker, is parliamentary representation of farm opinion, and, if thought wise, the impeachment and expulsion from office of all guilty of causing a contravention of constitutional authority.

The report of the Secretary-Treasurer, J. J. Morrison, brought to light a very marked development in membership during the past year, attended by a surplus of funds in the Association amounting to \$8,758.74. Total receipts from memberships, collections, sale of buttons, books, etc., amounted to \$12,963.50. Space forbids the publication of this report in full, but such parts as are most instructive are given herewith:

"We have reason to be proud of our phenomenal development this year in finances, in membership, in enthusiasm, in useful activity and, best of all, in the confident realization by the rural people that this Association is their own, and can be used by them in the promotion of their interests. The realization of these facts is our greatest asset, and is manifestly evident in the growing self-assertion of the people of rural Ontario.

"A great convention, over 3,000 strong, assembled in Toronto on June 7th, where strong resolutions were passed, favoring independent action by the farmers as a class hereafter, and the creation of a newspaper to express their views, as it was considered that the press had been very unfair to the rural people. From this convention has sprung the Farmers' Publishing Co., Limited, with an authorized capitalization of \$500,000. A bright future seems assured to this venture.

"Other developments arising out of the aggravating conditions that prevailed during the summer was a desire to secure rural representation in the Legislature and Parliament. So pronounced is this feeling that all By-elections since the June convention have resulted in the election of farmers. Manitoulin Island won the first active contest against heavy opposition, and in the one riding opened for the Dominion Parliament (North Ontario) they are going to elect the President of the United Farmers of Ontario.

"One of the greatest moves this year is the organization of the United Farm Women of Ontario, the natural mate of the United Farmers of Ontario. Already this new movement has attracted some very bright women to our cause and, although only just launched, a great future is before it.

"The U. F. O. has now 615 clubs, a gain of 300 this summer, as against a gain of 115 last year. Our membership stands at over 25,000, a gain of 13,000 as against one of 4,000 last year. Our finances are bearing the strain of the constant call for activities very well, as will be noted by our balance sheet sent to all secretaries. But it must be borne in mind that the balance shown on it of \$8,758.74 will be materially lessened by the payment of the delegates' railway fares. It must also be remembered that the dues were this year paid in advance, and that sufficient funds, therefore, must

HOTPOINTS

Let the silent men be heard.

Organization—Education—Co-operation.

A club is the first stage of Co-operation.

Your club is just what you make it.

*The silence is broken,
The Farmers have spoken,
To action their call
Will rally us all.*

Equal opportunity to all; special privilege to none.

remain in the treasury to carry on organizational development."

The Presidential Address.

"The battle of the future will be fought with ballots not with bullets" said R. H. Halbert in his presidential address to the U. F. O. delegates. "It will not be a battle of nationalities, a race war, but a battle against monied aristocracy, who own the country financially and control it politically, which is not the public interests. They control, at will, the market where they buy their supplies and the market in which they sell their products. Everything the people grow, produce and have to buy, are in the hands of corporations and small groups of people who are directors of our banks and railways and owners of our industries." Thus Mr. Halbert described the farmer's position and went on to urge the delegates to work to the end that economic liberty might be one of the blessings for Canadians to enjoy. Further he said: "May we not hope that out of the overthrow of Kaiserism and the downfall of German autocracy, there may spring up democracy even in Germany. And also that the nations that have shared in the overthrow of German autocracy will see to it that autocracy does not lift its head within their borders, so that we who have burned the effigy of the Kaiser in bonfires may also light bonfires in our rejoicing over the downfall of Canadian Kaiserism and be prepared to give intelligent direction to the new spirit of democracy and promulgate the gospel of economic, political and intellectual liberty". The President pointed out that we are passing through a critical period and the citizens urban and rural, should strive to bring about satisfactory conditions for the masses.

Economic Problems.

In a brilliant and well-thought-out address, E. C. Drury of Crown Hill discussed "Economic Problems" of the day and revealed with authentic figures the critical financial situation of the present. At the beginning he declared that in the past, class had been arrayed against class to the detriment of both but he proposed to treat his subject not from the view point of agriculture alone, but from the standpoint of the country as a whole. Mr. Drury interjected several telling phases early in his address to the effect that farmers are not on the land to make money; they are there because their homes are there. He furthermore declared that if it were not for the lure of the land many farmers and their hired help would forsake the country and take up occupations that returned more compensation for the labor expended—"We would sooner farm for less than do something else for more."

Mr. Drury described Canada's pre-war growth through borrowed money, the influx of immigrants, and the spending of foreign capital within our borders. Then he said:

"After the war, however, this condition, without doubt will change. Capital from Great Britain, France, Holland, Germany, etc., will no longer flow into our country to develop our resources. It will be more urgently needed to repair the ravages of war in Europe. Spending of foreign money in Canada with its resultant prosperity will cease and we shall find ourselves in the position of a man who, having borrowed heavily to improve his farm finds himself suddenly unable to borrow more and must somehow turn to and out of the means at his hand produce enough to pay the interest on debts already incurred, and if he is to thrive, something towards the reduction of the principal. I would like here to quote with all approval from the address of S. R. Parsons, President of The Canadian Manufacturers' Association, published last July. 'There is only one way to pay off our accumulated debts and that is by producing in field, forest, mine and factory all that we possibly can, and selling those products at as high a margin over the cost of production as we are able to secure.'"

"This task of paying interest on our foreign indebtedness will be no light one. I am advised by Mr. Coates, Dominion Statistician that at present our national debt is upwards of 1,200 millions while our commercial indebtedness, owing in London, New York, and Europe

is approximately 3,150 millions. Thus we have approximately 4,300 millions on which we must pay interest at, we may safely assume, not less than 4 per cent. Our interest charges, then, payable abroad, will be approximately and conservatively 170 millions per annum. Prices must, in the nature of things, soon recede to something like pre-war levels, if not to levels considerably lower. To see how serious this interest charge is we have only to consider that in the three years immediately preceding the war our total foreign exports were:

1911.....	\$297,196,000
1912.....	315,317,000
1913.....	393,032,000

"It does not tend to re-assure us either to find that in these years our imports were nearly double our exports. Assuming, however, that we are able to accomplish the almost impossible feat of cutting our imports down to one-fourth of our pre-war imports, or approximately to one-half the value of our exports, we find that unless we can vastly increase our production our exports will not exceed our imports by enough to pay our interest charges let alone making any reduction on the principal. The man who cannot meet his interest charges, speedily becomes bankrupt and the nation which cannot meet its obligations likewise faces national bankruptcy with all its unpleasant circumstances. "This possibility, which is unfortunately a very real one for Canada, we must face with fortitude, resourcefulness and, above all, with commonsense".

The speaker continued and step by step showed that to meet these obligations it would be necessary to produce heavily of those articles that could be produced economically and that production of other commodities should be restricted so as not to hamper the useful and profitable lines. At this place in his discourse Mr. Drury introduced the tariff and since we purpose to reproduce the arguments of the speaker in an early issue we shall not record them here.

Greetings From The West.

Norman Lambert, Secretary of the Canadian Council of Agriculture, brought greetings from the West and said that 127,000 farmers are now organized in one body through the affiliated provincial organizations. Alberta has 30,000, Saskatchewan has 60,000, Manitoba has 12,000 and Ontario \$25,000. Mr. Lambert criticized the Canadian method of raising revenue with which to carry on the war and said that while the Dominion got up to as much as 11 per cent. raised by a direct tax on property and income, Great Britain had raised as much as 81 per cent. thus and the United States 70 per cent. He argued that the direct tax should be advanced and the indirect tax retarded.

Farmer Members of the Legislature.

A feature of the U. F. O. program was the introduction of three farmer members of the Legislature who have been elected recently—they were: Beniah Bowman, of Manitoulin; John Calder, North Oxford, and Mr. Frasier, of North Huron. The "man from Manitoulin" made a very good impression and said that we are living in a new world, and, contrary to the old cry, farmers "can" stick together. Mr. Calder made a strong plea for consolidated schools and an improved educational system in the rural districts. Mr. Frasier referred to elections and gave prospective candidates some advice. He said that he had carried in his pocket during the campaign a few newspaper articles particularly objectionable to rural voters. This brought results. The speaker likewise described the conditions in his county, and said there were many abandoned farms and houses, while the cities were asking for Government loans to assist them in building homes.

The U. F. W. O.

The United Farm Women of Ontario were formally organized and conducted their meetings apart from the main U. F. O. Convention, but in the evening of the 18th a joint session was held. The President of the U. F. W. O., Mrs. Geo. A. Brodie, of Newmarket; the Secretary, Miss E. Griesbach, Collingwood, and Mrs. Lawes, Cayuga, addressed the meeting. The president of the U. F. W. O. explained the object of the women's organization, and discussed matters of economic importance. Mrs. Brodie said, "We want consolidated schools and technical education," and went on to explain that the whole school system is based on a university education which was wrong, for only 2 per cent. of rural students go on to the university, and the other 98 per cent. are sacrificed for their benefit.

Miss Griesbach urged the U. F. O. delegates to assist in the organization of U. F. W. O. clubs in their respective neighborhoods, and explained how they should go about it.

Mrs. Lawes discussed several matters, and in her discourse referred to the great sacrifices and hardships endured by the women of Europe, but in reference to Canadian women working on the land she said: "Many of the farms in Europe are small like our gardens, but the women of those countries (and all honor to them) belong to a class which we are determined shall not exist in this country." The speaker said the women were going to devote some time to the study of "civics" or "citizenship" in their clubs, and she recommended that there be at least one woman on every school board. She furthermore said: 1. "The school-house should be

the beauty spot of the neighborhood; 2. Every school should have a library; 3. The schools should be community centres."

The three representatives of the U. F. W. O. made excellent addresses, and gave expression to many ideas which, if put into effect, would surely make for rural improvement.

The Farmers' Publishing Company.

The Manager of "The Farmers' Publishing Company, Ltd.," gave a full report of the progress made, and the work of the Committee of which Col. J. Z. Fraser is chairman. The Company, he said, had a charter and a subscribed capital of \$15,000. Mr. Powers gave figures to show what it would cost to publish a daily, and full particulars in regard to a weekly or semi-weekly project. The shareholders brought in a resolution authorizing the committee to proceed with a daily paper when \$150,000 was subscribed and \$25,000 paid up subscriptions had been secured or if the committee thought it wise they could proceed when \$100,000 was subscribed. While a number thought it would be good policy to start with a weekly and work up to a daily, the vast majority wanted a daily paper and nothing else. The matter was left with the committee. The allotment of stock is proceeding with enthusiasm and satisfactory rapidity. Several countries have guaranteed from \$5,000 to \$20,000 each and canvassers for stock in a daily paper are eager to begin work.

The Quebec Representative.

Jean Masson, Comptoir Co-operatif de Montreal, represented the organized farmers of Quebec, and addressed the U. F. O. delegates. Other members and representative bodies were present from the neighboring province.

Some of the most important topics came up on Thursday afternoon. J. A. Caron, Prescott County, spoke on "Ontario's People" in both English and French, for the benefit of the French-speaking delegates, of whom there were a considerable number present. W. L. Smith discussed "Canada's Position After the War," and sketched most interestingly international relationships for the last half century. The speaker endeavored to point out from historical data an ever present menace of war under the old regime of secret diplomacy, and pointed to instances of prevented wars through mutual concessions by the various powers. His solution was a league of nations, and the following is quoted:

"The best ground of hope, for the world at large, lies in the adoption of the principle of which Wilson in America and Asquith in England are the most sincere advocates in the creation of a League of Nations; but if this League is to be immediately effective, it must include, in the end, all civilized nations, and to the principle all nations must give unreserved adhesion. If a League of Nations is to serve the purpose its advocates have in mind, all armies and all navies must be reduced to the limits of a domestic police force. All must agree to submit all differences that may arise between them to an international court, the decrees of which would be made good, just as the decrees of the Canadian or American Supreme Courts are made good, by common consent, or, if need be, by an international police force. Failing this, and the tone of a good deal of pronouncements heard from some leading European diplomats give reason to fear that failure there will be, then in my judgment only one other course is open. That course involves what may be called the adoption of the South American Idea.

"The proposal came some years ago from some of the Republics of South America that an American League of Nations be formed. The proposal involved an agreement between all the commonwealths of the two Americas to submit all disputes arising between them to an American Arbitration or Judicial Tribunal for adjudication. With this came another proposal that all these Commonwealths agree to take no part in outside wars, save by common consent, and to demand that no Asiatic or European quarrels be carried either to America or waters adjacent thereto. All the Republics of South America, and the U. S., would agree to a proposition of that kind. With Canada in agreement as well, the whole western world, because too vast and too powerful to be defied by any one nation or combination of nations, would be forever freed from war's alarms."

W. A. Amos discussed "Organized Agriculture and Parliamentary Representation," and urged no slightest compromise between principle and policy. The speaker urged that too much stress should not be laid upon the former failure of the Patrons of Industry, because the spirit of this generation is different and improvement in sentiment has taken place through progress in social, mental and scientific development. E. C. Drury urged strongly that farmers' candidates be not connected in any way with either political party, and that either party be not allowed to enroll farmer representatives in their ranks by acceptance of the Farmers' Platform; nor should farmer members attend political caucuses. The distinction should be clean cut.

W. C. Good introduced the Platform recommended by the Canadian Council of Agriculture at its recent Winnipeg meeting. This platform appeared last week in "The Farmer's Advocate," but some amendments were made as follows: Section (c) of the tariff demands (approving of the Reciprocity Agreement of 1911) was amended to add the words "and that any further reduction of tariff on the part of the United States toward Canada be met by similar reductions of the tariff of Canada toward the United States." Clause 6, dealing with means for Government employment of labor in urban industry, was struck out. The "abolition" rather than the "reform" of the Senate was demanded. The removal of press censorship was asked for im-

mediately rather than "upon the restoration of peace." A clause was added calling for "Prohibition of the manufacture, importation or sale of intoxicating liquors in Canada."

The Cheese Committee reported the result of two years' work, and the chairman spoke, in explanation of a resolution later passed, favoring the organization of a co-operative dairy company similar to the Saskatchewan Creameries Company, which, though only including 19 creameries, saved this year a very considerable sum of money by the bulk purchase of paper and cream cans alone. It was pointed out, and justly, by the way, that the co-operative business in Ontario can never be made a financial success until farm products are marketed co-operatively on a large scale; at the present time emphasis is placed upon the other end of co-operation, the purchase of supplies.

In addition to resolutions already referred to, 14 resolutions were presented by the Resolutions Committee, all of which were carried. Space permits us to include only the following at this time, as being of most general interest and of greatest importance to practical agriculture:

Co-operative Dairy Company.

"Whereas the importance of farmers as a class co-operating in every way possible in the production and marketing of their farm products, has long been urged upon us by our Governments and leaders in agriculture and,

"Whereas the great success that has been achieved in this direction, not only in foreign countries such as Denmark, but by our brother farmers in Western Canada in the handling of their grain, and more recently of their creamery products, as well as the results that have been obtained by our Ontario Co-operative Company, Limited, have shown the practicability and the advantages to be derived through co-operative efforts by farmers and,

"Whereas, the dairy industry is the greatest example we have in Ontario of the benefits of co-operation among farmers and,

"Whereas investigations have shown that the time has come for a great extension of the principles of co-operation in connection with the dairy industry in Ontario, along the lines that have proven so successful in Western Canada, more particularly in Saskatchewan,

"Be it therefore resolved, that the convention of the United Farmers of Ontario is strongly in favor of the proposal to form a co-operative dairy company in Ontario similar to the Saskatchewan Co-operative Creameries, Limited, and that we would urge our members to promote this movement in every way possible. We would also signify our desire that our Ontario Government grant the legislation required to make this company possible, and to promote its operations."

Returned Soldiers.

"Resolved that this convention is entirely favorable to the policy of encouraging returned soldiers to settle on the land, but believes that such encouragement should consist first in the removal of all disabilities and unfair discriminations under which agriculture labors, and only secondarily in loans, free land, etc., and that settlement be made in well-settled districts."

Daylight Saving.

"Resolved that the Daylight Saving Bill, having shown itself injurious to agriculture, be not re-enacted."

The Franchise.

"Resolved that this convention of the United Farmers of Ontario, in annual meeting assembled, demand the immediate repeal of the War-time Elections Act of 1917, and also of the Ontario Franchise Act of 1917; and that in lieu thereof for the preparation of a suitable list for Provincial and Federal Elections in the Province of Ontario, we return to the Voters' List Act of 1914, with the following addition: That the assessment rolls of each year shall include the names of all qualified citizens arriving at the age of twenty-one during the current year, and, also, the names of all females qualified to vote at Provincial and Federal elections."

Labor on Provincial Highways.

"Resolved that we protest against the expenditure of labor on provincial highways at the present time when there is so great a demand for all kinds of commodities. Speedways for idle automobiles may be all right in themselves, but at present the expenditure of money on such a relatively unproductive enterprise is unpardonable."

Military Training in Schools.

"Resolved that while we acknowledge the necessity, under proper conditions, for consistent physical culture in the schools of our land, we offer our solemn protest against any system of training which will tend to beget a spirit of militarism, with all its attendant caste."

Make Farm Conditions Known to Urban Dwellers.

"Whereas, because of the increased prices being paid for milk and other farm products, a false impression has gained wide acceptance among the residents of towns and cities that farmers are profiteers and that they are becoming wealthy at the expense of the people living in our urban centres and,

"Whereas investigations conducted by Government officials in various parts of the United States and Canada as well as under the Food Control Boards of both countries has shown that the increased cost of the supplies purchased by farmers, as well as of labor and other factors, have been such that farmers as a class are not earning a fair return on their investment and,

"Whereas it is desirable that there shall be the best possible understanding between our urban centres and rural districts,

"Be it therefore resolved, that we are in favor of our Ontario Department of Agriculture taking such steps and expending such sums as may be necessary to make these facts adequately known in our urban centres."

Assembling of Parliament.

"Resolved that in the opinion of the United Farmers of Ontario, in annual meeting assembled, it is the immediate duty of the Government of Canada to summon Parliament at the earliest possible date and submit to the representatives of the people the proposed attitude of Canada at the Peace Conference, the plans of the Government for Reconstruction and, also, the action of the Government in sending recent drafts of Canadian soldiers to Siberia; And that the Secretary at once transmit a copy of this resolution to the Acting Premier of Canada."

Improvement in Ontario Education.

"Whereas a movement is being organized for the study of the entire system of education in Ontario, both as to administration and curriculum, with a view to the greatest efficiency in rural and urban schools in all phases as well as technical and research work, and in the best methods of administration and finance, and,

"Whereas the United Farmers of Ontario have been invited to join in this important work with delegates from the Ontario Educational Association, Home and School Council, Technical Associations, Advertising Clubs, Neighborhood Workers' Association, Canadian Musical Association and all other social, labor, industrial, fraternal and producing organizations, so that there may be presented to the Honorable Dr. Cody, Minister of Education, the results of a thorough study of educational problems from every angle, and thus secure the greatest possible improvements in our educational system,

"Be it therefore resolved that the United Farmers of Ontario earnestly desiring improved education in this province hereby appoint a committee to represent rural school interests in co-operation with the above movement, and that they report at our next convention, and that the committee be: Mr. Bothwell, Grey County; Mrs. Lawes, Cayuga, Haldimand County, and E. C. Drury, Barrie, Simcoe County."

Parliamentary Committee.

"Whereas a permanent committee was appointed by the representative delegation of farmers from several provinces of Canada which met in Ottawa on May 14, 1918 and,

"Whereas their common purpose found its inspiration in deep concern for the welfare of the nation and,

"Whereas their common calling and interest suggested more intimate co-operation for the development of their industry and,

"Whereas the necessity for concerted action among all classes of the Canadian people and particularly among those of common occupation, appears urgent and timely,

"Be it therefore resolved that the said Permanent Committee be hereby continued and authorized to organize and direct further common action by the farmers of the provinces of Canada in pursuance of the ideals and for the promotion of the interests which they have in common, and to take all necessary action to this end, and that the U. F. O. representatives on this committee be appointed by the Directors."

Parliamentary Representatives Vacate Office.

"Resolved that no action be taken regarding the resolution submitted by Secretary Morrison, that when any office of the U. F. O., the U. F. Co-operative Company, or the Farmers' Publishing Company, be elected as a Parliamentary Representative that the office held by him be automatically vacant."

Sending Draftees to Siberia.

"Whereas our attention has been called by our Agricultural Representative for Military District Number 3 to the fact that soldiers are being drafted to Siberia contrary to their wishes and in face of the fact that others are willing to volunteer,

"Be it therefore resolved that this convention protest most strongly against such action, and that this fact be drawn to the attention of the Minister of Militia for Canada, and that he be requested to issue orders that those men already drafted be returned at once to Canada, and that further drafts be stopped."

Free Trade in Paper.

"Whereas it is believed that a paper combine exists, perhaps the strongest combine of any kind in Canada, and

"Whereas this combine has charged enormous prices for paper of all kinds, having advanced the price of certain grades of paper over 400 per cent. since the beginning of the war and,

"Whereas farmers are becoming more and more interested in paper in many ways,

"Be it therefore resolved that we, the United Farmers of Ontario urge that as a means of getting justice in the matter, that the customs duties on all kinds of paper be removed."

Officers and Directors.

The directors appointed under the amended constitution are given below. Any named county or judicial district not credited with a delegate is entitled to one, who was not appointed by reason of the absence of any delegates from clubs in such county, at the convention. The list of directors follows:

NORTHUMBERLAND, G. H. Huff, Brighton; LENNOX AND ADDINGTON, B. J. McKeown, Tamworth; KENT, S. A. Pickard, Thamesville; BRANT, Peter Porter,

Burford; GREY, E. Parkinson, Clarksburg; HALTON, A. G. Farrow, Oakville; LINCOLN, H. St. Clair Fisher, Niagara-on-the-Lake; RUSSELL, E. J. Menard, Embrum; DUNDAS, T. Houlehan, Chesterville; ALGOMA, F. A. Newman, Bar River; HURON, W. D. Sanders, Exeter; NORFOLK, Sam. Disbrow, Vanessa; WENTWORTH, C. F. Woodby, Copetown; ELGIN, A. D. McKillop, Wallacetown; WELLAND, Wilton Kline, Ridgeville; ONTARIO, Alex. Noble, Uxbridge; HASTINGS, J. V. Hoover, Harold; DURHAM, Mont. Holman, Clarke; BRUCE, F. W. Fisher, Elmwood; PRESCOTT, J. A. Caron, Curran; SIMCOE, E. C. Drury, Barrie; WELLINGTON, J. C. Dixon, Moorfield; WATERLOO, J. G. Hurst, Elmira; PEEL, John Hassard, Balleroy; STORMONT, S. J. McDonald, Monkland; YORK, J. S. Whitman, Woodbridge; DUFFERIN, R. J. Woods, Melancthon; GLEN-GARRY, A. J. McRae, Dalhousie; ESSEX, T. H. Adams, Essex; OXFORD, D. M. Ross, Embro; HALDIMAND, J. W. Richardson, Caledonia; RENFREW, R. M. Warren, Eganville; FRONTENAC, Wm. Fawcett, Wolf Island; LAMBTON, A. E. Vance, Forest; MIDDLESEX, Harold Currie, Strathroy; VICTORIA, F. G. Sandy, Omémec; PETERBORO, E. N. MacDonald, Warsaw; MANITOULIN, W. W. Anglin, Mindemoyd; TEMISKAMING, Jno. Sharp, New Liskeard; PERTH, W. A. Amos, Palmerston; LANARK, D. Hogan; PRINCE EDWARD, Jas. R. Anderson; PARRY SOUND, —; PORT ARTHUR AND KENORA, —; MUSKOKA, —; NIPISSING, —; CARLETON, —; FORT WILLIAM AND RAINY RIVER, —; LEEDS, —.

The officers appointed at a Directors' Meeting on Friday are as follows:

President, R. H. Halbert, Melancthon; Vice-President, E. C. Drury, Barrie; Secretary, J. J. Morrison, 130 King St., East, Toronto. Other members of the Executive: W. A. Amos, Palmerston; H. V. Hoover, Harold.

The United Farmer's Co-Operative Co.

All three sessions on Tuesday, the first day of the convention, were devoted to the affairs of the trading company, the United Farmers' Co-operative Company, R. W. E. Burnaby, the President, presiding. These sessions were held in the Labor Temple, where the accommodation was severely taxed for the later sessions. The chief business was the receiving of the Directors' report for the year ending October 31, 1918, the text of which is herewith given practically in full except for parts of the financial statement. It will be seen that a very marked increase in volume of business has taken place during the year, although the net profits only show up as \$4,102.83. However, as the President was able to establish, certain amounts necessarily deducted from the otherwise greater profit, on account of various items written off, reduced the real profit by approximately \$1,000. It will be noticed too that \$92,950 worth of stock has been sold, mostly in Western Ontario, but only \$42,931 of which is paid up. These and other matters of interest are all discussed in the report which follows, including the first annual report on the grocery business and the office which is to be established at the Union Stock Yards, Toronto, shortly after the new year. The company has secured the services of the General Superintendent of the Live Stock Department of the United Grain Growers Co., Winnipeg, to initiate this new branch of the work and it is expected to purchase a seat in the Live Stock Exchange immediately. Quite a number of delegates felt very strongly on this matter and urged that matters be pushed rapidly.

"From a business point of view, the year in many respects has been a difficult one. We have experienced great difficulty in securing many of our chief commodities. Owing to conditions over which we had no control, we have in many cases been to the trouble and expense of making sales and then have been unable to make delivery. For example, we bought one hundred cars of coal, fifty of soft and fifty of hard. Before we offered this coal to our clubs, we had every assurance from our suppliers that deliveries could and would be made promptly. Most of the soft coal was delivered, but just at the time the hard coal was to be shipped, the United States Government stepped in, and took possession of the whole output of the mine for war purposes. With Binder Twine, another of our important commodities, we were only able to secure about half of the amount we could have handled and I can assure you what we did handle was secured in a very extraordinary way. The sugar situation too, was a great disappointment. After entailing all the expense of selling over a million pounds, our order for which was accepted by the wholesalers, the Food Controller passed his order regarding sugar and the whole deal fell through. Millfeeds in former years have been handled in very large quantities, but on account of the acute situation with which you are familiar, also due indirectly to the war conditions, our business in this line has been greatly curtailed. Stationery and office supplies have materially increased in cost, and the salaries of the staff, of which there are now about thirty, have had to be increased. These are only a few of the difficulties and problems with which we have had to grapple, and as directors, we feel that great credit is due our managers and staff that we are able to make such a satisfactory report to-day.

"During the year, a moderate stock selling campaign has been in progress with the result that the subscribed capital of the Company has been increased from \$9,725.00 to nearly \$100,000 and there is still a large amount outstanding which has not yet reached the head office.

"This increase in capital has made it possible for us to purchase the old established wholesale and retail grocery and produce business of T. J. Medland at 130 King Street East. This business is not only proving profitable but is rapidly fulfilling the real purpose for which it was bought, namely, establishing a wholesale

connection of our own and providing a market for farm produce.

"Modern comfortable offices have been fitted up at this address where the head offices of the U. F. O. and the Company are now located. You will be pleased to note that our business continues to show a healthy growth as the following figures show:

Total sales were: \$3,300.00 in 1914; \$226,000.00 in 1915; \$410,385.73 in 1916; \$918,197.51 in 1917, (10 months); \$1,765,378.49 in 1918.

As the result of the year's trading, our balance sheet, the correctness of which has been certified to by our auditors, now stands as follows:

Balance Sheet, 31st October, 1918.

ASSETS.	
Cash.....	\$ 3,806.88
Accounts receivable.....	28,564.79
Deposits paid on coal, etc.....	7,047.68
Stock on hand as per inventories.....	\$ 6,071.43
Groceries.....	43,452.96
	\$ 49,524.39
Office furniture and fixtures.....	\$ 2,284.45
Fixtures (Stores).....	2,939.24
Grocery equipment.....	1,802.00
Delivery equipment.....	1,830.00
	\$ 8,855.69
Insurance unexpired.....	\$ 493.10
Mailing list and business extension.....	\$ 7,958.32
Preliminary expense.....	1,712.35
	9,670.67
	\$107,963.20
LIABILITIES.	
Bills payable, Bank.....	\$ 10,000.00
Accounts payable (Trade).....	37,535.27
Deposits received Coal, etc.....	9,707.80
Dividends unpaid.....	28.76
Capital subscribed.....	\$92,950.00
Less unpaid.....	50,018.50
	\$42,931.50
Reserve account	
1917.....	\$3,657.04
Profit 1918.....	4,102.83
	\$7,759.87
	50,691.37
	\$107,963.20

"By referring to this statement, (not reproduced in full) you will notice that \$3,532.63 has been added to the business extension account which represents moneys expended for extending the organization and for the cost of selling some \$83,000 worth of new stock. Preliminary expenses have been increased by \$100.00 being legal fees for changing our charter providing for the increase of the capital from \$10,000 to \$250,000. The total net profit for the year's operation amounts to \$4,102.83. At the directors' meeting held on November 21st, it was decided to declare a dividend of 7% on all paid-up capital stock based on the time such capital had actually been in the hands of the Company: this required \$1,500.00. We also decided to write off 10% on office furniture and fittings, store fixtures, grocery equipment, delivery equipment, business extension and preliminary expenses, amounting to \$1,852.63, the balance of profit amounting to \$750.20, to be transferred to the reserve account.

"During the year, we have had under serious consideration, the advisability of establishing our own office at the Toronto Stock Yards. Several conferences have been held with our live stock committee and finally a resolution was passed instructing the executive to open up this new branch of our business. We are now ready to buy a seat on the exchange and open up the office as soon as we are able to secure the services of a suitable man to put in charge. Several men have been approached, but as yet, we regret to report, that we have not been able to find a man whom we care to put in charge of this responsible position. We recommend that no stone be left unturned toward securing this man and opening this office at a very early date. We are pleased to report that we have succeeded in placing an order for our next year's supply of Binder Twine. The twine is put up under our own brand by one of the largest manufacturers in the United States, and we look forward to a substantial business in this line from our clubs. Your directors have also had under consideration, the question of issuing a catalogue of the lines handled, such as groceries, implements, harness, engines, etc., but on account of high and unsettled prices and the present high cost of printing, the matter has been left in abeyance for the time being.

"Another important matter in which you will all be interested, is that of establishing district warehouses throughout the province. We do not advocate establishing retail stores, but recommend the central warehouse system, and propose to establish the same on a basis similar to that of the Grain Growers' elevators in the West. Our idea is that warehouses be secured at central and convenient points, around which we should have a number of local clubs. A manager and clerk should be in charge of each warehouse. The manager would be expected to keep in touch with the local clubs by frequent calls, seeing that their needs are supplied and arranging for the delivery to the warehouse of butter and eggs, etc. In order to finance the stock to be carried in warehouses, the local members would be required to subscribe cash to the capital stock of the United Farmers' Co-operative Co., Limited, an amount equal to each such local investment. A local advisory

board would be chosen but the office to be run as a branch of the head office. We have found that in districts where warehouses have been established by local clubs, there has been a tendency to buy from sources other than our head office, thus entering into competition with us rather than helping to increase our buying powers.

"We have found that many firms will sell to local clubs but ignore head office entirely. We are of the opinion that this system of warehouses would largely overcome this difficulty. For instance, if a traveller calls at a local warehouse to sell his goods and the manager requires them, he could say to the traveller, 'yes, we will take this stuff, I will send a requisition to the head office by first mail, you can take the matter up with them.' Such a system, we feel would go a long way toward overcoming two of our great difficulties: 1, the tendency of clubs to forget their responsibility to their head office and, 2, the object of its existence. It would also prove to wholesalers, the power of our organization. By placing all farmers' business through one channel, it gives us a buying power which few firms are in a position to ignore. This system has been tried out most successfully by the farmers organizations in the west and we are of the opinion that a similar system would work to a great advantage in Ontario.

"Another branch that we feel should be developed as soon as capital will permit, is the handling of grain and grass seeds. This will necessitate the establishing of a seed cleaning plant. Having in mind, the fact that these seeds are grown by farmers and purchased by farmers, there is no reason why there should not be a large co-operative business developed in this department."

Much discussion followed the reading of the Directors' report. Manning W. Doherty suggested that the product of the dairymen who are now producing milk for several different markets, offered another line of endeavor for the trading company and said some sound financial basis should be found whereby at least 50 per cent. of the retail price of milk for human consumption would go to the producer. The speaker referred to the Milk Association of the State of New York, which controls the sale of practically all the milk produced in the state. Other speakers advised more energetic action with respect to agricultural implements and machinery, urging that many clubs were not aware of how extensively the company was prepared to handle this business. Mr. Burnaby drew attention to the lack of capital up to the present, and to the fact that no satisfactory arrangements could be made with certain companies until a much larger volume of business could be offered them. This, he argued, required loyalty on the part of club members. The president also stated that everything could not be pushed at once and that the directors felt the live stock plans, district warehouses and the seed cleaning plant to be the most pressing matters, in the order enumerated. The sugar and coal questions were also aired fully, but little satisfaction could be secured as conditions at present, while improving, are by no means normal. Sugar cannot be obtained by the central office in car lots although one club secretary gave a quotation for a carload at 10.60 per cwt., which caused some surprise.

Considerable discussion arose over the fact that some delegates from clubs holding shares in the company could not vote, under the bylaws, unless they were themselves shareholders in their own right. Finally a resolution was passed setting aside (?) the provincial law in this matter and the meeting proceeded. The matter of dividends also caused a flurry, since the matter of distributing a 7 per cent. dividend among 3,500 shareholders, who were entitled to 77 cents each, was considered rather expensive; requiring, in fact, an expenditure equal to about 20% of the total dividend for postage, cheques, office work, etc. A resolution to authorize the recall of the dividend decided upon by the directors and the addition of the moneys to the reserve fund, was lost, however, and the dividends will be paid.

Gordon Waldron, solicitor for the company, discussed, "Commercial Law and Business Methods", especially in relation to the holding of real property, such as land or buildings, by local clubs. The possession of such property, said the speaker, makes it necessary to create a legal person in the form of chartered company before its security can be recognized. Mr. Waldron advised incorporating under the co-operative section of the Ontario Companies Act, since incorporation is thus much simplified and made much cheaper. Land or buildings must be held either in the name of a person or a company and the speaker suggested that shares be made of small value so as to create a widespread, direct interest throughout the community, in the undertaking. It was also brought out that subscribed, but unpaid capital is liable to be called for in case of financial difficulty and that a contract to take stock is just as much a contract as if the capital were paid up. In the case of shareholding clubs getting a vote for the shares held, at shareholders' meetings, it was pointed out that the legal way would be to appoint the secretary or delegate to the convention, an official trustee, with power to vote.

The Government came in for its usual share of criticism, particularly the Provincial Department of Agriculture. Agricultural Representatives were both scored and praised, in connection with their attitude toward the U. F. O. and the past regrettable differences between the Department and the organized farmers, especially with regard to the handling of farm products, were not belittled.

The question of egg-marketing through co-operative egg circles was explained by J. C. Stewart, Live Stock Branch, Department of Agriculture, Ottawa, who quoted the Dundas Co-operative Association as a successful example of an association that by cold-storage of eggs in July, August and September, 1918,

were able to export in quantity and return to members 5 cents per dozen above the current market price, after deducting all expenses. L. M. Powell, General Manager of the trading company, warmly seconded Mr. Stewart's plea for co-operative egg marketing and stated that they had a sufficient market for all eggs they could secure. Mr. Burnaby emphasized the increased price obtainable for uniform quality in eggs as the experience of the company.

Mr. Powell, in discussing some of the difficulties in connection with the Central office said, in part, as follows: "The difficulties which we had to contend with were many and varied, due to a great extent to abnormal conditions caused by the great war. The first in order was the restrictions placed on sugar. At that time we had under contract the delivery of seventy cars of sugar, which was immediately cancelled and we were compelled to buy when available in small quantities which, all told, did not aggregate one full car. The second item was the flour and feed, which comprised a large part of our business. Trading restrictions by which each household was entitled to only thirty days supply of flour, made it almost prohibitive for our clubs to accept mixed cars, as the mills insisted on loading from 150 to 200 bags of flour for every 500 bags, this being the minimum weight for a standard car. The absolute embargo placed on straight cars of feed being shipped from points West of the Great Lakes made a further reduction in our volume of business, which, under normal conditions, would mean from 300 to 500 cars. The monopoly of Oil Cake and Cotton Seed Meal is absolutely in the hands of the Government. Fortunately we have been able to secure oil cake from the Federal Government, but Cotton Seed Meal, which is used extensively in the dairy sections, has been impossible to secure.

"The coal situation in many respects has been the worst in the history of the country and the actual supply of hard coal has fallen far short of the allotment granted by the United States Government, which in turn was only 60% of the normal supply. At the commencement of the season we had written contracts with one of the large coal companies for one hundred and sixty cars anthracite, but in order to secure this amount we were compelled to pay in advance. We explained the situation to our clubs and called in an advance. As most of you are aware by a later order in council our contracts were automatically cancelled and we had no redress.

"At a general meeting of the directors in June, the question of taking over the Grocery business of T. J. Medland, Limited was brought before the Board and its favorable decision was brought forward by the Executive, the business being taken over the month following, retaining Mr. Harwood as manager of the Grocery Department.

"The main reason for branching out more strongly in this line was the fact that in buying out an established business, connections with the various wholesalers and jobbers were thus assured, that would take years to establish in any other way; in addition it assured us of a ready market for farm produce, viz., poultry and eggs. We are now in a position to more readily serve our clubs with groceries at a cheaper price than ever before. I may say in this connection that some criticism is expressed that we are not pricing some commodities as low as might be expected and in some cases the prices are on a par with local prices. While we are free to admit that this is a fact in some instances, we do claim that taking every article on our list and striking an average, you will discover a very great reduction, which we trust will be more apparent in the future. In addition we are having a constant fight with the Retail Merchant's Association, a powerful organization which endeavors to prevent in every way the jobber and wholesale firms from doing business with us on any terms. We are being placed on the Jobbers' list with many firms who hitherto refused to do business direct with us and as we are able to demonstrate our increased sales we will have less trouble in this respect.

"Many of our members not wholly understanding the business restrictions and the constant antagonism shown the co-operative movement, imagine we can give them the same service as old established houses, who have been years in reaching their present stage of prosperity. This is far from being the case and while we have accomplished a great deal during the short time we have operated our store, it is only by your hearty support at all times, that we may eventually hope to give you the service which the office staff so ardently desires."

Important amendments to the constitutions were made whereby the directors were empowered to borrow money on the assets of the company for the development of the business and to issue debentures if necessary. The Directorate is also empowered to appoint an Executive and the President and Manager are authorized to fix the salaries of all employees of the company receiving less than \$1,500 per year.

Officers.

The election of Directors resulted as follows: R. W. E. Burnaby, Jefferson; R. H. Halbert, Melancthon; A. A. Powers, Orono; E. C. Drury, Barrie; M. W. Doherty, Malton; R. J. McMillan, Seaford; B. C. Tucker, Harold; Elmer Lick, Oshawa; E. A. Van Allen, Aultsville. The appointment of an auditor was left in the hands of the Directors. The Directors elected the following officers for the ensuing year:

President, R. W. E. Burnaby, Jefferson; Vice-President, A. A. Powers, Orono; Secretary-Treasurer, J. J. Morrison, 130 King St. East, Toronto. Executive: R. W. E. Burnaby, A. A. Powers, and R. H. Halbert, Melancthon.

Meeting of Club Secretaries.

At a meeting of the managers and the secretaries of the local clubs, held in the Labor Temple on Friday, various matters having to do with the relations existing between the locals and head office of the trading company were taken up. Mr. Blatchford of the Central Office urged that the provisions and goods of that sort purchased through head office be sold to members of clubs for the retail price and that any profits accruing should be rebated later. The speaker said, "In all the time I have been connected with this company, there never was a time when things looked as well as they do now. Firms that would not do business with us a year ago are now asking for our business." Ed. Fulton, Secretary of a Huron County club, spoke of the difficulties of club secretaries and stated that one of the greatest difficulties encountered was in getting club members to make up full carloads of goods. He believed that the best solution to the question lay in the warehousing of goods; some method other than that at present followed must be found. The speaker said that slow delivery of goods from head office had been a great difficulty in the past, but that this had been almost wholly eliminated during the past month or two. "When we first started, we sold things as cheaply as possible. When we began to carry goods we began to find ourselves in the hole; now we sell held goods at almost current price. Goods from the car are sold at an advance of one per cent.", in addition to the secretary's two per cent. commission.

H. V. Hoover, Hastings County, spoke very instructively as to the co-operative shipping of live stock. The speaker stated that his club had started shipping when he took a small shipment to Toronto market and received \$12 for a calf that the drover had offered \$5 for. He said that there was great difficulty in getting farmers to trust someone else to sell their stock for them. Some difficulty had been experienced in getting stock weighed on private scales, but that if these scales were situated on public or railroad property, the owner could not refuse to do the weighing. Mr. Hoover advised that clubs should own their own scales if possible. "Every single animal that is shipped to the market," said the speaker, "is weighed individually and numbered. When it gets to the market and the animals are sold to a commission man, the numbers of the animals are taken and Smith and Jones are paid for the weight of cattle that they delivered to the club. This method is made necessary by the fact that animals are weighed in bunches at the stock yards and unless weighed individually before shipping, the weight of each man's contribution could not be secured so satisfactorily." The speaker urged further, that clubs stay with one packer or commission man as much as possible, and he believed in shipping to the packer rather than through the market, as about \$40 per car was saved. R. W. E. Burnaby, the President, warned the secretaries against over-buying on a falling market, stating that "any fool could make money during the past few years, with a rising market." Mr. Burnaby also urged that if a live-stock office was established on the Toronto market, it would probably require at least a \$25,000 investment the first year, and that if the venture were to prove successful the clubs must support it.

Canadian Creamery Association of Ontario.

In the neighborhood of sixty creamerymen gathered at the Carls-Rite Hotel, Toronto, on Wednesday, December 18, for the annual meeting of the Canadian Creamery Association of Ontario. The subjects up for consideration were important at this time and most of those present took an active part in the discussion. The 1918 president, Mack Robertson of Belleville, held down the chair in his usual efficient style and carried through the program on schedule time. J. A. McFeeters reported with regard to express rates and stated that the Express Companies were making application for a revision of the express tariffs which would yield them an increase in rates equal to 28 per cent. on long hauls and 100 per cent. on short hauls. A committee was appointed to confer with the produce men on this matter. The matter of whey cream was discussed by Mac. Waddell, who reported having made some whey butter in the U. S. and that no difference could be detected between it and the pure cream butter. He wanted an expression of opinion from the meeting, however, on this point and the same was found to be unfavorable, butter from whey cream not being thought up to the standard of butter from pure cream.

Mack Robertson took up the question of the National Dairy Council of which he had been elected a provisional member at the recent Dominion Dairy Conference held in Ottawa. The speaker called attention to the fact that a producer had been elected to the position of president of the new organization and that it was better to have a producer as president since the producers support the whole industry and are beginning to sit up and take notice. Mr. Robertson reported having pledged the association to the sum of \$100 for the preliminary financing of the Dairy Council, pointing out that every organization represented had been similarly pledged to \$100 for each representative on the Council. It was pointed out that much more money would be needed, but the Council was a good idea since it brings all the existing dairy organizations together under one head. It will not be necessary to meet often but it will be possible for the different branches of the dairy industry to work harmoniously together, through the Council, on all matters of mutual interest. W. G. Medd, one of the creamery butter representatives on the National Dairy Council from the Dairymen's Associa-

tion of Western Ontario, was present and explained the personnel of the Council and its provisional nature until a constitution and by-laws could be drawn up and approved by the various associations. It was suggested in the discussion that dealers in dairy products as well as manufacturers of dairy utensils be included as well as the city milk distributors. A question was asked as to the new Co-operative Dairy Company and whether it is to be connected with the Dairy Council or whether it is being helped by the Governments. Messrs Geo. Barr and Frank Hens were called upon with regard to the latter point and both declared that they knew comparatively little about it, but that it was possible the Governments might be called upon to give some assistance in the way of organization. The selection of Mack Robertson was approved for the National Dairy Council and resolutions were passed approving of the \$100 pledge and providing that "the representative of this association on the National Dairy Council shall be an ex-officio member of the executive of the association."

A splendid banquet was held in the evening at which the Hon. Geo. S. Henry, Minister of Agriculture for Ontario was present and E. H. Stonehouse, President of the National Council. The Minister referred in the course of his remarks to the failure of Ontario creamerymen to win any large share of the prizes at the exhibitions this year and pointed out that quality is sure to count a very great deal in the future. Peace will bring keen competition and the Dominion Government is providing ample chilled space for the European markets: in fact they are building vessels now for this purpose. The field for live stock is promising, said the Minister, and it will be many years before the shortage in live stock will be overtaken. He said that he had nothing special to promise, but thought it fortunate for the Agriculture of Ontario that the Prime Minister, Sir. William Hearst, had taken over the Portfolio of Agriculture for a period of 18 months, in as much as this had enabled the Premier to become acquainted with Agriculture to an extent that he was now ready to lend an attentive ear to any proposal for the betterment of Agricultural conditions.

Mr. Stonehouse emphasized the desirability of making the acquaintance of the producer; that he was not a bad fellow when you got to know him and that an increased confidence in each other was necessary if the producer and the manufacturer or dealer were to do business harmoniously. The speaker thought that it was our duty to bend every energy toward the co-ordination of every branch of the industry. We must maintain high standards of quality, said Mr. Stonehouse, if we are to win and keep for our products a place of respect in the world's markets.

There were other subjects taken up during the convention that were of very great practical importance, among which were the questions of weighing and grading butter, the recent commandeering order, the question of cream cans and the question of markets. Space does not permit as full a report as we would like but the following resolutions show the opinion of the meeting on some questions:

Oleomargarine.

"Whereas oleomargarine is only an imitation of butter, and

"Whereas the similarity of the package, wrapper, etc., in which oleo is handled, is used as a selling argument by oleo dealers, and,

"Whereas we believe that serious misrepresentation may be made by oleo being exhibited in the same building as dairy products at exhibitions and fairs,

"Therefore be it resolved that the members of this association be urged to refuse to exhibit creamery butter at any exhibition or fair unless we be assured by the management that oleo will not be exhibited in the same building as creamery or dairy butter; and that the law permitting the sale of oleo be amended to make it illegal to sell oleo in packages similar to creamery or dairy butter, and that it be sold in packages similar to lard and lard compounds; and that a copy of this resolution be forwarded to the Hon., the Minister of Agriculture, the Hon., the Minister of Trade and Commerce the Managers of the Toronto, London and Ottawa exhibitions and the Secretary of the Ontario Fairs Association."

Testing the Cream.

"Whereas any legislation regulating the testing of cream immediately raises many matters of a technical nature,

"Be it therefore resolved that this association request an opportunity of consulting with the Department of Agriculture before any such legislation is proposed and that a copy of this resolution be forwarded to the Hon., the Minister of Agriculture for Ontario."

Appreciation of Grading System.

"Resolved that this Association record its appreciation of the assistance to the creamery industry by the Provincial Department of Agriculture in appointing an official butter grader, and also our appreciation of the work done by Mr. J. H. Scott grader, and that a copy of this resolution be forwarded to the Hon., the Minister of Agriculture for Ontario.

Officers and Directors.

The election of officers and directors for the ensuing year resulted as follows: President, William Newman, Lorneville; First Vice-President, J. A. McFeeters, Toronto; Second Vice-President, W. Mac. Waddell, Strathroy; Secretary-Treasurer, W. G. Jackson, Simcoe; Directors, R. M. Player, Walkerton; A. Alderich, Delhi; L. A. Southworth, Omeme; P. C. Christie, Ottawa.

Oxford County Dairymen Organize.

One of the first bolts in the winter organization program of the Ontario Milk Producers' Association was let loose in the County of Oxford last week, on Monday and Tuesday. Meetings were held at Thamesford, Ingersoll and Embro, all of which were enthusiastic and well attended. Twenty-two members were secured at the initial meeting at Thamesford, 60 at Ingersoll and in the neighborhood of 30 at Embro. The prospects are that in each of these three places every milk producer will be brought into the organization during the next week or two. Other meetings will be held throughout the county in January, and it is hoped to bring about a county organization as a unit of the Ontario Association. Already, requests have reached E. H. Stonehouse, President of the Provincial Association, to visit several places in Oxford as well as in other counties.

A representative of "The Farmer's Advocate" attended the Ingersoll meeting and found a gathering that was extremely well attended; so well, in fact, that it was a surprise to those who had called it. G. J. Cook, Beachville, occupied the chair and in emphasizing the need for organizing, stated that farmers only want a fair price for their product, but that it requires organization to make sure of this. At the same time he urged that milk producers should see to it that only a good article is marketed. E. H. Stonehouse was the principal speaker of the evening, and explained very fully the organization of the Provincial Association and frankly outlined also some of its difficulties. "I want to say in the very beginning," said Mr. Stonehouse, "that we want to include in our organization milk producers from all branches of dairying. We want our membership to include the milk producer wherever he may be found in the Province of Ontario. If two men are producing milk, one for a cheese factory and the other for the city milk trade, why should they not get the same price for their product, keeping in mind what is really the equivalent of an equal price? While in the past it has been possible to organize very effectively in the immediate vicinity of large towns and cities, the increasing radius from which milk is drawn to supply the city milk trade, makes it impossible, any more, to do really effective work through purely local organizations. We have local and county organizations at present, but find it necessary to extend our effectiveness. We realize that as individuals we can do nothing, but as an organization we can meet the milk distributors on equal terms.

"I want to impress upon you the importance of the dairy industry, nationally. I do not think that the extent of its growth is realized generally. The amount of dairy business in Canada has practically trebled in the last 4 or 5 years, amounting in 1917 to practically \$200,000,000. To organize effectively we must put away the thought of being penalized for the fact that we are organized. There has been some attempt at that in the past on the part of dealers, but it is largely a thing of the past. It is just as much in the dealer's interest to put the dairy business on a sound basis as it is the farmers'.

"We must also give a great deal of attention to the cost of production. No two practical dairymen can agree on this matter, and it is necessary that we arrive at some basis of calculation shortly. Just now we are on the verge of a totally different set of conditions from those obtaining during the last few years, and we will find that organization will be made absolutely impera-

tive in the future if we obtain a fair remuneration for our labor and a fair price for our product."

The Oxford District Holstein Sale.

At their tenth annual Club sale, held in the City of Woodstock, on Tuesday, December 17, the Oxford District Holstein Breeders conducted one of the most successful sales in the history of the Club. There were sixty-six animals catalogued, and the full number passed through the sale-ring without one substitute being brought forward. The cattle were, with very few exceptions, brought into the ring in good condition, and taken as a whole were a credit to each individual consigner. There was an unusually large percentage of males catalogued, twenty-one, but contrary to the usual run of events the prices kept up well and there were several bidders who went home without bulls. Those who did buy paid an average of \$166.66 for the twenty-one sold. The fifteen two-year-old heifers also kept up well with an average of \$201.80, while the thirty cows three years old and upwards, sold at an average of \$233.66, each making up the grand total of \$13,335, a general average of \$205.15 for the sixty-six head sold. The heaviest purchaser for the day was John Lumsden, Ottawa, the purchases all being made through Prof. E. S. Archibald, of the Experimental Farm, Ottawa. Mr. Lumsden paid a total of \$2,020 for six head, among which was the 26.24-lb. four-year old, daughter of Correct Change, the top-priced cow of the sale. She was consigned by A. E. Hulet, of Norwich, and the purchase price was \$440. Mr. Hulet also had the honor of consigning the highest-priced cow to the 1917 sale. It will be noticed that only one animal catalogued sold below the \$100 mark, and this was a two-months calf.

Males.

Prince Netherland Segis, E. Gilbert, Talbotville.....	\$180
Canary Hartog, R. W. Newton, Tavistock.....	300
Pioneer Duke Hartog, G. G. Hewitt, Innerkip.....	175
Sir Josie Abbekerk, R. M. Robinson, Woodstock.....	150
Mechthilde Walker Korndyke, D. Riddle, Beachville	160
Paul Abbekerk Walker S. J. Peer, Norwich.....	160
Lowlands Prince Segis, Wm. Lewis, Mossley.....	185
Lowlands Count Korndyke, Bert Swales, Woodstock	160
Sovereign Posch Abbekerk, A. King, Brownsvill.....	165
Sovereign Posch Hengerveld, C. H. Claus, St. Catharines.....	170
Prince Ladoga Posch, Wm. Dunn, Beachville.....	110
Sir FINDERME B. B. Fayne, Fred Huntley, Putnam.....	375
Champion Abbekerk, W. M. McLeod, Thamesford.....	150
Colantha Fairmont Butter Baron, A. Glendenning, Woodstock.....	100
King Midnight Paul, Richard Conolley, Ingersoll....	190
Centre View Jiggs, J. Stevens, Burgessville.....	145
Centre View Sir Pontiac, E. Neville, Woodstock.....	165
Posch Sylvius, F. W. Vardon, Springford.....	170
Prince Colantha Sylvia, Andrew Dunn, Ingersoll.....	200
Duke Aaggie Colantha, B. D. Smith, Springford.....	120

Females.

Daisy Fayne Baroness, J. H. Schell, Woodstock.....	115
--	-----

Ruby Fayne De Kol, McGhee & Crawford, Woodstock.....	345
Graceland Segis Topsy, Jno. Lumsden, Ottawa.....	305
Pioneer Clay Hartog, Jno. Lumsden.....	305
Lakeview Winner, J. H. Richards, Woodstock.....	250
Princess Belle Segis, B. R. Town, Beachville.....	285
Spring Valley Beauty 2nd, H. Thistle, St. Paul.....	240
Victoria Queen Inka, Jas. Fleming, Woodstock.....	145
Bessie Wietske De Kol, J. H. Richards.....	150
Cedarbrae Butter Baroness, J. B. Thompson, Burford.....	190
Mechthilde Butter Baroness, J. H. Richards.....	215
Leila Posch Mechthilde, Thos. Dent, Woodstock.....	160
Belle Butter Baroness, Geo. Hart, Woodstock.....	200
Tidy De Kol Butter Baroness, Jno. Lumsden.....	250
Toitilla Inka Korndyke, Fred Huntley.....	145
Irene Colantha Johanna, N. Cocker, Woodstock.....	175
Elmdale Changeling Pearl, Jno. Lumsden.....	440
Royalton Korndyke Jewel, M. Ballantyne, Stratford	330
Delmar Pontiac Pearl, Frank Hill, Stratford.....	175
Lily Abbekerk Mercedes, F. A. Fitch & Son, Curries	245
Francey Hengerveld, N. Cocker.....	205
Alberta Pontiac Netherland, W. H. Curry, Woodstock.....	210
Hiemke Mercena Faforit, F. A. Fitch & Son.....	200
Hiemke Canary Pontiac, M. J. Breckenridge, Innerkip.....	230
Jessie Hengerveld Mercena, Geo. Hart.....	200
Lady Canary Mercedes, Jno. Lumsden.....	235
Pauline Canary Abbekerk, E. Neville.....	240
Blanche Nudine 2nd., Fred Dunseith, Stratford.....	195
Belle Fayne Shelby, Jno. Lumsden.....	285
Esther Pietertje, S. J. Monteith, Stratford.....	205
Gretqui Keyes Lyons, A. J. Bradshaw, St. Paul.....	135
Gretqui Lyons, Biggar Bros., Oakville.....	220
Lena Colantha Fayne, Biggar Bros.....	200
Mottle Colantha Fayne, Biggar Bros.....	255
Maggie Posch Cornelia 2nd, Geo. F. Town, Woodstock.....	130
Ladoga Butter Girl, Jas. Fleming.....	230
Mollie of Middleton, Jno. Waldie, Stratford.....	300
Lady Fayne Korndyke, McGhee & Crawford.....	255
Rose Rambler, Erle Greer, Woodstock.....	270
Pontiac Alice, E. Neville.....	230
Rattler Daisy Calamity, M. Brien, Ingersoll.....	175
Minnie Colantha Posch McGhee & Crawford.....	190
Rose Pietertje Wayne, A. Knox, Bright.....	210
May Teake Wayne, A. Waldie, Stratford.....	170

Lieut. Roy Vining Victim of Influenza.

Lieut. R. L. Vining, B.S.A., recently appointed lecturer on the Department of Animal Husbandry at the Ontario Agricultural College, died at Guelph on December 19 after a brief and unsuccessful struggle with influenza. Roy Vining was born at Thorndale, Ontario, 31 years ago; he graduated from the O. A. C. in 1914, and became engaged in District Representative work in Wentworth County. Enlisting early in the war he went overseas with the 149th Battalion, served in France as a Lieutenant, was wounded at Passchendaele and was invalided home early last spring. Roy Vining had many friends who will learn of his demise with sorrow, and the O. A. C. will lose a very promising and esteemed member of the junior staff.

Toronto, Montreal, Buffalo, and Other Leading Markets

Toronto Produce.

Live-stock receipts at the Union Yards, West Toronto, on Monday, December 23, consisted of 134 cars, 1,518 cattle, 118 calves, 3,047 hogs, 707 sheep and lambs. Choice butchers' steers, heifers and cows, strong and 25 cents higher. Common butchers' cows and bulls, steady; stockers and feeders, strong and 25 cents higher. Sheep and lambs, steady; calves, weak and lower. Hogs, \$18 to \$18.25, fed and watered; a few lots of selects at \$18.50.

Most classes of butcher cattle declined in price during the past week, but not nearly so much as drovers and sellers seemed to think. Yearling steers and baby heaves declined by about \$3 per cwt. Good butchers' steers and heifers were from 50c. to 75c. lower; medium butchers were from 75c. to \$1 per cwt. lower, while the light common stuff sold at fairly steady prices. The high run on Monday when added to left-overs from the previous week had a tendency to clog the market, and congestion prevailed during the next two days, despite the let up in the supply. The general quality of the steers and heifers was poor, although there was a fair number of good cattle. Compared with the previous week trade was slow, but it must be remembered that the best cattle of the year were on sale that week, and also that half-finished cattle will not command the same prices as well-finished animals. A lot of real good but only half-finished steers and heifers were rushed in to market, sellers thinking they would get fancy Christmas beef prices, but they made a big mistake, as buyers were not looking for that kind. There were a few odd lots of choice heavy steers that sold at 15c. to 16c. per

lb., but most of the best heavy lots were cashed at \$13 to \$14 per cwt. Choice butchers' steers and heifers sold at \$12.25 to \$13; good at \$11.50 to \$12, and common to medium at \$8 to \$10.50 per cwt. Light common eastern steers and heifers sold at \$6.25 to \$8 per cwt. Choice butchers' cows were a steady trade, and sold at \$10 to \$10.50 per cwt., a few at \$11 to \$12 per cwt.; good cows sold at \$9.50 to \$10 per cwt., and common to medium at \$6.50 to \$9 per cwt. Canners were a strong trade and sold at \$5.75 to \$6 per cwt. Bulls were a slow, draggy trade, and prices declined by 75c. to \$1 per cwt. on all classes except Bolonga bulls. Choice sold at \$10 to \$10.50, an odd extra choice animal at \$11 per cwt.; good bulls sold at \$9 to \$9.50, and common to medium at \$6 to \$8.50 per cwt. Stockers and feeders were an improved trade, and more could have been sold. Contrary to expectations prices advanced slightly, say from 25c. to 50c. per cwt. Choice feeder steers, 900 to 1,000 lbs., sold at \$11.25 to \$11.75 per cwt.; steers, 800 to 900 lbs., at \$10 to \$10.50; steers, 700 to 850 lbs., at \$8.50 to \$9.50, and common light steers and heifers, at \$6.50 to \$7.50 per cwt. Milch cows and springers were also lower in price, and trade was very slow, a few extra choice cows sold at high prices, but they were an exception. Best cows sold at \$90 to \$125, a few at \$140 to \$150, and common to medium cows at \$50 to \$80 each. Sheep during the first part of the week were a steady trade, but on Thursday prices declined 50c. per cwt.; choice selling at \$9 to \$9.50, and heavy fat at \$7.50 to \$8.50 per cwt. Lambs were also a weak trade, and prices declined from 50c. to 75c. per cwt.; choice selling at

\$14 to \$14.25, and common lambs at \$10 to \$11 per cwt. The market for calves was also slow, and prices were at least 50c. per cwt. lower; choice selling at \$16.50 to \$17; medium at \$12 to \$14, and common calves at \$5 to \$7 per cwt. Fed and watered hogs sold at \$18 to \$18.25 per cwt., and weighed off car hogs at \$18.25 to \$18.50 per cwt.

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 \$2.11. 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, 72c. to 75c.; No. 3 white, 71c. to 74c. Manitoba (in store, Fort William)—No. 2 C. W., 76½c.; No. 3 C. W., 73½c.; extra No. 1 feed, 73½c.; extra No. 1 feed, 72½c.

Corn.—Canadian, (track, Toronto)—Sample, \$1.45 to \$1.50; American, (track, Toronto), No. 3 yellow, \$1.62; No. 4 yellow, \$1.57.

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

Barley (according to freights, outside)—Malting, new, 95c. to \$1.

Buckwheat (according to freights outside)—No. 2, \$1.42.

Rye (according to freights outside)—No. 2, \$1.58, nominal.

Flour.—Manitoba, (Toronto)—War quality, \$11.35. Ontario (prompt ship-

ment)—War quality, \$10.25, in bags, Montreal and Toronto.

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

Hay.—(Track, Toronto)—No. 1, per ton, \$23 to \$24; mixed, per ton, \$20 to \$21.

Straw.—(Track, Toronto)—Car lots, per ton, \$10.50 to \$11.

Hides and Wool.

Prices delivered in Toronto, furnished by a large dealer.

City Hides.—City butcher hides, green, flats, 18c.; calf skins, green, flats, 30c.; veal kip, 20c.; horse hides, 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; horse-hides, 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.

Butter.—Prices again kept stationary on the wholesales during the past week, selling as follows: Creamery, fresh-made lb. squares, 56c. to 57c. per lb.; creamery, cut solids, 53c. to 54c. per lb.; dairy, 45c. to 50c. per lb.

Oleomargarine—32c. to 34c. per lb.

Eggs.—There was practically no change in eggs, which brought the following prices wholesale: Cold storage, 53c. to

The Molsons Bank

IS ALWAYS GLAD TO ASSIST FARMERS

in any legitimate financial way to make their farms more productive.



State your requirements to our local manager and he will be glad to advise and assist you.

54c. per doz.; cold storage, selects, 58c. per doz.; new laids, 70c. per doz.; new laids, in cartons, 75c. per doz.

Chèese.—Cheese sold at unchanged prices, viz., new, 28c. to 29c. per lb.; new twins, 28½c. to 29¼c. per lb.

Honey.—Five, 10 and 60-lb. pails, per lb., 28c. to 29c.; sections, each, 30c. to 40c.

Wholesale Fruits and Vegetables.

Apples.—The market kept stationary on apples, Ontarios selling at \$3.50 to \$7.50 per bbl., and \$1.50 to \$3.25 per box; Western boxed varieties selling at \$2.50 to \$4.

Cranberries.—There was a sharp advance in cranberries owing to their scarcity, the late keepers selling at \$18 to \$20 per bbl.

Grapes.—Spanish Malagas came in freely, were generally of choice quality, and an active sale at \$12 to \$15 per keg.

Grapefruit became more active at slightly advanced prices; Florida selling at \$4.50 to \$6 per case; Cuban at \$3.50 per case.

Lemons.—Prices kept stationary at \$5 to \$5.50, and a very few at \$6 per case.

Oranges.—The California Navals, which arrived during the past week, were exceptionally fine quality; juicy, sweet and well colored, selling at \$4.50 to \$7.50 per case. The Floridas selling at \$5.50 per case, and Pineapple Floridas at \$6 to \$6.50 per case.

Tangerine prices did not vary, ranging from \$4 to \$4.50 per half strap.

Tomatoes.—Hot-house tomatoes have been very scarce and had an active demand at the advanced price of 35c. per lb. for No. 1's; No. 2's selling at 22c. to 25c. per lb.

Beets, carrots, cabbage, onions and turnips continued to be a very slow, draggy sale at unchanged prices: Beets, \$1 per bag; cabbage, \$1 to \$1.50 per bbl.; carrots, 60c. to 75c. per bag; onions, \$1 to \$1.25 per 75-lb. bag, \$1.75 to \$2 per 100-lb. bag; turnips, 60c. to 65c. per bag.

Potatoes.—The market kept stationary, Ontarios selling at \$1.50 to \$1.60 per bag, and N. B. Delawares at \$1.85 to \$1.90 per bag.

Brussels sprouts have become quite scarce and advanced to 18c. to 20c. per box (berry box).

Cauliflower also advanced owing to its scarcity, selling at \$7 per bbl.

Celery.—Thedford celery proved an active sale at \$7 to \$8 per case (California style crate).

Lettuce.—Leaf lettuce put up in bunches (stating the number of dozen bunches) has had a good demand at 25c. to 50c. per dozen bunches, according to size and quality. (It will not sell here by the pound.)

Buffalo.

Cattle.—Canadian cattle topped the market at Buffalo last week at \$18, and the best load of heifers came from the Dominion at \$12.25. While the receipts for the past week were rather liberal, the supply generally ran largely to a medium and fair kind of cattle. Shipping steers generally ran to a less desirable kind, in consequence of which buyers were slow to take hold of them, and then generally at prices a big quarter to half dollar under the preceding week. The load of \$18 Canadians were steers, uneven in weight but very fat and of excellent quality. A load of weighty native steers, fleshy but not overly finished sold at \$17.50, with other sales of shipping steers running from \$15 to \$16.50. Butchering cattle generally were lower, and the supply

The Farmer-Banker Alliance



You go to your lawyer for legal advice; to the doctor for medical advice; why not to The Merchants Bank for financial advice?

If you want a loan to buy cattle, hogs or equipment—if you want information as to how to invest money—come to those who make a business of financial matters, and are in a position to give you sound and impartial advice.

THE MERCHANTS BANK

Head Office: Montreal, OF CANADA Established 1864.

with its 102 Branches in Ontario, 32 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 53 Branches in Alberta, and 8 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

was mainly of the less desirable grades. Feeders sold steady but stockers were slow. Bulls weaker, and the fresh cow and springer trade was not as good as for past weeks. Market was weak throughout the week. Offerings for the week totaled 6,000 head as against 5,275 head for the previous week, and as compared with 3,575 head for the corresponding week a year ago. Quotations:

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

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

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

Cows and Heifers.—Best heavy heifers, \$11.25 to \$12; fair to good, \$10.50 to \$11; good butchering heifers, \$10 to \$10.50; fair butchering heifers, \$8 to \$9; light common, \$5 to \$7; very fancy fat cows, \$10 to \$11; best heavy fat cows, \$9 to \$10; good butchering cows, \$8.25 to \$8.50; medium to fair, \$7.50 to \$8; good canners, \$5 to \$5.25; cutters, \$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.

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

Milchers and Springers.—Good to best, small lots, \$100 to \$135; in car loads, \$90 to \$110; medium to fair, small lots, \$80 to \$85; in car loads, \$70 to \$75; common, \$50 to \$55.

Hogs.—Market, considering the supply, was quite satisfactory all of last week. Demand was good, and a fairly good clearance was had from day to day. Monday, Tuesday and Wednesday the better weight grades sold generally on a basis of \$17.80, and the next two days the bulk landed at the new fixed minimum of \$17.70. Underweight hogs, which consisted of hogs weighing less than 150 pounds, were stronger as the week advanced. Monday the bulk of these sold at \$16.50; Tuesday the majority moved at \$16.75, and the next three days the bulk brought \$17. General price for throwout roughs was \$15.50, and stags ranged from \$13 down. Receipts the past week were 42,000 head, being against 40,534 head for the week before, and 36,600 head for the same week a year ago.

Sheep and Lambs.—Prices on lambs at Buffalo last week showed a big margin over all other marketing points. Monday the best lots brought from \$15.50 to \$15.65; Tuesday and Wednesday the majority went at \$16, few \$16.25; Thursday the best ranged from \$15.75 to \$16, with one load \$16.25, and Friday prices were lower, bulk landing at \$15.75. Cull lambs ranged from \$13.25 to \$14.25, and skips went as low as \$10. Sheep were steady all week. Wethers were quoted from \$9.50 to \$10; good to choice ewes brought from \$8 to \$8.50, and cull sheep sold downward from \$5.50. Receipts for the past week totaled 17,200 head, as compared with 18,750 head for the week preceding, and 15,000 head for the same week a year ago.

Calves.—It was generally a \$19.50 market on top veals for the first four days of

last week, and Friday, under a keen demand, prices were up 50 cents, bulk being landed at \$20. Cull grades sold from \$16 down, according to quality, a grassy class of calves bringing from \$5 to \$7.50. For the past week receipts were 2,200 head, the week before there were 2,449 head, and for the same week a year ago 1,750 head.

Montreal.

A local dealer advertised the beef of a fancy steer at 90c. per lb., retail, the cost of the animal having been 60c., live weight. This certainly marked a new high record for beef, and comes perilously near to a realization of the prediction of a few years ago that beef would go to \$1 per lb. The animal in question was a prize winner and the beef was extra fancy, so that the price cannot be taken as indicating a commercial level. Offerings on the markets were fairly large and quality was not particularly fancy, for the most part, for the period of the year. Generally speaking, 15c. was top for choice steers, live weight. From this, the price ranged down to 11c. for ordinary grades. Canning cattle sold down to around 5c. to 6c. for cows. Lambs sold around 16c. to 16½c., and sheep from 9c. to 11c. Hogs sold at 18¼c. for selects and 17¾c. to 18c. for mixed, weighed off cars.

Dressed Hogs.—Demand for dressed hogs continued good, and country dressed sold at 22c. to 22½c. per lb. with abattoir dressed at 24½c. to 25½c. per lb.

Poultry.—The higher temperatures have not been favorable to the market for poultry. Consumers have been delaying making purchases, fearing that the birds would go bad on their hands. At the same time, they have been hoping that this fear would also cause dealers to throw over some stock on the market and cause it to go down. Last week there was no evidence of lower prices, quotations being as follows: Choice turkeys, 40c. per lb., wholesale, with dealers quoting 50c. and more retail; lower grades of turkeys, 38c. to 39c.; chickens, 25c. to 30c. for poor to good, and up to 33c. and 34c. for milk-fed. Fowl sold at 24c. to 28c., geese at 25c. to 26c., and ducks at 32c. to 34c. per lb.

Eggs.—The market for eggs has been showing much strength of late and prices are at the top. The mild weather was not a very great factor, though it would become so if extended through the winter. Fancy, new-laid stock sold at 73c. to 75c. per dozen; strictly new-laid at 70c.; selected fresh, 55c.; cold storage selects, 54c., and cold storage No. 1, 50c.

Butter.—The tone of the market for creamery continued firm, and there was little prospect of a moderation in price for a long time to come. Meantime, finest creamery was quoted at 52½c. to 53½c. per lb.; fine at a range of one cent down, and dairies at 40c. to 45c. per lb.

Grain.—No. 3 Canadian Western oats were quoted at 89c. per bushel; extra No. 1 feed were 89½c.; No. 2 feed, 81½c.; heated No. 1 feed, 78½c.; Ontario No. 2 white, 87½c.; No. 3 white, 86½c.; ex-store No. 3 yellow corn, \$1.62½ to \$1.65; No. 4 yellow, \$1.62 to \$1.62½; No. 6 yellow, \$1.59 to \$1.61½. Ontario extra No. 3 barley, \$1.23; No. 3, \$1.21; Manitoba sample barley, \$1.08, ex-store.

Flour.—Prices of flour showed very little change. Manitoba spring wheat flour was \$11.25 per bbl., in bags, Montreal freights and to city bakers, this being for standard Government grades; Ontario

To Succeed You Must Save

Above all things Canadians must learn thrift to-day. Thrift implies saving systematically and intelligently, so that each succeeding day or week finds one better off than before.

This Bank will be glad to open a Savings Account for you, where either one or more persons may save. Call or write for full information.

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

THE BANK OF NOVA SCOTIA

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

13A



winter wheat patents, \$11.10 per bbl., in new cotton bags. Rye flour, \$11 to \$11.25; oat flour, \$11.20; barley flour, \$9.20; corn flour, \$8 to \$10 per bbl.

Millfeed.—Pure grain mouille was quoted at \$60 to \$70 per ton; pure oat mouille, \$64; cornmeal feed, \$60 to \$62; barley feed, \$54 to \$60; mixed mouille, \$48; bran, \$37.50; shorts, \$42.25 per ton.

Hides.—Prices were steady, with cow hides 18c. per lb., bulls 16c., steers 22c. flat; veals, 35c.; grassers, 25c., and kips, 20c. Lamb skins, \$3 each; horse hides, \$5 to \$6.75; tallow, rough, 3½c.; abattoir fat, 8c., and rendered, 16c. to 16½c. per lb.

Chicago.

Hogs.—Butchers', \$17.40 to \$17.65; light, \$16.65 to \$17.40; packing, \$16.50 to \$17.40; throwouts, \$15.50 to \$16.50; pigs, good to choice, \$13.75 to \$14.75. Cattle, compared with a week ago beef steers, 50c. to 75c. lower. Fat cows and heifers steady. Other classes, 50c. to 75c. lower. Bulls, 25c. to 50c. lower. Canners, 25c. higher. Calves, \$2 lower. Stockers and feeders, about steady. Sheep, compared with a week ago, fat lambs 25c. to 50c. lower. Wethers and yearlings, 50c. to 75c. lower. Ewes, steady to 25c. lower. Feeding lambs generally steady.

Sale Dates.

Jan. 15, 1919.—Executors of A. C. Hallman Estate, Breslau, Ont.—Holsteins.

Jan. 15, 1919.—Geo. J. Barron, R. R. 3, Brantford, Ont.—Holsteins.

Jan. 28, 1919.—Victoria County Pure-Bred Stock Association.—Lindsay, Ont.

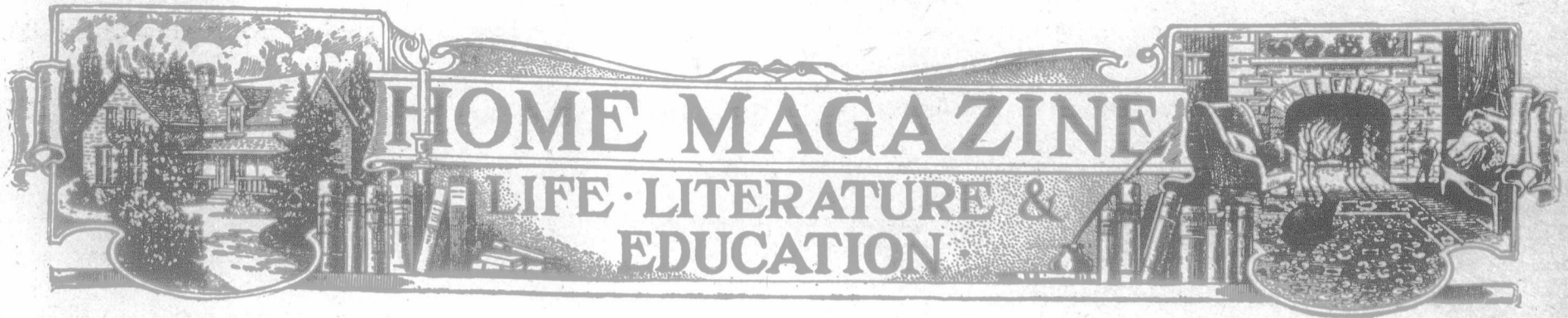
Jan. 30, 1919.—Peterboro County Short-horn Breeders' Association, Peterboro, Ont.

Feb. 5, 1919.—John Miller, Ashburn, Ont.—Shorthorns.

Feb. 6, 1919.—Thos. L. Mercer, Markdale, Ont.—Shorthorns.

Feb. 6, 1919.—J. J. Elliott, R. R. 4, Guelph, Ont.—Shorthorns.

March 5, 1919.—Guelph Fat Stock Club, Guelph, Ont.—Pure-bred stock. J. M. Duff, Secretary.



A Resolve for the New Year.

To keep my health! To do my work! To live!
 To see to it I grow and gain and Give!
 Never to look behind me for an hour!
 To wait in weakness, and to walk in power:
 But always fronting onward to the light,
 Always and always facing toward the right.
 Robbed, starved, defeated, fallen, wide astray—
 On, with what strength I have!
 Back to the way.

CHARLOTTE P. STETSON.

Review of the Year.

IN the following review, of necessity, only the outstanding events are recorded. Many volumes would be required to notice, even in slight detail, all that transpired during eventful 1918.

When the new year arrived, last year, the prophets of the world were checkmated. Even the most far-seeing of them could not venture to foretell, with any degree of certainty, what would take place during the next 12 months, or what might be the condition of the nations at the end of that time.

In the Far East only was success fairly continuous with the Allies. The British troops had been making fairly satisfactory progress in Mesopotamia, and Gen. Allenby's forces, on Dec. 10th, 1917, had taken Jerusalem.

Nearer home, owing to the sudden defection of Russia, everything was confusion. Kerensky's Government, with its determination to help in the War to the finish, had been overthrown. Blamed by the Royalists and conservative republicans for bringing in socialistic experiments in civil administration and abolishing the death penalty for misconduct in the army, and, on the other hand, opposed by the Bolsheviks, who demanded an immediate peace, the total exclusion of the educated and propertied classes from political power, and redistribution of the wealth of the country, Kerensky had been left with no party at all save the loyal women's "Battalion of Death" and a following of the Czecho-Slovaks in Siberia, where a separate temporary independent Government had been set up, with Kerensky as Minister of Justice, but so impotent and so far removed from the Allies on the West front that it could be of no present assistance in the War. In the meantime the Bolsheviks, winning a great following in middle western Russia because of their policy of peace, had set up their "Republic", and, with Lenine and Trotsky at the helm, had entered into negotiations with the Germans at Brest-Litovsk. As a consequence of all this, anxiety reigned everywhere among the Allies, and the Teutons, with renewed courage, were preparing to hammer their heaviest blows, the Germans along the Western front, and the Austrians in Northern Italy.

At this point begins the story at New Year's of 1918. From that point let us continue it in brief, taking the events month by month.—To save space the events are merely catalogued.

JANUARY—Lloyd-George states clearly the war aims of the Allies; the reports state "The text leaves to Germany no reasonable excuse for continuing the war". German Military representatives at Brest-Litovsk refuse the principle of self-determination of peoples, and peace without annexations, proposed by the Russians. Allied airmen drop copies of Pres. Wilson's address down into German towns. Gen. Pershing issues an order prohibiting use of intoxicating liquors in American army. Bolsheviks try to spread their

revolutionary ideas in Germany and Austria. They reject the Teuton peace proposals at Brest-Litovsk as too severe. The Supreme War Council of the Allies meets in Versailles last week in January.

FEBRUARY—Rumors of strikes in Germany, even in the Kiel ship-building yards, the airplane plants at Adershof, the arsenal at Spandau, and the coal and iron mines in Westphalia. The people clamoring for food. Troops called out to suppress strikers, several papers ordered to cease publication, and many socialists arrested. Finland in revolt against Bolsheviki and inclined to receive help from Germany. Trotsky, at Brest-Litovsk declares aim of Bolsheviki against Imperialism everywhere. Lull continues on West front except for airplane activity and desultory bombardment along lines. Canadians still chiefly near Lens. Austrians defeated on the Asiago Plateau in Italy.

United States troops given a sector in Lorraine to hold. News comes that the Supreme War Council has decided to carry on the War "until peace shall be obtained based on principles of freedom, justice, and respect for international law." Strikes in Germany crushed by Military pressure. Bolsheviks order demobilization of Russian armies on all fronts, and a week later, under ultimatum from Germany, sign formal peace. They declare all former agreements with the Allies null. The Ukraine forms a separate peace with Germany and sets up a Republic. Abdul Hamid dies in Constantinople. Allied airmen drop speeches of Allied statesmen in Germany. Preparations for great battle all along West front, Allenby still advancing northward in Holy Land.

MARCH—Decided that Canada shall "go dry" April 1st. John Redmond dies; John Dillon succeeds as leader of the Nationalists in Ireland. Air raids on England continue. Allied airmen raid German towns in reprisal. Roumania surrenders to Germany. On March 21 Germans launch a great drive, especially along the Somme and centering at Cambrai, a secondary drive being made in Ypres Sector. Brunt borne by Byng's Third and Gough's Fifth armies. Gough's army not supported enough; Germans break through but further advance checked by a "scratch army" of American engineers, mechanics and Chinese coolies, collected by Brig. Gen. Carey, who hold for 6 days until the lines reunite. Canadians holding country between Lens and Hill 70. In House of Lords on March 19 Lord Parmoor moves a resolution approving of a League of Nations and the constitution of an international tribunal to prevent war.

APRIL—The great conflict still rages along whole line: "Battle of the Lys" in the North; "Third Battle of the Somme" and "Battle of Amiens" in centre; Belgians and British holding the northern division of the western front; Canadians are stationed at Vimy Ridge (at least one Division also to the North in Lys Valley); French and Americans holding lines from that to extreme south beyond Rheims. Kaiser at St. Quentin with Ludendorff and Hindenburg. German right wing (north) under Bavarian Crown Prince Rupprecht and Gens. von Bulow and von der Marwitz; left wing (south) under German Crown Prince and Gen. Von Hutier. Bailleul taken by Germans, and they also occupy Meteren, Paschendaele, Kemmel, and Langemarck, but are held back by British between Givenchy and Robecq. On April 18th Foch begins great offensive south-east of Amiens. Reports say "Doubtless we have reached the most critical stage of the war." Neverthe-

less optimism reigns. Foch's army of reserves is still intact, the Belgian army has re-organized, and American soldiers are arriving every day. Gavrio Prinzip, who set the match to the War by assassinating the Austrian heir-apparent, Archduke Franz Ferdinand and his wife at Serajevo, Bosnia, in June 1914, dies of tuberculosis in a fortress near Prague.

MAY—Lull in fighting all along West front except at one or two points, Americans throw back a sharp attack at Montdidier. Germans still have 250 Divisions on West front. British light naval forces partly block channel at Ostend by sinking the old "Vindictive" filled with cement. Some weeks ago a private letter from Emperor Charles of Austria was discovered and published in France, to show responsibility of Germany for starting the War. Now letters from Prince Lichnowsky (former German ambassador to England) appearing in Copenhagen papers, confirm this, throwing whole blame upon military clique at Berlin. On May 8th Germans under von Arnim attack in north. French reinforcements attacking Kemmel Hill. Roumania is forced by Central Powers to sign the Peace of Bucharest, by which her territory is butchered, large slices going to Austria and Bulgaria. Peasants of Ukraine are rebelling against excessive demands for provisions made by Germans. In Greece, under Venizelos, an army to help Allies has been mobilized. Canada's first Tank Battalion has been recruited in Toronto. Lloyd George, announces at Edinburgh that the Allies are "now building ships faster than the enemy can sink them, and sinking submarines faster than the enemy can build them." On May 27 enemy launches a great attack north of Paris, where French and Americans are holding the lines. In 4 days advance 26 miles. Von Boehm advances along Chemin des Dames, and von Bulow along Aisne; meanwhile artillery bombardments set up along the Somme. On May 29 French evacuate Soissons and are pressed back northwest of Rheims. Kaiser on hand to watch progress. Italians again in conflict along the lower Piave. (It is now thought that the unaccountable cessation of hostilities by the Germans during the greater part of May was due to influenza among the troops).

JUNE—In a great counter-attack French and Americans drive enemy back from the Marne and beyond, and Paris is again saved. Elsewhere along Allied lines enemy held back. Compiegne and a salient on east bank of Oise evacuated by French, but probably by order of Foch to save his men. Aim of Germans in "Battle of the Oise" to drive a wedge between British on North and French and Americans on south, frustrated. Enemy's attempt on June 13 to take Rheims repelled by 2 divisions of African troops (French). Barons of Esthonia and Livonia (Russian provinces near Baltic given over to Germany) protesting against German rule, and Ukraine on verge of active rebellion. Deputy Hugo Haase, Independent Socialist in the Reichstag vigorously attacks the German foreign policy and the military rulers, declaring the German people must take matters into their own hands. Says the Government's method everywhere are proving the "strangler of democracy and freedom". On June 28 the French and British take offensive, Haig's men in the Lys Valley and the French on Soissons front. Italians gain great victory over the Austrians, from Piave on over Plaidj of Venetia. Ex-Czar Nicholas assassinated. 900,000 American soldiers now in France. Hospital ship *Lland-very Castle* sunk by submarine.

JULY—Don Cossacks organizing against Bolshiviki, and movement spreading among Czecho-Slovaks everywhere and especially in Siberia. Italians advancing in Albania—the first step towards the recovery of Serbia. On July 15 the Crown Prince begins great drive between Chateau Thierry and Rheims using artillery, tanks, poison gas and airplanes. Foch's French and Americans in smashing counter attack, drive him back, taking 20,000 prisoners and over 400 guns. Paris again saved. Meantime in North Scottish troops take Meteren. Australians also help to save Hazebrouck with its road system.

AUGUST—French and Americans follow up victory, pressing back enemy towards Vesle river. French British and American troops advance on Aisne front, and French strike hard on Somme front to prevent troops from being taken to help Crown Prince. French Generals Mangin and Gouraud especially mentioned. Whole Austrian Cabinet resigns. Field Marshal von Eichhorn, German commander in the Ukraine assassinated. Foch again renews offensive which drives German lines beyond the Ourcq. Captain von Beerfelde sends a remarkable petition to the Reichstag, indicting the German leaders in 1914 of "criminal forgery and abominable slander," and calling for arrest of Bethmann-Hollweg. Towards end of month a great battle again raging along a front of over 100 miles. Gen. Mangin makes gains in Valley of Oise. British 3rd and 4th armies, assisted by Australians, make great gains. Byng takes town of Albert. Germans retreating in Lys Valley. Believed they may make a stand all along old "Hindenburg Line." Allies sending arms to Czechs to fight against Bolshéviki. Soldiers from Japan, the United States and Canada being sent to join British troops at Vladivostok.

SEPTEMBER—Allies continue to make great progress all along the West front, taking hundreds of villages. Mangin takes Noyon; British take Bapaume, Peronne, Courcellette and Thiepval and practically end the "Third Battle of the Somme". In Valley of the Lys, Bailleul has come back to the British. On Aug. 26 Canadian troops smashed through the Hindenburg Line, carrying the Drocourt-Queant defensive in the Arras Cambrai sector. Subsequently English troops broke through at other points. Canadians are now farther east on the Scarpe than any Allied troops have been since the retreat from the Marne in 1914. Town of Ham taken by French. British take Kemmel Hill.—Dunkirk and Calais are again safe. Ex-Czarina and her daughters murdered. On Sept. 12, Pershing's Americans take the St. Mihiel salient. There are now 3,200,000 Americans in France. In Macedonia French, British, Serbian and Greek forces make a considerable advance. Austria-Hungary makes peace overtures, which are refused.

OCTOBER—The "Hindenburg Line" has practically ceased to exist. Terrific battle still rages all along Western Front. British and American troops cross St. Quentin-Scheldt Canal. Canadians carry Bourlon Wood near Cambrai. Petain's forces in Champagne driving upon west side of Argonne Forest and Americans on west. Turk 7th and 8th armies blotted out by Allenby in Palestine and Syria. He takes Damascus. Reports say people in Germany are blaming Prussian Government. Chancellor von Hertling resigns. Haig's British and Australian troops advance in valley of Upper Oise. British troops enter Armentieres on 4th Oct., and Lens and La Bassee are evacuated by enemy. Mangin's Frenchmen advance along Chemin des Dames, Gouraud's

troops capture Challenger and Blanc Mont, and Berthelot's forge forward between Rheims and the Aisne. . . Meanwhile French troops under Degoutte land on Flanders coast to help the Belgians and Plumer's 2nd British army. Plumer takes Zillebeke, Passchendaele and Messines Ridges and the town of Roulers. Belgians meanwhile are moving towards Ostend, and Germans are beginning to remove their guns from Belgian Coast. . . Germany asks Pres. Wilson for an armistice. He demands acceptance of his 14 propositions and withdrawal of troops from invaded soil as a guarantee of good faith. Says no peace with Germany so long as a military autocracy rules her or while atrocities continue on land or sea. (Premier Lloyd-George, simultaneously with Pres. Wilson, had formulated armistice conditions. The two were almost identical in content, but Pres Wilson's, being the more compact and concrete in form, have been generally accepted for use by the Allies). . . Ferdinand of Bulgaria abdicates from throne. . . On Oct. 9th Currie's Canadians enter Cambrai. . . Gouraud's French troops and the Americans on opposite side of the Argonne clear that forest of the enemy. . . Hungary declares herself an

... "All Russian Provisional Government" set up at Omsk, Siberia, overthrown after a week and another set up under Admiral Kolchak. . . On Nov. 29 William Hohenzollern formally abdicates.

DECEMBER—British, French and American troops move on to Rhine and in Lorraine to preserve order until peace is signed. Chaotic conditions in Germany where the Moderate and Independent Socialist Ebert-Haase Provisional Government is menaced by the extreme "Spartacus" group headed by Dr. Karl Liebknecht. People clamoring for a National Assembly.

... On Dec. 14 Dr. Paes, President of Portugal assassinated; crowd at once kill the murderer. . . By Dec. 16 Allied troops are all along the Rhine, to protect the people as long as they are peaceable but leave no chance of ominous disorder. 100,000 Canadian troops will remain in Germany until at least March 1. Allied troops also remain in Constantinople, Odessa and Vladivostok; also ships of British Navy in Baltic sea where they may tend to check Bolshevik raids in Estonia. . . Last of Germans leave Finland. Peasants in Northern Russia mobilizing against Bolsheviki. . . In Ger-

The Christmas Number Competition.

"Women's Work on the Farm"

"NAIDA NAC," CUMBERLAND CO., N. S.

IF I were asked how a woman could accomplish the work that is required of her on a farm, with the least waste of time and strength, and if brevity was to be one of the strong points of my answer, I should reply, "Machinery and system." I put the helps in the order of their importance. System in a household is of inestimable value; but as every woman's strength is limited, machinery takes its place in the household economy, and with its aid a woman is enabled to respond to the multitudinous duties devolving upon her, these hurried days, with a certain amount of ease to herself and consequent comfort to her family.

We often hear it remarked that "the present-day farmer's wife does not work as hard as her grandmother did." In a sense that is true, but the life on a farm has changed so much in the last fifty years that it is not exactly easy to measure

or straining her muscles turning the churn handle or separator, or—but trust a woman to extend the list when once she finds out what machinery can be made do.

A wise woman sees to it that the water supply is not only *what* it should be, but *where* it should be. A keen observer once said: "A wife with a good water and wood supply should be a good-natured woman," and there is a good deal in it. There is just one thing that should bar a woman from having as many labor-saving devices as possible, and that is her inability to pay for them. But when she goes without them because they cost money, though she has it, such a course of action is inexcusable, and she not only shows herself lacking in a proper proportion of values, but will find herself a "back number" when she should be at her best.

The number of lesser labor savers apparently, has no end. If one lacks ideas in that line a visit to a good hardware store or a study of the advertising pages of the magazines will help to supply the deficiency.

I hope I will not be thought of as urging indiscriminate or extravagant buying. Far from it; but where there is the money to do it, or when it even has to take precedence of a *seeming* necessity, ponder the matter carefully for there is a difference between a *seeming* and a real necessity.

Then profit by the experience of others. The papers and magazines abound in helpful hints, recipes for everything under the sun, tried remedies, short cuts and all sorts of things that it will pay to read and try. Of course, discrimination must be used, for what fits one case won't do for another; but the variety is so great that everyone can find help.

If it can be managed go to Women's Institutes, conventions, etc. Give and thereby get help. Have a hobby, outside of your housework and try and devote a few minutes, at least, every day to it. If you are subject to the same trials and tribulations of ordinary mortals you will probably "miss days," but the very striving thereunto will be of itself a help. It does not make so much difference what the hobby is; reading, music, gardening or anything. All are good, the difference being in the woman herself. But all the "labor savers" will be no good, "hobbies" will be as naught to the woman who does not use system about her household management. Fortunately it is something that can be acquired, though it seems to be "hard sledding" for some women, I acknowledge. A system in a home must have a certain amount of flexibility to be workable. Too "hard and fast" a system cannot make for the happiness and well being of a family with, naturally, different inclinations. Notwithstanding this, have system and keep it well oiled, so to speak, so that it will run smoothly.

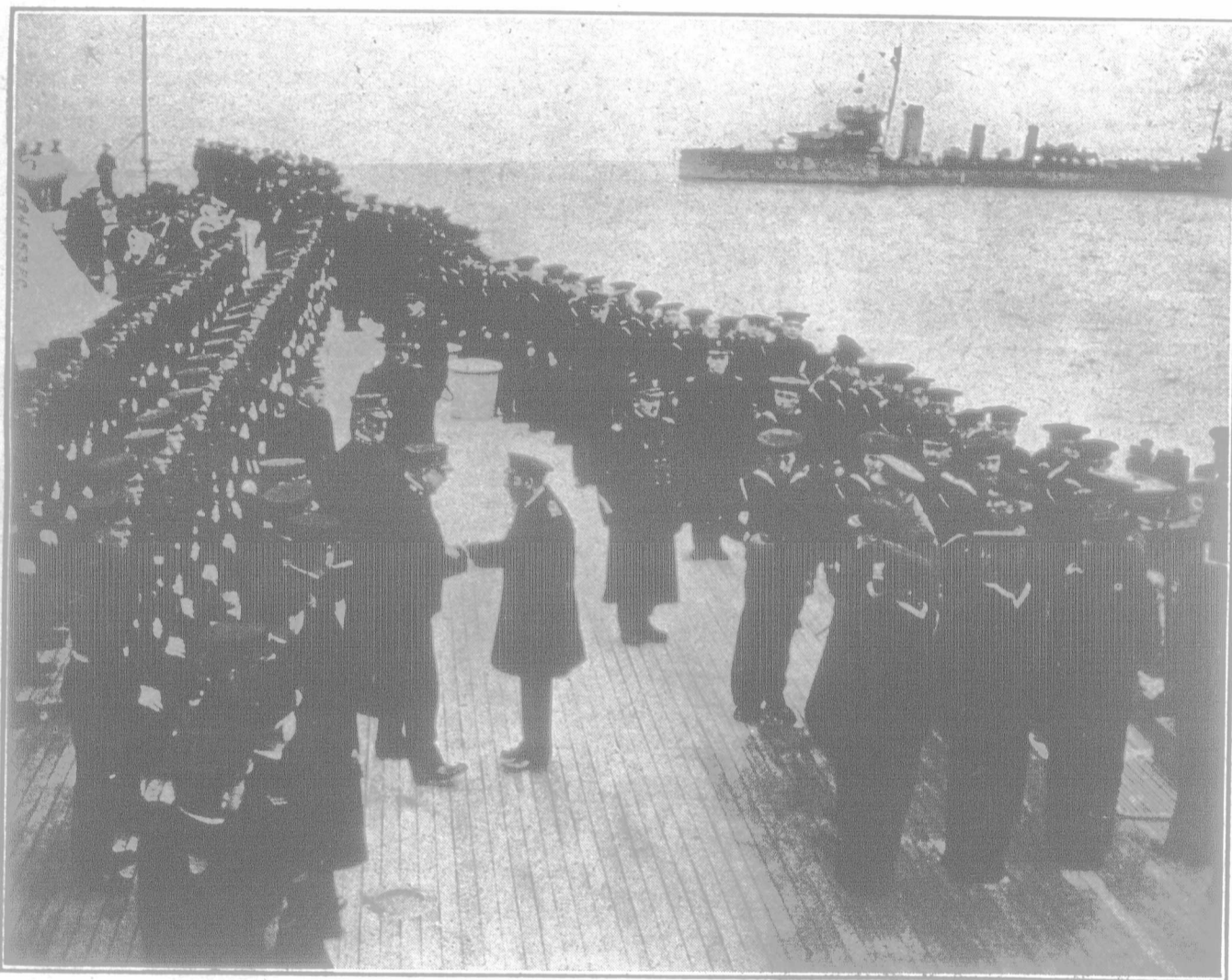
With proper implements with which to do her work and proper system in the doing of it, I contend that no farmer's wife need be a drudge, but that her life can be so free and full of worth-while things that her work should be a joy to her, her recreation a delight and her leisure a renewal of soul.

What My Neighborhood Needs for Its Advancement

BY "NORTHERN SCRIBE," ENGLEHART, ONT.

MY neighborhood, being but comparatively young, has many needs, diverse in character and relative to most of its activities.

Approximately fourteen years ago the district to which I have reference, Temiskaming, was a thickly-wooded country, peopled by a scant and scattered population, much of it untrod except by Indian hunter or trapper; travellers had recourse to bush-trails and rivers, their resting place a camp pitched alongside some sparkling stream, their diet lured from its native element by bright and tempting bait. Now, bush has given place to farm, thriving towns are throughout the district, gone is the genuine Indian hunter; the mighty Iron Horse has its trail of steel through the heart of the country, and commodious and up-to-date hotels offer all the conveniences associated with modern comfort. With the coming of this civilization many disadvantages



King George and Allied Sea Chiefs at Rosyth, where the German Fleet Surrendered.

King George is greeting Admiral Rodman and Admiral Sims (to left of Rodman) of the American Navy.

independent state and Austria informs Germany she agrees to Pres. Wilson's peace terms. Czech revolt spreading in Bohemia and Moravia. . . By end of month great German retreat in course all over Belgium. British enter Douai and Lille. . . Huns withdrawing from Serbia, Albania and Montenegro. . . Turkey signs armistice on Oct. 31st.

NOVEMBER—Boris of Bulgaria abdicates and country becomes a Republic. . . Austrian Count Tisza, one of the men primarily blamed for starting the War, assassinated. . . Republic set up in Hungary through Czecho-Slovak revolt. . . Austria finally is thoroughly beaten in the great "Battle of the Plains of Venetia", beyond the Piave; lays down arms on Nov. 3rd and agrees to armistice. . . Revolution growing in Germany, where 200 munitions deserters are shot at Essen. . . Allies progress all along Western front. Canadians enter Valenciennes. . . Kaiser Wilhelm flees to Holland, and Emperor Charles of Austria abdicates. Germany signs armistice. Ebert-Haase Provisional Government set up. . . On Nov. 21 German fleet surrenders to Admiral Beatty and representatives of France and America, on the North Sea. . . King Albert enters Brussels and Antwerp.

many the influence of the Bolshevik element, or "Spartacus" group under Liebknecht, now thought to be practically smashed through the backing of the returning soldiers, who are united in favor of the Moderate and Independent Socialists. It has been decided that a national "Constitutional Assembly" shall be called January 19. Bolsheviks may yet give trouble, however. Marshal Foch has announced, in behalf of American Food Administrator Hoover, that 2,500,000 tons of cargo space lying in German harbors must be placed under control of the Allies to supply Germany with foodstuffs, the ships to remain German property. . . At time of going to press interest in Great Britain centers chiefly in the elections. 21,000,000 persons voting, including 6,000,000 women. For first time in British history practically every male adult has vote, also every woman over 30, no elector being given more than one vote in any constituency and no more than 2 in any case. All election expenses are being paid by the State.

A giant airplane carrying 6 men started on Dec. 14 from England, on a trip to India, a distance of over 5,700 miles. It was constructed to bomb Berlin.

the difference in work. While the hard, heavy work of former years is not now often required, the standard of life is so different that the demands on a woman are intensified four-fold. Times change, and while perhaps not always for the better, who would want to go back? or who thinks that "the former days were better than these?"

In the "former days," a woman patiently—more or less—rubbed the family wash on a zinc or wooden washboard, wrung it with her hands, and if she could corral her husband long enough to empty the tubs for her she was that much "to the good." But now the wise woman does nothing of the sort. She looks through some reliable family magazine (such as "The Farmer's Advocate", for instance) and she decides on the kind of an *engine* she wants. And when she does that, she has taken one long step in the right direction. Getting it installed involves a number of steps I admit—the number depending on various things, not the least of these being the sort of husband the woman happens to have—but eventually she gets it, and her surprise will only be equalled by her pleasure when it gets fairly to work and she realizes how much easier life is for her. No more breaking of her back over a washtub, or twisting her wrists wringing

have been disposed of, and many necessities for further advancement have arisen. I propose to deal with some of these.

A new country—standing as it were on the threshold of its career—has many necessities peculiar to its situation, and, in my opinion, first and foremost among these is co-operation, co-operative buying and selling. Naturally settlers in a new country are of limited financial means in many cases, and it is imperative that they buy in the most economical manner, and co-operation alone assures this. The clearings are in many cases small, hence the occasion for purchasing a larger proportion of the stock-rations than is necessary in a more fully-developed district; we are far removed from the large mills, and freight rates can only be reduced by buying in bulk. However, the necessity for co-operation is not limited to buying; it applies with equal force to production and then to marketing.

We need the co-operative production of certain standard varieties of produce. We should greatly benefit by the organized production of the most suitable variety of, say for example, potato. A carload of first-class potatoes, one variety and graded, can be shipped quickly to the best market, commands the highest price and the readiest sale. The advisability of co-operative marketing and the many advantages accruing are obvious,—reduced freight charges and marketing expenses, the ability to cater to a more extensive market, and the avoidance of further glutting an already overcrowded market. Hence we see that co-operative buying, producing and marketing would be of immense benefit to the settlers of this district; and the time to organize for this object is now, whilst the country is young and the surplus marketable produce is comparatively limited. As time progresses the difficulties of such organization will be materially increased; organized now, the scheme would grow with the country and the resulting benefits would be manifest the sooner.

The next essential need is prompt and drastic action by the Government relative to the veteran lots. Existing throughout the district are quarter sections of land assigned to various parties for worthy actions wrought in the past; said lots are held indiscriminately through the district, and the owners are exempt from the improvement duties that apply to the settler. Now an examination of northern conditions will reveal the fact that every acre that the individual brings into cultivation redounds to the advantage of the whole community, because increased acreage under cultivation means reduced bushland, and a reduction of the timbered area contributes to a lessening of the summer frost risk; it has been observed that as a particular locality has been cleared of bush the damage from summer frost has been very materially reduced, and it is thought that as the north is brought into cultivation the frost danger will be practically, if not entirely, eliminated. Thus a little thought will show the hardships occasioned a settler located in the immediate vicinity of an undeveloped veteran lot, not only the reduced chance of successfully maturing his own crop, but also the very real fire-danger that arises from unoccupied timber land. This is a very real grievance of the northern settler; these unoccupied lands are actually retarding the progress of the district, and valuable land is idle to the detriment of the country. The remedy is simple: either the owners should be compelled to perform their development duties or pay to have them done, or the veterans should be awarded their grants in a solid block in a part of the country not calculated to materially influence the genuine settler. In the writer's opinion the holding of all agricultural lands for purposes of speculation should be strongly discouraged by those in authority; the essential requisite for land holding should be willingness to farm it. This will reflect favorably to the individual and to the community.

Another necessity is the extension of the facilities for bringing cash returns for our dairy produce. We have a creamery at New Liskeard, the first of its kind in the district, and considerable cash returns have accrued to farmers patronizing this institution. The idea is a good one and should be extended. At the present time cream is shipped for many miles, and it is felt by many that a similar business could well be established at one or two other points in the district. The operation of cheese factories or creameries,

by virtue of their cash returns, offer incentive to larger holdings of cattle, and any action tending to encourage this is necessary and should be well supported. Some of the land in this district has been greatly depleted of decayed organic matter by the destructive action of bush fires, and the presence of live stock and the consequent crop rotation that such keeping entails tends to compensate for and correct this condition.

We need, in common with the rest of agricultural Canada, representation at the seats of government by genuine agriculturists, men who, having farmed, appreciate the difficulties of the farmer, men who, by reason of their actual personal experience in wresting a living from Nature, are qualified to deal intelligently with legislation affecting agriculture. Canadian agriculture has to face in the near future one of the most critical periods of its history, and it is only by having experienced men to deal with the problems that satisfactory solutions can be reasonably expected. We have problems peculiar to our district, and we need a northern farmer to represent us.

The problem of rural education, always a complex one, is more acute in a new district than an old one; scattered schools

Methods of Education in the Rural School

(By NORMAN SYNNOTT, R. R. 3, MANSFIELD, ONT.)

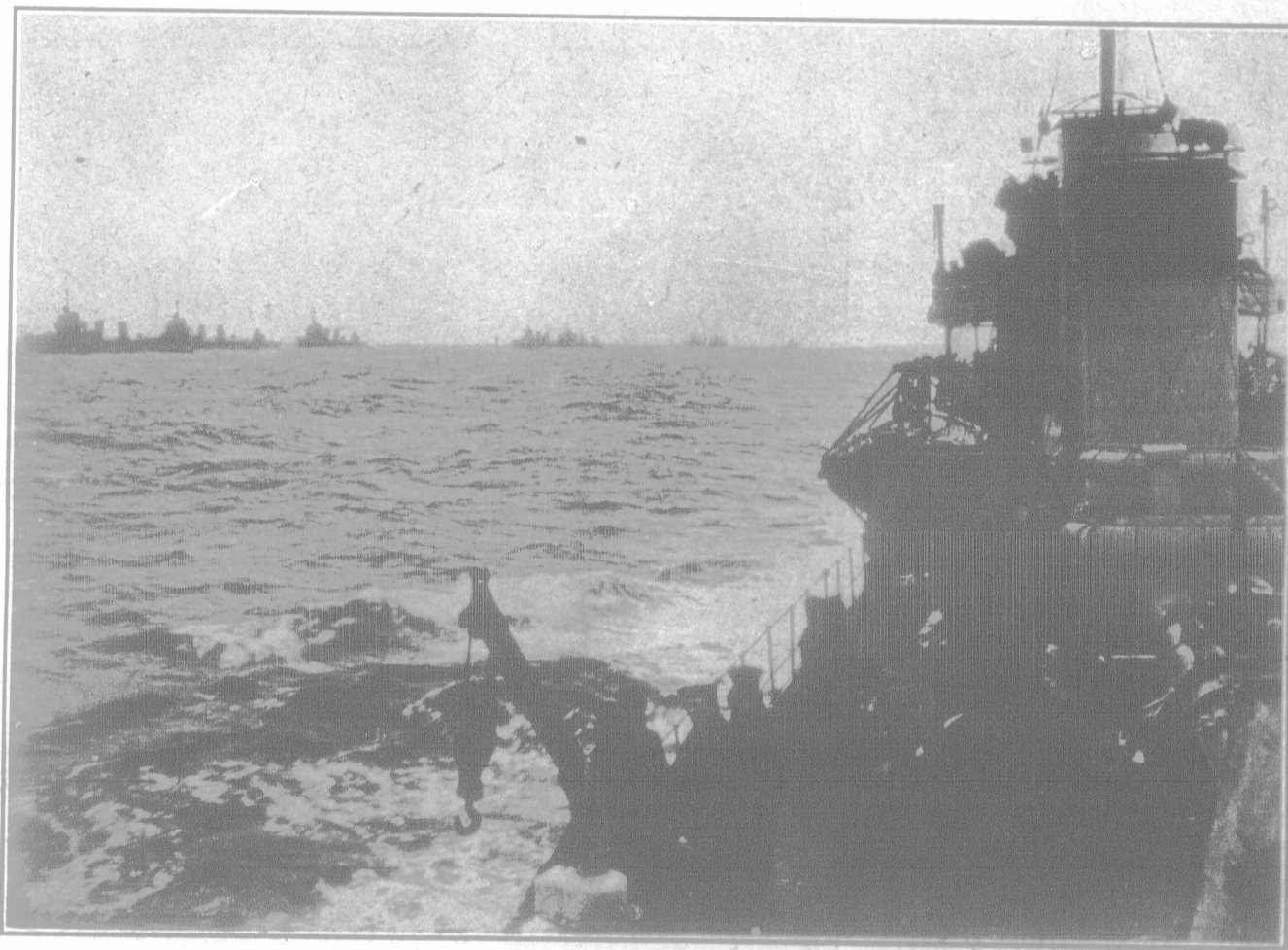
What is the purpose of the rural school? Its aim is social efficiency. If this aim is accomplished the child goes out from the school into the larger world, able to maintain his health, and earn his living, to enjoy life and be a help instead of a burden to his fellows.

The methods employed depend upon the pupil's progress toward the desired end. The teacher will ask himself, "How can I improve my method in order to facilitate progress?" "What games are the most recreative and healthful?" "What is the influence of corporal punishment?"—And so he must decide what methods produce the best results.

When father attended the old log school house to receive instruction in the three "R's" the principal method in vogue was the "birch rod method." Rarely did a day pass without every scholar receiving an applied treatment. Whether this medicine was beneficial or not, no doubt the master went home considering it

seen an ant-hill but its height above the sea-level did not interest me in the least. A list of names was written on the black board, probably the capes of North America. These, the pupil chanted over and over again till his poor mind at last gave in to remember. The result of such parrot repetition was surely exemplified by the pupil who had to remain after school and write "I have gone" fifty times. The teacher left the room for a few minutes and on her return found the pupil's slate on her desk with the following explanation: "I wrote 'have gone' fifty times and I have *went* home." Here is another one; Among the answer papers at an examination, the following definition of equator was found: "The equator is a menagerie lion running round the earth." Fortunately the method with results like the above, is like the old snake fence, practically a thing of the past.

What is Geography? It is the study of the world in its relation to man and his activities. So the child learns of the activities of the world by observation of the activities in his own neighborhood. He learns land and water forms by observing and studying, under his teacher's guidance, the pond where his raft is



The Surrender of the German High Seas Fleet.

The German Navy is seen passing through a lane of British, French and American vessels,—the lane being 40 miles long and 6 miles wide.

and indifferent roads make for this; and although our educational facilities compare very favorably with other similarly situated districts, still there is room for considerable improvement. One great contributing factor to this improvement would be the more extensive establishment of public libraries, my own immediate neighborhood, Englehart, standing in great need of such an institution. Owing to the distance from school, many children are, in some parts of the district, unable to attend school regularly, and much of their education, if obtained at all, is necessarily obtained at home. To conscientious parents this is a matter of some importance, for the success of their efforts to educate depends largely upon their own education and their ability to impart their knowledge to the young. I doubt if any one factor will contribute so largely to their success as their having easy access to a wide field of literature.

Better roads, more opportunities for social intercourse, increased educational facilities, and the fostering of a healthy community spirit are all factors conducive to the neighborhood's advancement, and as such are necessary.

"We are not responsible for our enemies, but for our enemies. A man may have enemies without being an enemy to a single individual in the world."—Wright.

"the end of a perfect day." "And the whining school boy with satchel and shining morning face creeping like a snail unwillingly to school"—

In my school days I have anticipated about as much pleasure and delight, when we burned the teacher's strap as a farmer at the burning of the old mortgage. But now in most country schools, such an engine of persuasion is almost forgotten, where it lies in the bottom drawer of the teacher's desk—to be used, like the chemical fire extinguisher, in case of emergency only.

In teaching grammar, the inductive method is chiefly used instead of the old way of assuming certain things beforehand and then applying that assumption to solve the problem. Consequently, the pupil is given a chance to think for himself, and apply his old knowledge in gaining new.

Let us compare the old and the new way of teaching Geography. A few years ago the pupil was required to learn by heart, formal definitions of capes, bays, peninsulas and other land and water forms too numerous to mention. I can well remember the little brown note-book from which I memorized—"A mountain is an elevation of land over two thousand feet above the sea-level." I dare say I knew the definition but I was not any wiser to the meaning of a mountain. I had often

floating, or the brook at the foot of the school yard.

The child's school life must be related to his home life. When he starts to school he enters a little society or world in itself, of which he becomes a part, leaving behind his beloved mud pies and sand pile. Consequently he delights to model things from plasticine, and make hills and gardens at the sand table. Gradually, his actions are developed in the forming of desirable habits. He learns that his own rights are limited by those of his associates. When the teacher turns a deaf ear to the pretty tales of the tattler a disagreeable habit is eliminated.

"Habit is a cable; we weave a thread of it each day, and it becomes so strong we cannot break it."

The little Beginner is full of self-consciousness, that is, he feels strangely out of place in his new environment. There is nothing better than construction work to give confidence and make school-life like home-life. Here, too, the teacher has a good chance to study the individual. Houses, pets, dolls and toys, fruits and vegetables may be modelled from clay, and there is no end to the number of articles that may be made out of paper.

In the Primary, the children delight in representing stories, for example, "The Three Bears"—the large bowl, the middle-sized bowl, and Tiny's bowl; the

large chair, the middle-sized chair, and Tiny's chair; the large bed, the middle-sized bed, and Tiny's bed.

In the higher classes, sewing for the girls and wood-work for the boys, may be introduced. As the time for this work is limited, it can be correlated with other subjects; for instance, the road-drag can be constructed in an Agriculture lesson.

The following may be said about the Canadian boy as well as the American boy,—

"The Yankee boy; before he's sent to school,
Well knows the mysteries of that magic tool
The pocket knife; to that his wistful eye
Turns, while he hears his mother's lullaby;
His hoarded cents he gladly gives to get it,
Then leaves no stone unturned till he can whet it;
And in the education of the lad
No little part that implement hath had.
His pocket knife to the young whittler brings
A growing knowledge of material things."

Let us look beyond Jack's petty pranks and a few years into the future—We see him a thrifty farmer, a man interested in the welfare of the community,—a true Canadian citizen.

When I began teaching school I adopted elementary agriculture as one of the subjects on the curriculum for three reasons, first, its value in the development of the pupil; secondly, its value in increasing interest and pleasure in the school-life, and the enjoyment and relaxation to be found in the work; and last, but not least, the departmental grants to the teacher and school-board. In most rural schools there are at least nine or ten grades, and I found the course of study pretty well crowded. To overcome the difficulty I grouped the Third and Fourth forms in one class in Agriculture.

The pupils are required to keep careful records of all work in their note-books,—the testing of milk brought from home in labelled bottles; study of the types and breeds of farm animals; seed-testing; grafting; beneficial and injurious insects; obnoxious weeds, etc. No more than one hour a week is devoted to Agriculture, but, frequently I correlate it with other subjects; for instance, farm problems may be given in arithmetic.

In order to make the work more effective a Progress Club was organized, called the "Stanton School Progress Club." Our motto "Do your best" is a great encouragement to the pupils.

At the meeting each Friday, after the Agriculture lesson, a short programme is given by the pupils, consisting of agricultural readings, songs, debates, and speeches, and the "Stanton Progress Paper" is read by the editor. There are three editors, elected for the term. Water-carriers and wood-carriers are put in each week. The president and the secretary are elected for each term, while the programme and school-room committees are put in monthly. Anyone may contribute news, jokes, or stories for the paper. Besides the excellent training this club affords the pupils, I find it a great aid in school discipline.

Every rural school should have a library of good books. I say good books because there are good books and bad books; books that educate mentally and morally, and books that will debase and demoralize. We have already quite a number of good agriculture books in our library, besides a shelf of bulletins and agricultural journals.

On my time-table I have a period for supplementary reading. Besides cultivating a taste for good literature, this period provides a rest from the school routine. Not a small number of parents think it is a waste of time to read books, and as a result their boy, who has developed a fondness for reading at school will be found in the hay-loft with his favorite book. The reading of good literature should be encouraged in the homes. Education in sex-knowledge should not be neglected. Although, the home is the place where this subject should be instructed, a book on sex-hygiene in the school library will help.

Our school garden, adjoining the play grounds, comprises about twelve square rods. Here abundance of material for lessons is found. A plot of twitch grass afforded us a splendid opportunity to study the growth and eradication of this obnoxious weed.

The garden tools, after being used are

carefully put away in their places. We use an old room adjoining the school room for the tools. I wonder if the boy who learns to take care of a hoe, will some day leave his binder out, to the mercy of the elements. During the holidays each pupil took care of his own plot, superintended by a committee, put in before the closing of school.

Each morning we have a five-minutes' talk on something of interest seen on the way to school. This trains the child to see, and to tell what he saw in his own words. In caring for even a flower he learns what no text-book could ever tell. Froebel, an early educationist of fame, said:

"A little child that seeks flowers, and cherishes and cares for them cannot

On September 27, 1918, the boys and girls held a garden exhibition in the school house. The making of the invitations served material for previous Art lessons. They took great interest and delight in preparing and arranging their exhibits of vegetables and flowers on a counter covered with green crepe paper, at the front of the room. A shock of corn stood on the platform with a large mellow pumpkin for company. Best of all were the competitions. In the best collection of weeds there were nearly forty kinds. First came the apple-naming contest. Out of fourteen common varieties the winner correctly named twelve. "Sewing on the button," by the girls was quite amusing when someone's thread had to break. The winner in the weed-



Artificial "Hands" for Disabled Soldiers



A Foot that "Gives"

be a bad child, nor can he become a bad man."

One beautiful autumn day, I took my pupils on a hike to the woods.

I was surprised to find that, even the duller in school work could read the "book of Nature" quite fluently—from the hanging vines of the wild grape to the scarlet berries of the Indian turnip. It may be said:—

"And Nature, the old nurse
Took the child upon her knee,
Saying: 'Here is a story-book,
Thy Father hast written for thee;
Come wander with me', she said,
'Into regions yet untouched
And read, what is still unread
In the manuscripts of God'."

naming contest stuck on chick-weed. "Well that one's got me!" he exclaimed after examining the weed. The singing of the "National Anthem" brought our first exhibition to a close.

Slowly, yet surely, are our eyes opening to the possibilities of the New Education.

"Self-reverence, self-knowledge, self-control, these three alone lead life to sovereign power,"

Violence is transient, hate consumes itself and is blown away by the winds of heaven, jealousy dies; but the righteous thought is a pressure before which malice is powerless.—Hubbard.

Hope's Quiet Hour.

Looking Unto Jesus.

Let us run with patience the race that is set before us, looking unto Jesus the author and finisher of our faith.—Heb. 12:1, 2.

"God placed a duty in my hand; before mine eyes could see
Its rightful form, the duty seemed a bitter thing to me.

The Sun of Glory rose and shone, then duty I forgot,
And thought with what a privilege
The Lord had blessed my lot.

As we face the duties and problems of a New Year—not the unknown anxieties and problems of war, but very real difficulties, all the same—it is very important to get the right point of view. The race set before us is not a short dash towards the goal, but a course in which we greatly need the grace of patience and the stimulus of enthusiasm. We don't want to plod through life in dull and dismal fashion, living and working because we can't escape the drudgery of daily toil. The year 1919 comes to us smilingly, holding high the banner of Peace after terrible strife, let us go out to meet it with uplifted heads and glad courage. Let us hold up each duty until it is glorified with the light of God, let us begin each day by looking up into the face of our Master Christ and dedicating its hours to His service, and—when the day is over—let us bring it as a gift to lay at His feet. He will tenderly pardon our failures—if we are really sorry for them—and will treasure forever any thought, word or act of ours that has been a real expression of love.

If we live each day with our eyes on our Lord, trying to walk in His steps, we shall—as St. Paul tells us—be changed into the same image and become more and more like Him. St. John says: "We know that, when He shall appear; we shall be like Him; for we shall see Him as He is." Those who see Him as He is become Christ-like. From every side we hear the startling statement that the soldiers, who reverently acknowledge the glory and nobility of the life and death of Christ, are very apt to turn with scorn from His professed followers. They fail to see in members of the Christian Church a likeness to the Lord whose followers they claim to be.

Let us humbly own that His life of selfless ministry and splendid courage is very unlike our lives of selfish grasping, love of ease and popularity, and fear of the opinions of other people. The criticism has all the force of truth to make it weighty, but that need not cause us to despair. The past is past, but the present and the future are ours to grow in.

It will be a very small success if the new year brings us wealth, fame or earthly praise; but there will be rejoicing in the courts of heaven if we run with patience the race set before us, looking unto Jesus. If this year is spent in His company we shall grow steadily more and more like Him Who is altogether lovely. That will be real and lasting gain.

We become like the objects we are constantly beholding. Does that seem impossible? I have read of experiments made in marking fish. Figures (round or square) are distinctly traced on the floor of the tank in which they swim, and slowly these figures are formed on the fish themselves. If the fish are blind the marks do not appear. Think of the marks on trout, which imitate the shadows on the water. Think of the many animals which are spotted or striped like their surroundings. It is not easy to explain how that marking is done, but it is quite easy to understand how a sincere follower of Christ grows like Him. A strong personality captivates the imagination and wins the hearts of men. We look at the perfect beauty of our Lord's character—His power and kindness, His fearlessness and consideration for others, His strength of purpose, faith in the triumph of right, unworldliness and silent endurance of agony. We see in Him the glory of perfect manhood, and of course we want to be like Him. We look at the copy

problems of a own anxieties at very real —it is very point of view. a short dash rse in which patience and . We don't in dull and working be- drudgery of comes to us nner of Peace out to meet glad courage. y until it is God, let us up into the and dedicating d—when the as a gift to derly pardon ly sorry for forever any that has been

our eyes on n His steps, —be changed become more

John says: shall appear; we shall see e Him as He every side tement that acknowledge the life and apt to turn ed followers. of the Chris- o the Lord be.

hat His life did courage ish grasping, y, and fear eople. The of truth to t need not ast is past, ure are ours

uccess if the h, fame or e rejoicing we run with us, looking spent in His eadily more s altogether and lasting

ects we are that seem xperiments ures (round aced on the y they swim, e formed on ish are blind Think of the the shadows the many striped like ot easy to is done, but and how a grows like y captivates the hearts rfect beauty —His power ss and con- strength of ph of right, ndurance of the glory of rse we want at the copy

set at the top of the page and we resolutely try again and again to make our life-writing a little more like that of our Master. Men may scorn our blundering attempts, but the Master will not join in their mockery. If we are really trying, He will lay His hand upon ours and help us every moment. Why should we despair? We have all eternity to grow in, and infinite Love to help us. But it is not enough to see the beauty of our Lord's life and wish we could live as nobly as He did. Vague and purposeless wishing is pretty sure to result in weakness of character. It used to be the fashion to make "New Year resolutions", which were apt to be forgotten in a day or two, leaving no trace on the soul. Resolutions which are made only once a year do not show the real desires of the heart. If we really will to become like Christ we shall make it our everyday business to see Him as He is. How can we become like Him unless we know Him well?

No man can become a first-class farmer or doctor, or electrician, or carpenter—or anything else—by making a New Year resolution. He must keep his purpose right in front of him all the year, and really enjoy his work. One who is a Christian against his will doesn't know the meaning of the word. Do you remember the story of St. Paul and his friend Silas in the prison of Philippi? They had been beaten for Christ's sake, and instead of binding up their wounds the keeper of the prison put them in a loathsome dungeon and fastened their feet in the stocks. They were suffering too much to sleep but they were not suffering too much to sing praises to God. They enjoyed being Christians more than they enjoyed anything else in the world. They even enjoyed suffering for the sake of Christ. The dark dungeon was far from dark to them for their eyes smiled up into the smiling eyes of their dearest Friend.

"Oh! dear my Lord, if Thou a traveller be, All undismayed, I'll journey on with Thee."

We can run life's race joyously if He is our Comrade and always close at hand. He was with us in the dark days of the war, shall we fear to go with Him through years of peace!

There are people who look admiringly at the character of Jesus of Nazareth—as it is revealed in the Bible—and feel impelled to mould their lives on His; and yet they think He was only a great and holy Man. Perhaps they think He climbed nearer to perfection than any other man, but they do not worship Him as Divine.

That attitude of mind is not only cold and uninspiring—such people have to look back nearly two thousand years, instead of looking up to the face of a living Friend and Comrade—but it is also very illogical. If we heard one, who is only a man, invite the weary and heavy-laden to come unto him and rest, we should think he was either insane or untruthful. If we heard him proclaim himself as the Light and Life of the world, declaring that all mankind should be judged by him and that he had a right to claim the first place in every heart, we should accuse him of blasphemy—as the Jews accused our Lord. If we heard him telling others to approach the Father as penitents—humbly confessing their sins—yet quietly announcing that no man could convict him of any sin, we should certainly not think him meek and lowly of heart. We must acknowledge Jesus as Divine, or refuse Him a right to the position He has claimed as the Master and Judge of all.

Those who refuse to offer their lives to Him dare not say that they are afraid He will lead them astray. Is it possible that any man, when his earthly race is nearing its end, can look back and say: "I regret the time I spent in the service of Christ?" Millions of people have looked back regretfully and wished that they had served Him loyally all their days. If the year 1919 is not spent in His company, and His service, we shall be very sorry some day. Why shouldn't we prepare joy instead of sorrow for ourselves?

The race set before us requires "patience"—it may last many years yet. A Roman general, who had a hard time conquering a tribe on the frontiers of the Empire, said if people of that tribe: "Others got to battle; these go to war". If the Allies had only gone out to win a battle or two, we should

probably have been conquered by our mighty foe. We might lose many battles and yet win the war. So it is in the Christian warfare. We may fall very low—as David and St. Peter did—and yet ride as victors beside our King in the Day of Peace. If we are determined to fight under Him as our Captain, no reverse can make us downhearted—we must win the end. Let us keep our eyes on our Leader.

"There are bridges to cross, and the way is long, But a purpose in life will make you strong; Keep e'er on your lips a cheerful song.

Look up!"
DORA FARNCOMB.

Gifts for the Needy.

A reader in N. B. (Mrs. H.) sent two dollars for a poor woman in the hospital—which I have passed on—and several parcels of papers for the "shut-in" arrived. They, also are cheering lonely patients in the hospital. In a few weeks I shall go over the Q. H. P. account book, and let you know the result.

DORA FARNCOMB,
6 West Ave., Toronto.

The Fashions.

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

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

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

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

Re Delays.

During the latter part of October and first part of November there was considerable delay and confusion in regard to patterns. We wrote the pattern manufacturers in New York about the matter and they have replied as follows:

"We have your letter of November 15th, and are sorry, indeed, to learn that you are receiving complaints, but we are afraid that this is entirely due to the general delay in mail there is at the present time, for we are filling your orders, the same day they are received, except when they reach us too late in the afternoon mail to go out the same night. Such orders are forwarded in the following day's noon mail, but all orders are absolutely filled within 24 hours after their receipt."

It is very regrettable that some of those who ordered patterns have not received them promptly, but it will be seen that this fault is not ours nor the pattern company's, but solely due to the congested conditions of the mails because of war transportation, etc. Letters always go better than parcels, and patterns come in the latter category. Now that the war is over and the soldiers coming back, it is to be hoped that this trouble will soon be over.

2667—Girls' Dress.
Cut in 4 sizes: 6, 8, 10 and 12 years. Size 8 requires 3 yards of 44-inch material. Price, 10 cents.

2659—Ladies' Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 3 3/8 yards of 54-inch material. Width of skirt at lower edge is 2 yards. Price, 10 cents.



2302—Girls' Dress.
Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 4 3/4 yards of 26-inch material. Price, 10 cents.

2658—Ladies' House Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 3/4 yards of 42-inch material. Width at lower edge is 2 1/4 yards. Price, 10 cents.

2651—Girls' Dress.
Cut in 5 sizes: 6, 8, 10, 12 and 14 years. Size 10 requires 3 1/4 yards of 44-inch material. Price, 10 cents.

2654-2653—A Smart Coat Suit.
Coat 2654 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2653 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require about 8 yards of 44-inch material for a medium size, for the entire suit. The width of skirt at lower edge with plaits drawn out is about 2 yards. TWO separate patterns, 10 cents FOR EACH pattern.

2273—A Dainty Set for Dolly.
The Pattern includes all styles illustrated, is cut in 6 sizes for dolls: 16, 18, 20, 22, 24 and 26 inches in length. The dress requires 1 1/4 yards of 27-inch material, the petticoat 1/2 yard, and the combination 5/8 yard for an 18-inch doll. Price, 10 cents.

2368—Ladies' Apron.
Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium requires 6 1/4 yards of 36-inch material. Price, 10 cents.

2665—Girls' Dress.
Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 3 1/4 yards of 44-inch material. Price, 10 cents.

2650—A Good Service Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 3/8 yards of 44-inch material. The skirt measures about 2 yards at the foot. Price, 10 cents.

2657—Child's Short Clothes Set.
Cut in 5 sizes: 1, 2, 3, 4 and 5 years. Size 4 requires 3 1/4 yards of 27-inch material for the dress, 1 1/4 yards for the petticoat and 2 3/8 yards for the combination. Price, 10 cents.

2271—Dress for Misses and Small Women.
Cut in 3 sizes: 16, 18 and 20 years. Size 18 will require 4 1/8 yards of 44-inch material. The dress measures about 2 yards at the foot. Price, 10 cents.

2272—Girls' Dress.
Cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 4 1/8 yards of 36-inch material. Price, 10 cents.

2647-2644—Ladies' Costume.
Waist 2647 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2644 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require 7 3/8 yards of 36-inch material for a medium size, for the entire costume. The skirt measures about 1 1/8 yard at lower edge. TWO separate patterns, 10 cents FOR EACH pattern.

2645—Child's Play Dress.
Cut in 5 sizes: 1, 2, 3, 4 and 5 years. Size 4 will require 2 3/4 yards of 36-inch material. Price, 10 cents.

2333—Ladies' Apron.
Cut in 4 sizes: Small, 32-24; Medium, 36-38; Large, 40-42, and Extra Large, 44-46 inches bust measure. Size Medium requires 3 1/4 yards of 36-inch material. Price, 10 cents.





2672—Ladies' Apron.

Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42, and Extra Large, 44-46 inches bust measure. Size Medium requires 4 yards of 36-inch material. Price, 10 cents.

2342—Girls' Dress.

Cut in 4 sizes: 6, 8, 10 and 12 years. Size 8 requires 4 yards of 36-inch material. Price, 10 cents.

2670—Misses' Dress.

Cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 5½ yards of 40-inch material. Width of skirt at lower edge, is about 2½ yards, with plaits drawn out. Price, 10 cents.

2656—Girls' Dress.

Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 2½ yards for the gimp and 2½ yards for the dress, of 27-inch material. Price, 10 cents.

2663-2671—Ladies' Costume.

Waist 2663 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2671 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require 8¾ yards of 36-inch material for a 38-inch size for the entire costume. Width of skirt at lower edge is about 1¾ yard. TWO separate patterns, 10 cents FOR EACH pattern.

2348—Girls' Dress.

Cut in 4 sizes: 8, 10, 12 and 14 years. Size 12 requires 4 yards of 44-inch material. Price, 10 cents.

2297—Ladies' House or Porch Dress.

Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 7 yards of 36-inch material. The skirt portion measures about 2½ yards at the foot. Price, 10 cents.

2669—Ladies' Waist.

Cut in 7 sizes: 34, 36, 38, 40, 42, 44

and 46 inches bust measure. Size 38 requires 3½ yards of 27-inch material. Collar and chemisette will require ¾ yards of 30-inch material. Price, 10 cents.

The Beaver Circle

Rules.—Write on but one side of the paper. Give name, age, "reader" at school, and post-office. Address your letter to "The Farmer's Advocate and Home Magazine," London, Ont.

A Christmas Song.

While stars of Christmas shine,
Lighting the skies,
Let only loving looks
Beam from your eyes.

While bells of Christmas ring
Joyous and clear,
Speak only happy words
All mirth and cheer.

Give only loving gifts,
And in love take;
Gladden the poor and sad
For love's dear sake.

Emilie Poulsson.

The Animals' Christmas Tree.

LITTLE Jimmy Squirrel had been living up near the farmer's house all through the autumn. He had seen a lot of things that were going on to get ready for Christmas. He thought that maybe the woodfolk would like to have a Christmas-tree like they were preparing up there.

So one bright morning Jimmy Squirrel started for the woods where he had lived the summer before. First he found a nice place where they could hide. Then he went to Teddy Bear and told him to come with him, that he was going to have something new for Christmas like they were preparing at Farmer Brown's. Teddy Bear was delighted and said he would try to keep awake long enough to be there. Then they went to Jimmy Skunk and asked him to come. Then all three went over to Johnny Chuck, but he was fast asleep. After that they went over to Mr. Possum's house and asked him if his eight children could come. Mr. Possum said he would be glad to let them go as they did not have much fun. Then off they went to Billy Bull Frog and asked him to come and then Tim Coon. Jimmy Squirrel said he thought twelve would be about enough. He took them to the nice house of dry leaves that he had made. Everyone was excited and wanted to know what Jimmy Squirrel had on his mind.

"The first thing," said Jimmy, "I want you all to sit down and keep quiet." Instantly the room was silent, I believe you could have heard a pin drop had you been there and had one to drop. Then Jimmy began, "You know I have been living up at Farmer Brown's this fall and have learned a lot of things. Up there they are preparing to have a Christmas tree and a lovely dinner. I really believe they have two large geese fattening already. Perhaps we could have Reddy Fox help us by getting a goose, too."

Everybody was delighted, but one of them wanted to know where they would get the Christmas-tree.

"That is easy enough," he said, "there are several spruce trees around here and we can get Paddy, the Beaver, to cut one of them for us." Then he asked Billy Bull Frog to sing a song and Teddy Bear to dance a jig. The Possum family were to have a dialogue and Jimmy Skunk was to make a speech. Then they all got busy making presents and practicing. About a week before Christmas Jimmy Squirrel made little invitations and sent them all around to the forest people. Reddy Fox and Jimmy Skunk dug a lovely hole for them all to get into.

When the night came everyone was there but the ones they wanted. Teddy Bear was sound asleep, Jimmy Skunk was too hoarse to speak but he was there. Tim Coon had a sore paw and couldn't play. Billy Bull Frog could not be found, and the Possum family were snowed in.

The Christmas-tree was a complete failure and everyone had to go home dis-

appointed but Jimmy Squirrel said they would try again, next year.

ORMA ELLIS.

R. R. No. 1, Hyde Park, Ont.

Merry Maids' Cookies

(A poem for the girls. Try making the cookies).

Of powdered sugar take a cup
And then one-third cup more;
Three beaten eggs; and half a spoon
Of good vanilla pour

In mixing-bowl; till foamy beat;
Two cups of sifted flour next stir
Into the batter by degrees.

When all is ready to transfer,

Oil baking-tins, sprinkling with flour;
Then with a teaspoon drop the cake
In wee, round heaps quite far apart,
And in "a moderate oven" bake.

When they have turned the lightest brown,
The cookies are quite done.
To mix, to bake,—also to eat,—
They certainly are fun!

Little Bits of Fun.

Mother.—"Well, what is it?"

Tommy.—"How lucky pumpkin pie ain't made like doughnuts, with a hole in the middle!"

Recently a representative of the Anti-Saloon League was speaking to the juvenile Sabbath School.

"I will now," he remarked, "place the letters of the alphabet upon the blackboard. As I write each letter I wish you to tell me the name of a bad drink that begins with the letter I put on the board."

He then chalked the letter A, and one of the children called, "Ale!" Next B, and a youth volunteered, "Beer."

A silence when he wrote the letter C caused the lecturer to ask, "Is there nobody here who can name a bad drink beginning with C?" He pointed his finger at a small boy in the front row, and said, encouragingly, "There is a little man who I think can tell me the name of a bad drink that begins with C."

To which the youth replied: "Sure I can. Castor oil!"—Ex.

"Port Lock" School Fair.

(A PRIZE ESSAY.)

The children of our school took a great deal of interest in the school fair this year. When we received the prize-lists and saw what was on it, I prepared things to take to the fair in the line of live stock. I took a calf and two lambs. The day before the fair I made a rack for the sheep and the calf. Our school fair took place on September the twenty-first. That morning I got up rather early so as to get things prepared for the fair. I left home about half past nine and reached there before eleven. I unloaded my live stock and then went and put the team in, because it was too cold to leave them out side all day. I then came back to the fair grounds and put the entry tickets on the calf and lambs. By that time it was time for dinner. Well, then I went and got my dinner, and returned again to the grounds. At two o'clock the races began. I didn't try for the races. Then came jumping. I got the red ticket for standing high jump. The judge then came out and judged the live stock. I got first for both calf and lambs, and then the show-room was opened. I went in and looked at the roots and grain, and the fancy work done by the girls. There was a splendid display of articles in the room. I then went and got the team, loaded my calf and lambs and started for home. The day was pleasant and all the people enjoyed themselves very much.

Port Lock, Ont. MELVIN CARTER.
(Sr. IV., Age 15).

Elmira School Fair.

(A PRIZE ESSAY.)

The set day on which the school fair was to be held, was the twenty-sixth of September. The day arrived bright and cheery. May we begin this story with that happy expression? I am glad to say that on that day, when I looked out of my bed-room window, not a cloud could be seen. After breakfast I prepared a lunch. At ten o'clock my sister and brothers and I began our delightful trip.

We passed several people who were also on the way to the fair. Here and there a squirrel was seen. I admired the maple trees with their gaudy, outstretched branches. The furrows of the fields, in which the farmers were plowing, were as straight as a ruler.

We had a slow horse and, at last, we arrived at West Montrose. We followed a winding road, with a river on one side, and woods on the other side. The school house was seen peeping from behind the trees. In the background of the large playground was a high hill on which are many trees. Across the road from the school-house is another hill covered with cedar trees, below which quietly flows the Grand River. In the trees of the playground there were bird-houses. The school-house is of stone, and there are two rooms decorated with pictures and maple leaves.

Near the school-house was the tent. After my exhibits were placed, my friend and I walked around. The sewing contest and the stock-judging contest were held before lunch. The lunch which was served afterward was appreciated. After lunch the children from different schools paraded. The parades were delightful to see. The pupils who got first prize wore wreaths of maple leaves. The girls all had curls and were dressed in white. The marching and singing were well done. The sports which followed were exciting. Happy were the children who were handed the ribbons for prizes. In the midst of the fun of the races, a snow storm chased all into the school-house. After the storm they went back to the race grounds. The children were as full of energy as before. The driving contest which followed was interesting. The girls could drive as well as the boys.

When the tent was opened, everybody rushed into it. The flowers were arranged beautifully on the centre table. Between the flowers and the essays, which were on the same table, was a strip of red scrim. On this were pinned the prize drawings, writings and essays. On one of the side tables were the vegetables and roots, which were the products of much hard labor of the pupils. On the other tables was the cooking and sewing. The collections were also on these tables. The cooking looked very appetizing. One boy got second prize for baking bran muffins. The sewing and crocheting was very nicely done. The collections contained many different specimens. One collection of insects contained at least one hundred specimens. Outside the tent were the sheep, colts, calves, pigs and chickens.

At five o'clock the pupils gathered their exhibits and went to their homes. It was very cold to drive home. I was, indeed, glad to get home and sit beside the fire, and get the stiffness out of my limbs.

LOUIDA BAUMAN, (Aged 13).

Elmira, Ont.

An "Uxbridge" School Fair.

(A PRIZE ESSAY.)

Dear Puck and Beavers.—I am writing on your new competition, "Our School Fair." I always read the Beavers' letters and competitions, so I thought I would try my luck. Well, here is the story:

Always, every year, there is a fair of some kind, but, perhaps, none interests the children as much as our school fair. Nearly every county or township has its fair, either in spring or fall, but it is particularly for the older people. Our fourth annual school fair was held at Sandford school grounds, on September 20th this year. It has always been held there in this township, since they started to have them. Every year has found an improvement, both in the exhibits and prizes.

The morning of the fair was bright and there was not a cloud in the sky, so all the children were busy, getting their exhibits in order for showing them. Every pupil was careful to get the best, so as to be sure and get a prize. I have taken seeds every year so far, but I thought I would try something else this year, so I tried some carpenter work for a change. I went to work and made a pointer. It was made of elm, so it was not easily broken. I went on my wheel, but wheeling was not easy, as I had to face the wind.

When I got there, the tent was up and there were quite a few people standing around. I got there about eleven, so I got my entry ticket and put my pointer in the tent, as they had to be in by eleven. I found some of my chums already there,

so I had company to get some dinner. Dinner was served in the basement of the school by the Red Cross Society. In the afternoon, were sports and the showing of the calves and colts. There was also the hitching contest. Each boy was allowed one assistant to hold the horse, while he had to unhitch, put the harness on the ground and hitch up again. Whoever got done first and had it hitched right got first prize. There was a little girl tried and she got second prize. It shows that girls are not all behind in the handling of horses.

At four o'clock, the tent was opened and each one was crowding in to see if he had got a prize. I was very much surprised when I found my pointer had taken second prize. I suppose everybody was thankful who got a prize, after working so hard to get them.

I went home about five o'clock, and did not forget to tell everybody about what a good time we had at the fair.

Yours truly,
CLARENCE FERGUSON, (Age 13, Sr. IV.)
R. R. 2, Uxbridge, Ont.

Senior Beavers' Letter Box

Dear Puck and Beavers.—This is my first letter to your charming Circle. I enjoy reading the letters of the other Beavers, and the riddles also; they are very interesting. My father has taken "The Farmer's Advocate" for as long as I can remember, and we like it very much.

For pets I have a cat and a dog. The cat is a dear old cat, and does things to be pleasant and playful, and is a great mouser. I call her Dotsie. My dog is not a year old yet; he saw his shadow and was just ready to eat it.

We have seven cows, and I milk three. I like to ride the horses. We have three horses and two colts. I did all the raking this summer with a horse I drive. I often feed her apples.

I like to go to school very much. I have just one brother, and he has passed the entrance, so I have to go to school alone. Our school takes part in the Rural School Fair each year. We did very well this year, taking the first prize of \$2.50, and the prize of a shield. Our teacher is Miss Freeman. I like her very much. As my letter is getting long I will close, hoping the w.-p. b. has got the influenza and is not able to be around.

Yours truly,
GRACE ORR, (Age 12, Sr. III Class.)
Warkworth, R. R. No. 3.

Dear Puck and Beavers.—It gives me great pleasure to write to your charming Circle. I have read the Beaver Circle with great interest for some time, and thought I would write a letter also. My sister and I go to school and like it fine. We take our lunch as we do not live very close to the school. I live near the capital of the Dominion and visit it quite often. I think Ottawa is a very pretty city, although it is not so large as some of the cities in Canada. The Parliament Buildings look very nice since they have been fixed after the fire.

I am sure all the Beavers are overjoyed at the prospect of the war being over. I know quite a few soldiers and friends over there that I will be glad to see again, and I am sure the rest of you are the same.

I am very fond of reading, and I have read quite a few books. The name of the book I read last was "Rags and Rainbows."

I suppose all the Beavers are looking forward to Christmas and Santa Claus. I think Christmas is the merriest time of all the year.

My father has taken "The Farmer's Advocate" for seven years, and we all think it a very good paper.

As my letter is getting rather long I will close, yours sincerely,
LAURA E. CAMERON, (Age 11, Sr. III.)
Carlsbad Springs, Ont.

Dear Puck and Beavers.—I have been reading your Circle's letters, so I wish to become a member, as I find the letters very interesting, and as this is my first letter I will sure be green on the job.

My brother Herb takes "The Farmer's Advocate," and finds it a very interesting and helping paper. We live on a farm of 75 acres, but we own another place of 50 acres. As my brother is alone on the farm it keeps him busy. My oldest brother, 22 years of age, was drafted this June past. He is in England.

I am fourteen years of age. My birthday was last June 3rd, the same day as

the king's. I am through school now. I took out my certificate on the farm this year. I am 5 feet 6 inches high. Well, as my letter is getting rather lengthy, I will close, wishing the Beavers every success. I hope the w.-p. b. is eating dinner when this arrives. I remain a gallant friend.

EVA POLLOCK, (Age 14.)
Ripley, Box 106, Ontario.

Junior Beaver' Letter Box

"Beaver Circle Competition," Farmer's Advocate, London, Ont.

Dear Puck and Beavers.—This is my second letter to your Circle, I didn't see my other one in print. I am much interested in the Circle. Our teacher's name is Miss Clara Griffith. She is from Huntsville, Ontario. I had an examination in spelling and got sixty-four marks out of one hundred.

My uncle and grandfather threshed, and has over 80 bushels of oats and 5 of rye. I had a letter from two Beavers, Miss Elsie McPhail and Miss Olive Bumstead. I go to school now, and have to walk two and a half miles. I have a dear little cousin to play with when I am at home. She has blue eyes and golden hair. Her name is Nellie. I would like to see my letter in the paper. I hope the w.-p. b. is off on a holiday. I close. From a Beaver.

ELLEN DAVIDSON, (Age 12 years.)
Muskoka, Ont.

Dear Puck and Beavers.—I have written once to your charming Circle, but just saw my name in the Honor Roll. I haven't got this influenza yet, and hope I don't get it. It is an awful thing, isn't it? School is closed here this week. I go to school most of the time. Our teacher's name is Miss Riddell. She is nice. I am nine years old and am in the junior third class. There are three people in my class. For pets I have a cat that climbs upon me when it wants me to lift it up. I call it Judy. Whenever mother carries grain from the barn our driver, Dan, comes and takes big bites of grain out of the pail, then he tries to get more. Some of the books I have read are: Queen of the Daffodils, The Children's Kingdom, The House of the Five Poplars, and a great many others. I guess I had better close, so good-bye.

Yours truly,
St. Mary's, Ont. HAZEL BELLAMY.

Honor Roll.

Senior Beavers.—Ila Kulp, Phoebe Lymburner, Evelyn Pollock, Olga Hoerner, Evelyn Bailey, Stephen Muldoon, Harry Percival.

Junior Beavers.—Edna St. John, Edith Burk.

Beaver Circle Notes.

Marie Mason wishes to thank "Laura" for the beautiful cards Laura sent to her when she was indoors with a sprained ankle. She wishes "Laura" would write to her and tell her whole name.

The following wish some of the Beavers to write to them: Marie Mason, (14), Baltimore, Ont.; Ila Kulp, R. 3 Tillsonburg, Ont.; Evelyn Pollock (11), R. 2, Ripley, Ont.

A great number of Beavers' letters must still be held over. By the way, Beavers, do you want to know how to keep your letters altogether out of the Beaver Circle? If you do here are very good rules: (1) Write on both sides of the paper. (2) Write so badly that your letter can scarcely be read, and be sure to use dirty paper and blot it all over. (3) Don't put in anything interesting. Be sure to make a long list of the number of your horses, cows, calves, chickens, acres of land, etc. (4) Leave out telling your age or standing in school. Of course, Beavers, if you want to see your letter published for sure, even though it may have to wait several weeks, you will see to it that you do just the opposite of all these things. Do you see the reason why? Notice this point: *The more interesting your letter is, the more sure it will be published.*

Retribution.

The teacher was telling her class a long, highly embellished story of Santa Claus, and the mirth of Willie Jones eventually got entirely beyond his control.

"Willie," said the teacher sternly, "what did I whip you for yesterday?" "Fer lyin'," promptly answered Willie; "an' I was jest wonderin' who was goin' to whip you."—Ladies' Home Journal.

WILLIAMS
New Scale **PIANOS**



THE example of the late Queen Victoria in selecting the Williams New Scale Piano has been followed by many of the world's most renowned musicians. This fact has caused it to be known as the Choice of the Great artists.

Louis XV Model, \$600.00
THE WILLIAMS PIANO CO., LIMITED, OSHAWA ONT.
Canada's Oldest and Largest Piano Makers

Power— where you want it
when you want it



The Quenneville Transmission Auto-Power Attachment

Is in a class by itself for general farm power purposes, such as, filling silos, threshing, grinding, sawing wood, pumping water, etc. And when installed on your Ford car it improves the traction of rear wheels 100%, makes car easier to handle and steer, thereby saving tires and gas for road purposes. Also a high grade Cooling System, trouble-proof, completely under hood, and in no way interfering with accessibility to motor for adjustments. Guaranteed to keep motor cool under all conditions; its efficiency in this respect permitting the use of coal oil in radiator for winter running, and is worth more than purchase price for road purposes alone.

You owe it to yourself before deciding on any Power proposition to give this matter a thorough investigation, and let us prove to your entire satisfaction that we have the only Auto Power Attachment with 100% efficiency.

"Agents Wanted" Write today for full particulars to,—

WILFRID QUENNEVILLE - **MORRISBURG, ONTARIO**

Ottawa Winter Fair
OTTAWA, ONTARIO
January 14, 15, 16, 17, 1919.
ENTRIES CLOSE JANUARY 3rd.
Write the Secretary for Prize List.

WM. SMITH, M.P., President
COLUMBUS, ONT.

W. D. JACKSON, Secretary
CARP, - ONT.

We Buy Raw Furs

It stands to reason that we, being manufacturers, can give you

More Money for Your Furs

than can be obtained elsewhere. Save the dealer's profit.

Price List on Request

THE GILLESPIE
FUR CO., Limited
Established Toronto Over 50 Years

15 cents VOLPEEK

MENDS POTS & PANS

Mends Granite-ware, Tin, Iron, Aluminum, etc. in two minutes. Without tools. 50 mends for 15c. From your dealer or us, postpaid. Vol-Peek Co., P.O. Box 2024, Montreal.



He Is Less Dangerous

Eliminate the danger and increase the value of the young bull by dehorning him. The most successful dairymen, drovers and shippers use and recommend the KEY. STONE DEHORNER. Write for booklet.

R. H. McKenna, 219 Roberts St., TORONTO

The very best of materials and supervised expert workmanship are combined in this masterpiece.



THE ANKER-HOLTH

(Self-balancing Bowl)

Cream Separator

Therefore we give a very liberal guarantee.

Silverwoods

LIMITED

LONDON, ONT.



Make Your Hens A SOURCE OF Big Profits

The price of eggs is up. Don't lose the big profits that can now be made from laying hens. Each hen means dollars to you if you keep it healthy and make it lay consistently. Thousands of poultry owners do this by using

INTERNATIONAL

Poultry and Food Tonic

The tonic that keeps hens healthy and makes them lay regularly. It has a special action on the egg-producing organs. INTERNATIONAL POULTRY FOOD TONIC is made from roots, herbs, and seeds, is purely medicinal, and its use will show an immediate increase in eggs.

The cost to use is only about one cent a month per bird. Used and endorsed by successful poultry owners everywhere.

Sold by all dealers in three different sized packages, on a money-back guarantee.

International Stock Food Co., Limited, Toronto, Ontario

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, Ont.

Burlington Jct. G. T. R. half mile from farm. Phone Burlington

The Ingle Nook

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

DEAR Ingle Nook Friends.—We are facing another year, and, thank Heaven, not a year of war. Reconstruction instead of destruction must now be the theme of our thoughts and, so far as we are able, the burden of our work.

Perhaps you and I would like to talk about that for a long time, but from the delightful conversation I, for one, must withdraw for a little, because there are a few items for this Department that require to be cleared off before the New Year bells ring.

In the first place, the "Dollar Chain," will remain open as long as anyone wishes to contribute, through it, to any of the relief work that will have to go on until the world again gains its equilibrium.

The very last \$50 of the "Chain," by the way, has just gone out. It was handed over to a dear little Belgian girl, with blue eyes and pink cheeks, who will take it back to Belgium where it will be used for some needy purpose, possibly to support a little child left without father or mother by the war. Fifty dollars, you see, will feed a child for a year, there. . . . The name of the Belgian girl is Miss Hendrica Vander Flier. Of late she has been lecturing in this country, under authorization of King Albert himself, and all that she makes in her tour is to be given to feed and clothe her country's needy people.

In connection with help given for Belgian Relief, we have received the following from Mrs. A. T. Edwards, 183 Oxford St., this city, who is in charge of the Belgian relief work in this place:

Women's Canadian Club of London, Ont., Dec. 7th.

"We thank you so much for all the splendid interest the "Advocate" has taken in all the needy demands during the war, both here and overseas.

The influence of the "Advocate" is far reaching and to-day I received a lovely letter from one of your readers living in Saskatchewan, who so much enjoys your "Home Department". I have also received several parcels from some of your readers who have not sent their addresses nor even their name. Those I wish to thank through your columns.

Sincerely yours,
FANNIE L. EDWARDS,
Treas. Belgian Local Fund.

The War is over, but millions of people in Belgium, Northern France and Serbia are still without homes to live in, food to eat, or clothes to defend them against the cold of winter. In Belgium alone hundreds of thousands of old people, women and children, stand every day in the "soup line."

"The condition of the Belgian people in the reclaimed areas is most pitiful", writes a correspondent with the Allied armies in Belgium. "Devastation and ruin have been left behind by the Germans and whole families have been left with no roof over their heads and most of them with no food and no clothing.

"I came across a woman and two small children by the wayside the other day; the flimsy dress the mother wore, the only one she had, was next to no protection against the weather, and the two little ones were no better off; they were without shoes or stockings and their emaciated little bodies were covered only with patched cotton dresses. The mother told me sobbingly that the Germans had taken all the food from the village before they left, and that she and her children had not eaten for two whole days. I gave her what I had and directed her to the nearest army kitchen I knew, a mile or so down the road."

This is an instance of what may be found anywhere in the devastated areas. Everywhere, before the people can earn their own living again, factories must be set going, ruined buildings repaired, industries of all kinds put in working order, and shell-pitted land again got into condition for growing things. In the meantime the people must be kept alive. This is why the Dollar Chain is still left

open. Its contributors have been splendidly generous during the past four years, perhaps they will not forget the good work during the coming days of 1919.

ANOTHER "by-the-way". — The "June" picture in our Christmas Number is an enlargement of a photo taken by Boyd, Toronto, of a scene at the Caledon Mountain, Peel County, Ontario. Those who have ever visited, or motored through, that beautiful and picturesque region, will be interested in this bit of information.

PERHAPS those who are interested in the Christmas Number Competition, will be glad to hear the following items:

Of the six subjects given, the "Literary" topic drew the greatest number of competitors, heading the list with 95 essays. —Who says farm folk are not interested in Literature?

The "Farmerettes" came next, with 75 essays; while the other lists were in this order:

"Woman's Work on the Farm,"—56 essays.

"What My Neighborhood Needs for Its Advancement,"—44 essays.

"Methods of Education in the Rural School,"—30 essays.

"War Work in My District,"—15 essays. Probably the small number of the last was due to the fact that in the country so much of the war-work was confined to knitting and sewing, endless numbers of socks and endless numbers of pajamas, shirts, etc.—so necessary for the soldiers, but scarcely affording much scope for essay material.

Many of these essays will be published from week to week during the year. Watch for them. They are worth reading

JUST as I wrote the last words of the foregoing, a letter was handed to me giving some more information about the contribution to the S. A. Rescue Home for Girls and Children's Orphanage in this city, for which donations were sent some weeks ago. "The Thames River Women's Institute" was the one that sent the splendid donation of \$70, which was very thankfully received by the heads of the very worthy institution for which the money was raised. This branch of the W. I., like the others, is still continuing to do Red Cross and Relief work and also, as the secretary(?) writes us, is looking now for work that will benefit "Our country at home", which accounts for the donation sent to the S. A.

We are always glad to receive detailed information in regard to considerable donations made because of, or through our paper. —JUNIA.

Needle Points of Thought.

"It is well that God answers our needs rather than our wishes, else many of us would escape the hardships which have most to do with strengthening and beautifying our characters."

"I make no apology when I say that, next to winning the War the running of our public schools is the most important problem before us." S. W. Sherrill, State Supt. of Tennessee.

Making Sausage—Felt Hat, Etc.

For "Enquirer", Haldimand Co., Ont. To make Bologna sausage use two-thirds beef and one-third pork. Grind fine in the chopper, season to taste, boil until cooked, pack into the casings and smoke. If you use skins for casing clean them thus: Empty the intestines of the pig, turn them inside out and wash well. Soak in salt water a day or more, then wash again, cutting into convenient lengths and scraping, on a board, with a blunt knife, first on one side then on the other, until very clean. Rinse, tie up one end of each length, put a quill in the other end and blow it up. If clear they are ready for use; if there are thick spots scrape them off. Leave the skins in cold salt water until used. For Bologna sausage always use the large intestines, and pack the meat in very tightly.

For the small, uncooked sausages, use the smaller intestines and prepare as above, packing the meat in and tying in convenient lengths. Or, if you prefer, use muslin bags, which when filled, must

be dipped in melted lard and kept in a cool place. Of course the bags must be ripped off when the sausage is used. Many people just pack the sausage meat in crocks, running 2 inches of melted lard over the meat in those that cannot be used right away. The crocks are kept in a cold place, and the sausage-meat, when used, is made into small cakes that are then fried or baked.

For summer use this bulk sausage meat may be canned as follows: Make the meat into small cakes and cook until about two-thirds enough for the table or until the water is out. Pack, while still cooking, into sterilized jars, fill with boiling lard and seal at once. When preparing for the table pour all the fat off after the meat is fried then pour a little thin sweet cream over and boil for a moment. This is not necessary but makes the sausage more delicate.

The proportion of seasoning may be as follows, but there is no fixed rule: To 55 lbs. lean and fat pork, chopped fine, allow 1 lb. salt, 6 oz. good black pepper, 1 teaspoon cayenne, and a handful of dried, powdered sage, all mixed together. Work very thoroughly through the meat. If preferred the sage may be omitted. Personal taste must rule in all seasonings.

We doubt if you could color a felt hat satisfactory at home. Better take it to a professional dyer or hat-renovator.

The soft silk materials such as *chamuse*, *crepe de chine* and *Duchesse* satin are usually considered the most durable. Chiffon taffeta may prove so, —or, again, it may not.

Left-Over Turkey, Etc.

SOMETIMES, when the family is small, it is a problem to know what to do with left-over turkey, chicken, or goose. Perhaps fowl can never be very well camouflaged, but, nevertheless, "different" dishes may be made from it. Try one of the following:

On Toast.—For 1 cup cold fowl chopped rather fine, make 1 cup white sauce, or use left-over giblet sauce. Heat the sauce, and put the meat in it leaving just until well heated. If the meat is scanty add some cooked peas, celery or carrots. Have ready some toast; dip the crust in boiling salted water, spread lightly with butter and cover with the mixture. Serve on a hot platter. The dish is prettier if you take hard boiled egg and sprinkle some of the grated yolk in the center of each piece of toast, on top of the meat, then surround by bits of the chopped white of the egg. Also some canned tomato stewed with bread crumbs and seasoned nicely with butter, pepper and salt, may be heaped up in the middle of the platter.

Gateau of Turkey.—One-half lb. cooked turkey or other fowl, 3 tablespoonfuls cooked chopped ham, 2 teaspoonfuls each of chopped onion and parsley, 4 tablespoonfuls bread crumbs, 2 eggs, ½ cup stock made by boiling the bones in a little water, some bread crumbs browned in the oven, 1 heaping tablespoonful drippings, seasoning of salt and pepper. Butter a pudding dish and sprinkle the inside over with the browned crumbs, turning out all that will not stick. Chop the turkey fine; add the ham, crumbs, salt, pepper and parsley. Melt the dripping in a saucepan and fry the onion in it, then add it to the other ingredients. Beat the eggs and stir in. Pour into the basin, taking care not to disturb the coating. Cover the top with greased paper and bake in a moderate oven about ¾ hour. Turn out on to a hot dish and pour around it some tomato or brown sauce.

Brown Sauce.—Remove the liquid in the pan in which turkey or other meat has been roasted. Skim off 6 tablespoonfuls of fat. Return fat to pan, place on range, add 6 tablespoonfuls flour and stir until well browned. Next pour on gradually, while still stirring, 3 cups of stock (in which bones and giblets have been cooked). Bring to boiling point and simmer 5 minutes. Season, then strain. Add the chopped giblets.

Baked Left-Overs.—Take the remains of the goose or turkey, chop them and add what stuffing and gravy are left over. Mix well, put in a bowl and bake in a pan of water for half an hour. Turn out on a hot platter and surround with slices of hard-boiled egg and sprigs of parsley. Serve with a salad of celery or beets with mayonnaise.



Model "Organola"
\$310



Hear Them

There's a new list of selections each month. They are played with a sapphire point. No needles to change. Beautiful, clear, "Phonola" records that are practically indestructible.

The Only One With Organ Pipes

In all the wide world, there is only one make of phonograph that has taken advantage of the principle of the pipe organ and installed inside of its case a set of tone control pipes which include every note in the scale. That phonograph is the



And the tone control pipes are used in our magnificent "Organola" model—the utmost that has so far been achieved in phonograph construction.

Records played on this "Organola" Model are given a really wonderful reproduction. Play a "sextette" record on the "Organola" Model, and you will have a real idea of the value of the tone control pipes. There is none of that confused blurring as when played on ordinary makes of phonograph, the tone control pipes of the "Organola" Model separating the different voices and notes, giving a pure, clear, lifelike rendition.

Try a record of a violin, a piano, a soprano, or anything else you know the ordinary phonograph does not quite reproduce faithfully, and you will find that the "Organola" Model renders the selection perfectly and with a surprising volume.

If you are going to invest upwards of \$250 in a phonograph, you will, of course, want to procure the finest that is built. So, if you cannot see and hear the "Organola" Model of the "Phonola" at a dealer's in your locality, write direct to us.

Other "Phonolas" from \$25 up. All makes of disc records can be played.

DEALERS: The "Phonola" line comprises 10 models—a "Phonola" for every requirement. The "Phonola" agency is the most valuable asset you can add to your business today. Write for particulars.

The Phonola Co. of Canada, Limited
Kitchener, Canada

Holiday Cookery.

Holiday Seed Cake.—One-half pound butter, ½ lb. sugar, 4 eggs, 2 oz. caraway seed, ¼ grated nutmeg, ¾ lb. flour, ½ teaspoon salt, 1 teaspoon baking-powder. Beat the butter and sugar together until very light and creamy, add the yolks of the eggs and beat again, then beat in the caraway, nutmeg, and the flour, salt and baking-powder sifted twice together. Last of all fold in the whites of the eggs (beaten stiff). Turn into greased pans and bake about 1¼ hour in a moderate oven.

Simple Suet Pudding.—This pudding may be served in place of rich plum pudding, and will be found quite as palatable and more digestible. Take 3 cups flour, 1 teaspoonful salt, 1 cup chopped suet, 1 teaspoon soda, 1 cup milk, 1 cup molasses, 1 cup seeded raisins, 1 cup chopped nuts: Mix the salt and suet with the flour. Mix the soda with the milk and molasses, and add to part of the flour. Put the raisins and nuts with the rest, then mix all together. Butter the inside of a mould and half fill with the pudding, then steam steadily, covered closely, for 3 hours. Serve with hard sauce or any good pudding sauce. This will keep a long time, covered, in a cool place, and needs only to be freshly steamed for using.

Potato Baskets.—Select medium-sized potatoes of uniform size. Wash, pare and scoop out some of the center. Drop into cold water; soak one-half hour. Cook in boiling salted water ten minutes, and drain. Place in pan in which turkey is being roasted, and bake until soft (about forty minutes) basting with fat in pan when basting bird. Fill with any cooked vegetable (peas, or chopped carrots, celery or turnips) mixed with thick white sauce. Dot with butter and brown slightly in the top of a hot oven.

The Scrap Bag.

Rolling Out "Substitutes."

As pie-crust of substitute flour tears easily, roll it out on oiled paper, then invert the paper over the pie-pan. When it drops off press into the tin and trim off.

Keeping Baby's Bottles Warm.

Pull over the bottles the small, wolen stockings the baby has outworn. This is not as effective as a thermos bottle, but will help to keep the milk warm longer than without.

Cleaning Mica in Stoves.

Smoky mica in stoves may be kept clean by washing it with a cloth dipped in cider vinegar.

A Fritter Hint.

When dropping fritter batter into fat first dip the spoon into cold milk and the mixture will not stick to the spoon. Frying in "deep fat" is not an extravagant method of cooking if the fat is hot enough. If so it will not soak into the fritters or doughnuts, and it may be used over and over.

A Kitchen Cart.

A kitchen cart that will be found a great labor-saver may be made by fitting wheels to a small kitchen table. All the eatables or dishes may be placed on it and wheeled to and from the table.

For Pillow Slip Ends.

Slightly starch the ends of pillow-slips with boiled starch, and see how much easier it is to keep the beds looking nice.

Bath Mittens for the Children.

Make bath mittens out of Turkish towelling for the children, and it will be much easier to induce them to bathe

themselves, the mittens are "so much handier than wash-rags."

Polishing the Piano

A music-teacher tells us that she always uses castile soap and soft water for cleaning her piano, washing a little at a time and polishing immediately with a dry, soft cloth and then a piece of chamois. Some use, for the last polish, a very little sewing-machine oil, applied with clean chamois. It must be remembered that any thick polish or varnish injures the tone of the piano.

Christmas.

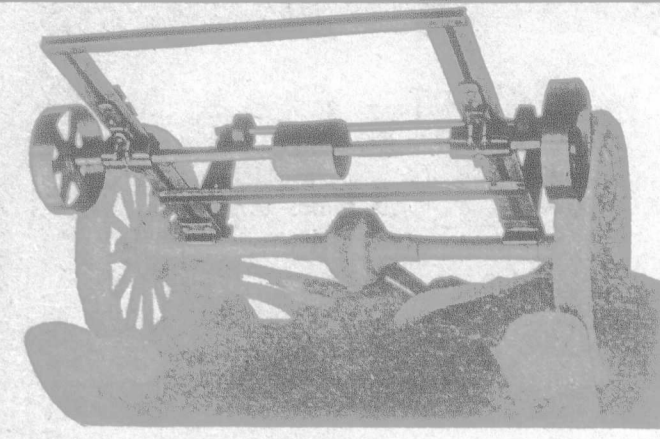
BY LALIA MITCHELL.

Have you heard the Christmas music
Sounding over hill and plain?
Have you listened to the music
That should never come in vain?
Glory, praise and honor ever
Unto God who reigns above,
And to those on earth who journey
Peace, good will and boundless love.

Have you seen the Christmas holly
Flaming forth on every side?
Has your heart grown strangely lighter
For the green of Christmastide?
Has it thrilled you with a message,
Glory to Lord and King,
And good will to every brother?
This the tidings it should bring.

Have you caught the Christmas spirit
Wafted by on every breeze?
Christ is born to rule forever,
Lord of earth and sky and seas.
Glory unto Him, and honor
Now and evermore, Amen.
And throughout a Christian kingdom,
Peace on earth, good will to men.

More love, more love, for this we pray,
A keener sense of brotherhood—
This be the world's best gift to-day
To Him, the giver of all good!



There is no better or cheaper Power Plant for cars made.

Price, \$44
F. O. B. Toronto

We have a good opening for a few live dealers. Do it now.

THE HANDY POWER PLANT
Will give you good, honest value with the least outlay.

THE WEBBER MACHINE CO.
848 Dupont Street TORONTO, ONT.

WANT and FOR SALE

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.

COLLIE PUPS BRED TO HEEL AND DRIVE.
A. B. Van Blaricom, Morganston, Ont.

FARM FOR SALE—GOOD BUILDINGS
first-class land, tiled, plenty of water and timber. F. H. Orris, Springfield, Ont.

FOR SALE—BIG, HANDSOME COLLIE DOG,
fifteen months old; registered; sable and white. B. Armstrong, Morganston, Ont.

FARM FOR SALE—200 ACRES IN BEAN
district, Kent, Harwich Township, 4 miles east of Blenheim, on Talbot Road, one mile from church, school; 20 acres bush, 35 acres fall wheat, 2 fine brick dwellings, one tenant house, natural gas, pneumatic water system, 3 artesian wells, telephone, bank barn, cement silo, garage. Apply L. D. Mitton, R. R. No. 2, Blenheim, Ont., phone 162.

HERDSMAN, MARRIED, OR FARM SUPER-
INTENDENT, or rent 100 acres; life experience; two sons, good milkers; wife dairy and poultry woman, by first of March. State particulars first letter. Box H, Farmer's Advocate, London, Ont.

WANTED—AT ONCE, A SINGLE MAN,
about forty years of age who understands working on a farm and looking after cattle; a Scotchman preferred. Please state wages by year. Apply to A. J. Fox, Harrow P.O., Ont., R. R. No. 3.

WANTED—YOUNG GIRL AS MOTHER'S
help. Nice, comfortable home. Apply, stating full particulars, to Mrs. H. P. Mackenzie, cor. Avenue Rd. and Glencairn Avenue, Toronto.

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.

BARRED ROCK SPECIALIST TWENTY
years. "Winter layers, heavy weighers." Choice cockerels \$3.00 each. Earl Bedal, Brighton.

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

ROSE COMB RHODE ISLAND RED
Cockerels from good winter laying strain. Alex. McKinney, Erin, Ont.

WANTED TO BUY OR EXCHANGE—WHITE
Chinese gander. Mrs. M. A. Howard, R.R. No. 2, Ilderton, Ont.

WHITE WYANDOTTE AND WHITE LEG-
HORN cockerels for sale, from prize-winning stock; Martin and Saunders strain, \$3 each. Eggs in season. Esra Stock, Woodstock, Ont.

WANTED

Crate-fed Chickens
(Dressed)
Also LARGE FOWL (Alive)
Write for Price List.

WALLER'S, 702 Spadina Ave., Toronto

DO YOU NEED

FURNITURE

Write for our large, photo illustrated Catalogue No. 7—It's free to you.

THE ADAMS FURNITURE CO., Limited
Toronto, Ontario

For Sale: Essex Seed Corn

Grown from native seed, and germination guaranteed—Bailey White Cap Leaming and Wisconsin. Special prices for clubs.

A. G. BILLING, R. R. No. 1, Essex, Ontario

SPRUCEDALE Shorthorns and Berkshires

Herd headed by Sprucedale Butterfly, whose dam, Orma of Northlynd 105350 (owned in herd), has a 4-year-old R. O. Period of 10463 lbs. milk, 390 lbs. fat. Shorthorns and Berkshires of different ages and sex for sale. Inspection invited.

Frank Teasdale - Concord, Ont.

HAY

SHIPPERS! Consign your carloads to The E. L. RICHMOND CO., Detroit. The Old Reliable Firm. In business a quarter of a century. References—Any Bank.

Beaver Hill Aberdeen-Angus and Oxfords—
Cows with calves at foot. Females all ages. Bulls of serviceable age. Ram lambs and a few shearing ewes.

Alex. McKinney, R.R. No. 1, Erin, Ontario

Smiles.
"What are you crying for, Bobby?"
"Boo, hoo! I've been goin' to the Methodist and the Presbyterian Sunday schools for two months, and now they're going to have their Christmas trees on the same night."—Otago "Witness."

He had been going from church to church trying to find a congenial congregation, and finally on Christmas Eve he stepped into a little church just as the congregation read with the minister:

"We have left undone those things which we ought to have done, and we have done those things which we ought not to have done."

The man dropped into the nearest pew with a sigh of relief.
"Thank goodness," he said, "I've found my crowd at last."

A Chicago banker was dictating a letter "Tell Mr. Williams," he said, "that I will meet him in Schenectady."
"How do you spell Schenectady?" asked the stenographer.
"S-c, S-c—er—er—er— Oh, tell him I'll meet him in Albany!"

Little girl (before statue in museum)—
"Mamma, who's this?"
Attendant (after a pause)—"That's Mercury, the messenger of the gods. You have read about him, no doubt?"
Mother—"Of course, she has. But, do you know, my little girl has such a very poor memory for Scripture."—Boston "Transcript."

A Real Connoisseur.
Two brothers were being entertained by a rich friend. As ill-luck would have it, the talk drifted away from ordinary topics.

"Do you like Omar Khayyam?" thoughtlessly asked the host, trying to make conversation. The elder brother plunged heroically into the breach.

"Pretty well," he said, "but I prefer Chianti."

Nothing more was said on this subject until the brothers were on their way home. "Bill," said the younger brother, breaking a painful silence, "why can't you leave things that you don't understand to me? Omar Khayyam ain't a wine, you chump; it's a cheese."—New York "Globe."

The Art of Receiving Graciously.

BY LEE MCCRAE.

Who does not love to give to a little child? He seizes the present with a rapturous motion and a twinkle of joy in his eyes, while the mother puts the "thank you" words into his mouth or says them for him. Yet we feel amply repaid for whatever the gift has cost us, and realize the beautiful truth that it is "more blessed to give than to receive." Besides, the child proceeds at once to enjoy his new possession, whether it be a toy or a stick of candy.

Instead of this happy, natural way, we grown people make studied bows, smile dubiously, pile on words of thanks, and—lay the gift upon the mantel.

Surely the child's way is the best. The joyous outreaching, the look of thanks, the quick caress, and but a few words, are what the giver wants and will cherish as his or her reward.

Few words are best because not many of us have the tact, the quick wit, and the ready tongue to say the right ones on the spur of the moment, and the wrong words spoil it all for both the giver and the receiver. Who of us has not had the very sight of some pretty thing made a trial for years because of the awkward way in which we accepted it? We pile on words because we think they are expected of us, and try to maintain our dignity by showing as little emotion as possible.

Then, alas, that horrible ogre, the "trade last" idea flashes over us, and we instantly think of the present we gave or didn't give this particular friend. Is it a false pride, a sense of commercialism, or a commendable honesty that prompts us grown people to "even up" the gift-making, and thus rob it of its chief glory? Oh that we could "become as little children" in this matter!

To see one's gift put to use, yet with dainty care, is also pleasing, and no more delicate compliment can be paid than to refer to a past gift long since forgotten by the donor. I once had a correspondent say, "This is written with the pen you gave me Christmas two years ago. Ah, the journeys it has made over white paper since then!"

We must all confess that we like to have much made of our gifts, be they costly or ever so inexpensive, but it must be done in a sincere, natural way that shows the heart is really touched.

Some people purposely, and others unconsciously, make it hard for their best friends to give them anything. It is usually a sense of pride, a fear of patronage or obligation that forms the ugly barrier. This is peculiarly common among relatives—near relatives, who know one another's needs and financial conditions far too intimately for mutual comfort.

The only way to overcome this wretched feeling, is to put ourselves in the giver's place, remembering what a joy it is to be able to bestow things upon others. Think how gladly we would do likewise, were we the rich relative! Remember, too, how it hurts to have a gift received reluctantly. Generous receiving is second only to generous giving, and alas, it is far more rare among grown people.

It has been truly said that the way a lady takes a compliment stamps her place in society. A blush of pleasure denotes the schoolgirl; a giggle, the silly or unsophisticated; a brusque protest, the sensible but unpolished; a fleeting smile and a quiet thank you phrase (if reply be necessary at all) show unmistakably the woman of society training, the one really accustomed to compliments.

Many mothers, rightfully anxious to keep their daughters' heads "level," as we say, teach them to have horror of compliments. They quote the harsh, half-true sayings, such as "The man who flatters a woman hopes to find her a fool or to make her one." And with ideas like that in mind, the young girl often resents rudely words that are sincerely meant, and makes awkward situations for herself and her real friends. Instead, let her be taught keen discernment between foolish flattery and well-meant praise, and let her have answering phrases at her tongue's end. Every girl, pretty or ugly, who would hold a place in the social world, must acquire the art of graciously accepting a compliment and of tactfully "turning down" the would be flatterer. A little quiet forethought and preparedness are all that are necessary.

We all need to recognize the fact that kindly deeds and kindly words mean so

much in this old world of ours that they both deserve gracious reception.—Sel.

The House of Christmas.

There fared our mother driven forth
Out of an inn to roam;
In the place where she was homeless
All men are at home.
The crazy stable close at hand,
With shaking timber and shifting sand,
Grew a stronger thing to abide and stand
Than the square stones of Rome.

For men are homesick in their homes,
And strangers under the sun,
And they lay their heads in a foreign land
Whenever the day is done.
Here we have the battle and the blazing eyes,
And chance and honor and high surprise,
But our homes are under miraculous skies
Where the yule tale was begun.

A Child in a foul stable,
Where the beasts feed and roam;
Only where He was homeless
Are you and I at home;
We have hands that fashion and heads that know,
But our hearts we lost—how long ago!
In a place no chart nor ship can show
Under the sky's dome.

This world is wild as an old wives' tale,
And strange the plain things are.
The earth is enough and the air is enough
For our wonder and our war;
But our rest is as far as the fire-drake swings
And our peace is put in impossible things
Where clashed and thundered unthinkable wings
'Round an incredible star.

To an open house in the evening
Home shall men come,
To an older place than Eden
And a taller town than Rome.
To the end of the way of the wandering star,
To the things that cannot be and are,
To the place where God was homeless
And all men are at home.

—By Gilbert K. Chesterton.

The Dollar Chain
For Relief Work.
Contributions from Dec. 13 to Dec. 20:
"X", \$3; Mrs. W. S. Galbraith, Iona Station, Ont., \$2; "Bill", Elgin Co., Ont., \$5.
Previously acknowledged.....\$5,745.50
Total to Dec. 20.....\$5,755.50
Kindly address contributions to The Farmer's Advocate and Home Magazine, London, Ont.

For S. A. Rescue Home and Orphanage.
Mrs. A. H. Weaver, Chippewa, \$1.
Total received, to date, \$37.75.

"So while nearly all our Christmas ceremonies have originated in heathen festivals, or ancient superstition, they all mean just what Christmas means—love, peace, good-will, forgiveness and joy. It is well to remember these things, and to come to our Christmas in the right spirit. The fact that the ancient people, on whom we look down as barbarians, originated so many beautiful customs, should spur us on to live up to these ideals better than we do. For two thousand years we have been singing "Peace on earth," and still there is no peace. If we would all live up to our Christmas ideals, war would cease automatically, and the evils of the world, industrial, social and political would die a natural death."—Sel.

"A certain picture at the Royal Academy (London) this year shows English fishermen gazing at a long line of American destroyers emerging from a background of mist and rain. I am sure that no American can view that picture without experiencing a swelling in his throat. I should imagine that it might excite equal emotion in an Englishman. For that starry banner, streaming out in the mist, waves over a closed breach; signifies the healing of an old sore; stands for the concord of the Anglo-Saxon peoples, at last full and complete."—Herman Whitaker in *The Independent*.

Our Serial Story

The Forging of the Pikes.

A Romance Based on the Rebellion of 1837.

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

Chapter VI.

The Indians.

May 21st, 1837.
Sunday night again, and a very gentle rain pattering on the roof, which, I do think is one of the most pleasant sounds in the universe. Moreover it will make the young wheat grow, and the oats and peas, which are beginning to need it. Fairly can I see them sprouting up out there in the darkness, and almost I think I can hear the rain-drops gurgling through the soft earth to the roots. It's a whim of my mother's that all the growing things understand in some fashion of their own, and rejoice as they drink up the food that the rain brings to them. She thinks, too, that the flowers have souls, to which I tell her that they are souls, the souls of the plants. Sentiment or not, it is true enough that the crops respond quickly to the caring hand, as every tiller of soil well knows, and that they stunt and turn yellow at the roots for want of cultivation or rainfall. My father, remarking on this the other day, compared with them individuals and nations. Fed and encouraged in both body and mind the individual grows. Stinted in food for the body the body stunts, or of food for the mind and the mind stunts.—So people, so nations, which are after all made up of the small units we call persons; and because of this it is that the Government that looks after its own profit, forgetting that the people must have their fair share in everything, in the end must find its own ruin. For in and through the people must any Government stand or fall.

The rain began at about eight of the evening, and it is now well on to ten, so already great good will be done.

All the rest of the day was fine, the trees waving with the kind of wind that comes before showers, the sky a very light blue, with thin, fleecy, white clouds trailing over it, so it was little wonder that, having gone piously with father and mother to church in the morning, early in the afternoon I was enticed to the woods, intending to take a tramp therein and then be back to go with Hank and Dick Jones and some of the fellows from the village to swim in the Deep Hole.

At this time the whole woods is carpeted with flowers, brought apace by the warmth of the last few weeks. Everywhere one looks beneath the trees is white with wake-robins—the white wood lily which my mother thinks is the finest flower to be found in this new land, even finer than the cowslips and daffodils of Britain. Beside a stump covered with moss of a very bright emerald I found a clump of three of these lilies, each with a green band down the centre of its three white petals—very rare in these woods, or anywhere so far as I know. There was also, near it, a great mass of Solomon's seal, with the greenish bells forming beneath the stem, and promising so much gracefulness of beauty that I must return to see it within a short time. On pulling up one of the root-stalks and plucking out a stem, the little mark or coin-stamp from which the plant gets its name was very visible, as were also the scars of previous year's growths elsewhere along the root, which was very thick and sturdy, so that one could well imagine Champlain's starving garrison at Quebec, in those hazardous old days, glad to roam the forests for this plant. I have never cooked the root to test its palatability, but surely it would carry the romance of history and tang of the forest with it.

By the fallen logs there are still numbers of the little white and pinkish "ladies and gentlemen," the decorous "ladies" fragrant and sweet as ladies should be. One of these, too, I pulled out by the root, just for the pleasure of looking at the small yellow tuber, which has caused the plant to be sometimes called "squirrel corn." I wondered if the squirrels are indeed botanists enough to identify this plant and dig down to the roots for the bit of gold, as some say, but which, for all of my watching I have never

seen done, though the squirrels are many enough, chattering overhead wherever one goes, with great black ones leaping through the branches.

Truly there is rich harvest for the woods-lover these May days. But how can one stop to tell of all of the many species now in bloom?—the little white mitrewort with its flowers scattered like tiny snowflakes up the stalk; its cousin the foam-flower, very lovable; the white star-flower nestling on a mossy bed, with gold thread, much sought in these parts for babies' mouths; the bunch berry, promising a wealth of red fruit for jam-pots later in the season; white snake-roots; blue cohosh, which some call "pappoose root"; Jack-in-the-pulpits which should be named more appropriately monk-in-a-cowl, shining in glossy green and red-brown in a forest of sturdy leaves,—with windflower and red columbines in the open spaces, and white, yellow and blue violets everywhere.

As I strode on, rich in the midst of all this wealth, the sudden call of a white-throat brought me to a standstill, for there was a peculiar timbre of Barry's call in it, but mingled with a pathetic intonation that left me uncertain.

Turning I walked towards the point from which the whistling had come, then stopped for further guidance.

In a moment it came again, further away. I followed, the whistling preceding me, again and again. Soon I recognized it was going off in the direction of the waterfall, and knew then that the whistle was Barry's.

When at last I broke through the sapling thicket to the old spot she was there before me, sitting on the bank with her elbows on her knees and her chin in her hands, looking out at me like a woods-sprite, with a smile half mischievous half appealing. She had donned her buckskin-colored gown with the red sash and her hair was loose as before.

"Ah, it's the wild Barry to-day," I said, as I sat down beside her.

"Yes, and I'm wild to-day all the way through," she said, going away from me and seating herself, like a very naiad, on a boulder at the edge of the stream.

"Alan, could your mother like the wild Barry—the one she did not see the other evening?"

"Now that she knows you," I said, "I am sure she would like you in any garb, and I am sure she is artist enough to appreciate you just as you are now, Barry, there with the waterfall behind you and the green above and about."

She smiled a fleeting smile that passed almost ere it was formed.

"Do you think she approves of me?" "Approves of you? She loves you, Barry. How could she help it?"

But Barry recked little of my admiring words. She was looking off into the woods with the droop of wistful discontent that sometimes comes over her face.

"Because, you know," she went on, "I don't approve of myself."

"Hard to suit," I reproved, smiling at her, then saw soon enough that she was in no mood for badinage.

"Alan, I hate it all!" she said, turning to me, and I knew what she meant. "I hate it, Alan! I hate it!"—ending with a brave choking back of a sob.

I wanted to go to her, to catch her in my arms and tell her that she and I would fly from it—away and away where nothing could ever trouble more. But what could I, a lad not of age until next month and with nothing yet but a great determination—do at this time? And so I could only mutter,

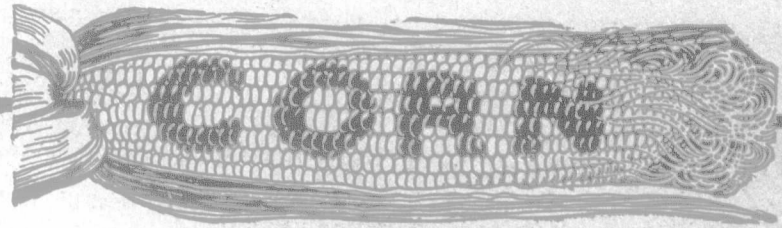
"I know, Barry. At the tavern, you mean."

"Things get worse and worse," she said.

"It's all right in the day, but at night the men come in, and talk crops and pigs, and drink a bit. And presently it's politics, and all Family Compact and Clergy Reserves and Crown Lands and after a while, if they drink enough, it's—beastly. I'm sick of it all! Alan do you wonder I go off into the hay-mow with old novels about England—and read, and dream, and then dream again?"

"But you will not always have to live in the tavern, Barry," I said; and God knows I'd have given ten years of my life just then if I could have said what was in my heart. But I do think it is a mean and selfish cur who will try to tie a maiden to him in over-long waiting.

"No?" she queried, smiling a trifle bitterly. "Alan, can one escape from these forests?"



SYRUP

Are YOU saving Sugar by using

CROWN BRAND CORN SYRUP

Corn starch converted into its "sugar" form, with pure cane syrup added.

LILY WHITE CORN SYRUP

The Canada Food Board recommends Corn Syrup (White) for preserving and cooking. Also delicious for all table purposes.

In 2, 5, 10 and 20 lb. tins, at all dealers.

CANADA STARCH CO. LIMITED

MONTREAL

"Open Sesame!"



The Open Door.

YOU remember in the Arabian Nights stories, the wonderful door that would open its treasures only to him who had the magic words "Open Sesame."

In the event of your death, the receipt by your family of a substantial cheque representing the face value of an insurance policy would be regarded by them as a real treasure.

The door of life insurance opens only to him who can truly say, "I am in good health."

You may possess this "open sesame" to Life Insurance to-day. To-morrow, the medical examination, which all insurance companies require you to pass, may compel the company, by your impaired health, to close the door to the treasures of life insurance.

Secure life insurance protection while you are the happy possessor of the "open sesame"—good health.

The Mutual Life of Canada has a particular policy to suit your income and your requirements. Write for particulars of Mutual Life Policies—all standard plans including Monthly Income and Disability.

The Mutual Life Assurance Company of Canada
Waterloo, Ontario

555

A New Year Suggestion

Amongst the many matters to be arranged or re-arranged at the New Year, surely Life Insurance is one of the most urgent. No man can count his affairs in order until he has assured, so far as human foresight can assure, the continued welfare of those dependent upon him.

A Great-West Life Policy will give this assurance on terms remarkably attractive. Rates are low, conditions liberal and clearly expressed, while the profit returns to Policyholders are notably gratifying.

Let us explain the best Policy for your needs.

The Great-West Life Assurance Company

DEPT. "Z"

HEAD OFFICE, WINNIPEG

NEVERSLIP
Red Tip Calks
 Insure
STRONG EVEN PULLING
 ON ICY ROADS



No farmer can afford to risk losing a valuable horse through falls on icy roads when safety is so cheap and convenient. **RED TIP CALKS** insure safety to the horse and comfort to the driver. Your blacksmith has them.

THE NEVERSLIP WORKS
 559 PUIX AVE., MONTREAL
 U.S. FACTORY, NEW BRUNSWICK

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemish as—Bog 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
 Church Street, Toronto, Ont.

DR. PAGE'S SPAVIN CURE

Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunches, does not kill the hair, absorbs Capped Hocks, Bog-Spavin, thick pastern joints; cures lameness in tendons; most powerful absorbent known; guaranteed or money refunded.

Mailed to any address. Price \$1.00.

Canadian Agents:
J. A. JOHNSTON & CO.
 Druggists
 171 King St. E., Toronto, Ont.

ELM PARK, ABERDEEN-ANGUS

From 1893 to 1918, inclusive, our herd has been shown at Toronto and other large Canadian shows from Halifax, Nova Scotia to Edmonton, Alta., and have during these years won more prizes than any competitor. Our herd now numbers over 80 head and we never had a better lot of bulls and females for sale.

JAMES BOWMAN, Box 14, Guelph

SUNNY ACRES
Aberdeen-Angus

Present offering: 15 young bulls, 5 to 10 months; also 6 breeding females.

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
 SHOW FLOCKS

Rams and ewes. Heifers in calf to Queen's Edward, 1st prize, Indiana State Fair.

Robt. McEwen, R.R. 4, London, Ont.

Sunnyside Herefords

Young cows, heifers to calve in January, heifer calves, first prize senior and junior bull calves, London, 1918, and yearling bulls in field condition. Must have room before winter. Inspection invited.

ARTHUR F. O'NEIL & SONS, Denfield, Ont
 Phone connection. Granton, Ont.

TWEHILL ABERDEEN-ANGUS

Cows and heifers in calf etc. Young bulls. Prices very reasonable. For particulars write **JAMES SHARP, R. R. 1, Terra Cotta, Ont** Cheltenham C.P.R. & G.T.R., Erin C.P.R. Phone

Dr. Bell's Veterinary Medical Wonder, 10,000 \$1,000 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, Ont.

Rosebud Sultan

A good Scotch Shorthorn bull calf for sale, sired by Sultan Choice, and dam was Rosebud Pride. Apply to **A. J. FOX, Harrow, Ont., R.R. No. 3**

I looked about at the glory of the green, light-flooded leaves, with the great gray tree-trunks rising as in God's own cathedral, and at the cool deep shadows, with the millions and millions of wake-robins gleaming white as snow on the floor of the woods, far as eye could reach.

"But it's a grand free, life in this new land, Barry!" I exclaimed, my heart surging with the love of it; whereupon she smiled again, and I felt at that moment as though she were years older than I. Indeed the thought was in her own mind, for when she answered she said,

"Alan, I think I am hundreds and hundreds of years older than you. It seems to me boys are so enthusiastic and so—so short-seeing. Don't you know, lad, that one's mind may be in prison even here?"

"Or in a palace, Barry," I interjected. She nodded, and went on, "But one's home means so much," then caught herself up as though she had said too much.

That word was almost my undoing, for it made my tongue run away with me. "Barry," I said, "Wait a little, just a little. Some day—and perhaps not so very far away—things will be right, for you, and for—me."

And then my speech froze, from the very boldness of me, and still more when she sprang up, with a ripple of a laugh, the wistfulness all gone from her face, herself but a saucy, merry, indifferent lass again, so that I could but marvel at the quickness of the change, and none too well pleased because of it.

"Well, care killed a cat," she said. "Let it go!—Do you know, Alan, some Indians are camped down near the ford. Really I whistled at you to ask you to come with me to visit them. Shall we?"

To which I gave ready enough answer, and so off we set through the woods, she leading, as unerring as an Indian maid. Over log and down hills we went, following the stream, until at last, rounding the Bald Rock we were assailed by the barking of a dog, which stopped quickly enough when Barry whistled at it.

"I knew these Indians away last winter before we came here," she explained, "and even the old dog remembered me. See there's Wabadick himself."

The Indian was sitting on a log smoking. He bade us good-day, scarcely turning to look at us, as is the way of these people. But Barry was in no wise abashed by his taciturnity. Even he gave way before her onslaught of talk and questioning, and soon we three were all conversing affably enough. His camp had come here because of the unusual quantities of black ash along the creek and in the swamp beyond. The black ash was best for basket-making. The inside bark of it was used, soaked and scraped and made very pliable for weaving. And the colors were all obtained from roots and berries, the red usually from a plant that bled, and that I easily identified as "blood-root."

Yes the squaws and he would make many baskets and take them to Toronto to sell them. There were many things to be bought in Toronto—blankets, and tinware, and guns; and if one took the basket to the houses one could often trade them for very good clothes such as he wore. All this was brought out by dint of questioning.

As we talked little dusky children approached, then ran back laughing, then approached again, squatting down at discreet distance, like a covey of young partridges concealing themselves among the leaves. But one tall slim, youth perhaps sixteen years of age, and more bold than the others, came near and sat down, looking off as though his coming depended nothing at all upon our being there.

Barry, however, called across to him, calling him "Joe" and addressing him in strange words that were unintelligible to my ears. To that he replied, and so they talked across one to the other, the short words hurtling like pebbles thrown to and fro. At last she vouchsafed to cast me a roguish glance.

"I did not know you could talk Indian, Barry," I said.

"Oh, you don't know plenty of things—about me," she laughed, and indeed the words were true enough.

Afterwards we went up to the camp, the little Indian children fluttering through the woods at either side of us, and safely ramparted by moss-grown logs. The camp was but a couple of wigwams, roughly enough put up, in the usual way, with some pieces of worn

We want, and will pay highest prices for all kinds of

RAW FURS

Ship your skins to us at once
 We pay express charges or postage
 Price List and Shipping Tags sent on request

Revillon Frères
 Trading Company Limited
 LARGEST FUR MANUFACTURERS IN THE WORLD
 134 McGill Street - - - Montreal

Save Feed



Feed is high. Save it by giving your horses, cows, hogs and sheep

Pratts Animal Regulator

with their daily ration. Puts them in perfect condition and keeps them that way. Enables them to get more nutriment out of less feed. Nearly 50 years of success has proved this. At your dealer's in popular priced pkgs., also 25-lb. pails and 100-lb. bags. Money Back if Not Satisfied. Write for Pratts 64-page book on Horses, Cows and Hogs. It's FREE. **PRATT FOOD CO. OF CANADA, LTD., 3281 CARLAW AVE., TORONTO. B-6**

DEAFNESS STAMMERING

ITS CAUSES AND TREATMENT
 Write for Free Booklet and particulars of the free trial offer of the Mears Ear Phone.
THE MEARS COMPANY OF CANADA
 Dept. A., 194a PEEL STREET, MONTREAL.

or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature.
THE ARNOTT INSTITUTE
 KITCHENER, CANADA

LARKIN FARMS Queenston, Ontario
 ABERDEEN ANGUS and JERSEY CATTLE
 SHROPSHIRE and SOUTHDOWN SHEEP
 Correspondence and Inspection Invited
 (Please mention "Farmer's Advocate")

CREEKSIDE SCOTCH SHORTHORNS

Herd headed by Gay Monarch 79611; dam Sally 8th imp., and sire, the great Gold Sultan 75411. My present offering of young bulls includes several 7 to 14 months' youngsters, all thick mellow well-grown fellows—reds and roans—and priced right. Can also supply females in most any numbers.
Geo. Ferguson, —Elora Station, C.P.R., G. T. R.—Salem, Ont.

SPRUCE GLEN FARM

Herd headed by Nonpareil Ramsden =101081= and Royal Blood =77521=. At present we have nothing to sell, but we have some very good ones coming on.

JAMES MCPHERSON & SON DUNDALK, ONTARIO

GLENGOW SHORTHORNS

We have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding and are thick, mellow fellows, bred in the purple.

WM. SMITH, COLUMBUS, ONT. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.

Spring Valley Shorthorns —Herd of 70 head, straight Scotch, good individuals. Headed by the great show and breeding bull, Sea Gem's Pride 96365, and Nonpareil Ramsden 83422. We have for sale four as good young bulls as we ever had, and a few females.

KYLE BROS., DRUMBO, ONT., (Phone and telegraph via Ayr.)

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.

SHORTHORNS and CLYDESDALES

Herd still headed by Proud Victor =102587=. For Sale—One red, 20-months old, and eight 10-months-old choice reds and roans. Also females of all ages.

J. B. CALDER GLANFORD, STA. R. R. 3

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.

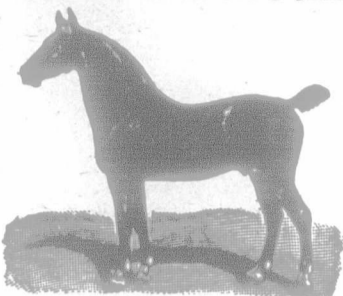
GEO. ISAAC. (All railroads, Bell 'Phone.) Cobourg, Ont

Pure Scotch and Scotch Topped Shorthorns

We have several choice young bulls of the best of breeding and ready for service. Two are by Rapheal (imp.), one by Right Sort (imp.), one by Sittyton Selection, and several by our present herd sire, Newton Cedric (imp.). Prices write. **R. M. MITCHELL, Freeman, Ont., R. R. No. 1.**

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeney, Capped Hock,
Strained Tendons, Founder, Wind,
Fruin, and all lameness from Spavin,
Ringbone 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.

Flintstone Farm

Breeders of

Milking Shorthorn Cattle,
Belgian Draft Horses
Berkshire Swine.

We offer animals that will
raise herds to a level of war-
time efficiency. Bull calves
from \$125 up.

DALTON

Massachusetts

MESSRS. A. J. HICKMAN & CO.

Halse Grange, Brackley, England (late of
Egerton, Kent)

Exporters of all breeds of stock, draft horses, beef
cattle and show and field sheep are specialties.

You can buy imported stock through us cheaper
than in any other way, and we hope to get your
enquiry at once, so that we can fit you out before
this country is skinned of good stock, as it soon
will be now war is over.

Shorthorn Bull

For Sale. Royal George=98085=roan,
calved March 4th, 1914, Sire Nonpareil
Ramsden, dam College Goldie. This bull
is sound and Right.

M. G. Cullen, Perth, Ont. R.R. No. 1

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 breed-
ing, and all are priced to sell. Write or call.
Thos. Graham, R.R. No. 3, Port Perry, 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 and Shropshires

We still have
a few extra well-covered shearing
rams. Also a choice lot of ram and ewe lambs.
Prices right. We can supply young bulls or heifers
both of which are from high-record dams.
P. CHRISTIE & SON, Port Perry, Ont.

Spruce Lodge Shorthorns & Leicesters

Herd headed by the Butterfly-bred bull, Roan
Chief Imp. =00865= young stock of both sex,
together with a choice offering of Shearlings and
Ram, and ewe lambs, all from Imp. stock.
W. A. DOUGLAS, Caledonia, Ont.

Springbank Pure Scotch Shorthorns and O. I.

Chester White Swine, young stock, both sexes at
all times. In Chesters we have a number sired by
Sunny Mike 15917, first at Toronto in 1917. Sat-
isfaction guaranteed. Inspection invited.
Wm. Stevenson & Son, Science Hill, Ont.

tarpaulin stretched about and held down
by brush and saplings newly cut. Before
the door the smoke arose from a smouldering
fire, and near it the squaw sat, a
little papoose beside her, safely strapped
on its board but very placid and quiet.

Barry did most of the talking, and it
seemed as though the discontent of the
earlier day had all been forgotten but
that she paused once to turn to me and
say, in a low voice,

"One's mind is not in prison here, Alan."
"Not today," I acquiesced, to which she
nodded smilingly

"Do you notice what they call me?"
she went on, in the same low voice.

"How can I?" I said, "since in Indian
one word is the same to me as another."

"What do you call me, Joe?" she called
to the Indian lad.

He looked at us to answer "Oogen-
ebahgooxy," then looked away off
beyond the river.

"Oogenebahgooxy," she repeated,
"The wild rose woman," Isn't it pretty?"

"It is pretty," I said, "It just suits you,
Barry."

"Does it? I'm glad of that," she re-
plied. "I don't know much about poetry,
Alan, but I think the Indian talk is filled
with it. Their names for things make
me feel often as I do—oh—when I look
at the moon just rising over the Golden
Winged Wood, or see the sun shining
through the ripples of the creek to the
pebbly bottom, or hear the wind moaning
through the pine trees.—I can't tell you,
Alan. I can just feel without a word to
tell what I feel."

Which I partly understood.

When at last we made way homewards,
following nearly the way by which we
had gone, the shadows were long, but
they were beautiful shadows.

Barry was more confiding than usual.
"All my life," she said, "I have loved
to run off and talk with the Indians.
That is how I have picked up so much of
their talk. Once, when I was a little girl
I went away with them when they were
moving, and stayed three days,—and
she laughed with the memory of it.

"How afraid your mother and father
must have been!" I exclaimed.

To which her brow puckered. "My
mother?—yes, perhaps," she assented,
at which qualified agreement I could but
marvel.

And so we reached the tavern, nor ever
a sight of Mistress Jones nor Old Meg,
for which I was truly thankful, for as we
neared the place I was nervous enough.

And so on home here, and I swear I
was quite at the gate before a thought
of Hank and the rest of the fellows at
the Deep Hole ever popped into my head.

"I've been with Barry, mother," I
said not waiting for a question, "over at
the ford to see some Indians. They
didn't offer us any supper and so I'm
ravenous."

Closely as I watched her, as I made this
explanation, I could see no wave of anxi-
ety cross her sweet face, but only a
quiet smile.

"I am sure you had a delightful day,
Alan," she said.

At eleven of the clock here I sit. The
story of the day was ended some ten
minutes ago, and my candle is burning
low. Yet I have been seeing neither it
nor the paper, for my mind has been all
off a-wondering,—a-wondering over the
mystery of Barry.

Who is she? How is it that she speaks
as she does, and her mother, too,—the
speech of my people and my father's
visitors, and the books, instead of the
crude dialect of this bush country? How
account for the tavern? And for old
Nick Deveril?—And why did Barry
speak as she did this afternoon, so doubt-
ingly of her mother's affection?

Verily these things are beyond my
probing.

(To be continued.)

Trapping For Skunks.

Skunk are usually found around old
barns and buildings, hollow logs, old
cross fences and cross hedges. When
their den has been found, holes should
be dug nearby in the paths they are
most likely to run over, and the traps
placed in these holes. The traps should
be covered with dry grass and dust in
order that the ground looks as natural
as possible. Just above the trap hang
a piece of rabbit, chicken or bird on
which is sprinkled a few drops of the
best skunk bait. This process of trap-

Harnelbel Shorthorns

Herd headed by Gainford Supreme, No. 115283, one of
the best sons of the undefeated Gainford Marquis (imp.).

We are offering some specially good young bulls, all nearing serviceable age,
and priced right. Two of these are by Mortimer, a son of the great imported
dairy-bred bull, Director. Others are by Dentford Sultan, No. 116021;
Meadow Lawn Prince, No. 110354, and Lord Gloucester, No. 109652.
Write for particulars, or see these before buying elsewhere.

HARRY MCGEE, Owner, SAMUEL TRUESDALE, Farm Mgr.
61 Forest Hill Road, Toronto Islington, Ont.

The essential characteristic of Short-
horns is beef, but a beef breed that
can show a herd with more than 40
cows with milk records ranging from
10,000 to 13,232 lbs. is worthy of care-
ful consideration.—B. O. Cowan.
DOMINION SHORTHORN BREEDERS' ASS'N
Write the
Secretary
for free
publications.
G. E. DAY, Sec.
Box 285
Guelph, Ont.
W. A. DRYDEN,
Pres. Brooklin, Ont. 13

SHORTHORN CATTLE

English Dual-Purpose Shorthorns

For Sale—A number of young bulls of a year old and under from imported
dams and sire. They have the advantage of long-continued specialised
breeding and skillful English experience to combine milk and meat. Such
a bull will increase the usefulness of your herd.
Also For Sale—English Black Pigs—A great breed, good growers and thrifty.
Write or visit farm.

F. WALLACE COCKSHUTT, Lynnore Stock Farm Brantford, Ont.

LAKE MARIE FARM SHORTHORNS

We have sold nearly all the females we have to spare, but still have several good, young bulls
of serviceable age, all of which are sired by the R.O.P. sire St. Clare. They are priced to sell.
We are also pricing a number of Dutch Belted cows and heifers.

LAKE MARIE FARMS, KING, ONT.
SIR HENRY PELLATT, Owner THOS. McVITTIE, Manager.

Robert Miller, Stouffville, Ont. still has a few Shorthorn bulls, fit for ser-
vice, and some females that are as good as
can be found for the man that wants to start right in Scotch Shorthorns. They will be sold for a low
price, considering the quality, and the freight will be paid.
Write for anything in Shorthorns. One hour from Toronto.

1861 IRVINEDALE SHORTHORNS 1918
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. F. R.) R.R. 3, Elora, Ont.

12 SHORTHORN BULLS

We are again on the market with a dozen choice bulls from eight months to two years old out of
good dual-purpose Dams and best of Bulls. Also forty females to select from. Crown Jewel 42nd still
heads this herd of feeders, breeders and milkers.
JNO. ELDER & SON, Hensall, Ont.

I HAVE FOUR RED BULLS

Two imported, also a few females for sale. Six Lincoln ewe lambs, got by an imported ram, and from
heavy Shearling registered ewes. \$25 each.
J. T. GIBSON DENFIELD, ONT.

Burnfoot Stock Farm--Dual-Purpose SHORTHORNS
Herd headed by Burnfoot Chieftain =97766= whose dam has an R. O. P. record of 13535 lbs. milk
and 540 lbs. fat, offers 6 thick, growthy bulls, with R.O.P. records of 10600 up to 13535 lbs. milk back
of them. Come and see the cattle, or if inconvenient, your inquiries are solicited.
S. A. MOORE, Prop., CALEDONIA, ONT.

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 ready for service for sale
Heifers and cows for inspection. Weldwood Farm, Farmer's Advocate, London, Ontario.

Walnut Grove Shorthorns—Trout Creek Wonder #6167, Gainford
Eclipse 103065. We are offering an excep-
tionally choice lot of bulls and heifers from the best Scotch families, and our herd sire,
Trout Creek Wonder and Gainford Eclipse. If interested, write.
Twelve miles west of St. Thomas. DUNCAN BROWN & SONS
Bell Phone. M.C.R. and P.M. Ry Shedden, Ontario

ESCANA FARM SHORTHORNS

Five Bulls for Sale. One roan senior yearling; one choice twelve-months white calf, by Right Sort
(Imp.); one select, dark roan, ten months calf; one roan yearling, by Raphael (Imp.); one roan red
yearling, for grade bull. Farm ¼ mile from Burlington Jct., G. T. R.
J. F. MITCHELL, Limited. BURLINGTON, ONT.

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, Philpburg, Ont.

HILLHOUSE AYRSHIRES—F. H. Harris, Mt. Elgin, Ont.

Headed by Burnside Lucky Master Swell, a combination of blood so hard to equal, being of the Master-
piece and Lucky Girl families, a combination which means quality, production and constitution. Ninety
head to select from. Special offering—20 yearling heifers and 3 bulls. Inspection invited.

Gladden Hill Ayrshires—We have a choice selection of females bred for type and
production. If in need of a young bull having Record of
Performance dams, write, or come and see them.
LAURIE BROS., AGINCOURT, ONT.
C.P.R., G.T.R., C.N.R., Shipping Stations.

SPRINGBANK For a few weeks we will offer a few select, young heifers by our senior
R. O. P. AYRSHIRES sire Netherton King Theodore (Imp.) and bred to our Junior Sire Humes-
haugh Invincible Peter. All from R. O. P. dams and are priced reasonable to make room. We
also have a 3 months' bull from Can. Champion R. O. P. three-year-old, and one 13-months' bull
from Mountain Lass with three mature records. A. S. TURNER & SON, Ryckman's Corners, On

Complete Clearing Sale

Thirty ^{High-class} Holsteins

Ten Young Cows
 Six Two-year Heifers
 Four Bull Calves
 Ten Heifer Calves



Selling at the farm, on the Cockshutt Road, two miles north of Burtch, and four miles south of the City of

Brantford, Ont., Wednesday, Jan. 15, 1919

A Few of the Cows and Their Records Under Private Test:

Brada Tenson 2nd, 16984 lbs. of milk in 10 months; highest day, 84 lbs.
 Canary Houwtje of Cloverdale, 15994 lbs. of milk in 10 months, highest day, 81 lbs.
 Elsie Netherland, 16972 lbs. of milk in 10 months, with a 3.8 test.
 Netherland Jewel Mercena has milked 69 lbs. of milk per day.
 Netherland Mercena Houwtje gave 60 lbs. per day as a 3-year-old.
 Brada Mercena Houwtje is a 72-lb. per day 5-year-old.
 Mattie Mercena, a six-year-old cow, has milked 65 lbs. per day.
 Queen Canary Segis is a 50-lb. per day 3-year-old.
 Princess Segis Netherland is a 49-lb. per day 2-year-old.
 These are our foundation cows, and all are in the sale. They are also the dams of the younger stock listed, and the bulls to which they have been bred include a grandson of Prince Abbekerk Mercena, a grandson of King Segis and others. The breeding is of the best, and all are of the sort to make excellent buying. WRITE FOR CATALOGUE NOW.

G. J. BARRON, R.R. No. 3, Brantford, Ont.

W. ALMAS, Auctioneer. N. P. SAGER, Clerk.

Conveyances will leave Belmont Hotel, Brantford, at 11.30 a.m. Lunch at the farm.

GREAT DISPERSION SALE

Thirty ^{HIGH CLASS} Holsteins

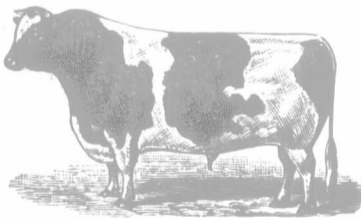
The Entire Herd Belonging To

The Estate of the Late A. C. Hallman

SELLING AT THE FARM NEAR

Breslau, Ont., Wed. Jan. 15, 1919

30 HEAD
 14 Young Cows
 5 Two Year Heifers
 2 Great Herd Sires
 2 Young Bulls
 7 Heifer Calves



Canadian Holstein breeders who are at all conversant with the better herds of the Dominion need very little introducing to this offering. The late Mr. Hallman was one of the breeds earliest advocates, and when selecting foundation animals for his own herd spared no expense in either money or time to obtain his ideal. It is unfortunate that circumstances under which he was placed prevented official testing in the herd, but a perusal of the pedigrees listed shows the breeding to be of the best in every instance, and as there are no excuses to offer as regards the individuality of any animal catalogued there is very little more that need be said. The cattle are young and right; the breeding is of the best; every udder is perfect and every animal must be sold. All Ontario breeders owe it to themselves to be present at this sale. Watch these columns for further particulars. Write for catalogues.

E. J. SHANTZ } Auctioneers
 WM. TAYLOR }
 O. S. KULL, Clerk

Irwin C. Hallman, Executor

R. R. No. 3, WATERLOO, ONT.

ping the skunk has proved its success over and over again.

When the real cold weather sets in or there is a deep snow, skunk generally den up sometimes as many as fifteen or twenty in a hole. When the den has been found, the animals can be easily smoked out and caught, if the right kind of smoker is used.

The skunk furs are always in good demand and there has always been fine profits for the trapper in these animals. Traps should be visited every day if possible, or, at most, every other day, for a skunk caught is liable to gnaw off its foot and get away, or have its fur seriously damaged by other skunks attacking it in the trap.

In preparing for the market, skunk skins should be cased pelt side out; all superfluous meat and fat should be scraped off before shipping. Care taken in preparing the skunk for the market will reward the trapper well.

Losses Due to Controllable Diseases.

Among the diseases of economic plants there exist some for which effective control measures have not yet been discovered. Besides these are a large number where control is possible, but only after persistent efforts extending over a number of years. And finally there are a goodly number that readily respond to measure of control.

If we take into consideration the enormous losses resulting from plant diseases every year wherever farming and fruit-growing is an industry of importance—as in Canada—then it will be realized that negligence and indifference towards the control of such diseases as can actually be controlled, are causes of great national loss.

The person causing a forest fire through negligence or carelessness, renders himself liable to prosecution and a deservedly heavy fine, yet it is rarely that the culprit himself is the loser; the loss is debited to the whole nation owning the forests. In allowing plant disease to persist and become widely prevalent, persons are similarly guilty of criminal neglect, particularly at this time when the question of food is of far greater importance than all the gold in the world. Yet though Canada as a nation is the prime loser through the cumulative effect of such waste in production, other nations, now so markedly dependent upon Canada as a source for the necessities of life, also suffer in consequence. Moreover it is not a commercial question of sharing in the loss and thus reducing it, but one of having to do without food which is lost through negligent members of a community.

Grain rust causes annually millions of dollars loss. This can only be reduced by certain safety measures, but cannot so far be controlled. But the same grain that has escaped the rust is yet very seriously reduced in yield by smut diseases. In some years smut, quite apart from rust, has caused losses amounting to more than twenty million dollars in Canada alone. Smut of grain is a disease that is easily controlled by the very simple and highly effective means of seed treatment. Either from ignorance or from negligence, smut, is still widely prevalent. Only this year were received reports of smut affecting one field up to 80% and more. Another example of a disease causing serve damage, but which may be readily controlled, is late blight of potatoes. The losses from late blight and the rot it causes among stored potatoes amount to several million dollars per annum. On the question of disease control, valuable information has already been published by the Dominion Experimental Farms, but farmers are urged to refer their problems more freely to experts at the Farm, from whom they will receive the best attention.

Disease control is of far greater importance in agriculture and gardening than is realized by the general public. Diseases, once they have attacked economic crops, can rarely be eradicated. A plant that once has fallen victim to disease, will never give a normal yield. Poor yields are in nine cases out of ten due to lurking disease, hence individual effort becomes a necessity in saving the nation the deplorable devastation due to plant diseases.—Experimental Farm Notes.

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.

Tuberculosis.

I am forwarding to you a portion of the liver and intestines from a hen which was fat and healthy. What are the white spots on the liver, and the lumps on the intestines? Would the meat be fit to eat?
 A. R. M.

Ans.—The white spots and lumps indicate tuberculosis of those parts, a disease which is quite prevalent in poultry and one which is very hard to combat. While cooking would no doubt destroy the tubercular germs, we would not care to eat the meat of a bird that we knew to be affected.

Scaley Legs.

My hens have rough swellings on their feet and lower part of the legs. It looks like a mass of warts. What is the name of the disease and does it hurt the fowl for table use?
 S. H. N.

Ans.—The trouble is scaley leg, caused by a mite burrowing under the scales of the shanks and feet. Soften the scales by soaking in warm, soapy water, then remove by the use of a nail brush. Apply sulphur ointment or lard and kerosene. One part oil of caraway and five parts vaseline is recommended. The meat is all right for consumption.

Drainage Problems.

A and B live side by side. B called on the engineer and A was obliged to put in 22 rods of 6-inch tile and maintain it in his field. Can B tap A's portion of the drain and run a 3-inch tile into it? Is it lawful for B to bring on the engineer without notifying A? How many days notice must be given?
 A. W.

Ans.—The circumstances are not very definitely given. A man can force an outlet through his neighbor's farm. If the engineer made the award, it was no doubt understood that the tile would be large enough to carry off all the water from B's farm. If this new drain is taking the water off a portion of the farm not included in the award, B might be obliged to maintain a greater portion of the outlet, but without knowing the layout or more details about the award we cannot state definitely. In regard to B bringing on the engineer, "The owner of any parcel of land who requires the construction of a ditch thereon shall, before filing with the Clerk of the Municipality the requisition requesting that the engineer appoint a time and place in the locality of the proposed ditch at which the said engineer shall attend to make an examination of the same, shall serve upon the owners or occupants of other land to be affected a notice in writing, signed by him, and naming therein a day and hour and also a place convenient to the site of the ditch, at which all the owners are to meet and estimate the cost of the ditch, and agree, if possible, upon the apportionment of the work, and supply of material for construction, among the several owners, according to their respective interests therein, and settle the proportions in which the ditch shall be maintained, and notices shall be served not less than twelve clear days before the time named therein for meeting."

Veterinary.

Tape Worm.

Adult mare and her foal, now about 17 months old, are troubled with the tapeworm. Kindly prescribe for both.
 F. G.

Ans.—Fast the animals for about 16 hours, then give the mare 2 oz. oil of turpentine in a pint of new milk as a drench. Give the young animal half the above dose. Feed on bran only for 8 hours longer and then give the mare a purgative of 8 drams aloes and 2 drams ginger and the colt half that amount.
 V.

Answers.

...a-fide subscribers... answered in this... early stated and... the paper only... the full name and...

...the symptoms... early stated, other... given. Required to urgent... \$1.00 must be...

...is.

...a portion of

...m a hen which

...What are the

...and the lumps

...the meat be

...A. R. M.

...s and lumps

...those parts, a

...prevalent in

...very hard to

...would no doubt

...ms, we would

...of a bird that

...ellings on their

...legs. It looks

...at is the name

...hurt the fowl

...S. H. N.

...ley leg, caused

...er the scales

...Soften the

...soapy water,

...a nail brush.

...or lard and

...of caraway

...recommended.

...consumption.

...ms.

...de. B called

...as obliged to

...and maintain

...p A's portion

...inch tile into

...bring on the

...ing A? How

...are not very

...can force an

...or's farm. If

...rd, it was no

...tile would be

...all the water

...new drain is

...on of the farm

...B might be

...er portion of

...owing the lay-

...the award we

...regard to B

...The owner of

...quires the con-

...shall, before

...Municipality

...that the

...place in the

...at which the

...to make an

...shall serve

...ants of other

...e in writing,

...ing therein a

...ce convenient

...which all the

...mate the cost

...ossible, upon

...work, and

...construction,

BOB LONG
UNION MADE
OVERALLS
SHIRTS & GLOVES

My Dad wears 'em

Known from Coast to Coast
R. G. LONG & CO. LIMITED
TORONTO CANADA

Hand or Power Feed Cutters

No farmer should be without a feed cutter, and nearly every farmer realizes that he could save tons of good feed if he had one. Write for our catalogue and prices to-day.

Peter Hamilton feed cutters are easy running and will stand the hardest kind of work.

The Peter Hamilton Co., Ltd.
PETERBORO, 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

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.

Holstein Bulls

Ready for service and younger. Cows and heifers bred to ORMSBY JANE BURKE, whose two nearest dams average 38.82 lbs. of butter in 7 days. The three nearest sires' dams and his dam's records average 35.69 lbs. for 7 days, and 112 lbs. milk for one day.

R.M. Holtby, R. R. 4, Port Perry, Ont.

Ridgedale Farm offers for sale 5 Young Bulls ready for service, grandsons of "King Segis Pontiac Duplicate," brother to the \$50,000 bull; also 6 or 8 choice young cows due to freshen in next 2 months all bred to our young sire, "Sylvius Walker Raymondale," one of the highest bred young bulls in Canada. We have several of his young sons a few weeks old; they are wonderfully developed and typey. Speak for one of them early. It will pay you. R. W. Walker & Sons, R. R. 4, Port Perry, Ont., Manchester Station, G.T.R. Myrtle Station, C.P. R. Bell Phone.

Questions and Answers. Miscellaneous.

Swollen Legs.

What should be used to reduce the swelling on a mare's leg which was caused by a kick from a colt? J. C.

Ans.—Smart friction and the application of the following absorbent liniment should give results. The liniment is made as follows: 4 drams each of iodine and iodide of potassium and 4 ounces of alcohol and glycerine.

Closed Season for Squirrel.

Is it lawful to kill black squirrels? What is the season for same? A. R.

Ans.—The Game and Fishery Laws of 1917, Section 10, state that "No person shall hunt, take, kill or destroy black or gray squirrels except from the first day of November to the fifteenth day of November of any year; both days inclusive."

Removing Lump.

I have a dog with a lump on the top of his head. I lanced it but the lump continues to form and break. What treatment do you advise? A. D.

Ans.—Apparently this is a growth, and it may be difficult to remove. A veterinarian might be able to cut it out. If this cannot be done, applying a liniment made of 4 drams each of iodine and iodide of potassium and 4 ounces each of alcohol and glycerine may have the desired effect.

Chairman Voting.

Can chairman of school board at a meeting of school commissioners where there is not a full board second a motion to appoint a school commissioner.

Give me the instances where a chairman of school board can vote for a resolution and then give the casting vote. Quebec. SUBSCRIBER.

Ans.—It will be necessary for you to see the Quebec Statutes, and perhaps, also, school regulations adopted in presence of such statutes, in order to obtain the desired information.

Line Fence.

A and B have woods running parallel to each other. A has cleared and plowed part of his and intends fencing his half of the line fence. Can B lawfully refuse to put up his half of the fence because his land is in woods. What steps should A take to compel B to put up his half of the fence? S. M.

Ans.—B is required to put up half of the line fence between he and his neighbor. It would be advisable to call on the local fence-viewers, appointed by the Municipal Council. They will be able to advise regarding the requirements of the fence, according to the fence law of the municipality.

Bloody Milk—Ringworm—Colic.

1. What is the best means of getting rid of ringworm on cattle?

2. What is the cause of a cow giving bloody milk?

3. What is the cause and cure for colic in a driving horse?

4. Is there any danger of a man contracting ringworm from stock?

5. What is the quickest cure for scratches in horses? S. R. W.

Ans.—1. Soften the scales on the ringworm with sweet oil and then paint them with iodine.

2. It may be due to any injury, or to a weakness of the veins of the udder and teats. Very little can be done to remedy this trouble.

3. Colic is frequently caused by improper feed, over-feeding, or watering when over-heated. Some horses have weak digestive powers and are predisposed to the trouble. Drench with 1½ ounces each of laudanum, sweet spirits of nitre and tincture of belladonna in a pint of water. Repeat in two hours if necessary.

4. There is danger. Care should be taken when treating or handling stock affected with ringworm.

5. Scratches are sometimes very difficult to heal. If mare is not in foal give a drench of 8 drams aloes and 2 drams ginger, and follow up with 1½ ounces Fowler's solution of arsenic twice daily for a week. Poultice the legs with warm linseed meal and a little powdered charcoal for two days and nights, and dress three times daily with a solution of 1 ounce each of acetate of lead and sulphate of zinc to a pint of water.

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 Colonisation, Parliament Buildings, Toronto, Ont.
G. H. FERGUSON, Minister of Lands, Forests and Mines.

SUNNYBROOK FARM HOLSTEINS

Offers—One 30-lb. bull, and several grandsons of the great King Segis. Two of these are ready for heavy service. We also have a number of heifers of same breeding—all from approved dams.

JOSEPH KILGOUR, Eglinton P.O., Ont., North Toronto.
Phone Adel. 3900

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 Posh 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, Stations: Clarkson and Oakville, Farm on Toronto and Hamilton Highway Clarkson, Ont.

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

33-lb. Grandsons of Lula Keyes

I have at present ten young bulls all sired by my own herd sire King Korndyke Sadie Keyes a son of Lula Keyes 36.05 lbs. of butter and 785 lbs. of milk in 7 days. These youngsters are all first-class individuals and their dams' records run as high as 33.29 lbs. of butter in 7 days. Several of them must go quick to make room.

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

Cloverlea Dairy Farms Herd headed by "King Pontiac Rauwerd" one of the world's greatest young sires carrying the blood on his sire's side of the world's greatest cow "May Echo Sylvia," and his dam the great 103-lb. 3-year-old with 34 and 135 lbs. butter in 7 and 30 days, sired by the world's greatest sire King Pontiac Artis Canada, combining the blood of the world's greatest sires and dams. Stock for sale all ages, special offering at present is two choice bulls 9 months old out of 20 and 25 lb. dams. For price and particulars apply to Griesbach Bros., Collingwood, Ont.

SUNNYSIDE STOCK FARM HOLSTEIN

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. MONILE, PROF., STANSTEAD, QUE.

SILVER STREAM HOLSTEINS

Special offering—four well-bred young bulls fit for service, sired by King Lyons Colantha, whose 6 nearest dams average 30.10 lbs. butter in 7 days, and from daughters of King Lyons Hengerveld, whose five nearest dams average 31.31 lbs. butter in 7 days. For fuller particulars and prices write at once. Priced to sell.

J. MOGK & SON, R. R. 1, TAVISTOCK, ONT.

Dumfries Farm Holsteins
S. G. & ERLE KITCHEN, St. George, Ontario

YOUNG BULLS FOR SALE

from R.O.P. champions and dams and sisters of R.O.P. champions, sired by Canary Hartog and some by a son of Queen Butter Baroness, the dam of two champions in 7-and-30-day tests. We invite inspection and will meet prospective buyers at G.T.R. or C.P.R. stations—Woodstock or Ingersoll. Walburn Rivers & Sons, (Phone 343 L Ingersoll, Independent Line) R.R. 5, Ingersoll, Ont.

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 usual offering in Tamworth Swine.

C. R. JAMES (Take Radial Cars from North Toronto) RICHMOND HILL, ONT.

BEAVER Creek Stock Farm Offers a Few HOLSTEIN Cows and Heifers of good milking strain. Apply to Albert Mittlefehldt, WELLANDPORT P. O., ONT. Port Dewison Station, L.H.&B.

ELDERSLIE FARM HOLSTEIN-FRIESIANS

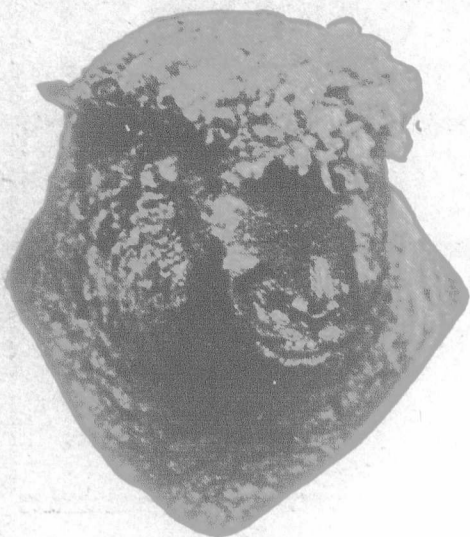
I am offering for immediate sale several young sons of my senior herd sire Judge Hengerveld De Ko. 8th, who is a 32.92-lb. grandson of De Kol's 2nd Butter Boy. The dams of these bulls all have R.O.P. records running up as high as 195.26 lbs. of milk for the year. Write for pedigrees.

A. MUIR (Take Kingston Road Radial cars from Toronto, Stop 37) Scarboro P. O., Ont.

Choice Grandson of Queen Butter Baroness

I am offering a choice 14-months bulls from a 21-lb. junior 2-year-old daughter of Louis Prilly Rouble Martog, 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.**

Summer Hill Oxfords



The Sheep for the Producer, Butcher and Consumer. Our Oxfords Hold an Unbeaten Record for America.

We have at present a choice offering of yearling ewes and rams, as well as a lot of good ram and ewe lambs—the choicest selection of flock-heads and breeding stock we have ever offered.

PETER ARKELL, & SONS
R. R. No. 1 Teeswater, Ontario
H. G. Arkell W. J. Arkell F. S. Arkell

SHROPSHIRE and COTSWOLDS

I am offering for sale 30 imported Shropshire rams, also home-bred rams and ewes, all at reasonable prices.

JOHN MILLER, CLAREMONT, ONT.

Shropshires

Yearling rams and ewes. A few nice ram lambs by imported ram.
W. H. PUGH, R. R. 1, Myrtle, Ont.

TOWER FARM OXFORDS

We are now offering a choice lot of shearing rams and ewes, also ram and ewe lambs. Prices reasonable.
E. Barbour & Sons, R.R. No. 2, Hillsburg, Ont.

Just Two Good Shearing Rams Left
Sired by our stock ram, would be good big ram to cross on bunch of grade ewes. For quick sale at reasonable price. S. J. ROBERTSON, Hornby, Ont. (Formerly of J. Robertson & sons)

Berkshires

Young sows and boars for sale. A grand litter sired by Suddon Toreador (imp). Dam by Duke of Summerset (imp.) and from Highclere 59th (imp).

J. W. SANGSTER

LISTOWEL - ONTARIO

REGISTERED

Poland China Boars

fit for service and sows ready to breed; also pigs ready to wean, either sex; registered Dorset Horn rams and ewes, bred to lamb in January; ten registered Southdown bred ewes. All stock priced for immediate sale.

CECIL STOBBS, Leamington, Ont.

Newcastle Herd of Tamworths and Shorthorns
Boars ready for service. Some bred and ready to breed; 2 splendid sows carrying their 2nd and 3rd litters. Boars and sows not akin, ready to wean. Mostly descendants of Colwill's Choice, 3-year champion at Toronto Industrial, and imp. Cholder-ton Golden Secret. A few nice Shorthorn heifers in calf, deep-milking strain. Young cows with calves at foot. Long-distance phone.
A. A. COLWILL, Proprietor, R. R. No. 2, Newcastle, Ont.

MAPLEHURST TAMWORTHS
Exhibition and breeding stock—both sexes. We also have Standard-bred horses, Pekin ducks, Toulouse geese, S. C. W. Leghorns and White Rocks at all times. Special present offering, one two-year-old prize-winning stallion.
D. Douglas & Sons - - Mitchell, Ont.

BIG TYPE CHESTER WHITES

20 boars ready for service. Bred sows, and weaning pigs.
JOHN ANNESSER, Tilbury, Ont.

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.

TAMWORTHS

Boars ready for service—a choice lot to select from. Write:
John W. Todd, R. R. No. 1, Corlinth, Ontario.

Yorkshire Hogs
Choice stock for sale, all ages. Sows bred and ready to breed. Younger stock, both sexes, from suckers up. Nearly all varieties of Turkeys, Ducks, Geese and Chickens.
T. A. KING, Milton, Ont.

Questions and Answers. Miscellaneous.

When a Boy Becomes of Age.

My father died when I was seventeen years of age and I have continued working at home. Is a man of age at eighteen or twenty-one years?
A. B.

Ans.—A man is not legally of age until twenty-one years old.

Thoroughpin.

Does a horse go lame as a rule from Thoroughpin? There was a small puff on the hock joint when I purchased the horse but it has developed considerably and sometimes she goes slightly lame. What would you suggest?
K. T. D.

Ans.—Horses sometimes go lame from Thoroughpin. Treatment would consist of applying a mixture of 3 drams each of biniodide of mercury and potassium iodide, and 6 ounces water. Clip off the hair and apply the above with smart friction daily.

Cream Will Not Gather.

What will cause cream to turn to froth when being churned; there being no sign of butter after churning for several hours. Cream had been gathered in one week, kept well stirred, and in a medium warm place. It was put into the churn at a temperature of 65 degrees.
W. H. N.

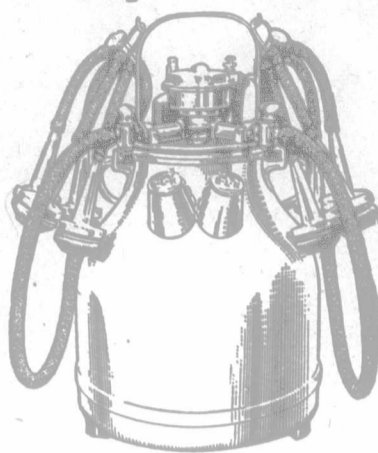
Ans.—There may be several causes for the butter not gathering. Having the churn too full prevents the proper concussion and the cream swells up, or, in other words, becomes frothy. Having the cream low in fat is another cause of difficult churning. Cream from cows well advanced in the lactation sometimes causes difficulty in churning. Having cream too rich will cause it to thicken, or "go to sleep" in the churn. It is possible that this is the cause of your trouble. Sometimes the cream contains a gas-producing ferment which causes the foam. A handful of salt and a little water at about 80 degrees will frequently settle the foam. If this does not do, remove part of the cream and raise the temperature about 10 degrees. If the trouble continues, it might be advisable to pasteurize the cream, which may be done by setting the can in a tin of water on the stove and bringing it to a temperature of 140 degrees and holding it at that for 20 minutes, then cooling to churning temperature again.

Cylinder Missing.

I have an 8-16 tractor but it will not develop the power that it did when I got it. It used to run a 32 x 45 separator with ease but now will not run it at all, or it may run it for an hour and when the motor gets hot the speed comes down and there is a heavy knock apparently from the cam case. The crank shaft has been tightened and the valves ground and carbon removed a week ago and this does not make any difference. Setting the Carburator or feeding different amounts of water with the fuel does not help either. It is easy to start when cold, but sometimes very hard to start when hot. It misses quite frequently on one cylinder and then gives a very loud report. It is a valve in head motor and burns kerosene. Can you tell me what the trouble is with my tractor?
C. R. F.

Ans.—The indications are that the exhaust valve of one cylinder sticks open at times. When this happens this cylinder of course misses and the unburned charge goes into the muffler where it is fired by the exhaust from the other cylinder thus producing a report somewhat similar to that of a shot gun, sometimes called "barking". Possibly the stem of the valve is either gummed up or bent. Apparently the valve does not stick continuously—perhaps releases when the cylinder begins to cool down—and when it releases the valve shuts so suddenly as to drive the push rod against the cam, thus causing the knock.
Determine which cylinder is missing and examine action of exhaust valve to see if it sticks, and if so remove cause of sticking. If this doesn't remedy the trouble, give further symptoms, especially whether the knock is regular or intermittent.
W. H. D.

Every Farmer Must Save Labor



Farms must produce more to meet the country's increased needs. Yet skilled farm labor is scarcer than ever before.

Hand-milking hampers increased production by taking labor from larger tasks. Hand-milking wastes valuable hours every morning and every afternoon.

With the Burrell (B.L.K.) Milker, one man operating two 2-cow outfits can milk from 24 to 30 cows an hour, do the work of three hand-milkers—do it easily and cleanly, while increasing the output of the herd.

BURRELL (B-L-K) MILKER

Thus each Burrell Milker saves the time of two farm workers. This saving pays for the outfit's cost in less than a year.

A Burrell Milker is an investment which will help the country to larger crops and bring profitable returns to each owner.

More than ten year's experience of many dairymen prove the profits of the Burrell Milker. Write for experiences and descriptive booklet.

D. DERBYSHIRE CO., LTD.

BROCKVILLE - - - ONTARIO

FIFTY-SECOND ANNUAL

Dairymen's Convention and Dairy Exhibition

DAIRYMEN'S ASSOCIATION W. ONTARIO, LONDON, ONT.

Wednesday and Thursday, January 15th and 16th, 1919

JAS. DONALDSON, Pres.
Atwood, Ont.

F. HERNS, Sec.-Treas.
London, Ont.

JUST JERSEYS
Baldwin's
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.

Brampton Jerseys at National Dairy Show

At the National Dairy Show at Columbus, Ohio, in October, Brampton Jerseys won among other major awards first for the best five females of the breed, which is perhaps the greatest award which can be won at this the World's Greatest Dairy Show. Among these was Beauty Maid, the champion four-year-old R. O. P. butter cow for Canada. We also bred and owned the dam and imported the sire of the mature champion R. O. P. butter cow for Canada. Why not make your selections from the Brampton herd?
B. H. BULL & SONS - - - BRAMPTON, ONT.
THE CANADA'S MOST BEAUTIFUL JERSEY HERD
WOODVIEW FARM Herd headed by Imported Champion Rower
JERSEYS Winner of first prize with five of his daughters on the Island of Jersey, in 1914 second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service. Sired by Imported bulls and from record LONDON ONTARIO of performance Imported prize-winning cows. Also some cows and heifers. Jno. Pringle Prop. Prices right We work our show cows and show our work cows.

LINCOLNS C. Nicholson of Horkstow
LINCOLNSHIRE, ENGLAND

has for sale Pedigreed Lincoln Long Wool Rams and Ewes from his world-famous flock of ALL DUDDING-BRED SHEEP. By winning the CHAMPION and "ALL" the prizes in the two-shear and shearing ram classes at the Royal Show of England, 1915, all previous records were broken. Coates Shorthorns and Lincoln Red Shorthorns also for sale.
STATION—BARNETBY

Imported Shropshire Ewes

Imported Shropshire ewes bred to lamb in March and April. Write for prices
Will A. Dryden, Brooklin, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES
From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock all ages. Satisfaction and safe delivery guaranteed.
H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONTARIO.
Langford Station on Brantford and Hamilton Radial.

Berkshire Pigs

Large size, choicely-bred sows in pig; boars and gilts. Can supply pairs not akin; also dual-purpose Shorthorn cattle. Young bulls for sale. send for our breeding list,
Credit Grange Farm, Meadowvale, Ont., - - J. B. PEARSON, Mgr.

BERKSHIRES
My Berkshires for many years have won the leading prizes at Toronto, London, and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age.
ADAM THOMPSON, R. R. No. 1, Stratford, Ont.
Shakespeare Station G.T.R.

Contents of The Farmer's Advocate and Home Magazine

VOL. LII.

JULY 4 TO DECEMBER 26, 1918.

PART II.

The Apiary.	Canada's Young Farmers and Future Leaders.	London District Holstein Sale: The.....1959	Cream: The Grading of.....1475
Bee Diseases.....1211	Agricultural Fair: The.....1207	Milk: The Manufacture of.....1444	Credit System for Agriculture: A.....1439
Prepare Bees for Winter Now!.....1671	Community Action.....1299	Milk Flow: Age and the.....1669	"Daylight Saving" Popular? Is.....1953
	Estimating the Farmer's Business.....1173	Milk: Cost of Producing.....1756	Differences of Opinion.....1294
Automobiles, Farm Machinery and Farm Motors.	Exhibits for the Fair: Preparing.....1397	Milk Control in England.....1883	Doing Our Part for the Returned Men.....1708
Auto Hard to Start.....1791, 1925	Food for Thought.....1271	Milk Production by Measurement: Estimating.....1925	Dr. Beland and His Message.....1357
Power From a Stream.....2086	Land: Using, to Advantage.....1207	Milk and Cream: Factors Detrimental to.....1300, 1329	Duty of the Individual: The.....1515
Banking and Drawing a Fire.....1299	Organization and Partyism.....1135	Milk House: An Attractive.....1596	Exhibition Number: Our.....1387
Batteries for Lighting Purposes.....2125	Producer to Consumer: From.....1241	Milking Machines: Some Troubles With.....1558	Facts and Truth.....1129
Belting: Width and Length of.....1299	The Dairy.	Milking the Cows.....1756	Fair: The,—A School for Adults.....439
Boiling Water.....1174	Arbogast Sale Successful.....2087	National Dairy Show Poorly Attended: Twelfth.....1714	Fair Price Committee and Prussianism.....2081
	American Ayrshire Breeders' Association: New Secretary for.....1272	National: Echoes From the.....1882	Fall Fair Directors: Hints to.....1237
Calculating Horse-Power of Gasoline Engine.....1713	British Friesian Sale.....1175	Ottawa Valley Holstein Sale.....1558	Fall Fair Philosophy.....1388
Car: Saving the.....1443	Butter: Selling by Parcel Post.....4179	Pepsin as a Substitute for Rennet.....1209	Fall Wheat Seeding: Prepare for the.....1129
Carbon Deposit.....1443	Butter Price not Set.....1175	Prices for Dairy Products: Fixing.....1925	Farm Hunting.....1353
Carbureter: The.....1135	Butter-making: Farm.....1632	Protein and Dairy Feeds.....1632	Farm Boy: The Story of a.....1663, 1751, 1787, 1831, 1921
Carbureter.....1668	Calf Club Organized in Peel County.....1756	Row's Sale: \$175 Average at.....2087	Farmers' Platform: A.....1785
Carburetion.....1595	Canadian Dairying: The Outlook for.....1398	Silo Capacity and Measuring Silage.....1136	Farming: Learning the Practical in.....2082
Climbing the Caledon "Mountain".....1328	Cedar Hedge Holstein Sale.....1837	Silo Pointers.....1209	Fat and Eggs.....1475
Comedy of Errors: A.....1713	Cheese: Cost of Handling.....1138	Summer Feeding for Milch Cows.....1209	Feeds: Use Wisely.....1475
Compression.....1207	Cheese: Digestibility and Food Value of.....1136	The Dairymen's Banquet at the Guelph Winter Fair.....2125	Feed: Stock up With.....1963
Compression Leaks: Cause of.....1925	Commission Rules for Butter Purchase.....1309	United States Holstein Men Meet.....1138	Fitting for the Fall Fairs.....1167
Corn—Cutting Device.....1557	Composite Milk Supplies.....2125	Veterinarians Hold Successful Clinic at Toronto.....1330	Fruit Commissioner: The Late.....1323
Efficiency and Economy.....1631	Cow Testing.....1596	Water for the Cow: How Much?.....1137	Fruit Pack: Put up a Good.....1475
Electricity: Care Needed When Using.....1792	Cow Testing proved its Value: Where.....1836	Wintering Dairy Heifers.....1596	Gasoline: Saving.....1589
Farm Power Course.....1925	Creamery Butter Commandeered.....1670	Editorial.	Germany's Peace Offensive.....1554
Force-Feed Troubles.....1557	Dairy Breeds: What the Have done in 1918.....1398, 1418	A Chance to Work Up.....1554	Get Through Giving.....1324
Gasoline: Conservation of.....1299	Dairy Cattle: Fitting and Exhibiting.....1208	Agriculture: A Chance to do Something for.....1515	Getting Back Into Harness.....1590
Gasoline Engine: Difficulty in Starting.....1557	Dairy Council in Iowa.....1272	Agriculture Differs: How.....1129	Harvest: The.....1265
Improvements: 1919.....1755	Dairy Cow's Part in the War: The.....1480	Agriculture Organizes: When.....1358	Harvest Leave: The.....1387
Induction Coil: Making.....1631	Dairy Cows Need Much Water.....1242	Agriculture Lagging in Organization.....1707	Hog Situation: The.....1293
Is Your Chimney Safe.....1713	Dairy Herd Sire: The.....1793	Agriculture Should Have first Consideration.....1749	Horse Market: The future of the.....1707
Lubrication of the Motor.....1397	Dairy Breeds in Canada: The.....2010	An Opportune Time to Improve our Roads.....2118	"How to Live in War Time".....1130
Motor Cars.....1299	Dairy Farm: A Well-equipped.....1362	Automobile on the Farm: The.....1130	Implements: Do not Leave Unduly Exposed.....1787
Overloading the Magneto.....2124	Dairy Stable: Inside the.....1836	Banking Credits: Conservation of.....1201	Inspiring False Hope.....1628
Pipe Wrench: The Useful.....1835	Dairyman's Creed: A.....4179	Breeds: A Study of the.....1661	Legal Sins.....1830
Piston Rings Leak: When.....4179	Dairying: Sixty Years in.....2012	Breeding Ewes: Selecting, at the Stock Yards.....1628	Live Stock: The Future for.....1439
Power Used in Driving Blower.....1713	Dominion Dairy Conference Worth While: First.....1959	Britain's Agricultural Policy.....1201-1875	Live Stock or Government Farms: The.....1387
Power Used for Grinders.....1792	Elgin Holstein Breeders' Sale.....2087	British and French Agriculture Through Canadian Eyes.....1877	Live Stock Market: The Trend of the.....1627
Prolong the Life of Farm Machinery.....2124	Feeding Fat Into Milk.....1714	Brood Sows—Don't Sell Them.....2117	Live Stock Plans at Guelph.....1237
Prony Brake: The.....1595	Green Feed or Silage.....1792	Brute Philosophy: Some.....1516	Live Stock to the Front.....1515
Saving Parts.....1271	Hamilton Holstein Sale.....1137	Canadian Corn-belt Farm: Methods and Results on a.....1709	Live Stock: The Outlook for.....1919
Some Things Worth Knowing.....1242	Hilliker Holstein Sale: The.....1959	Cheer up, the Rain is Over!.....1876	Loan: Let your Influence and Money Help the.....1749
Spark Plugs Fill With Carbon.....2125	Holstein-Friesians in July.....1330	Christmas in the Animal World.....1998	Loan and the Citizen: The.....1661
Testing Sand for Concrete Work.....1713	Holstein Work in June.....1209	Christmas Present: Our Annual.....1953	Local Club: Start the, Along Right Lines.....1589
Timely Topics.....1299	Holsteins in August and September.....1669	Christmas and a Year of Service: A Real.....1997	Long Winter Evenings Give Opportunity for Sandy.....1785
Tractor: Points to Remember, in Buying a.....1362	Holsteins and Ayrshires Under Test.....2125	City Homes: More.....1357	Manitoulin Election: The.....1785
Transmission: The.....1208	Ice Cream: Testing for Fat.....1175	Common Sense Farm Philosophy: Some.....1661	Manure: Apply, Frequently.....1323
Transportation at Toronto Exhibition.....4179	Individuality in Cows.....1670	Community Spirit.....1265	Milk and Hot Weather.....1323
Valve Action.....1173	Jerseys: Inheritance of Color in.....1362	Community Spirit was Made to Grow How a.....1267	Military Training: School Boards Asked to Indorse.....1875
Water Pressure.....1835	Kitchen Sale of Holsteins.....2087	Compromise With Capital: The.....1829	Military Training in the Schools: What About.....1953
Welding Car Sill.....1557		Co-operation Amongst Experimenters.....1168	Money Values.....1324
Winter Care.....1835		Co-operation and the War.....1829	Mounted Police for Rural Districts.....1202
Winter: Readiness for.....1958		Co-operation Hardly Begun.....1238	My Friend, the Apple-tree Agent.....1662
		Corn Crop: Sidelights on the.....1476	National Efficiency.....1476
		Corn Field Clean: Keep the.....1167	Nature's Diary.....1130
		Corn World: An Awakening in the.....1707	1163, 1202, 1238, 1266, 1294, 1324, 1358, 1388, 1440, 1476, 1516, 1554, 1590, 1623, 1662, 1708, 1786, 1830, 1876, 1920, 1954, 2082, 2118
		Corn for Seed: Save the Mature.....1553	Oleomargarine: A Blow to.....1387
		Course to Pursue: The.....2081	Omen: A Good.....1954
			Orchards: Avoid Undue Depreciation of.....1627
			Peace: A Foundation for Lasting.....1661
			Photographic Records of the Live Stock: Keep.....1167
			Play and Recreation.....1293
			Politics: How to Fall off in.....1266
			Potato Grower: Trials of the.....1237

Preparation.....1749
 Production Needed in 1919: Heavy.....1919
 Publishers' Message.....1998

Railway Boards: New Representa-
 tion on the.....1293
 Right Triumphant.....1876

Sandy's Corn Field.....1168
 Sandy's List of Heroes.....1920
 Sandy Revises his Estimates.....1440
 Sandy Satisfied to "Keep on Keepin'
 on".....1750
 Scrub Bull Still at Large: The.....1167
 Seed Wheat.....1323
 Shelter the Farm Machinery.....2117
 Show-ring Features: Important.....1357
 Sire: Select the, With Your Needs in
 View.....1589
 Stallion Enrolment: Another step in.....1265
 Standard Feeds for Live Stock.....1293
 Sugar Question: Sandy on the.....1590

Thanksgiving: A Time for.....1954
 The Wheat Situation.....2117
 Think Twice.....1439
 Thrift: A Chance to Practice.....1919
 Tractor Difficulties.....1876

Veterinarians Should use Anæsthetic-
 ics.....1357
 Victory Bonds: Should the, be Tax-
 Exempt?.....1553
 Victory Loan: The Purpose of
 Canada's.....1750
 Victory Loan: The.....1919

War Zone: Six Weeks in the.....1517, 1519
 Warning: A.....1515
 We Have Turned the Corner.....1294
 Wentworth Farmers see Five Counties
 by Motor.....1131, 1152
 Western Fair: A Suggestion for the.....1553
 What one woman did.....1238
 Wheat Situation: The World's.....1295, 1298
 When the War Ends.....627
 Why Two Prices?.....1785
 Work a Blessing and a Character
 Builder.....1266

The Farm.

Agents and Other Things.....1328
 Agricultural College: The.....1594
 Agricultural Situation in Britain:
 The.....1241
 Australian Notes.....2123

Barnyard Manure: Losses on.....1478
 Build Anew: A Chance to.....2015

Canadian Council of Agriculture
 Adopts Platform: The.....2085
 Canada's War Finance.....1443
 Capacity of a Grain Bin: How to
 Calculate the.....1667
 Consolidated Schools: A Plea for.....1924
 Corn Growers Urge Conservation of
 Seed.....1556
 Corn Problems: Some of this Year's.....1134
 Crops in Leeds County: Good.....1667
 Crossing the Atlantic in War Time.....1593
 Cucumbers: Mosaic Disease of.....1361

Daylight Saving: What Farmers
 Think of.....1957

English Country-side: The.....1666
 English Agricultural Statistics.....1667

Fall Cultivation.....1328
 Fall Wheat: A Good Seed Bed Neces-
 sary for.....1396
 Fall Wheat: Preparing Land for.....1172
 Farm Power and Implements.....1519
 Farm Boy Raising and the Canadian
 Market.....1835
 Flax Fields: Some Ontario.....1361
 From the Window of a Railway
 Coach.....1361

Gasless Sundays.....1631
 Government's Action Questioned.....1172
 Grain and Seed at Guelph.....2122
 Ground Hogs: Unique Method of
 Killing.....1631

June Notes From Peel County.....1135

The Horse.

Abuses to Which Horses are Subject-
 ed: Some.....1441
 Action in Horses: Defective.....1518
 Attention to Horses' Teeth.....2119

Care of Horses in Warm Weather.....1132
 Colt's First Shoes: A.....1664
 Colts: Handle the, During the Winter.....1752

Driving: Good Manners in.....1555

English Horse Sales.....1878

Fall Colts: Breeding.....1204
 Fitting Horses for the Show-ring.....1239
 Foal: Feeding the.....1664

Grade Stallion: Replacing the.....1296
 Grade Stallions to be Eliminated.....1239

Hackney: Can the, Come Back?.....1390
 Harness and Vehicles: Care of.....1955
 Horse and His Future: The Light.....2001
 Horse Breeding: Cycles in Heavy.....2000
 Horse Breeding: The Influence of the
 Show-ring on.....1268
 Horse Feed: Quality of.....1878
 Horse Judge in the Show-ring.....1325
 Horses' Feet: Stable Management of.....1922
 How to Show Horses.....1296

Joint-ill, Navel-ill or Septic Arthritis.....1169

Mares: Winter Care of Pregnant.....1664

Overdraw Checks on Road Horses.....1477

Per heron Breeders of America Held
 Annual Meeting.....2119
 Percherons for Britain: Canadian.....1664
 Percherons come to Canada.....1169
 Percherons: First Canadian Shipment
 of, to England.....1788
 Persistence of the Urachus or Leaking
 Navel.....1132

Saddlers.....2083
 Scottish Stallion Hiring System:
 The.....390, 1421

Lumber Woods: The Lure of the.....2018

New Varieties: How the, Become
 Popularized.....1396
 Northland: News from the.....1882
 Northland: Ontario's Great.....2013

On Leave in Devonshire.....1924
 Ontario County Notes.....2123

Peace With Honor.....1328
 Peel County Veterans: A Group of.....1593
 Pioneering Means: What.....1999
 Plow: The Two-furrowed.....1206
 Potato Flour.....1790

Reconstruction: What, Demands of
 Us.....2014
 Railway Situation in Canada: The.....2006
 Root Pits: Covering.....1754
 Rural Improvement.....1791

Scottish Letter: Our.....1171, 1270
 Seed Wheat: Dr. Zavitz Looking for.....1298
 Silo: What Goes on in the.....1667
 Silver Lining: The.....2009
 Some Timely Advice.....1667
 Standard Time for the Winter.....1790

The Best Season in Compton County,
 Quebec.....2123
 The Provincial Highway.....2123
 The Needs of the Northland.....2123
 Thrift.....1206
 Timely Suggestions.....1834
 Tobacco: Topping.....1171

Victory Bonds: Facts You Need to
 Know About.....1755

War Zone: Six Weeks in the.....1517, 1519
 Weeds: Present, from Seeding.....1206
 Western Fair: Grain and Roots at the.....1557
 Wheat Situation: The World's.....1295, 1298
 Work Backward in Leeds County.....1754

Stables Should be Well Lighted.....1591
 Stallions: Care of, Between Seasons.....1832
 Stocking.....1629

Veterinarian: When Should the, be
 Called?.....1359

What the Horse Would say in July:.....1169
 Winter Care of Wealings.....1710
 Wintering Idle Horses.....1788
 Work Horses: Care of.....1204

Horticulture.

Apples: Care of Winter.....1757
 Apples: Getting Color in.....1444
 Apples: Picking and Packing.....1670
 Apples: Scald and Spot of.....1481
 Apple Growing: Extensive.....1633
 Asparagus: Summer and Fall Treat-
 ment of.....1210
 Australian Apple Packages.....1838

Cauliflower: Growing.....1363
 Celery: Late.....1210
 Collar Rot.....1671

Essex Truck Farmers Co-operate:
 How.....1793

Fall Web Worm: The.....1330
 Fruit Crop Report: Third.....1330
 Fruit Transportation News.....1211
 Fruit Growing in Manitoba.....1927
 Fruit Industry: Looking Ahead in the 2017

Garden Plantings: Successional.....1139
 Gooseberries in England.....1211
 Greenhouse: A Monster.....1139
 Greenhouse Notes.....1560

July Fruit Crop Report.....1175

Mice and Rabbits: Injury From.....1838

October Fruit Crop Report.....1671
 Onions: Six Hundred Acres of.....1597

Pear and Cherry Slug.....1363
 Potato: Some Constitutional Diseases
 of the.....1301
 Potato Seed Selection.....1598

Seed From the Garden: Grow.....1300
 Seeds: Home Grown.....1139
 Seed Growing: Caution in.....1331
 Strawberries: Milch for.....1883
 Sweet Corn: Care of.....1242

Thresher for Vegetable Seeds.....1961
 Tomatoes: Staking.....1139
 Tractor for the Gardener: A.....1330
 Transportation Pointers.....1139

United States Fruit Crop: The.....1175
 Unprofitable Varieties of Fruit.....2123

Vegetables: Type and Quality in.....1401

Western Fair: Fruit and Vegetables
 at the.....1560

Illustrations.

A Combination of Beauty and Utility.....2016
 Aaggie Pontiac Walker.....1137
 Aberdeen-Angus of the Erica Family:
 A Good.....1392
 Aberdeen-Angus Quartette: An.....2003
 About Ready for the Block.....1170
 Aged Shorthorn Bulls at Regina:
 The.....1442
 Allenby: General.....1719
 Alpine "Chasseurs" in Montreal: The
 Famous.....1145
 American Copper: The.....1358
 American Soldier Offers Tobacco to
 Some Canadian Pioneers.....1276
 A Field of Flax Which Returned a
 Good Revenue.....2122
 A Field of Oats Which Stooked up
 Well.....2122
 A Good Colt and Its Young Mistress.....2119

An Old-Time Shantyman.....2018
 Angus Bullocks Seen in Waterloo
 County: A Fine Bunch of.....1131
 Anti-Aircraft Section: A Canadian.....1366
 Arabian Cradle.....2025
 Are You Mr. Santa Claus?.....2030
 Ardmore.....1392, 2005
 At Home.....1367
 Athletes Exercising Under the
 Kirchenfeld Bridge.....1180
 Auld: F. H.....1394
 Austrian Gas Bombs Captured by
 the Italians.....1142
 Avondale.....1269
 Avondale Segis Pontiac Korndyke.....1632
 Ayrshire Sire.....2011

Baby Bees: A Few Promising.....1171
 Bacon Hogs Growing into Money:
 A Bunch of.....1753
 Baby's Shoes: Homemade.....1342
 Baxter: C. W.....1962
 Baron of Buchlyvie by Baron's Pride.....1391
 Baron's Pride: Progenitors and Pro-
 geny of.....1391
 Baron's Pride by Sir Everard.....1391
 Barn: A Very Good Lay-out for a
 Wide.....1592
 Bather: Miss, and her "Lads" Ex-
 ercising Horses.....1762
 Baxter: C. W.....1962
 Beach Ridge Lovely and her Heifer
 Calf.....1240
 Bead and Ribbon Necklaces.....2099
 Beauty—Docility—Maternity.....2012
 Beauty Pietertje Mechthilde.....1559
 Beatty: E. W.....1673
 Beatty: Admiral Sir David.....1930
 Beets: Detroit Dark Red.....1401
 Belmont Beau.....1630
 Berkshire Sow: Typey.....1879
 Berkshires: Pair of Macdonald
 College Flossies.....1879
 Black and White Beauties.....1389
 Black and Whites—A Cornerstone of
 Canadian Dairying.....2010
 Black Swallowtail: The.....1440
 Blanching.....1304
 Bluegrass: Making Good use of.....1133
 Bombing of Canadian Hospital:
 Scene after.....1216
 Bonnie Ingleside 7th.....1630
 Bonerges Hartog.....1446
 Borrow Mass Primrose 2nd.....4179
 Botermigri.....1208
 Both Pets.....1389
 Brampton Ina Oxford.....1484
 Brampton Bright Lord.....1715
 Brant: John W.....1394
 Brien: J. D.....1394
 British Flag Ship "Queen Elizabeth":
 The.....1931
 Butler: Edmond.....1714
 Byng: General.....1678

Cabbage: Copenhagen Market.....1401
 Calves Seen in Haldimand County:
 Some.....1131
 Canadian Council of Agriculture:
 The.....2086
 Canadian Nurses and Officers in the
 Grand Stand at a Real Old-time
 Circus Held near the Line.....1247
 Carburetion (Figs, 1-2-3 (a)—3 (b)).....1595
 Carrot: Chantenay.....1401
 Cars Used on the Tour: Some of the.....1131
 Carbureter Parts.....1668
 Cauliflower: Early Snowball.....1401
 Champion Bull in England Which
 Sold for Over \$3,000: A.....1957
 Champion Poland-China Sow.....2120
 Chester White Sow: A.....1710
 Chickadee.....1998
 Chicken Body Louse.....1876
 Chicken Pox: Typical Case of.....1884
 Chicken: Note Swelling About the
 Eye.....1884
 Chickens: Strong, Vigorous Male; the
 Kind to Use.....1884
 Class of Students Hearing a Lecture
 on Judging Vegetables.....1453
 Cleaning-up Day.....1368
 Clear the Way 2nd.....2090
 Clouded Sulphur: The.....1358
 Clydesdale Brood Mare Class at the
 Canadian National: The Top of
 the.....1555
 Clydesdale Team in Harness at West-
 ern Fair, 1918: First Prize.....1752
 Clydesdale: An Intelligent Looking
 Head.....1788
 Colonial Troops Viewing Flocks of
 Suffolk Sheep.....1696
 Compton Tortoise-shell: The.....1516
 Compression: (Figs, 1-2-3).....1207
 Conqueror by Lochlergus Champion.....1391
 Cooper: T. S.....1715
 Copper Boiling Kettle: Simcoe Co.
 Canning Centre.....1531
 Coquette McHenry, 40th.....1205
 Corn Cutting Device: A Homemade.....1557
 Corn, Dent: A Good Sample of Ears
 and Stover.....1709

Corn, Dent:
 ing Crop
 Corn, Dent:
 Tips and I
 Corn, Dent:
 Seed.....
 Corn, Dent:
 Wisconsin
 Cotswold: T
 Cow-testing
 Columbus
 Cow's Udde
 of.....
 Creamery B
 1917: The
 Crops Like
 stitutes.....
 Crossbill: An
 Cucumbers:
 Packed.....
 Currie: Gene
 1721, 1842
 Czarena of R

Darnley by C
 Decoration b
 naught of
 Ernest Fl
 Toronto
 Delegates to
 Conference
 Dempsey: To
 Design for
 Scratcher.....
 Devon Cows
 Disabled Sol
 for.....
 Doddie Quali
 Doherty: Ma
 Don River, C
 Dorset Horne
 Dorsets: Six,
 Dredge.....
 Drier to Ha
 Homemade
 Drier to be
 Homemade
 Dryden: W. A
 Dunes Foot
 lyvie.....
 Duroc-Jersey
 Dutch Cradle
 States.....

Elevator in t
 Governmen
 tion is the C
 Developmen
 Ella Fleming
 English Barny
 Entrance to t
 Eric of Glenc
 Everlasting.....

Familiar Spot
 Farm Flock
 Part of a
 Farm Homes i
 One of Five
 Farmerette: A
 Farmerette: A
 Fat Cattle in
 Stop by the
 Feeding the W
 Feeders Whic
 Gains: Type
 Flax Field in M
 Flax Pullers
 Group of.....
 Flock of Comm
 itoba Agric
 Flock on Fair I
 Flock of Long
 Farm: A La
 Flushing the E
 Foal: Keep Gr
 Good Horse.....
 Forest Path in
 Foch: General
 Fountain: The
 Place at
 Toronto.....
 French Genera
 A.....
 Fruit Grower's
 Peninsula: A
 Fruit Growing
 ness: Where.....
 Funeral of Nur
 Lowe: The.....
 Fyvie Knight 2

Gay Lad 16th...
 Girls at Laf-an
 Ginseng: Fruit
 Ginseng: Leaf
 Ginseng: Root
 Gloucestershire
 Government B
 is Where the
 are Housed.....
 Grading Table i

Corn, Dent: Seed Selected from Stand- ing Crop.....1709	Graham: Andrew.....1394	Milk-house: This is the Modern, on the farm of Wm. Prouse, Mt. Elgin.....1362	Sanitation at the Front.....1366
Corn, Dent: Good and Poor Kernels, Tips and Butts.....1709	Grand Champion Carload of Steers at the International: The.....2019	Milk-house: A Very Neat and Modest.....1596	Scene on the Principal Street in Berne.....1179
Corn, Dent: Good and Poor Ears for Seed.....1709	Great Spangled Fritillary: The.....1476	Milk Pail: The Small-topped, is Best.....1329	School: The Three-roomed, Modern, Built Six Years Ago.....2087
Corn, Dent: Near View of a Pile of Wisconsin No. 7.....1709	Greenhouse in Leamington District: Inside of a Large.....1793	Milk Powder Factory in Middlesex County: A.....1558	Scotland Splendor's.....1441
Cotswold: Typical.....1833	Grisdale: Prof. J. H.....1176	Milking Shorthorns on the Banks of the Grand River: Herd of.....1359	Scotland's Contribution to Canadian Dairying.....2010
Cow-testing Demonstration at Columbus.....1836	Group of Satisfied Highlanders: A.....1999	Miller: Robt.....1394	Scotch: Everything,—Men, Horses and Landscape.....2083
Cow's Udder: Longitudinal Section of.....1444	Haig: Field Marshal Sir Douglas.....1676, 1721, 1842	Model's Queen.....1518	Sculpin: Eighteen-spined.....1202
Creamery Built at New Liskeard in 1917: The New.....2013	Haldimand Bessie.....1664	Monarch: The.....1324	Scoville: Robert.....1714
Crops Like this Will Eliminate Sub- stitutes.....1389	Hampshire Sow: A Typey.....1170	Moon: The, (Figs. 1, 2, 3).....1304	Seafoam: Five Heifer Calves by.....2084
Crossbill: American.....1998	Harley: Mrs.....1601	More Alluring Than the City Streets.....1831	Self-feeder for Hogs: Plan of.....1833
Cucumbers: A Basket of Well- Packed.....1793	Harleyholm White Rosie 3rd.....1484	Mosque of St. Sophia, Constant- inople: The.....1966	Selkirks: Entering a Tunnel in the.....2006
Currie: General Sir Arthur.....1677	Harrow Cart Saves Many Steps: The.....1206	Mourning-cloak: The.....1358	Shad Fly.....1294
Czarena of Russia: The Former.....1146	Harvest: A Double.....1389	Mouse: The Deer.....1998	Shad Fly: Nymph of.....1294
Darnley by Conqueror.....1391	Harvest: The Beginning of.....1203	Munn: M. D.....1715	Shade in the Pasture Means Comfort for the Herd.....1174
Decoration by Prince Arthur of Con- naught of D.S.O. to Flight Lieut. Ernest Flett, R. N. A. S. of Toronto.....1405	Heavy Horse: Regular Exercise is Necessary for the.....1832	Nancy's Mint Master.....1715	Shade, Water and Luxuriant Grass Provide for the Comfort and Well- being of the Herd.....1325
Delegates to First Dominion Dairy Conference.....1960	Hen is a Utility Bird: The Modern.....2016	New Zealand Division Horse Show on the Western Front: A.....1325	Shorthorn Steer Which Was a Cup Winner in the last Christmas Fair in England: A.....1296
Dempsey: Tom.....1714	Herd: The Foundation of a Good.....2002	Nicholas Romanoff.....1146	Shorty.....2085
Design for Blotter or Match Scratcher.....2099	Heifers in the Peel County Calf Club.....1757	No-Man's-Land: A Glimpse Into.....1489	Silo on Monteith Farm.....1882
Devon Cows and Calves.....1790	Herd Builder: A.....2002	November.....1787	Silver-bordered Fritillary: The.....1476
Disabled Soldiers, Artificial "Hands" for.....2136	Herefords on Their Native Heath: A Contented Group of.....1389	Muthatch.....1998	Silver Fish: The.....1920
Doddie Quality and Character.....2003	Hereford: In the Home of the.....1923	Oats for Green Feed: Sprouted.....1794	Silos: These Two Big, Furnish Plenty of Silage for the Herd.....1362
Doherty: Manning W.....1757	Hereford Character: Young.....2004	Oats: O. A. C. No. 72.....1667	Shropshires: A Trio of.....1923
Don River, Ontario: Scene on the.....1298	Hereford Herd on Pasture: An American.....2004	O. A. C.: Residence at the.....1751	Sir Everard by Top Gallant.....1391
Dorset Horned Ram Lamb.....1485	Holden: Miss Edith, R. R. C.....1602	O. A. C. Live Stock Judging Team: The.....2020	Slicer: The Rotary.....1304
Dorsets: Six, at Their Mid-day Meal.....2008	Home of J. W. Richardson: The.....1131	Off With a Cargo.....2007	Smith: Wm., M.P.....1394
Dredge.....1168	Home Surroundings: Attractive.....1921	Old-Country Live-Stock Farm: An.....1877	Southdown Ram.....1880
Drier to Hang Over Cook Stove: Homemade.....1144	Homeward Bound After a Busy Day.....2001	One of the Old Brigade.....1477	Southdown Shearling Rams: Pair of.....1711
Drier to be Set on Top of Stove: Homemade.....1144	Horn Fly Much Enlarged: The.....1134	Onions: Southport Yellow Globe.....1401	Southdowns: Three.....2083
Dryden: W. A.....1394	Horse: Positive Proof of a Good.....1878	Onion Crates Stacked in the Field Ready for Gathering the Crops.....1597	Specimens From a Well-grown Crop.....1210
Dunure Footprint by Baron of Buch- lyvie.....1391	Horticultural Building, Exhibition Grounds, Toronto.....1490	Onion Curing Shed in Pelee Marsh: Large.....1597	Spring Lamb: A Good.....1132
Duroc-Jersey: A Champion.....1957	Hot Weather Suggestion: A.....1169	Only One, But Half the Flock.....1393	Spring Field's Prince.....4179
Dutch Cradle: Old, New England States.....2024	Howie's Topnotcher.....1926	Out-of-doors Lectures on a Hot Day.....1453	Stable: A Well Planned.....1592
Elevator in the West: A Canadian Government,— Where Co-opera- tion is the Cornerstone of National Development.....2014	Howie's Dora II.....1926	Oxford Down Flock: A Champion.....2084	Stallion Care: Proper Feed and Exercise Essentials in.....1832
Ella Fleming.....1591	Humshaugh Invincible Peter.....1756	Oxford Down Ram.....1328	Standing Field Crop Competition Exhibit at Toronto, 1917.....1396
English Barnyard: In an.....1594	Hunter: Wm.....1714	Oxford Down: A Typey.....1754	Stark: A Uniform Sample of, in the Orchard of J. C. Harris.....1633
Entrance to the Exhibition: Main.....1445	I Am Monarch of all I Survey.....2016	Paget: Lady, G.B.E.....1602	Stearns Pasturing on a Farm Near Ayr, Ont.....1359
Eric of Glencairn.....1522	Indian Baby's Cradle: An.....2023	Painted Lady: The.....1516	Stephen: W. F.....1394
Everlasting.....1478	Inglis: Dr. Elsie.....1601	Pansy's Daughter of South Farm.....1399	Stickle-back: Two-spined.....1202
Familiar Spot to O. A. C. Students: A.....1451	In Canada—Not Ireland.....1246	Partners in Profitable Dairying.....2011	Stock Yards at a Central Market.....1881
Farm Flock of Ninety-four Sheep: Part of a.....1519	Italian Cradle, Which Rocked an Italian Prince.....2024	Pastoral Scene in the Northland: A.....1556	Street Corner on Market Day: A.....1180
Farm Homes in Brownsville District: One of Five.....1267	Jersey Provides a Combination Par- excellence, of Beauty and Econom- ical Production: The.....2012	Pastoral Scenes: Would that we Had More, Like This in Canada.....2008	Sudbourne Senora.....1443
Farmerette: An S. O. S.....2031	Jessie Grace Keyes.....2125	Pasture: The Path to Greener.....2009	Sunbeam of Edgeley.....1399
Farmerette: A "Fluffy Ruffles".....2031	Johann's Bonheur Champion 2nd.....1792	Peach Season: A Reminder of the.....1481	Sunlight Kills Bacteria Quickly.....1300
Fat Cattle in Waterloo County: A Stop by the Way to Inspect Some.....1131	Johnson: The Late Donald.....1301	Peaches: Canadian Quality.....2017	"She Became so Absorbed in the News".....1637
Feeding the War Calf.....1336	Judging Utility Barred Rocks (Figs. 1-2-3-4-5-6-7-8).....1400	Pear and Cherry Slug at Work.....1363	Sheep: Part of the O.A.C. Flock of.....1360
Feeders Which Make Economical Gains: Type of.....1711	K. S. P. Tantalus Calamo.....1883	Pearl of Balquids.....2090	Sheep Pasturing on an Abandoned Farm in the Lake Region.....1556
Flax Field in Middlesex County: A.....1361	Kacena.....1205	Pepper: Geo.....1394	Sheep: A Flock of Revenue Pro- ducers.....1790
Flax Pullers Ready for Work: A Group of.....1361	Khaki College.....1335	Percheron Mares: A Day Off for a Group of.....2000	Shorthorn Heifer Calves: A Group of.....1710
Flock of Common Stock at the Man- itoba Agricultural College.....1210	Kildee: Prof. H. H.....1714	Perfection Fairfax.....2005	Summer Scene: A.....2027
Flock on Fair Pasture: A Good.....1665	King Albert of Belgium.....1719	Pershing: General.....1720, 1842	Surrendered Battleships: One of the.....1931
Flock of Long-wools on an Ontario Farm: A Large.....1393	King George and Allied Sea Chiefs.....2134	Petain: General, the Hero of Verdun.....1719	Swiss Cradle: Curious.....2025
Flushing the Ewes on Good Pasture.....1665	Kismet by Dunure Footprint.....1391	Picking Device: A Handy.....1670	Taking to the Water.....2019
Foal: Keep Growing, if You Have a Good Horse.....1922	Lakeview Canary Countess.....1137	Plumer: General.....1676	Tamworth: A Typey.....1785
Forest Path in Winter: A.....2026	Lancaster Lord.....1593	Poland China.....1924	Teacher's Summer Class at the O. A. C., Guelph.....1452
Foch: General.....1720, 1842	Largest War Photograph in the World The.....1143	Press Party in a Trench Leading to Fort Douaumont: The.....1517	Team: A Scottish Plow.....1955
Fountain: The — a Favorite Meeting Place at "The Exhibition" Toronto.....1490	Lavender 47th.....1754	Poultry-house: Open Front.....1672	The Surrender of the German High Sea Fleet.....2135
French General Returns the Salute: A.....1337	Leaving Camp.....1708	Porkers: Finished.....1395	Thinking it Over.....1083
Fruit Grower's Home in Niagara Peninsula: A.....1389	Leicester: A Typey.....1666	Potatoes Grow Luxuriantly in the Northland.....2013	Thornby Premier.....1834
Fruit Growing is an Organized Busi- ness: Where.....2017	Leicesters which May be Seen at the Fairs this Fall: Some.....1171	Price: Norman.....2029	Thresher for Vegetable Seeds.....1961
Funeral of Nursing Sister, Margaret Lowe: The.....1181	Le Sentes King's Onyx.....1669	Pride of Shelton.....1880	Tiger Swallowtail: The.....1440
Fyvie Knight 2nd.....2021	Less Than a Year's Work for one Hen.....1332	Prospects for a Heavy Yield.....1295	Timber Corps at Work: Part of the.....1762
Gay Lad 16th.....1269	Lessnessock Buntie Lad.....1446	Pullets in Winter Quarters.....1794	Tippercanoe Ideal.....2005
Girls at Laf-an-Toil Cottage: The.....1305	Letters From Europe Cuts.....1798	Quebec Bridge: The—One of the Greatest Triumphs of Modern Engineering.....2007	Tolmie: Dr. S. F., M.P.....1394
Ginseng: Fruit of.....1266	Light and Ventilation Well Supplied.....1389	Question Mark: The.....1476	Top Gallant by Darnley.....1391
Ginseng: Leaf of.....1266	Linden Girl of Harbor Hill 3rd.....1399	Rack and Feed Trough Combined.....1956	Tractor for the Garden: A New Type of.....1330
Ginseng: Root of.....1266	Little Candle Cakes and Flower Cakes for Each Place will Delight the Children.....2028	Rack That Gives Satisfaction: A Sheep.....1956	Tractors at Cobourg Demon- stration.....1561, 1562
Gloucestershire Spotted Pig: A.....1133	Lloyd-George: David.....1843	Rack in Common Use: Type of.....1956	Tree is an Asset in a Pasture Field: A.....1296
Government Building: The,—Here is Where the Agricultural Exhibits are Housed.....1482	Loading Packed Boxes for the West- ern Market.....1633	Raithby Blenheim.....1204	Turkey: The Christmas.....2028
Grading Table in the Orchard.....1670	Look Like Busy Beavers, Don't They.....1336	Ravenscroft: Miss Dorothy.....1761	Two-furrow Foot-lift Gang at Work on the Farm of D. H. Martin, Huron Co., Ont.....1206
	Lord Gray.....1629	Rawlinson: Sir Henry.....1678	Type Models of.....1389
	Lord Rhyon, The International Champion Shorthorn Bull.....2021	Red Squirrel.....1998	Up the Rifles.....1708
	Lundendorff.....1844	Reformer.....1441	Valve Action (Figs. 1, 2, 3, 4).....1173
	Manger: The Holy.....2023	Repeater.....2005	Van Pelt: Hugh G.....1714
	Marden Dagnum.....1239	"Repose in Egypt".....2022	Veterans Who Again Did Their Bit in 1918: Some Agricultural.....1593
	Mary and Her Little Lambs.....1297	Richardson: E. L.....1394	Village Supreme.....1392
	Mason: Ronald, and His Pets.....1680	Riverside Johanna Pontiac.....1137	Von Hindenburg.....1844
	Matheson: Miss C. E., at the Prince of Wales Stock Farm in Cornwall.....1760	Road Building: The Result of Bad.....1885	Wade: R. W.....1394
	Mesopotamia: With Our Troops in.....1406	Rodney.....1270	Walters: J. L.....1394
	McGilvray: C. D., V. S., M. D. V.....1272	Roller: Use the, Judiciously and Fol- low Immediately With Disks or Harrows.....1172	Warble Fly, Eggs and Larva: The.....1134
	Middlebrook Pride 21st.....1712	Romney Ram Lambs: Pair of.....1204	Watson: J. G.....1714
	Milk Production: How Age In- fluences.....1669	Rose De Kol Wayne Butter Boy.....1398	Wheat Field: A Forty-five Bushel Per Acre.....1295
	Milk: Cleanliness is Essential to the Production of Good.....1300	Round-up on a Canadian Ranch: A.....1922	Where the Water Runs Cool.....2018
		Rural Life: Some Bright Spots in.....1389	
		Rutherford: Dr. J. G.....1394, 1839	

Winner at Toronto: A.....1557
 Winter Palace, Petrograd: The.....1217
 William II.—The Last of the Hohenzollerns.....1844, 1889
 White Cake and Red Berries: A.....2028
 Woodpecker: Downy.....1998
 Woodford.....2005
 Woman "Vet." in England: A.....1761
 Women at Work in an English Munition Plant.....1517

Yorkshire: A champion.....1524, 1592
 Yorkshire Sow: A Typy.....1630
 Yorkshire Sow and Her Ten-day-old Litter: A Typy.....1297
 Young Aristocrats of the Barnyard.....1359
 Young Leroy.....1327, 1880
 Young Villagers: A Bunch of.....2002

Live Stock.

Animal's Worth: Do Prices Indicate an.....1395

Bacon Trade: Canada's Growing.....1395
 Bacon Hog: Rearing and Feeding the.....1753
 Barley Smut Poisoning in Cattle.....1240
 Berkshire Breed of Swine: The.....1879
 Brandon: Good Live-stock Show at.....1327
 Breeding Counts in the Feed Lot.....1442
 Breeding Stock.....1519
 Breeding Stock: Selecting.....1478
 Britain's Pigs are Shrinking.....1955
 Bull: "Safety First" With the.....1664

Calf: Educate the.....1519
 Cattle of Wales: The.....1629
 Cattle: Housing, Feeding.....1753
 Champion of England.....1712
 Chester White Hog: The.....1710
 Clean and Disinfect the Stables.....1788
 "Coming Up With the Sheep".....1393
 Community Breeding Centres.....1477
 Cotswold Sheep.....1833
 Culling: Improved By.....1325
 Currie's Shorthorns Bring a Good Figure.....1753

Dairy Shorthorns in England.....1880
 Difficult Parturition: Common Sense in.....1478
 Doddie at Home and Abroad: The.....2003
 Duroc Jerseys: The.....1957

Elgin County Shorthorn Sale Brings \$7,020.....1881
 English Live-stock News.....1204
 English Sheep: Remarkable Prices for.....1555
 Experiments With Live Stock to be Conducted at the O. A. C.: Good.....1240

Fall Litter: The.....1591
 Fall Management for More and Better Lambs.....1712
 Flies on Cattle: Control of.....1205
 Flies Which Worry Live Stock: Some.....1134
 Fly Trouble is General: The.....1327
 Free-Freight Policy Still Operating: The.....1664

Grade up the Herds and Flocks.....1205
 Grass Cattle Weighing Light.....1297
 Growing Pig: Feeding the.....1133
 Grub in the Head of Sheep.....1134

Hairless Pigs.....1833
 Heel Fly: The.....1441
 Herd Header: Have an Ideal in Mind When Purchasing a.....1790
 Hereford Bulls That Have Made History.....1268
 Hereford's Conquest of America: The.....2004
 Herefords: World's Records for.....2084
 Hogs: Growing and Finishing, on Shorts and Skim-milk.....1171
 Hog Raising at the Central Experimental Farm.....1923

Judging Competitions at Guelph Fair.....2120

Lambs: Keep the, Thrifty.....1132
 Leicester Sheep.....1666
 Litter of Nine Gave Satisfactory Returns.....1712
 Live-stock Notes from England.....1519
 Live-stock Organization in Canada.....1394
 Live-stock Policy: A National.....1392
 Live-stock Situation in England: The.....1297
 Live Stock in Europe: Decline in.....1924
 Live-stock Prices Remain High: Will.....1956
 Live-stock Conference.....1956

Market Receipts and Prices.....1205, 1752
 Market Reports and Prices During August.....1518
 Marketing Finished Stock.....1630
 Milk Records of English Shorthorns.....1442

Name: What's in a.....2002
 Net Returns Not Always Indicated by Sale Price.....1752
 New Brunswick Live-stock Breeders Organize.....2084

Oats and Oat Products for Hogs.....1360
 Ontario Hereford Breeders Have a Good Sale.....2120
 October Live-stock Markets.....1880
 Oestrus: Period of, During Which to Breed Sows.....2084
 Our Scottish Letter.....1711, 1879
 Oxford Down Sheep.....1754

Personal Element: The.....1297
 Poland-China Breed of Swine.....2120
 Prices for Stock in Great Britain: Extraordinary.....1834
 Pure-bred Stock: Shipping.....1270
 Pure-bred Stock and Pedigrees.....1832

Quality: Improve the.....1361

Rationing Scheme in English Agriculture.....1881
 Regina: Excellent Fair at.....1327

Self-feeder for Pigs.....1833
 Sheep Industry: A New Era in the.....2008
 Sheep Racks.....1956
 Sheep: Profit-sharing Methods of Raising.....1789
 Sheep Gave Good Returns.....1711
 Sheep and Intensive Farming.....1326
 Sheep and Wool: Prices of.....1360
 Sheep at the 1918 International, Chicago.....2083
 Sheep Breeders' Meeting at Guelph.....1241
 Sheep Killed by Dogs: Compensation for.....1170
 Sheep Protection Law Needed: More Drastic.....1518
 Sheep Raising in the Lake Region.....1556
 Sheep: The Southdown Breed of.....2083
 Shepherd's "Don'ts": An Old.....1923
 Shepherds Handle Their Flocks During the Fall: How Some Successful.....1665
 Shoats: Let The Glean in the Fields.....1395
 Shorthorn Cows in Record of Performance.....1591
 Shropshire Breed of Sheep: The.....1923
 Sire or Dam—Which?.....1922
 Sows: Prolific.....1170
 Stable: Consider Conveniences and Permanency in Remodelling the.....1592
 Steers: Cost of Raising and Finishing Two-year-old.....1170
 Stock for the Fall Show: Train and Condition.....1239
 Stock on Some of Canada's Markets: Receipts of.....1359
 Straw for Feed: Value of.....2085
 Swine at Toronto Fat Stock Show.....2083

Tamworth Hog: The.....1789
 Trestain and Henderson Shorthorn Sale: The.....1556

Veterinary Profession: The.....1360

Weak Market Detrimental to Increased Production.....1133
 Weaning the Lamb.....1477
 Wool: Grading, at Guelph.....1133
 Wool Clip: Canada's, Stays at Home.....1205
 Wool Prices are Determined: How the.....1297
 Wool Prices: The Outlook for.....1955
 Wool Growers: Fund Provided by.....1878

Yorkshire Breed of Hogs: The.....1630

Poultry.

Bad Eggs: Who Pays for?.....1480
 Capons and Caponizing.....1331
 Crate Feeding.....1332

Disease Among Poultry in the Fall: Prevent.....1883

Egg Records: Accurate Individual.....1597
 Electric Light and Egg Production.....1927
 Exhibitors and Fair Boards: Pointers for.....1331

Farm Flock: Grading up the.....1210
 Farm Flocks: Improving.....1961

Get Ready for Winter.....2126
 Green Ducks: Preparing for, Market.....1176

Hen: Evolution of the Modern.....2016

Judging Utility Barred Rocks.....1400

Killing and Dressing Poultry.....1559

Poultry Rations in England.....1209
 Poultry House: Open Front.....1671
 Poultry: It Pays to Finish.....1794
 Poultry Industry: Peace and the.....2063
 Pullets Should be in Laying Quarters.....1671
 Pullets: Fall Care and Feeding of.....1794

Skim-milk vs. Scrap Meat.....2126
 Summer Care of the Fowl.....1138

Utility Fowl: Popular Breeds of.....1363
 Utility Fowl: Preparation of, for Exhibition.....1481

White Plymouth Rock Costs.....1480
 Winter Production: Prepare for.....1837

Questions and Answers.

(Miscellaneous.)

Abortion.....1430
 Agistment of Cattle.....1822
 Alfalfa: Winter-killed.....1498
 Ants in House.....1226
 Apple Cider.....1539
 Apple Cider: Keeping.....1698
 Auctioneer's License.....1909

Barn: Laying Out a.....1740
 Barrels: Leaking.....1577
 Bean Growing.....1976
 Beef Rings: Do the, Mean a Waste of Meat?.....1157
 Bees Failed to Store Nectar.....1908
 Bin Capacity.....1978
 Bindweed.....1258, 1459
 Birth Certificate.....1862
 Blackhead.....1412
 Black Knot.....1376
 Bloody Milk—Ringworm—Colic.....2147
 Blue Weed.....1314
 Bordeaux.....1377
 Breaking up a Field.....1735
 Bull: Heavy.....1429
 Bull: Ringing a.....1653
 Bull at Large.....1286

Carriage Colt.....1459
 Carrots.....1742
 Cement Fence.....2109
 Cement for Walk.....1860
 Chairman Voting.....2147
 Chicks: Value of.....1576
 Chickens Dying.....1772
 Cistern: Concrete.....1188

Citizenship.....1188
 Closed Season for Squirrel.....2147
 Cockerel Makes Abnormal Noise.....1978
 Colic in Horses.....1227
 Coloring for Butter and Cheese.....1314
 Colt: Unthrifty.....1313
 Constable: Reporting a.....2109
 Contract: Fulfilling a.....1910
 Contract: Terminating a.....1187
 Corn: Value of.....1538
 Corn Pruning.....1223
 Councillors as Delegates.....1157
 Cow Bought at Auction.....1609
 Cow Does Not Show Oestrus.....1498
 Cow Fails to Let Down Milk.....1223
 Cow Fails to Breed.....1577
 Cows Have Sore Eyes.....1695
 Cow's Horns: Training a.....1978
 Crops: Value of.....1373
 Crown-rot.....1412
 Cream Will Not Gather.....2148
 Cylinder Missing.....2148

Dehorning Animals.....1812, 1860
 Difference in Price.....1861
 Dimensions of Farm.....1188
 Division of Fruit.....1862
 Dog: Tie up the.....1284
 Drainage Outlet.....1540
 Drainage Problems.....2146
 Drying a Cow.....1158

Engineer.....1538
 Engineer: Stationary.....2109
 Evergreens: Planting.....1813

Feather Eating.....1540
 Feed for Young Pigs.....1576
 Feeding an Orphan Colt.....1284
 Fencing and Cattle.....1541
 Field for Spring Wheat.....1910
 Fire by Spontaneous Combustion.....1813
 Fire Insurance Money.....2109
 Fistula.....1158
 Flax for Fibre.....1373
 Floor for Granary.....1945

Gestation Period.....1978
 Ginseng.....1861
 Girl's Undertaking: A.....1822
 Goats.....2110
 Ground-hogs.....1576
 Ground-hogs: Killing.....1313

Hay for Cows.....1286
 Heaves.....1313
 Hogs: Feeding.....1429
 Holidays: Legal.....1284, 1945
 Horse: Feeds for a.....1648
 Horses: Cost of Feeding.....1312
 Horse Stable Floor: Material for.....1538
 Horse Out of Condition.....1814
 Horses in Poor Condition.....2110
 Hot-bed: Constructing.....1910
 Humane Society.....2109
 Hungarian: Ensiling.....1735
 Hydro Powers.....1157

In-breeding.....1689
 Inheritance.....1978
 Itchy Legs.....1513

Legs: Swollen.....1909
 Lice on Cattle.....1861
 Lice.....1376, 1576
 License for Chopping.....1861
 Lice on Pigs.....1648
 Lien Note.....1978
 Lightning Rods: Grounding.....1813
 Line Fence.....2147
 Lime Kiln.....1155
 Line Fence: Building a.....1157
 Line-fence Difficulty.....1689
 Line Fencing.....1539
 Lump on Cow's Leg.....2110
 Lymphangitis.....1227

Mangels or turnips for production.....1909
 Mare Unsatisfactory.....1648
 Market Quotations.....1466
 Milk: Slimy.....1429
 Millet and Orchard Grass.....1424
 Minor: A.....1822
 Mistake in Seed Sold.....1735
 Mortgagor: Defaulting.....1822
 Motor Books.....1862
 Municipal Travelling Expenses.....1158
 Muskrats.....1909

Note: Collecting a.....1414

Oil Lease.....1314
 Old Wood: Cutting Out.....1378
 Onion Growing.....1540
 Ophthalmia.....1740

Painting a Church.....1575
 Partial Paralysis in Dog.....1575
 Pasture for Next Year.....1742

Patents.....
 Peas: Drying.....
 Pear Trees Fail.....
 Pigs: Feeds for.....
 Pigs Killed on F.....
 Plant Food in S.....
 Plowing Under t.....
 Pork: Curing.....
 Potatoes: Secon.....
 Potatoes Wilting.....
 Potato Field: H.....
 Poultry Farming.....
 Poultry Publicat.....
 Poultry: Purloin.....
 Pulpwood.....
 Purchaser in Di.....

Quick Sand.....

Rabbits.....
 Railway Rights.....
 Rape Seed.....
 Raspberry Can.....
 Raspberry Plant.....
 Raspberries: Pla.....
 Rations for Cow.....
 Red Clover: Ens.....
 Refrigerator.....
 Registering a Ca.....
 Register Number.....
 Registered Sires.....
 Ringbone.....
 Ringworm.....
 Ringworm.....
 Road: Closing.....
 Rodding a House.....
 Root House: Fro.....
 Removing Lump.....

Salary: Quarterly.....
 Sale of Wheat.....
 Salt for Hogs.....
 Sap: Fireplace fo.....
 Scaly Legs.....
 School House: Le.....
 Scratches.....
 Scratches.....
 Scurf on Pigs.....
 Scurfy Pigs.....
 Seed Wheat.....
 Selling Cattle.....
 Servant Quitting.....
 Sheep Pasture.....
 Sheep Farming.....
 Sheep Raising.....
 Sheep Roads.....
 Shorthorn Herd.....
 Silage: Weight of.....
 Snow Plow.....
 Sod: Cropping Ol.....
 Sour Soil.....
 Sow Lame.....
 Splint.....
 Spots on Hen's B.....
 Sprain.....
 Spring Lambs: Br.....
 Spring Wheat.....
 Stable: Re-arrang.....
 Stable Wash: For.....
 Steers: Gains in V.....
 Still-born Calves.....
 Straw: Selling off.....
 Strawberry Vines.....
 Sugar-cane Seed.....
 Sweet Clover Lan.....
 Sweet Clover.....
 Sweet Clover: Pas.....
 Swollen Legs.....

Tanning Skins.....

Tests.....
 Thoroughpin.....
 Timber: Removing.....
 Tile: Matter of.....
 Tonic for Horses.....
 Trees at Roadside.....
 Tuberculosis.....
 Turkeys Go Blind.....
 Turnips as a Feed.....
 Tuberculosis.....

U. F. O. Office.....

Vinegar.....

Wages for farm Ha.....
 Wall: Water Comin.....
 Warble Fly.....
 Warts: Removing.....
 Weaning a Colt.....
 Weed: Description.....
 Weeds.....
 Weeds in Hay.....
 Weeds: Cutting No.....
 When a Boy Becom.....
 Whitewash: Recipe.....
 Whitewash for Stab.....
 Widow's Claim.....

1188
2147
1978
1227
1314
1313
2109
1910
1187
1538
1223
1157
1609
1498
1223
1577
1695
1978
1373
1412
2148
2148

1860
1861
1188
1862
1284
1540
2146
1158

1538
2109
1813

1540
1576
1284
1541
1910
1813
2109
1158
1373
1945

1978
1861
1822
2110
1576
1313
1286
1313
1429
1945
1648
1312
1538
1814
2110
1910
2109
1735
1157

1689
1978
1513

1909
1861
1576
1861
648
978
813
147
155
157
689
539
110
227

909
648
466
429
424
822
822
862
158
909

114
314
378
540
740

575
575
742

Patents.....1909
Peas: Drying.....1258
Pear Trees Fail to Bear.....1860
Pigs: Feeds for.....1539
Pigs Killed on Railway.....1541
Plant Food in Sample of Soil.....1814
Plowing Under Green Clover.....1538
Pork: Curing.....1740
Potatoes: Second Growth on.....1609
Potatoes Wilting.....1223
Potato Field: Heating a.....1226
Poultry Farming.....1377
Poultry Publications.....1695
Poultry: Purloined.....1692
Pulpwood.....2109
Purchaser in Difficulty.....1822

Quick Sand.....1430

Rabbits.....1909
Railway Rights.....1466
Rape Seed.....1944
Raspberry Cane Borer.....1653
Raspberry Plants: Sickly.....1430
Raspberries: Planting, in Fall.....1609
Rations for Cows.....1609
Red Clover: Ensiling.....1151
Refrigerator.....1541
Registering a Calf.....1227
Register Number of Mare.....1862
Registered Sires.....1975
Ringbone.....1862
Ringworm.....1648
Ringworm.....2110
Road: Closing.....1226
Rodding a House.....1976
Root House: Frost-proof.....1538
Removing Lump.....2147

Salary: Quarterly Payment of.....1772
Sale of Wheat.....1822
Salt for Hogs.....1541
Sap: Fireplace for Boiling.....1314
Scaley Legs.....2146
School House: Legal.....1611
Scratches.....1376, 1742
Scratches.....2110
Scurf on Pigs.....1862
Scurfy Pigs.....2109
Seed Wheat.....1378
Selling Cattle.....1976
Servant Quitting Work.....1575
Sheep Pasture.....1698
Sheep Farming.....1378
Sheep Raising.....1577
Shore Roads.....1226
Shorthorn Herd Book.....1945
Silage: Weight of.....1609
Snow Plow.....1611
Sod: Cropping Old.....1689
Sour Soil.....1377
Sow Lame.....1862
Splint.....1187
Spots on Hen's Body.....1653
Sprain.....1286, 1577
Spring Lambs: Breeding.....1466
Spring Wheat.....1378
Stable: Re-arranging, a.....1424
Stable Wash: Formula for.....1186
Steers: Gains in Weights of.....1226
Still-born Calves.....1945
Straw: Selling off the Farm.....1540
Strawberry Vines.....1909
Sugar-cane Seed.....1698
Sweet Clover Land for.....1376
Sweet Clover.....1378
Sweet Clover: Pasturing.....1376
Swollen Legs.....2147

Tanning Skins.....1286
Tests.....1609
Thoroughpin.....2148
Timber: Removing.....1226
Tile: Matter of.....1862
Tonic for Horses.....1822
Trees at Roadside.....1812
Tuberculosis.....1313, 1459
Turkeys Go Blind.....1976
Turnips as a Feed: Value of.....1813
Tuberculosis.....2146

U. F. O. Office.....1284

Vinegar.....1158, 1814

Wages for farm Hand.....1813
Wall: Water Coming Through.....1909
Warble Fly.....1187
Warts: Removing.....1158, 1822, 1861
Weaning a Colt.....1653
Weed: Description of.....1314
Weeds.....1314
Weeds in Hay.....1539
Weeds: Cutting Noxious.....1157
When a Boy Becomes of Age.....2148
Whitewash: Recipe for.....1466
Whitewash for Stable.....1541, 1945
Widow's Claim.....1822

Wife's Farm: A.....1978
Wing-gall.....1460
Wound on Fetlock.....1227

Yeast Treatment.....1188

Questions and Answers. (Veterinary).

Abscesses.....1908
Arthritis.....1282

Brain Trouble.....1460

Calf: Fatality in.....1460

Diarrhoea in Pigs.....1152

Fatality in Yearling.....2104
Fistulous Withers: Doubtful Care of.....1772
Foal: Fatality in.....1286

Heaves.....1610
Hernia: Scrotal.....1654
Hernia: Umbilical.....1539, 1610
Horse: Unthrifty.....1654

Indigestion in Pigs.....1284
Injury to Spine.....1610

Legs Stock and are Itchy.....2104
Lightning Stroke.....1774
Lump on Leg.....1350
Lumps Under Skin.....1654

Mare and Foal: Ailing.....1221
Miscellaneous.....2104

Nail Puncture: Result of.....1610

Paralysis: Partial.....1152, 1654
Pigs: Fatality in.....1350
Pigs Lose Their Tails.....1460

Salivation.....1975
Sheep With Cough.....1692
Sore: Indolent.....1284

Tape Worm.....2146

Farm Bulletin.

Agriculture in Britain.....1481
Agricultural Societies: Report of.....1332
Agricultural Development in India.....1343
Allies' Problem: The.....1885
Apiarist for Ontario: New.....1634
Apple Embargo Lifted.....1962
Australian Notes.....1481

Beet Pulp as a Feed for Live Stock:
Dried.....2102
Books in the Home.....1345
Bradt Goes to New Brunswick: E. P. 2087
British Pedigreed Stock: Remarkable
Prices for.....1423
Burley Tobacco: Fall Plowing for.....1577

Calgary: A Good Summer Show at.....1176
Calgary Show a Grand Event.....1211
Camouflage in Uniforms.....1737
Canada's Opportunity for Exports of
Food.....1153
Canada's War Debt: Liquidating.....1901
Canadian Crop Conditions.....1211
Canadian National: Beef Cattle and
Heavy Horses at.....1482
Canadian National: Fifth War-time.....1445
Canadian Seedsmen Return Home.....1444
Canadian Seed Growers Meet.....1598

Canadian Soldiers Visit the King's
Farms.....1310
Cattle Stealers: A Brush With the.....1464
Cement Floors Pay Back Cost in a
Year.....1812
Central Canada Exhibition Upholds
its Reputation.....1525
C. N. R. Board Named.....1560
College and the Farm: The.....2055
Colonial Troops Visit English Farms.....1696
Community Spirit: The.....1899
Conditions Generally are Good in
Ontario.....1519
Conditions Throughout Ontario.....1575
Conference of Representatives.....1243
Cornerstones of a Great Career.....1737
Creelman: Dr., Will Visit England.....1301
Crop Reports.....1977
Cross-bred Cow in England Yields
16,239 lbs. of milk.....1545
Current Prices for British Live Stock.....1688

Danish Agriculture.....1427
Daylight Saving.....1150
Dehorning Cattle.....1413
Democracy: The Foundations of
Real.....1863
Diamond: The Formation of.....1256
Diminishing Rule of Force: The.....1741
Disinfect the Stables.....2155
Distribution System: Our.....1463
Doctor Sun.....1616
Dr. McGilvray Head of the O. V. C. 1272

Edmonton Exhibition: Ontario Stock
Win at.....1212
Education and the Farmer.....1504
Education: A New Factor in.....1695
English Letter: Our.....1613
English Stock: High Rates for.....1905

Fall Season in Nova Scotia: The.....1898
Fall Plowing and Insect Control:
Late.....1815
Fall Fairs 1918: Dates of.....1228, 1415
Fallis Sale of Shorthorns: The.....1759
"Farmer's Advocate" Represented:
The.....1211
Farmer's Wallet: From a.....1506, 1537
Fat Stock Show: Cold Weather
Favors Toronto.....2021
Flax Industry and Canada's Oppor-
tunity: The Irish.....2049
Flock for Winter: Preparing the.....1815
Food Board Regulations of Interest
in Farm Homes.....1176
Foot and Mouth: Outbreak of, in
England.....1598
Forest Fires.....1350
France: Fae.....2064
French Live Stock on the Decline.....1652
Fruit Commissioner Succumbs at His
Old Home.....1301
Fruit Industry in Eastern Ontario.....1962
Fruit Commissioner on the Job.....1962

Give the Man a Chance.....1187
Government Formed in Germany:
New.....1885
Grisdale: J. H., Now Acting Deputy.....1176
Growing Time: The.....1285
Guelph Judging Team Wins at
Chicago: The.....1962

Harvest of the World: The.....1176
Harvest Leave Extended.....1500
Harvest Leave to Soldiers.....1332
Harvesting Nuts as a Patriotic
Pastime.....1687
Hay Crop Short in N. S.....1927
High Cost of Living in Canada:
Strange Facts Relating to.....1497
Honey Crop Report.....1332
Horsemen Protest to the Govern-
ment.....1962
Housing of Live Stock for the Winter
Months: The Care and Preparation
of the Farm Buildings for the.....1611

International.....1918, 1852
International: Canadian Entries at.....1943
International Live Stock Exposition:
The.....1918, 2019

Jersey Sale: Britain's Best.....1578
Johnson: S. C., Passes.....1927
Judging Competition: Ontario Wins
The.....2020

Kennedy Holstein Dispersal: The.....1673

Lambton County: Harvest Good in.....1481
Lambton and Essex Notes.....1402

Liberty After the War.....1691
Liberty Loan Goes Over the Top.....1716
Live Stock Commissioner: New
Assistant.....2003
Loafers: The United States Wars
Against.....1212
London Shorthorn Sale Brings
\$17,940.....1839

Making Life Attractive for the Boy
on the Farm.....1820
Mangel Plants: Diseased.....1156
Manitoba Dairying: Progress in.....1156
Manitoulin Election Explained: The.....1885
Manufacturers' Viewpoint: The.....1243
McEwen: Major Cuthbert, Killed in
Closing Days of War.....1885
Meat Restrictions: U. S. Modifies.....1363
Merger Movement: The Growing.....2105
Milk Producers Raise Price.....1481
Mind and Health.....1981
Mining the War Zone.....2070
Monteith Farm: Excursion to.....1332
Moral Education in the Schools.....1773
Munitions.....1542
Muskoka Farming.....1402

New Citizenship: The.....1579
Niagara Peninsula Holstein Ex-
cursion.....1301
Norfolk County Auto Excursion:
The.....1272
Not Required to Leave Farms.....1838
Notes From the "Garden of the
Gulf".....1739

O. A. C. Live Stock Sale: The.....1795
O. A. C. Staff: Appointments to.....1838
O. A. C.—Report on Farm Con-
ditions.....1854
October Retrospect.....1735
Ontario's October.....1866
Ottawa Advises Against Panic in
Marketing Live Stock.....1884
Our Policy—Farmer Candidates in
Rural Ridings.....1885
Oxford District Holstein Sale: The.....2130

Peace Proposal: The.....1634
Peace Negotiations.....1776
Peace: Conditions of Abiding.....1810
Peace: The Dawn of.....1839
Peace—But Not Plenty.....1885
Plowing Match: Taking the, to the
Farm.....1885
Plowing Match: Prospects Good for
Successful.....1634
Plowing Competition.....1838
Pontiac: Notes From.....1212
Potatoes: The Storage of.....1736
Potato Diseases Prevalent.....1212
Potatoes: Imperishable.....1425
Poultry House: Clean and Repair,
Early.....1647
Prairie Provinces Exporter's of Live
Stock and its Products.....1546
Prospects Brighter in the West.....1363
Provincial Cabinet Ministers Re-
turned.....1402
Provincial Plowing Match: Competi-
tors at.....1481
Provincial Plowing Match Cancelled:
The 1918.....1716
Provincial Winter Fair: Entries at,
Heavier Than Ever.....2088
Putting the Sun to Work.....1348
President for C.P.R.: New.....1673
President Wilson's Reply.....1673

Quebec Ayrshire Sale.....1634

Radicals: A Word With.....2103
Rats: Don't let the, Defeat us.....1221
Rats in the Trenches.....1975
Red Clover Seed Prospects for 1919
Crop.....1884
Registering Seed Grain.....1962
Remarkable Manufacturing Plant in
England: A.....1615
Resume of the Past Season in Quebec:
A.....1738
Road-crossing Cow: The.....1618
Rural Credits and Community De-
velopment.....1501
Rutherford: Dr., for the Railway
Board.....1839

Sailors' Homes: In Behalf of.....1402
Salving a Ship.....1499
Scottish Letter: Our.....1486
Seed: Farmers May Provide for.....1243

Sheep Skins for Mats: To Prepare.....	1151	Tractor Demonstration: Improve- ment Shown at Cobourg	1561	West: Conditions Have Improved in the.....	1402	Complexion and its Care: The	1570
Signs of the Times	1283	Trip Through Parts of Western On- tario: A	1272	Western Fair: A Banner Year for the.....	1520	Constantinople.....	1843
Slaughter When Animals Are Over- heated: Don't.....	2068	United States Crops Good.....	1212	Western Fair Bigger Than Ever.....	1486	Cottage Cheese.....	1850
Soldiers Desire to Farm: Many.....	1927	United States Defines Non-productive Occupations.....	1347	What Canadians are Doing in Forestry and Railway Construction in France.....	1672	Eggs: To Preserve, by Water-glass or Lime-water.....	1146
Speed up the Fall Work and Prepare for 1919.....	1560	United Farmers' Meeting: Impor- tant.....	1795	White Plague in Belgium: Terrible Ravages of.....	1694	Hohenzollerns: The Last of the	1888
Standard Feed Movement: A Hitch in the	1212	U. F. O.: Annual Convention of the	1962	Why Cities Grow	1461	In Flanders Fields	1405
Supreme Court Upholds Validity of Order-in-Council.....	1243	Useful as Other Men are.....	1693			Joys of the Road: The	1530
						Surrender of the German Fleet	1930
Tariff and Canadian Agriculture: The	1939	Vegetables: Harvesting and Storing Certain	1578			Teeth and Mouth: Dangers From the.....	1408
Threshing Machines: Efficient Opera- tion of	1581, 1649	Victory Loan of 1918: The	1673	Home Magazine.		What the Allies Fight for.....	1247
Tobacco: Curing	1652	Wealth: The Creation of	1816	Beads in Variety	1892	Wheat Substitutes	1220
Tobacco: Harvesting	1498	Weeds: Spud the, out of the Clover Field	1402	Canadian Press Party at the War Front: With the	1489	Who Started the European War?	1366
Tobacco Crop Outlook for 1918.	1155	Weed Control: Autumn Cultivation for	1580			World War at an End: The	1842
Tobacco Crop Report for 1918.	1690	Weed Seed in Clover: Control of	1946				
Tobacco Horn Worm: Control of the	2157						
Tobacco Pests: Poison for	1312						
Tobacco Seed: Growing	1428						
Touch of Genius: The	1617						

Annual Live Stock Sale

The Provincial auction sale of pure-bred stock (Beef Breed) under the auspices of the

Ontario Live Stock Department
and the management of the **Guelph Fat Stock Club** will be held in the **Winter Fair Building, Guelph, on**

Wednesday, 5th March, 1919

Entries close 25th, January, 1919.

For further particulars, apply to
C. L. NELLES, President.
J. M. DUFF, Secretary.

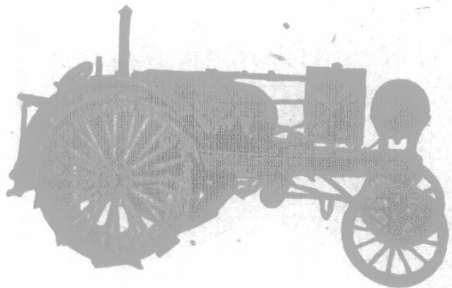
42nd Annual Convention of the Dairymen's Association of Eastern Ontario.

Will be held in the City Hall in the City of Belleville, Ontario, January 9th and 10th, 1919. Opening 2 p. m. sharp, Thursday, January 9th. There will be day and evening sessions both days. A very interesting programme has been prepared. Among the principal speakers are, Prof. A. Leach, O. A. C., Guelph, Ont.; Hon. Dr. Cody, Minister of Education, Toronto; Hon. T. A. Crerar, Minister of Agriculture, Ottawa; J. W. Johnston, M. L. A. Belleville; Hon. G. S. Henry, Minister of Agriculture Toronto; Dr. G. C. Creelman, Commissioner of Agriculture, and Mr. J. Ruddick, Dairy Commissioner, Ottawa.

Send for a copy of this interesting programme and plan to attend.

R. G. LEGGET, Pres., Newboro, Ont.
T. A. THOMPSON, Secretary, Almonte, Ont.

The Waterloo Boy



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

Write for free catalogue, prices and any information wanted.

THE ROBERT BELL ENGINE & THRESHER CO., LIMITED

Selling Agents for Ontario. **Seaforth, Ont.**

Peace Hath Her Victories

And responsibilities. The duty of every man now is to provide a living for himself and his family, and help in the reconstruction of the world. The great call is still for Food. Other industries may collapse, but agriculture must go on.

C. P. R. Farm
20 Years to Pay

Open the way to prosperity and independence. Prairie land, \$11 to \$30 an acre; irrigate land up to \$50. Get started. Land is being rapidly taken up. Write for free booklets and full information.

G. A. MUDDIMAN
Land Agent, C.P.R., Montreal, Quebec

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

Disinfect the Stables.

The fact that regular disinfection of the stables is not a common practice in Canada is sufficient evidence that we as farmers are not thorough or do we appreciate the importance of the health of our animals. As in other countries, disease of animals is responsible for the loss to farmers of many millions of dollars annually. Such diseases as tuberculosis, abortion, scours, blackleg, glanders, hog cholera, etc., take enormous toll from our revenues. Again parasites such as lice ticks, etc., each year cause the waste of enormous amounts of expensive feed to say nothing of the losses in production of milk, meat, and young stock. Farmers of Canada it is your duty and your best business to stop these losses. Don't wait till animals die of disease or are emaciated and hairless from parasites before discovering trouble. Diseases are spread more rapidly when animals are confined in winter quarters.

One of the most important factors in cheap and healthy wintering of animals is clean quarters and no quarters can be kept clean and free from disease and parasites without disinfection at least twice annually.

The basis of disinfection is direct contact. Disease germs under a layer of manure, straw or dirt, cannot be killed by average disinfection. Hence the first step is the thorough cleaning out of the barns, scraping (and washing, if possible), all walls and floors, and sweeping dirt, dust and cobwebs from walls and ceilings. Wood floors should be repaired and earth floors renewed with a layer of clean soil.

What Disinfectants to Use.

1. Sunlight. This is the cheapest and one of the best. Every stable should have at least 6 sq. ft. of glass per mature head of horses and cattle, and one-quarter this amount for calves and mature hogs. Sunlight induces cleanliness, health, comfort, and greater profits.

2. Whitewash: A good whitewash applied hot to ceilings and walls covers and kills germs and parasites. Add drug disinfectant, such as Carbolic Acid, if barns have housed diseased animals. Apply with spray pump or brush.

3. Drug Disinfectants: All floors, gutters, and managers should receive extra care. Disinfect by soaking thoroughly with one of the coal tar distillates such as Kreso, Wescol, Zenoleum, Creolin, etc., etc., applied in water solution 3 per cent. to 6 per cent. varying with strength of disinfectant. Apply with spray pump or sprinkled and brush in.

The Health of Animals Branch, Department of Agriculture, Ottawa, can supply free instructions in selecting and preparing whitewash and disinfectants.

Thoroughness in the above disinfection is most important.

The intelligent stockman intent on maintaining healthy stock finds it wise to disinfect managers and feed passages more frequently. A light spraying monthly will suffice.

Practice proves that disinfection is cheap insurance and in an investment yielding a high rate of interest. If Canadian farmers unitedly will but realize this, our animal disease and losses there from would decrease 20 per cent. per annum.—Experimental Farms Note.

Getting Him Started.

"George," said a Florida man not long ago to an old negro in his employ "I understand that you intend to give your son an education."

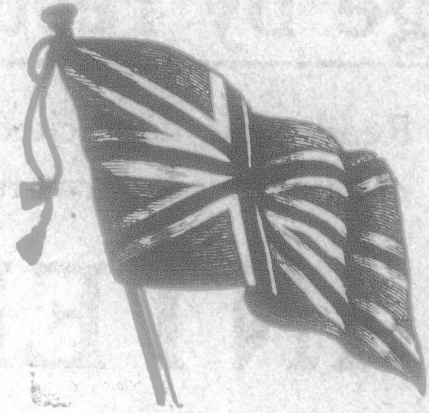
"Dat's my intentions, suh," responded George. "I know myself what 'tis to struggle along without learnin', an' I has determined my son ain't goin' to have no sich trouble as Ise had."

"Is your son learning rapidly?"
"He shore is suh. Las' week he done wrote a lettah to his aunt what lives more'n twenty miles from yere, an' afta while he's goin' to write to his aunt dat lives 'bout fifty miles from yere."

"Why doesn't he write to that aunt now?" smilingly asked his employer.

"He kain't write so fur yit, suh. He kin write twenty miles fust rate, but I tole him not to try fifty miles 'til he gits strongah wif his pen."

A UNION JACK FREE



The Farmer's Advocate and Home Magazine

Will send you a flag like the one shown, 47 inches long, and 33 inches wide.

The Flag of Freedom—Now is the time you want to have one.

You can get it by sending the name of one new subscriber to The Farmer's Advocate, with the \$1.50 he will give you to pay for his subscription for one year.

Don't delay. This is the time to celebrate and decorate.

COUPON

The Farmer's Advocate and Home Magazine - London, Ont.

GENTLEMEN:—I am sending the name of a new subscriber to the Farmer's Advocate, with money order for \$1.50 to pay for subscription for one year. Please send me the flag advertised.

Name of Sender.....Address.....

Name of New Subscriber.....Address.....

There is
BIG
MONEY

IN TRAPPING

when you ship your
RAW FURS

John Hallam
Limited

731 HALLAM BUILDING,
TORONTO.

FREE

Hallam's Trappers' Guide—96 pages; illustrated; English or French; tells how and where to trap; what bait and traps to use; is full of useful information.

Hallam's Trappers' Supply Catalog—36 pages; illustrated; rifles, traps, animal bait, headlights, fish nets, and all necessary trappers' and sportsmen's supplies at low prices.

Hallam's Raw Fur News—Gives latest prices and advance information on the raw fur market.

Write to-day.
Address giving number as below.

CREAM PAYS WELL
THESE DAYS

WE PAY EXPRESS AND
SUPPLY CANS

SHIP YOUR CREAM TO
LINDSAY CREAMERY, LTD.
LINDSAY, ONT.

Judge by results

Read these unsolicited testimonials—only a few of the many thousands received from farmers and stock breeders, who have profited by using

INTERNATIONAL STOCK FOOD TONIC



President of the Markham Producers' Assn.,
Markham, Sept. 22,

R. R. No. 2.

DEAR SIR:

I have been using your INTERNATIONAL STOCK FOOD TONIC now for five years on all my stock—especially horses and cattle. I find it pays me well to use it as it keeps them healthy and thriving, improves the appetite and increases the quantity of milk.

I never have a sick horse, nor even colic, and I attribute this to the regular use of INTERNATIONAL STOCK FOOD TONIC. I find that its use gives the hair of the animals a better appearance. It certainly keeps stock in fine shape, and I would not want to be without it.

Yours very truly,
(Signed) JOHN S. HOLDEN.

Glen Miller, Ontario.

GENTLEMEN:

I have used your valuable INTERNATIONAL STOCK FOOD TONIC for over fifteen years. My stable is never without it; simply because I would not do without it as long as I can buy it. I always buy it by the pail. Being a constant user of it, I can recommend it to anyone.

Yours very truly,
(Signed) S. S. ROMBOUGH.

Royal Stock Farm,
New Durham, December 5th

DEAR SIR:

Enclosed please find a \$30.00 order for INTERNATIONAL STOCK FOOD TONIC. We have used your INTERNATIONAL STOCK FOOD TONIC for many years and are well pleased. We can save a third on feed and the stock look better.

(Signed) CASSIDY BROTHERS,
Per J. E. Cassidy.

Stock barned up and deprived of their natural requirements—green feed and exercise—often go off their feed altogether and lose condition rapidly, if the proper tonic is not given them regularly to keen the appetite, stimulate the digestive organs and help them assimilate the food they eat.

Remember! no matter how expensive feed you give your stock they will not thrive nor give the productive results they should during the winter months without a digestion promoting tonic. It is not the amount of food an animal consumes that builds up the system, but only the amount of food the digestive organs assimilate and convert into blood, bone and flesh.

International Stock Food Tonic for sale by dealers everywhere in convenient-sized packages or in 25-lb. pails at \$3.75 each.

INTERNATIONAL STOCK FOOD COMPANY LIMITED

TORONTO

ONTARIO

R. R. No. 2, St. Thomas, Ontario.

DEAR SIR:

Recently I bought a run-down horse—one of my neighbors said it was not worth a dollar. After feeding him your STOCK FOOD TONIC for some time, I sold the horse for \$145.00. I have used INTERNATIONAL STOCK FOOD TONIC for a number of years, and have found it satisfactory in every way.

Yours very truly,
(Signed) W. T. DOAN.

Glenkerr P.O., Sask.

DEAR SIR:

I find your STOCK FOOD TONIC very beneficial to my horses and cows, and would not be without it. Most of the farmers around here use it—of course, there are some that don't, and what is more, you can tell by their stock they don't either. I always recommend your INTERNATIONAL STOCK FOOD TONIC, and I use a lot of it.

(Signed) A. ROOKER.

R. R. No. 2, Wyoming, Ont.,
June 1st, 1918.

DEAR SIR:

Just a line to you to let you know I had the very best results with your STOCK FOOD TONIC last winter. I keep Pure-bred Short-horn Cattle, and it does the job fine. There are a great number around here been asking me what I fed, and all I said was INTERNATIONAL. I know some that have tried it since in small lots with great success.

Yours very truly,
(Signed) R. W. MINIELLY.

Mervin, Sask., March 24th,

DEAR SIR:

I have used your INTERNATIONAL STOCK FOOD TONIC, and I find it a good preparation for all kinds of stock. It produces more fat in the least time than anything I know of.

Yours very truly,
(Signed) J. HUGHILL.

Orangeville, Ont., May 6th.

DEAR SIR:

Some people asked the other day—in fact, are asking me every day—what has made my horses' coats so nice and glossy. I think once you feed a horse with INTERNATIONAL STOCK FOOD TONIC, and get him in good shape for spring work, he will stay fat and have a better coat on after using the INTERNATIONAL STOCK FOOD TONIC.

(Signed) ELGIN I. HOLMES.

Owen Sound, Ont., March 1st.

DEAR SIR:

I have used INTERNATIONAL STOCK FOOD TONIC for over ten years, and would not be without it for any price. I had two cows last year, and they made me a profit of \$208.00 in the year. I feel sure I could not have done it without the use of INTERNATIONAL STOCK FOOD TONIC. By its daily use the cows give more milk and look better.

Yours truly,
(Signed) THOS. FORBES.

Listowel, Ontario, April 13th.

DEAR SIR:

I am a farmer and stock-owner, and I must say this: There is no better animal tonic than your INTERNATIONAL STOCK FOOD TONIC to keep stock in good shape. I use it all the time, and if all farmers would do likewise they would do well.

Yours truly,
(Signed) I. J. BENDER.

Calumet Island, Que.

DEAR SIR:

I have been using your INTERNATIONAL STOCK FOOD TONIC on my horses, cattle and hogs all winter; it's certainly a great blood purifier and tonic. My stock are in as good condition as they would be in the summer months. I would not want to be without INTERNATIONAL STOCK FOOD TONIC again.

(Signed) W. J. DROEIJER.